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PROGRAM ALTERNATIVES FOR LINGUISTICALLY DIVERSE STUDENTS

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diversity & excellence**

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The Center for Research on Education, Diversity & Excellence is funded by the Office of Educational Research and Improvement of the U.S. Department of Education to assist the nation's diverse students at risk of educational failure to achieve academic excellence. The Center is operated by the University of California, Santa Cruz, through the University of California's statewide Linguistic Minority Research Project, in collaboration with a number of other institutions nationwide.

The Center is designed to move issues of risk, diversity, and excellence to the forefront of discussions concerning educational research, policy, and practice. Central to its mission, CREDE's research and development focus on critical issues in the education of linguistic and cultural minority students and students placed at risk by factors of race, poverty, and geographic location. CREDE's research program is based on a sociocultural framework that is sensitive to diverse cultures and languages, but powerful enough to identify the great commonalities that unite people.

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- Research on **instruction in context** explores the embedding of teaching and learning in the experiences, knowledge, and values of the students, their families, and communities. The content areas of science and mathematics are emphasized.
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ABSTRACT

This report looks at programs and approaches for educating students from diverse linguistic and cultural backgrounds. It is intended as a guide for decision makers in schools and school districts to help them identify the instructional approaches and programs that would best serve their students, meet their goals and needs, and match local resources and conditions. An underlying assumption of this report is that no single approach or program model works best in every situation. Many different approaches can be successful when implemented well. Local conditions, choices, and innovation are critical ingredients of success.

We discuss four program alternatives that are currently available to meet the diverse and complex needs of English language learners: (1) newcomer programs, (2) transitional bilingual education, (3) developmental bilingual education, and (4) two-way immersion. We also discuss an instructional approach that can be used with all students learning through the medium of a second language regardless of the type of program they are in. This approach is called sheltered instruction. Sheltered instruction can be implemented in conjunction with the other program alternatives discussed in this report, or it can be implemented as the sole approach for educating English language learners.

We also discuss foreign/second language immersion, which is designed for native-English-speaking students from the mainstream culture who want to acquire advanced proficiency in another language. Immersion programs also provide a viable option for educating indigenous language groups who have lost their heritage language. They are not intended, however, for English language learners; results from immersion programs should not be used to argue against first language instruction for these students.

Virtually all schools in America are being called upon to provide educational services for linguistically and culturally diverse students. It is imperative for the well-being of these students, their communities, and the nation that they receive the best education possible. In this report, we describe educational alternatives that work.

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INTRODUCTION

The face of American education is changing radically. Increasingly, students in K-12 classrooms come from families with diverse linguistic and cultural backgrounds. Diversity in contemporary education takes many forms. For example, students from English-speaking families are diverse with respect to their socioeconomic status, the settings in which they live (urban, rural, suburban), the varieties of English they speak, and their cultural backgrounds. Other students come to school with limited or no proficiency in English and have cultural traditions that are not part of mainstream American culture. This paper looks at programs and approaches for educating students of such diversity. We focus especially on students with limited or no proficiency in English. These students are referred to in this report as *English language learners*. In state and federal regulations, they are generally referred to as *limited English proficient* or *LEP* students. English language learners face the dual challenges of mastering English and acquiring the academic skills and knowledge deemed essential for a sound education and a productive adult life. The challenge of educating English language learners successfully is magnified by the fact these students are entering U.S. schools at every grade level and at various times during the academic year.

We discuss four program alternatives that are currently available to meet the diverse and complex needs of English language learners: *newcomer*, *transitional bilingual*, *developmental bilingual*, and *two-way immersion* programs. Two-way immersion programs also serve native-English-speaking students from mainstream cultural backgrounds. We also discuss an instructional approach that is applicable to any and all students learning through the medium of a second language, no matter what their background or the particular features of the program they may be participating in. This approach is called *sheltered instruction*. Sheltered instruction aims to facilitate mastery of academic content that is taught through a second language. It also aims to promote development of the second language. While sheltered instruction can be and often is implemented in conjunction with the other program alternatives discussed in this report, it can also be implemented as the sole approach for educating English language learners. In this case, it can be considered a program alternative with distinct characteristics.

We also discuss *foreign/second language immersion* programs. These programs are generally intended for native-English-speaking students from mainstream cultural backgrounds who want to acquire advanced levels of proficiency in another language (Genesee, 1987). We discuss this program alternative in part to clarify how it is similar to and different from programs for English language learners. There is often confusion that results in the misapplication of the immersion model for English-speaking students to the case of English language learners. We discuss immersion programs also because they provide a viable option for educating indigenous language groups in the United States who have lost their heritage language. This is illustrated in the case study we present for immersion, which concerns students who are native speakers of a non-standard dialect of English and are members of a minority indigenous cultural group, namely Hawaiians. Along with Standard English, they are learning Hawaiian and through Hawaiian, their heritage language. Although these students are native speakers of English, they share important characteristics with English language learners—namely, they are learning through the medium of a second language, and they are at risk of academic failure because they come from a cultural minority group. Many also come from families with low socioeconomic backgrounds.

Each program alternative is described with respect to its (a) theoretical rationale, (b) salient pedagogical and program features, (c) necessary resources, and (d) necessary local conditions. A case study (or studies) is presented to illustrate each alternative. Salient features and necessary resources and conditions are presented for each

alternative so that readers can determine which programs would meet their needs, fulfill their goals, and match their resources. (This information is summarized in the Descriptive Summary Chart on page 3.) Each alternative is presented as a stand-alone description so that readers do not have to read the entire document if they are interested in only one or two types of programs. This results in some redundancy from section to section. We have retained the redundancy to illustrate the point that despite differences, there is considerable commonality among these program models and instructional approaches. More specifically, all share the following characteristics:

- extensive and ongoing parental involvement
- ongoing, appropriate, and state-of-the-art professional development for teachers in specially designed programs and for mainstream teachers who work with English language learners
- instructional personnel who can implement
 - strategies that integrate language acquisition and academic achievement at the same time
 - strategies that promote proficiency in English (and the primary language, where applicable) for academic purposes, including literacy
 - strategies such as sheltered instruction that ensure that academic instruction through the second language is meaningful and comprehensible to second language learners
 - assessment methods that are linked to instructional objectives and that inform instructional planning and delivery
- developmentally appropriate curriculum and instructional materials and aids
- high standards with respect to both language acquisition and academic achievement
- strong and knowledgeable leadership among classroom, school, and district personnel
- human resources to coordinate communication between parents and schools

It is important to consider these common characteristics along with the unique characteristics of each alternative when starting up a new program or assessing the effectiveness of an existing one.

This report is intended as a guide for decision-makers in schools, districts, or at the regional level to help identify the instructional approaches and programs that would best serve their students, meet their goals and needs, and match their resources and conditions. There are no empirical or evaluative comparisons among program types that would lead a reader to conclude that there is one best model. Indeed, an underlying assumption of this report is that one size does *not* fit all and that different approaches can be successful if implemented well. Local choice and innovation are critical ingredients of educational success.

We begin with a discussion of sheltered instruction, because it is an instructional strategy that can and should be used in conjunction with all of the program types discussed here. It can also be implemented as the sole approach for educating English language learners, as noted above. We then go on to discuss newcomer programs, which provide short-term, intensive, and highly tailored instruction for English language learners whose needs cannot be met effectively in a district's other programs. Transitional bilingual education programs are discussed next. These programs aim to facilitate English language learners' successful transition to all-English instruction in mainstream classrooms as rapidly as possible. They make use of the students' first language to help them learn academic content while they are learning English, but they do not aim to maintain or develop the students' first language and culture. This is followed by discussions of developmental bilingual education, second/foreign language immer-

sion, and two-way immersion programs. These alternatives all provide academic instruction in two languages (including English), and they aim for functional bilingualism along with academic achievement in accordance with local and regional standards.

Reference material from all of the sections is presented at the end in a single list.

Descriptive Summary of Instructional/Program Alternatives

	SHELTERED INSTRUCTION in ENGLISH	NEWCOMER PROGRAMS	TRANSITIONAL BILINGUAL	DEVELOPMENTAL BILINGUAL	SL/FL IMMERSION	TWO-WAY IMMERSION
Language Goals	Academic English proficiency	English proficiency	Transition to all-English instruction	Bilingualism	Bilingualism	Bilingualism
Cultural Goals	Understanding of and integration into mainstream American culture	Understanding of and integration into mainstream American culture	Understanding of and integration into mainstream American culture	Integration into mainstream American culture and maintenance of home/heritage culture	Understanding and appreciation of L2 culture and maintenance of home/mainstream American culture	Maintenance/ integration into mainstream American culture and appreciation of other culture
Academic Goals	Same as district/program goals for all students	Varied	Same as district/program goals for all students	Same as district/program goals for all students	Same as district/program goals for all students	Same as district/program goals for all students
Student Characteristics	Limited or no English; Some programs mix native and non-native English speakers	Limited or no English Low level literacy Recent arrival Variety of language/cultural backgrounds	Limited or no English All students have same L1 Variety of cultural backgrounds	Limited or no English All students have same L1 Variety of culture backgrounds	Speak majority language (English in U.S) May/may not be from majority culture	Native English speakers and students with limited or no English Variety of cultural backgrounds
Grades Served	All grades (during transition to English)	K-12; most prevalent at middle/high school levels	Primary and elementary grades	Elementary grades	Early immersion serves K-8, preferably K-12	K-8, preferably K-12
Entry Grades	Any grade	Most students enter in middle or high school	K, 1, 2	K, 1, 2	K, 1	K, 1
Length of Student Participation	Varied: 1- 3 years or as needed	Usually 1 to 3 semesters	2-4 yrs	Usually 6 years (+K), preferably 12 years (+K)	Usually 6 yrs (+K), preferably 12 years (+K)	Usually 6 yrs (+K), preferably 12 years (+K)
Participation of Mainstream Teachers	Yes; preferable if mainstream teachers have SI training	Yes; mainstream teachers must have training in SI	Yes; mainstream teachers must have training in SI	No; stand-alone program with its own specially trained teachers	Yes; mainstream teachers teach English curriculum	Yes; mainstream teachers with special training
Teacher Qualifications	Often certified ESL or bilingual teachers and content teachers with SI training Preferably bilingual	Regular certification Training in SI Preferably bilingual	Bilingual certificate	Bilingual-multicultural certificate Bilingual proficiency	Regular certification Training in immersion pedagogy Bilingual proficiency	Bilingual/ immersion certification Bilingual proficiency Multicultural training
Instructional Materials, Texts, Visual Aids	In English with adaptations; visuals; realia; culturally appropriate	In L1 or in English with adaptations	In L1 and English; English materials adapted to students' proficiency levels	In L1 and English; English materials adapted to students' proficiency levels	In L2 (with adaptations as needed), plus English texts, where appropriate	In minority language and English, as required by curriculum of study

SHELTERED INSTRUCTION

Overview

Sheltered instruction (SI) is an approach used widely for teaching language and content to English language learners, particularly as schools prepare students to achieve high academic standards. As mentioned above, SI can be a program option in itself or an approach used in conjunction with other programs. In SI, academic subjects (e.g., science, social studies) are taught using English as the medium of instruction. SI is most often used in classes comprised solely of English language learners, although it may be used in classes with both native English speakers and English language learners when necessitated by scheduling considerations or by small numbers of English language learners. English language learners can benefit from such heterogeneous grouping, because the native English speakers provide a strong English language model. Sheltered instructional strategies can also be used to teach content

through a second/foreign language to native-English-speaking students in foreign/second language immersion programs. In this report, we focus on the use of SI with English language learners.

In sheltered instruction, teachers use the core curriculum but modify it to meet the language development needs of English language learners. Specific strategies are used to teach a particular content area in ways that are comprehensible to students and that promote their English language development. SI uses many of the strategies found in high quality instruction for native English speakers, but it is characterized by careful attention to English language learners' distinctive second language development needs and to gaps in their educational backgrounds. The SI model integrates content area objectives and language development objectives, providing instruction that meets the unique needs of English language learners enrolled in grade-level content courses.

As we have noted, SI may be used in a number of programs. For example, it can be the method used to teach the English component of transitional bilingual, developmental bilingual, or two-way immersion programs. By using modified curricula and appropriate teaching strategies, SI can be used wherever and whenever English language learners receive academic instruction in English. As students prepare to transition out of bilingual programs, teachers often increase the degree of SI they provide, so students will be better prepared for English-medium classes and coursework.

Theoretical Rationale

A number of principles from both English as a second language and bilingual education research have contributed to the theoretical rationale of SI. The SI model is grounded in the understanding that learners can acquire content knowledge, concepts, and skills at the same time that they improve their English language skills. Research has shown that language acquisition is enhanced by meaningful use of and interaction in the second language (Genesee, 1994). Direct language instruction that is separate from academic instruction is less effective. Through the study of grade-level content courses, students interact with meaningful material that is relevant to their schooling. The English level used in sheltered classes is continually modulated or negotiated by the teacher and students, and content is made comprehensible through the use of modeling, demonstrations, graphic organizers, adapted texts, and visual aides, among other techniques. SI recognizes that language processes (i.e., listening, speaking, reading, and writing) develop interdependently, thus SI lessons are organized around activities that integrate those skills.

Because language learning is a long-term process, English language learners' best chance for overall success in school is to begin studying the grade-level curriculum as soon as possible. While beginning English language learners may not complete a full year's worth of a subject's curriculum, through SI they can make progress toward meeting content standards and gain a foundation in academic domains as their English skills improve. The SI approach provides students with meaningful academic experiences that also contribute to the development of their academic language skills. This type of language development goes beyond social language, involving skills such as analyzing and summarizing cognitively demanding material, arguing a position, and other skills that are necessary for success in school (Echevarria, Vogt, & Short, in press).

Salient Pedagogical and Program Features

Clearly defined language and content objectives

SI teachers' lesson plans incorporate objectives that reflect high level content and ESL standards (TESOL , 1997). In this way, teachers consciously integrate English language development into content instruction related to science, social studies, mathematics, and other areas. It is important that the language objectives reflect a sequential pattern for language learning that builds on and reinforces students' emerging knowledge of English. For example, students may be asked to record observations of a science experiment using short phrases and pictures before using sentences and then paragraphs for lab reports. SI teachers make sure that key vocabulary is introduced, written, repeated, and highlighted for students to see.

Supplementary materials

Lessons are made clear and meaningful to English language learners through the use of supplementary materials such as graphs, models, hands-on materials, and visual aids. The content of the materials is adapted to students' level of English proficiency. SI teachers adapt texts and assignments through a variety of means to make the information accessible to their students. For example, dense text can be graphically depicted, outlined, or rewritten in more understandable language. Passages may be read aloud and paraphrased. As students' proficiency in English improves, they may work on understanding the text together in pairs or small groups. This practice allows students to take more responsibility for their own learning while the teacher supports their interactions with one another and with the text.

Scaffolding

Scaffolding is characterized by the teacher's careful attention to students' capacity for working in English. Teachers begin instruction at a level that encourages student success, providing the right amount of support to move students from their current level of understanding to a higher level of understanding. Scaffolding can include verbal prompting, such as asking questions or elaborating on students' responses, or it may involve providing students with an outline of the material or with other such academic supports. The teacher gradually removes the scaffolding as the students' progress and function independently.

Interaction

SI classes provide frequent opportunities for interaction and discussion between the teacher and students, as well as among students. The teacher consistently provides sufficient wait time for students to respond and encourages elaborated comments about lesson concepts. Students are taught and given opportunities to practice skills for clarifying or negotiating meaning, confirming information, persuading, disagreeing, and the like.

Meaningful activities

SI lessons are made meaningful by providing students with hands-on experiences that correspond to the subject area and grade-level curriculum. For example, in biology, students learn to do experiments, applying and practicing the new content knowledge in a way they understand. SI activities integrate lesson knowledge and concepts with extensive opportunities for reading, writing, listening, and speaking.

Necessary Resources

Teachers trained in SI strategies

As mentioned previously, SI teachers provide more than simply good teaching. They are knowledgeable about the second language acquisition process, and they plan

systematically to enhance and develop their students' English language skills within the context of content classes. Depending on the school system's policies, SI teachers may be trained ESL or content specialists. ESL teachers would need training in subject matter areas and subject-specific instructional methodologies; content teachers would need training in ESL methodologies, second language acquisition processes, and perhaps cross-cultural awareness.

Sheltered curricula

Districts should develop grade-level sheltered curricula for each subject they offer. They are an invaluable resource to teachers, administrators, and parents. Curricula set out content and language objectives, units of study, recommended instructional strategies and resources, and suggested methods for classroom-based assessment of student progress.

Supplementary materials

Schools must have an abundance of resources for SI in order to provide hands-on materials, visuals, models, audiovisual resources, and supplementary reading materials.

Alternative assessments

Students in SI classes are assessed using a variety of means, including ongoing informal assessments, end-of-unit tests, and portfolio assessments. It is important that teachers monitor closely the progress of English language learners with respect to both their academic achievement and their English language development.

Necessary Local Conditions

Population

SI classes are designed for students learning subject matter content through a second language (English in the case of English language learners) while developing their second language skills.

Administrative support

School administrators need to be familiar with the features of SI to assure that quality instruction is provided. Administrators are responsible for creating a school-wide vision for the educational success of all students, including English language learners.

Flexible scheduling

SI courses should be part of an articulated and flexible program that provides English language learners access to all content subjects, moves them through the program with multiple pathways for exiting, and supports their transition to mainstream classes. Some students, for example, may be ready to enter a mainstream math class before they are ready to enter a mainstream social studies class. Effective programs allow students to enter mainstream classes by subject, when they are able. They offer support mechanisms, such as resource classes or after-school tutoring, to help students as needed with the academic language and specific tasks required of them in mainstream classrooms.

Professional development

Ongoing school-wide professional development helps all teachers understand that they share responsibility for the education of English language learners. Teachers should learn appropriate instructional techniques to support students while they are in SI classes and once they transition to mainstream classes. Professional development may also occur within and across departments as teachers share new techniques and content information or materials, reflect on their practices, and develop collaborative instructional units.

Case Study

The principal at Franklin Middle School has provided professional development opportunities for a select number of teachers at each grade level to learn and implement high quality SI. Franklin School has a well-coordinated SI program, where core subject matter teachers use specific sheltered strategies and modified materials to make lessons understandable to their English language learners. Content area teachers at each grade level have a common planning time. Collaborative planning facilitates consistency in the concepts and language skills taught to students. For instance, the Grade 7 English, social studies, science, and math teachers meet once a week to plan the next week's lessons. They discuss common language development objectives for their English language learners and inform one another about the content area objectives and activities they have in mind for the next week. In this way, English language learners have consistency across curricular areas, and, to the extent possible, each teacher reinforces the language and content objectives of the other teachers. Occasionally, the teachers plan a culminating project that is worked on across the curricular areas. For example, the Grade 8 teachers planned a Renaissance Fair. The teachers in each content area were responsible for one aspect of the project. For example, the math teacher infused the study of monetary systems into the curriculum by teaching students how to convert one type of money (Renaissance period) to another (dollars). During the Fair, the cost of games, activities, and refreshments was posted in Renaissance prices, and students were required to convert the amount to dollars. In social studies, beginning English language learners researched costumes and made an illustrated book of period clothing with written explanations of the materials used to make them and the type of people who wore them. The use of SI techniques allowed access to the grade-level curriculum for English language learners, so they were able to participate fully in the Renaissance Fair project.

A connected, well-coordinated SI program benefits teachers and students alike. For students, consistent use of sheltered strategies across academic domains enhances both content learning and English language development. For teachers, the camaraderie that common planning provides contributes to their professional development; ideas, successes, and challenges are shared, and teachers are mutually supportive of one another. Working together, the teachers at Franklin Middle School continue to focus on and hone their implementation of high quality sheltered lessons.

NEWCOMER PROGRAMS

Overview

Many school districts face increasing numbers of middle- and high-school-aged immigrant students with limited proficiency in English. Many also have limited literacy skills in their primary language, often as a result of limited formal schooling. Newcomer programs are designed to address the unique needs of these students. Although newcomer programs exist at the elementary school level, in this report we focus on programs at the middle school and high school levels. The goals of newcomer programs are to help students acquire beginning English language skills along with core academic skills and knowledge, and to acculturate to the U.S. school system. Some programs have additional goals, such as developing students' primary language skills and preparing students for their new communities.

Newcomer programs that have been identified to date vary in their definition of newcomers. Most include students who are recent arrivals to the United States and have limited proficiency in English (Short & Boyson, 1998). Some select students who are below grade level or have had limited formal education. Others rely on a definition

that is linked to federal aid: students who have been in the United States for 3 years or less and are limited English proficient (LEP).

There is considerable variation in the organization of newcomer programs. Many are programs within a school, often the home school (by designated attendance area) of most, if not all, of the newcomer students. Students in these programs may also participate in some regular school activities outside the newcomer program, such as physical education and art. Upon exiting the newcomer program, students often remain at the same school to continue their studies in the regular program. Other newcomer programs are in separate locations; students exiting these programs then transfer to their home schools. Still other newcomer programs are located at district intake centers, where all English language learners are assessed and placed. For those designated as newcomers, the intake centers offer special, short-term courses before the students enter one of the regular schools in the district. In some districts, the newcomer center has been established at a single centralized site that serves all eligible newcomer students; in others, there are several newcomer centers that serve eligible students in designated sectors. In a few districts, not all newcomer students can be served due to limited resources.

Theoretical Rationale

English language learners who are recent immigrants are often at risk of educational failure or early dropout due to underdeveloped first language literacy skills, limited English language skills, or weak academic skills. The needs of these students often surpass the resources of ESL or bilingual programs. Generally speaking, newcomer programs are designed to prepare immigrant students to participate successfully in a district's language support program. Several specific and often overlapping considerations and beliefs influence the decision to establish a newcomer program:

- the need to address the unique literacy needs of English language learners more effectively than is possible in a classroom with both literate and non-literate students.
- the belief that a welcoming and nurturing environment is beneficial to older immigrant students (those of secondary school age, 12-21 years old) who may have limited prior experience with schooling.
- the need to provide middle and high school immigrant students with core academic skills and knowledge that fill gaps in their educational backgrounds and move them closer to their age-level peers, better preparing them to participate in mainstream classrooms.
- the assumption that the chances of educational success for immigrant students are enhanced when connections between the school and students' families and communities are established and reinforced.

Salient Pedagogical and Program Features

The pedagogical and programmatic features of newcomer programs differ according to their educational goals, site options, available staff, and resources. Many programs serve newcomer students for the full school day. A full-day schedule provides time to offer several content area courses along with English language instruction. Others operate for half a day, sometimes in order to accommodate two groups of students at one site—for example, middle school students in the morning and high school students in the afternoon—or to promote more interaction with the entire student population at the school. A few programs operate after school, and students attend on a volunteer basis. Most newcomer programs are designed to educate students for one year, although some offer an additional summer program. About one third of newcomer

programs last more than one year, and a very limited number are full-length 4-year high schools; students enter in the ninth grade and remain in the program until graduation.

Newcomer programs may designate themselves as primarily ESL or bilingual programs and follow appropriate instructional designs. Some offer both ESL and bilingual options: for example, content course instruction in Spanish for Spanish speakers and sheltered content instruction in English for speakers of other languages. Some programs distinguish between non-literate and literate students. Literate students may have one set of courses available to them and may stay in the program for one school year, while non-literate students have additional literacy-level courses and may stay in the program for 18 months to 2 years. In describing pedagogical and program features of newcomer programs, it is useful to distinguish between *common* and *variable* features in order to capture the diversity among them. Common features are those that characterize virtually all newcomer programs. Variable features are those that may differ from one newcomer program to another.

Common Features

A program or set of courses distinct from the regular language support program

The newcomer program is generally designed to provide intensive, specialized instruction for a limited period of time and thus offers courses that are distinct to the program: for example, courses that facilitate students' social and cultural integration into American life or courses designed for students with limited literacy development.

Instructional strategies for initial literacy development

Many newcomer students become literate for the first time in these programs (in their first language and/or English) despite the fact that they are beyond the normal age of initial literacy instruction in the United States. Thus instructors in newcomer programs utilize special strategies to teach literacy to adolescent students.

Instructional strategies for the integration of language and content

Sheltered and bilingual content instruction are planned to promote the development of core academic skills and knowledge while furthering students' English language development.

Courses or activities for student orientation to U.S. schools and the community

Newcomer programs seek to familiarize students with American culture, their community, and school routines and educational expectations in the United States. Many programs supplement classroom curricula with field trips, cultural activities, and special events that serve these acculturation goals.

Qualified teachers

Many newcomer programs handpick their instructional personnel, looking for teachers and paraprofessionals experienced in working with recent immigrants in literacy, bilingual, or sheltered classes. Support staff who are bilingual and familiar with the students' first languages and cultures are also sought for the additional resources they bring to the program.

Appropriate materials

Instructional materials are cognitively appropriate for the ages of the students and include modifications that are appropriate for their level of language development, especially literacy. Content materials are selected to help students establish the foundations of academic subjects they may not have studied and to further their

current academic knowledge. Literature in English and the students' first languages is also important.

Paraprofessional support

Almost all newcomer programs employ paraprofessional support, especially bilingual staff, to assist students in academic domains and primary language literacy development and to facilitate links between the school and the students' families.

Family connections

Most programs seek to include the whole family in the life of the school; they arrange family events, adult ESL classes, and so forth for them. They also help families link up with appropriate social and health services in the community, as needed.

Variable Features

Length of daily program

Depending on available resources and the type of students being served, the program may involve one or two course periods, half the school day, the full school day, or after-school activities.

Length of program enrollment

While most programs last from one to three semesters, the actual length of time students spend in a newcomer program is often decided on an individual basis according to their linguistic and academic needs.

Grade levels served

Some programs serve all grade levels in the school's category (e.g., Grades 6-8 for middle school programs, Grades 9-12 for high schools). Some combine middle and high school students in one location but do not mix the two levels, except perhaps for initial literacy instruction. Some programs organize students by English proficiency levels rather than by traditional grade-level divisions. Other sites are designated, for example, as 9th-grade schools, where high-school-aged students with 8 years of schooling or less may attend for one year, then move on to 10th grade in one of the other district high schools.

ESL or bilingual design

The instructional and philosophical design of particular programs depends on the participating students' first languages and the availability of appropriate bilingual teachers, paraprofessionals, and instructional materials.

Articulation

Effective programs have an articulated plan for moving students through the language development and content courses offered and into regular programs in the district (ESL, bilingual, or mainstream). Articulation includes a sequenced curriculum for English language acquisition as well as a series of courses to help students either maintain and further their academic skills and knowledge or to address gaps in their educational backgrounds.

Content course selection/options for students

The program may offer sheltered or bilingual courses in some or all core content areas and in some elective areas, depending on the length of the daily program, student needs, and the availability of qualified staff and appropriate materials. The selection of course options is considered seriously, because it is linked to course credits at the high school level and can thus have an impact on graduation.

Career education

Some programs offer career awareness courses, vocational education, or work internships so that students can develop practical skills and knowledge about job opportunities. This training is useful for those students who are not inclined toward postsecondary academic options or do not have enough time to finish high school because of age restrictions.

Assessment

Some programs use pre-selected test scores as entrance and exit criteria and also to determine progress and achievement. Alternative assessments, such as portfolios, are used in other programs to monitor students' ongoing progress.

Necessary Resources

Location

When establishing a newcomer program, location is important. Many programs are programs-within-a-school, where space and staffing resources are readily available. Some districts choose a central site, either within another school or at a separate site, and transport students from around the district to the school in order to maximize their use of space and staffing resources.

Transportation

Special transportation is necessary in the case of centralized programs, where students are brought from their home schools to the newcomer school for part of the day or for the full school day. When students attend programs within schools, they can use regular school transportation.

Trained staff

Successful programs hire staff who are trained to work with recent immigrant students. Their knowledge base should include literacy skills development, strategies for integrating language and content instruction, cross-cultural awareness, and second language acquisition. The type of staff who are available may determine the type of instruction that is offered. For example, if the student population represents many different first languages, but bilingual teachers or paraprofessionals who know all these languages are not available, the best option may be ESL and sheltered content instruction.

Leadership

Program administrators and principals play an important role as advocates for newcomer programs and students. They also coordinate instruction, staff development, and connections with receiving schools. Leadership is often critical to secure adequate funding and to make sure program evaluations take place so that policy makers have systematic data showing the benefits of a newcomer program.

Guidance

In some programs, the regular guidance counselors in the school serve newcomer students as well. Other programs (often larger programs or whole newcomer schools) have their own guidance counselors. In large districts with many immigrant students, intake centers and guidance counselors cooperate to facilitate placement and transition processes. They also assist students with adjustment issues and help connect them with appropriate social and health services as needed. It is preferable to find guidance counselors who are bilingual and who are familiar with the students' cultures.

Appropriate materials

ESL or bilingual materials are necessary and may be readily available. Materials for the literacy development of older students are often needed and may be more difficult to

obtain. Often, teaching staff develop their own curricula, materials, and assessment instruments for the programs.

Translators and interpreters

Personnel with translation and interpretation skills are important for parental outreach and for communication between students and guidance counselors and other school personnel.

Necessary Local Conditions

Population

To be feasible, a newcomer program must have access to a sufficient number of newcomer students with educational needs that are not met successfully in the regular ESL or bilingual programs. The size of the immigrant student population in need of special services and the particular first languages and cultures they represent will influence the type and length of program and the program's location.

Identification and placement

Newcomer programs need a plan and policy for identification and placement of students. Criteria are often related to scores on English proficiency tests. Many newcomer programs rely on district intake centers to assess and place students.

Transition procedures

Since the overall aim of newcomer programs is to prepare students for success in the district's regular programs, the transition process is critical, especially for students who must switch schools when they leave the newcomer program. Teachers and guidance counselors in newcomer programs should oversee the transition and help students plan their course schedules in their new program. Some sites organize school visits and classroom observations. Personnel in full-day programs at separate sites usually find it necessary to devote more attention to transition procedures than personnel in half-day programs within a school.

Professional development

The teachers in the newcomer program and the teachers who receive the students once they exit the program should participate in joint staff development so they can better meet the students' cognitive, linguistic, academic, and emotional needs.

Case Studies

As noted, newcomer programs use a wide range of designs. In order to illustrate the variation among program types, descriptions of several program types are presented below. Each case is identified according to its distinguishing features. More detail about the various program types and their features can be found in Short and Boyson (1997, 1998).

Example 1: Special course, program-within-a-school, 1 year

This county-wide program in the eastern United States has developed a special literacy course for newcomer students who have few or no literacy skills in their first language. It is offered at the middle and high school levels, where and when student enrollment merits. Students take the newcomer literacy course in conjunction with other courses, such as ESL and sheltered math, sheltered science, and sheltered social studies, in the regular language support programs at their schools. Specially trained teachers work with these low literacy students.

Example 2: Half-day, program-within-a-school, 1 year

This middle school participates in a district-wide program for newcomers who have little formal education. Students who are performing below the third grade level, as determined by a diagnostic test, qualify for this half-day program. Instruction in math, science, and social studies is provided in the students' first language (Haitian Creole or Spanish) along with ESL and an orientation to school and study skills. The goal of the program is for students to reach basic skills level after one year, then enter the regular ESL program in the school.

Example 3: Half-day, separate site, 1+ year

This half-day program located at a separate site in a western U.S. school district serves multilingual middle and high school students for up to 1 1/2 years. It operates two cycles per day, with one set of students in the morning and another in the afternoon. All students spend half the day at the newcomer center and the other half at their home schools. Carefully selected, trained staff work closely with the home school sites to ensure that the curricula of the two schools are complementary. Most instruction is offered in English using sheltered instruction, but bilingual instruction in social studies, language arts, U.S. history, and world history is available to students of certain language backgrounds. Bilingual staff and paraprofessionals help students maintain their primary languages.

Example 4: Full-day, separate site, 1 year

This full-day newcomer school in the Southwest serves middle and high school students for one year, providing English language instruction as well as academic instruction appropriate to their grade levels and educational backgrounds. Core sheltered instruction in math, science, reading, and social studies is provided. Electives in art, music, computers, and career investigation are also available. First language literacy courses are offered to Spanish- and Vietnamese- speaking students. Bilingual paraprofessionals assist the teachers. Most students transfer after one year to a middle or high school in their neighborhood and enter the ESL program there. Some students with very low literacy may remain at the newcomer school for an additional semester.

Example 5: Full-day, separate site, 4 years

This alternative high school in the northeastern United States offers a 4-year, full-day program to students who have been in the country for less than 4 years and received low English language scores on the district test. They must also have a guidance counselor's recommendation. This program has graduated approximately 95% of its multilingual students in its more than 10 years of operation, and approximately 90% of those graduates have gone on to postsecondary institutions. Instruction is given primarily in English, and all teachers are responsible for developing the students' language skills while teaching them regular subjects. In recent years, some first language instruction has been provided. Most students enter at Grade 9 and remain in the school the entire 4 years, although some may transfer to another high school in the district. Students may take some college courses once they meet graduation requirements, and all participate in work-site internships. Some of the internships utilize the students' primary languages.

TRANSITIONAL BILINGUAL EDUCATION

Overview

Transitional bilingual education (TBE)—also known as early-exit bilingual education (Ramirez, 1992)—is the most common form of bilingual education for English language learners in the United States. TBE provides academic instruction in English language learners' primary language as they learn English. More specifically, the typical TBE

program initially provides instruction in literacy and academic content areas through the medium of the student's first language, along with instruction in English oral language development; non-academic subjects such as art, music, and physical education may also be taught in English (Medina, 1995). Content instruction through English is often provided in individualized and specially designed programs, sometimes referred to as sheltered instruction. As students acquire proficiency in oral English, the language in which academic subjects are taught gradually shifts from the students' first language to English. The transition typically starts off with math computations, followed by reading and writing, then science, and finally social studies. Once they acquire sufficient English proficiency, TBE students transition to mainstream classes where all academic instruction is in English.

In contrast to developmental bilingual education and two-way immersion programs for English language learners (discussed later), TBE does not aim for full bilingualism. It uses the students' first language to ensure grade-level mastery of academic content but only until such time as they can make a full transition to all-English instruction. It is argued that teaching English language learners in all-English classes as soon as they begin schooling impedes their academic development, because they cannot speak and understand English sufficiently to benefit from academic instruction through English (California State Department of Education, 1984). Thus, they are put at academic risk. TBE is designed to avoid this.

The term *transitional* speaks to the process of students moving gradually from instruction primarily in their first language to instruction entirely in English. Most TBE programs start in kindergarten or Grade 1. They seek to achieve basic oral English proficiency within 2 years and to mainstream students to an all-English program within 3 years. Typically, students who start the program in kindergarten are placed in an all-English program by the beginning of Grade 3, and those who start in Grade 1 are placed in an all-English program by the beginning of Grade 4. These programs are sometimes referred to as *early exit bilingual education*, because students exit relatively early in comparison to developmental and two-way immersion programs, which maintain instruction through the first language throughout the elementary grades.

Theoretical Rationale

The primary goals of TBE are to ensure students' mastery of grade-appropriate academic skills and knowledge and to facilitate and speed up the process of learning English. Early instruction in the students' first language serves both of these goals. That instruction through the first language supports the acquisition of English may sound counterintuitive, but there is a well-documented rationale (Cummins, 1981; Krashen, 1987).

First, teaching academic content to English language learners through their first language while they are learning to speak and comprehend English helps them progress in academic subjects at the same pace as their native English-speaking counterparts, because they are learning in the language they know best. The early years of schooling are considered critical to students' long-term academic and intellectual growth. Teaching academic subjects in the first language is intended to keep English language learners from falling behind academically as they learn English.

Second, teaching English language learners academic subjects initially in their first language provides them with knowledge and experience that facilitates learning English in subsequent grades. For example, it is easier for English language learners to understand and learn English language skills related to the planets if they have already learned something about the planets in their first language.

Third, the easiest language for students to learn to read and write first is the one they already know. Rather than delay reading and writing instruction until English language learners can speak and comprehend English, reading and writing instruction can begin immediately in the students' first language. Many literacy skills transfer from one language to another. Thus, if English language learners learn to read and write reasonably well in their first language and learn to speak and comprehend English well, it is relatively easy for them to learn to read and write English. There is a good deal of evidence of this transfer to English from other languages that use the Roman alphabet, and some evidence of transfer even if the primary language is non-Roman (e.g., Chinese).

Fourth, parents play a critical supporting role in their children's education. Providing English language learners instruction in their first language increases the likelihood that their parents, who often speak little or no English, will be able to support their academic development by reading with their children, supervising their homework, communicating with the teacher, and so on.

Salient Pedagogical and Program Features

Effective first language instruction

The success of TBE depends on effective first language instruction. TBE presumes that students can learn to read and write relatively easily and well in their first language and that they can master early grade-level skills, concepts, and content in math, science, and social studies if these subjects are taught in their first language. If this does not happen, students' transition to English is greatly jeopardized (Saunders, O'Brien, Lennon, & McLean, 1998).

Effective and continuous oral English language development

While students are receiving academic instruction through their first language, they should be learning to speak and comprehend English. To accomplish this, they should receive lessons that focus specifically on oral English skills (45 minutes per day) and have ample opportunities to use English in non-threatening and meaningful activities related to the curriculum of study (45-60 minutes per day), initially in art, music, and physical education, and later during activities related to challenging academic content (Saunders et al., 1998).

Additional support for students who have difficulty in the early grades

TBE is based on the premise that the better students do in the early grades, the better they will do in the middle and upper grades. More specifically, the following are seen as early predictors of long-term academic success for students in TBE programs: (a) academic achievement that is at grade level, (b) proficiency in reading and writing in the first language, and (c) advanced levels of oral English language development. Schools must, therefore, provide additional support early on for students who manifest academic difficulties or signs of falling behind in their first language or in their oral English development to ensure early success. Additional support might include individualized tutoring, close coordination of teachers with parents, and special attention from the teacher or teaching assistant.

Effective transitional instruction

The shift from instruction in the first language to English should be gradual. Successful TBE phases in academic instruction in English one subject at a time, typically starting with math computations, followed by reading and writing, then science, and finally social studies. The introduction of English reading and writing is especially important. Teachers should emphasize the similarities but also teach the differences between reading and writing in English and the students' first language. Reading and writing assignments should be interesting and engaging, but not, initially, overly demanding in

terms of vocabulary and syntax. Reading and writing assignments should increase in complexity as students become more proficient (Gersten & Jimenez, 1996; Saunders et al., 1998).

Sheltered instructional strategies

As English becomes the predominant language of academic instruction, teachers must remember that English language learners are not native speakers and are still acquiring academic language skills. Lessons taught in English still have to be sheltered so that academic content is understandable. Sheltered lessons use simplified language, demonstrations, props and manipulatives, and carefully selected print materials. They maintain a supportive learning environment in which students can focus on academic content rather than on their ability in English.

Careful and accurate assessment

Students' academic progress and English language development must be assessed carefully and accurately in order to check that students are making appropriate progress and to identify students who need additional support.

High standards and challenging curriculum

TBE presumes that students' long-term cognitive and academic growth are facilitated by instruction in the first language followed by a gradual transition to English language instruction. Age-appropriate development of English language learners cannot be achieved with low standards and a watered-down curriculum. To the contrary, research suggests that, given a supportive non-threatening environment, language learning is enhanced by high standards and intellectually challenging curricula (Gersten & Jimenez, 1996; Saunders et al., 1998).

Mixing students for some subjects

As much as possible and as early as possible, English language learners should have opportunities to interact socially and to learn along with native English speakers. In the earliest phases of TBE, this usually involves daily mixing for art, music, and physical education.

Parent involvement

Use of English language learners' first language for instruction increases parental involvement, because it sends the message to parents that use of their language is legitimate and valued in the school. Parental involvement can be further promoted if teachers communicate regularly with parents in their language. Parents can then be encouraged to support their children's learning in a number of ways: making sure homework is done, helping in the classroom, and participating in school governance and policy making. Parental involvement that affects the "curriculum of the home," that is, the academic learning opportunities children have at home, contributes to students' school achievement. Parents of students at all educational levels are able, in one way or another, to support their children's academic progress.

Necessary Resources

Bilingual teaching staff

Effective TBE requires certified bilingual teachers in Grades K, 1, and 2, or for as long as first language instruction is given. In districts where there is a shortage of bilingual teachers, some schools use bilingual teaching assistants to deliver first language instruction for part of the day. This is not optimal, because the success of TBE depends on strong first language development. Credentialed bilingual teachers, fully proficient in the students' first language and English, are the most qualified to make this happen.

Professional development of mainstream teachers

The success of TBE depends on the ability of mainstream teachers to provide adequate and effective instruction to TBE students once they have been moved into all-English classrooms. Mainstream teachers who are familiar with and have had professional development in using sheltered instructional strategies are better able to provide this kind of instruction.

Bilingual teaching materials

In order to deliver strong first language instruction, TBE needs appropriate instructional materials in the students' first language for grades K to 2, or for as long as first language instruction is provided.

Bilingual assessments

Because academic subjects are taught in the students' first language in the early grades, schools need to know how to conduct assessments in the students' first languages for all academic subjects (reading, writing, math, science, and social studies).

Additional bilingual resources

In successful TBE programs, all resources that complement the instructional program are available in students' first languages, including library books, special programs for the gifted and talented and for students with special needs, school newsletters, and parent bulletins.

Leadership and oversight

Successful TBE has administrators who advocate for the program; educate teachers, parents, and students about the program; evaluate program effectiveness; and identify ways to improve the program continually.

Necessary Local Conditions

Population

TBE requires a sizeable group of English language learners who speak the same primary language and are in the same grade: for example, at least one half of a kindergarten classroom of Spanish speakers. In some cases, schools provide TBE in more than one language (e.g., Spanish and Armenian). In order to facilitate instruction through the students' first languages, it is best to have students with different primary languages in different classrooms rather than to mix students from different languages in one class.

School and community partnership

It is crucial that administrators, teachers, parents, students, and the larger community understand how TBE works. It is also very helpful if local policy makers, such as Board of Education members, understand and support the goals and rationale of TBE.

Case Study

Kinney Elementary School is located in a predominantly Spanish-speaking community. The school's transitional bilingual program was started over 20 years ago. Most students enter school with little or no English language proficiency. Kinney offers both a Spanish transitional bilingual education program and an all-English program. In the all-English program, teachers use sheltered instructional approaches to make the academic subjects as understandable as possible for students while they are learning English. Most Kinney parents choose to enroll their students in the bilingual program. Strong parental support for the bilingual program is the result of a longstanding effort

on the part of school administrators, teachers, and parent leaders to educate parents about the program and the school's strong commitment to program effectiveness.

Almost all kindergarten, first, and second grade teachers at Kinney have bilingual credentials, a high degree of Spanish language proficiency, a good working knowledge of bilingual methodology, and familiarity with Hispanic/Latino culture. There is also a small group of third and fourth grade teachers with bilingual credentials, who can deliver effective first language and oral English instruction for students with little or no English proficiency who enroll at Kinney for the first time in the middle and upper grades. These teachers are also available to work with students who begin TBE in kindergarten but take longer to acquire the Spanish literacy and oral English skills required to make a successful transition to English instruction. Finally, Kinney has a cadre of second and third grade teachers who have a good deal of experience in effective delivery of the transitional phase of the program, when students begin reading and writing and studying academic subjects in English.

From kindergarten through Grade 2, reading and writing, math, science, and social studies are taught in Spanish. Students receive oral English language development geared to their English proficiency levels for 45 minutes a day. In addition, during the afternoon, students in the bilingual classes and the all-English classes mix for art, music, and physical education activities. During the second half of Grade 2, teachers begin delivering math lessons in English using sheltered instruction, and oral English development lessons begin to include simple English reading and writing activities (reading simple poems, labeling, note-writing, etc.). The goals of the TBE program for the end of Grade 2 include the ability to converse comfortably in English, grade-appropriate reading and writing skills in Spanish, and grade-level achievement in all academic subjects (as determined by Spanish language assessments in math, science, and social studies).

The bilingual program coordinator meets with the K-2 teachers every 8 weeks to review student progress. Students who show signs of falling behind are monitored closely. When it becomes evident that a student needs additional support, the program coordinator, appropriate teacher, and parents meet to determine a course of action, which might include one-on-one help from teaching assistants during class lessons, enrollment in the after-school tutoring program, and additional homework assignments and activities.

The transition to English takes place, ideally, in Grade 3. English reading is introduced through a special reading series that helps students learn both English vocabulary and spelling patterns. The stories have generally age-appropriate content, but there is a progression across the stories, starting with stories that have simple vocabulary, language, and spelling patterns, gradually increasing in difficulty from one story to the next. Students are also taught important sound-symbol correspondences in English to help facilitate their acquisition of English reading and writing. Teachers encourage students to write in English, and they phase in lessons on English spelling, grammar, and punctuation, so that students can begin to proofread and edit their own writing. From the beginning of Grade 3, the teacher delivers all math lessons using sheltered instruction, including strategies to insure that students understand the content of the lessons. Students are gradually expected to function entirely in English. At the beginning of Grade 3, science and social studies are taught in Spanish. During the middle third of the year, teachers begin teaching science through sheltered instruction in English. They do the same with social studies during the last third of the year. Sometimes, the Grade 3 teacher is not bilingual, in which case sheltered instruction in science and social studies starts at the beginning of the year. However, science and

social studies textbooks in Spanish are used initially, with comparable English versions phased in over the course of the year.

By the end of Grade 3, students are functioning in English throughout the school day and in all academic subjects. The school-wide goals for this phase of the program are that all students be (1) proficient in English speaking and listening and capable of participating in academic lessons taught in either mainstream or sheltered instruction; (2) reading and writing in English within at least one year of grade level; and (3) making appropriate grade-level progress in all academic subjects (as determined by Spanish or English language assessments in math, science, and social studies).

In Grade 4, students are in an all-English program. To the extent possible, this is the mainstream English program where most native English speakers are being educated. However, fourth grade mainstream teachers at Kinney are aware that most of their students are still learning to function academically in English. Therefore, they can and do use sheltered techniques in order to ensure that all students understand lesson content. They also know that some students need additional time and support in completing reading and writing assignments. By the end of Grade 4, however, the school-wide goal is for all students who began at Kinney in kindergarten or first grade to be functioning at grade level in English.

DEVELOPMENTAL BILINGUAL EDUCATION

Overview

Developmental bilingual education (DBE), also referred to as late-exit bilingual education (Ramirez, 1992), is an enrichment program that educates English language learners using both English and their first language for academic instruction. In the 1960s and 1970s, DBE programs were referred to as *maintenance bilingual programs*. The term *developmental bilingual education* was first introduced in Title VII of the 1984 Elementary and Secondary Education Act in order to avoid negative political associations linked to the notion of first language maintenance, and to emphasize the importance of supporting the long-term linguistic, academic, and cognitive development of English language learners. In contrast to two-way immersion programs (discussed later), in which students from language minority backgrounds are schooled along with students from the majority language group using both groups' languages, DBE is a kind of one-way program that includes only or primarily language minority students.

Most DBE programs initially begin with kindergarten or first grade and add one grade each year. They teach regular academic subjects through both English and the students' native language for as many grades as the school district can support, ideally through the end of secondary school. DBE programs are offered in a variety of minority languages, such as Chinese, Korean, Vietnamese, Navajo, and Spanish. Because so many DBE programs involve Spanish and English, we refer to these programs throughout the remainder of this section. Although DBE programs are intended to serve speakers of one minority language in the same classroom, in fact, diversity among students is not uncommon. A single class or program might include Hispanic students who were born and raised in the United States but speak virtually no English when they first enroll, Hispanic students who are already proficiently bilingual, and recent Spanish-speaking immigrants from Mexico who are just beginning to acquire English. All of these students can be schooled in the same classroom.

DBE programs aim to promote high levels of academic achievement in all curricular areas and full academic language proficiency in the students' first and second languages. They emphasize the cognitive and academic richness of exploring knowledge

across academic domains from multiple cultural perspectives and using two languages. DBE programs provide English language learners with academic instruction in their first language as they learn English. Sheltered instructional techniques are the preferred method of delivering academic instruction. (See the section on sheltered instruction earlier in this document.) In this way, DBE aims for full parity in academic domains with native English speakers by the end of secondary school. Indeed, well-implemented DBE leads to high academic achievement for English language learners (Thomas & Collier, 1997a).

DBE takes an enriched, additive approach to educating English language learners. It promotes full proficiency in all aspects of the students' first language in addition to full proficiency in all aspects of English language development. Development of the students' first language is seen as not only feasible but also desirable. It seeks to overcome the perceptions of some school personnel that use of the students' first language is only remedial, serving simply as a bridge to English language development. This view is often associated with subtractive forms of bilingual education that seek to replace the students' first language with English. Such programs fail to capitalize on the additive bilingual effects and cognitive advantages that result from full development of students' first language (Cummins, 1996).

Theoretical Rationale

The theoretical rationale for DBE is built on research in diverse domains, including linguistics, the social sciences, and school effectiveness. Accelerated learning, a concept from school effectiveness research, is critical to understanding the learning situation for any group of potentially at-risk students. As a group, English language learners generally score relatively low on tests in English related to all areas of the curriculum, typically at about the 10th percentile. If they are to catch up to native-English-speaking students, who are advancing in achievement each year, they must make *more* academic progress per year than English-speaking students. Moreover, they must maintain such accelerated progress for several consecutive years in order to eventually close the achievement gap, which can be as much as 1.5 national standard deviations. In a well-implemented DBE program, academic growth is accelerated through cognitively challenging academic work in the students' first language along with meaningful academic content taught through the students' second language, English. As students demonstrate that they have mastered grade-level curriculum material in their first language, they also close the achievement gap in English. With time (4-7 years), they are able to demonstrate grade-level knowledge in English as well. Students in effective DBE programs can outperform the average monolingual English-speaking group on standardized tests across the curriculum (Thomas & Collier, 1997a).

Research on language acquisition in school contexts also provides a strong theoretical base for DBE. It is now generally accepted that, in school, a second language is best acquired when it used as the medium of instruction across the curriculum, rather than as the exclusive focus of instruction. Furthermore, developing students' first language so that it is commensurate with their cognitive development from birth through at least Piaget's formal operations stage at puberty is crucial to academic success. Acquiring the second language in an additive context, in which the first language is not lost but promoted, leads to uninterrupted cognitive development and thus increased academic achievement.

Social science research also provides a strong theoretical rationale for DBE programs in culturally and linguistically diverse settings. Students who study in socioculturally supportive classrooms, building on the knowledge base they bring from their homes and communities, are able to accelerate their own academic growth (Moll, Amanti, &

Gonzalez, 1992). The differential status of minority and majority language students, particularly the low status of language minority students, can be transformed in a DBE program, where all students are respected and valued as equal partners in the learning process and where all are given access to the same resources. Furthermore, in regions that provide economic rewards for graduates who are bilingual in English and one of the other languages of the region, the economic advantages of bilingualism in the marketplace serve to enhance the status and achievement of English language learners.

Salient Pedagogical and Program Features

Teaching strategies for language and content

Effective DBE teachers use cooperative learning strategies, content-based instruction, hands-on materials, multi-modal presentations, advanced technological resources, activation of students' funds of knowledge (Moll, Amanti, & Gonzalez, 1992), and materials and books that present cross-cultural perspectives. In DBE classes for older students, critical pedagogical perspectives include problem posing, reflective thinking, knowledge gathering, and collaborative decision making. The students' first and second languages are taught through meaningful, cognitively challenging academic content from all areas of the curriculum.

Separation of languages

DBE teachers teach for extended periods of time in one designated language in order to maximize development of academic proficiency in each language. Mixing languages and translating during a lesson are avoided. However, if patterns of language use in the community include code-switching, teachers accept code-switching during social times of the day. They may even code-switch during designated instructional times, where appropriate—for example, during a unit where students analyze community uses of the two languages.

Integration of students

Students learn together for all or most of the school day regardless of their level of proficiency in the language of instruction. Thus when math is taught in English, those students who are more proficient in English can serve as peer tutors for their classmates who know less English. Likewise, proficient Spanish-speaking students can serve as the experts in social studies classes taught in Spanish. Teachers are always working with heterogeneous groups of students, all of whom assist each other with language and content acquisition.

Duration of program

Programs provide bilingual instruction throughout the elementary school years (Grades K-5) and, when possible, into the middle and high school grades. This is often accomplished by teaching thematic courses or regular academic subjects in the minority language while other academic subjects are taught in English. Continuous and extended instruction in the students' first and second languages is important to ensure that students have sufficient time to acquire full proficiency in all aspects of both languages. Research has shown that advanced levels of bilingual proficiency are associated with academic success and cognitive advantages that are not found in less proficient bilinguals (Cummins, 1981). Moreover, research has shown that English language learners attain full parity with language majority students in language and academic domains only after 4 to 7 years of bilingual instruction (Collier, 1992, 1995; Thomas & Collier, 1997b). Language minority students need such continuous bilingual instruction to acquire the academic language skills critical for academic success.

Parent involvement

In exemplary DBE programs, parents, educators, and the whole school community are actively involved in creating a school curriculum that incorporates cross-cultural com-

munity knowledge and resources. Moreover, all parents, regardless of social class, are included in school decision-making through participation in the selection of bilingual school staff, local curriculum development, and the selection of textbooks.

Assessment and high standards

Student progress toward the achievement of high academic standards is monitored on an ongoing basis using multiple measures across time. Teachers keep continual records of students' developing language skills and content knowledge based on their everyday classroom performance. Students are given continual feedback about their reading and writing acquisition in each language. Standardized tests are used at appropriate intervals to measure long-term group progress. This is critical to document students' long-term progress toward closing the achievement gap with native English speakers, thereby ensuring equal access to educational opportunity for all groups of students.

Equal status of both languages

To promote additive bilingualism, DBE programs value both languages equally. They demonstrate equality of the languages and cultures of their students by incorporating both into school symbols, announcements, public displays, support services, and of course, the school curriculum. All members of the school staff are expected to know and use both languages and to respect both cultures. DBE offers English language learners an enriched curriculum in their primary language. As a result of this experience, students learn to value their home language and come to see it as a valuable tool for schooling as well as for future work.

Necessary Resources

Bilingual teaching staff

To teach grade-appropriate, cognitively challenging academic material in each language, instructional personnel must be proficient in using both languages for academic purposes, and they must be certified in the content areas to be taught. In some programs, certified bilingual teachers are engaged to teach the whole curriculum using both languages. In other programs, classes may be team taught, with each teacher serving as an academic model in only one language. In such cases, teachers often work alternately with two classes of students.

Professional development

Teachers are provided ongoing state-of-the-art professional development opportunities that focus on effective instructional strategies, the development of materials and curricula, and current research and theory on program development.

Bilingual teaching materials

To promote high levels of academic achievement, textbooks, computer software, and other pedagogical materials must be available in both languages, in all content areas and at all grade levels. If the program is to provide a truly enriched experience to English language learners, all school resources should be available to students in both languages, even after school hours.

School leadership

An essential component of any effective program is school administrators who advocate for the program, educate the whole school community about the program, provide ongoing staff development and teacher planning time, evaluate program effectiveness, and commit to ongoing program improvement.

Necessary Local Conditions

Population

DBE programs are demographically feasible in any school district with a sufficient number of students with the same first language to constitute at least one class at a given grade level (or two adjacent grade levels). Typically, a new program would begin at kindergarten or first grade and add a grade each subsequent year. It is important that demographic projections be carried out to ascertain if there will be a sufficient number of English language learners in subsequent years to constitute at least one class at each succeeding grade level.

Interest in bilingualism

The language minority community must have an interest in maintaining their language in addition to learning English, and they must support the goal of high academic achievement in both languages.

Administrative and community support

For the program to be implemented successfully, it is crucial that administrators, the school board, and other teachers, as well as parents and students, understand the purposes of the program and give it their full support.

Case Study

Several variations of DBE exist. Models vary mainly with respect to the percentage of time the students' primary language is used in the early grades. A case study of a 90/10 model (90% primary language/10% English) is presented here. There are also 50/50 DBE models similar to the 50/50 example in the two-way immersion case studies presented later.

Mariposa Elementary School began a Spanish-English transitional bilingual program in the early 1980s. With TBE classes in place, students' academic achievement improved when compared to results from the ESL pullout program that had existed before. But in 1990, a new principal wanted to explore other possible school reforms that might assist the students, some of whom were born in the rural U.S. community served by the school, others of whom had emigrated from rural areas of Mexico, Guatemala, and El Salvador. As a result, in 1991, this low-income school community implemented a 90/10 developmental bilingual program for its Spanish-speaking students, who at that time constituted 94% of the school population. As of 1999, the 90/10 DBE program spans all classes from K to Grade 5, and the feeder middle school has developed bilingual thematic units that continue academic instruction through both Spanish and English across the curriculum for sixth and seventh graders. Plans are in place to continue the program in the high school with grade-level academic courses that can provide credit in both Spanish and English.

With each year of implementation, the principal of Mariposa Elementary School was able to recruit two additional certified bilingual teachers for each new grade level of implementation, replacing teachers who retired or left the school system. Over time, she was also successful in hiring bilingual support staff for the office, cafeteria, library, and technology lab. The school community is now committed to "growing their own bilingual teachers" by encouraging the graduates of their program to become bilingual teachers.

In kindergarten, the students receive 90% of their instruction in Spanish, continuing with 80% in Grade 1. Students participate in an enrichment program with hands-on discovery learning in Spanish. The decision to emphasize Spanish in academic work in the early grades came from the experienced bilingual teachers' concern that in the transitional

bilingual program students did not take the acquisition of Spanish for academic purposes seriously. Since the goal of the DBE program was to graduate academically proficient bilinguals, they recognized that students needed more academic support in school for the language that was receiving less support in the broader society.

In kindergarten, 10% of instruction is devoted to oral English language development, taught by a certified ESL teacher who plans lessons in consultation with the bilingual staff to reinforce academic concepts through hands-on art, music, and games. In Grade 1, English instructional time increases to 20%, as art, music, physical education, and some hands-on science and cooking activities are taught by the ESL-certified teacher. In Grade 2, students who are progressing well in Spanish literacy are introduced to English literacy and math (30% of the instructional time). By Grade 3, English instruction increases to 40%. Students begin interdisciplinary thematic units taught through both Spanish and English. There is no translation or repetition of lessons; this is an important principle of all teaching in the school. By Grade 4, the students are working 50% of the time in each language.

There is ongoing professional development. Teachers have received excellent training in cooperative learning strategies, authentic assessment, process writing, the use of technology, instructional approaches based on the theory of multiple intelligences, and other innovative teaching practices. Teachers are provided extensive planning time together, and they meet to plan how they will alternate use of the two languages from year to year, sometimes by thematic units or subjects, sometimes by time of day or days of the week. The teachers make sure that every student receives grade-level access to every subject in at least one of the languages of instruction. Planning also includes assessment of newly arrived students and ways of incorporating them into the school. New arrivals who have had the opportunity to receive good formal schooling in their home country serve as language models during academic instruction in Spanish. Teachers and principal are always on the lookout for new materials in Spanish and English that provide active, discovery, hands-on, challenging content in all areas of the curriculum. They favor especially material that is connected to environmental, ecological, economic, and social issues in their community.

Assessment is ongoing and comprehensive, focusing on student growth in each subject area in the language of instruction. In the early grades, when the curriculum is taught mostly through Spanish, academic assessment is in Spanish. As students reach the fourth grade and beyond, academic achievement is assessed in both Spanish and English. Teachers keep ongoing records of student growth as revealed by authentic assessment activities linked to daily classroom activities. Standardized tests are used to measure long-term group progress across time. Mariposa Elementary School has improved student performance on nationally normed tests from among the lowest in the country to the 50th percentile in all subject areas when tested in English and Spanish at the end of Grade 6.

FOREIGN/SECOND LANGUAGE IMMERSION

Overview

In contrast to the other alternatives discussed in this monograph, foreign/second language immersion programs are designed for students who come to school speaking the majority language—English in the case of the United States. We discuss immersion in this report because it can serve the educational aspirations of English-speaking students who are members of cultural minority groups that wish to promote acquisition of their indigeneous or heritage language—for example, Chinese, German, Navaho, or Hawaiian. We describe immersion programs also because there is consider-

able misunderstanding surrounding them. In particular, they are often presented as options for English language learners. Those who use results from immersion programs to argue against first language instruction for English language learners misunderstand immersion and are misapplying immersion approaches to a population for which they are not and never were intended.

In foreign/second language immersion programs in the United States, teachers use a second/foreign language as the medium of academic instruction and social interaction with native-English-speaking majority group students (Genesee, 1985). The second or foreign language is used for at least 50% and up to 100% of academic instruction during the elementary or secondary grades. Immersion is distinctive as a method of foreign/second language instruction because it uses academic content as the medium for second language teaching rather than focusing instruction directly on the teaching of second language skills (Genesee, 1987). Thus, in immersion programs, a great deal of foreign/second language learning occurs incidentally, as students and teachers use the second language to interact with each other about academic content and social matters in school. In this way, learning the second language is similar to the way children learn their first language.

Generally speaking, immersion programs have one of the following major goals:

- promotion of official languages (e.g., French immersion in Canada)
- linguistic, cultural, and educational enrichment (e.g., French immersion in the United States)
- promotion of a heritage language among students from cultural minority groups whose communities now speak the majority societal language (e.g., Chinese immersion for U.S. children of Chinese heritage)
- acquisition of important regional languages (e.g., English immersion in European schools)
- maintenance and preservation of indigenous languages and cultures (e.g., Hawaiian immersion in Hawaii) (Genesee, 1996).

Notwithstanding their diverse overarching goals, all immersion programs aim for functional proficiency in second language reading, writing, speaking, and listening; age-appropriate levels of first language competence; grade-level achievement in academic subject matter; and understanding and appreciation of the second language culture along with an appreciation for and identification with the home culture.

Immersion programs vary with regard to the proportion of instructional time spent in the students' first and second languages (Genesee, 1986). In *early total immersion* programs, instruction is conducted exclusively in the second language for one or more years beginning in kindergarten. Instruction in the first language (English in the case of programs in the United States) is introduced in Grade 2 or 3 or even later, depending on the school district. Instruction in the first language increases gradually—in many programs until it comprises approximately half of instructional time. The exact proportion of instructional time in the two languages varies by program and district. In *partial immersion* programs, the primary and second languages are each used 50% of the time in most programs, although this proportion can vary by program and district. Partial immersion programs, like early total immersion, usually begin in kindergarten and extend through the end of elementary school; in some cases they continue at the secondary level.

Some immersion programs begin in later grades, more frequently in Canada than in the United States. *Delayed immersion* programs usually begin use of the second language as a medium of instruction in Grade 4. *Late immersion* programs begin in Grade 7 or 8.

In most cases, students in late immersion programs have had prior second language instruction. Ideally, immersion programs that begin in the elementary grades continue through middle and secondary school. In secondary school programs, the second language is used to teach selected academic subjects that would normally be offered in the students' first language.

Research indicates that, in the long term, participation in immersion programs does not interfere with students' first language development or academic achievement (Genesee, 1987; Swain & Lapkin, 1991). Nor does immersion education interfere with the primary language development or academic achievement of students whose first language is not a standard form of the majority societal language (e.g., African American Vernacular English (AAVE), Hawaiian Creole English). For example, systematic evaluations of a French immersion program in Cincinnati in which students spoke AAVE as their first language indicated that along with proficiency in French, these students acquired proficiency in Standard English that was comparable to that of similar students in all-English programs in the district (Holobow et al., 1987).

At the same time, immersion students acquire functional proficiency in the second language that exceeds that of students enrolled in any of the non-immersion second language programs that have been examined systematically. Researchers have also noted that students do not achieve native-like levels of second language proficiency unless they have some exposure to the second language outside of school.

Theoretical Rationale

In immersion education, emphasis is placed on using the second language for academic instruction and general communication on the assumption that this is the best way to take advantage of children's natural language learning abilities. Indeed, virtually all children acquire their first language in the home without direct instruction. Immersion classrooms provide a highly contextualized language learning environment where assistance from teachers and peers is a fundamental aspect of the language learning process. The immersion approach also fits with sociocultural theories that hold that all psychological phenomena (including language learning) are rooted in social interaction (Vygotsky, 1978).

The immersion approach is supported by constructivist notions of learning that hold that students "construct" meaning and knowledge from interactions with their environment (Brooks, 1990; Phillips, 1995). In immersion classrooms, students experiment with the second language in their attempts to acquire challenging academic skills and knowledge and to communicate with their peers and teachers. Language development proceeds as students try to make sense of and engage in these interactions with peers, their teachers, and the curriculum.

Salient Pedagogical and Program Features

Teaching strategies for language and content

Immersion classrooms are language-rich environments in which teachers make extensive use of non-verbal cues, visual demonstrations, social interaction, and hands-on experiences to communicate academic objectives to students. Teachers modify their language use, speaking at a slower pace and in grammatically simplified ways to ensure that the input is comprehensible to beginning-level language learners. As their students' proficiency in the language advances, teachers adjust their language so that it comes to approximate what they would use with native speakers of the target language. Immersion teachers encourage students to use the second language for communicative purposes and meaning-making in social contexts. They model appropri-

ate second language use, paraphrase, expand, and repeat students' messages when they deviate from native-like usage, and embed language in day-to-day routines in order to promote comprehension and acquisition of language.

Separation of languages by teachers and students

Ideally, different teachers provide instruction in English and the second language. Immersion teachers are native speakers of the target language or have native-like proficiency in the language. In fact, most immersion teachers are bilingual in the students' first language and the second language. In order to promote maximum use of the second language, immersion teachers in some schools present themselves to their students as monolingual speakers of the second language (Genesee, 1996; Snow, 1990a). Students are usually not required to use the second language during their first few months of the program; at this stage, they use English with one another and the teacher, although the teacher continues to use the second language with them. In early total immersion programs, students typically begin using the second language by the end of kindergarten or the beginning of Grade 1. At that time, teachers begin to insist that the second language be used for all communication in the classroom and at all times with them no matter where they are in the school. This is done in order to create a learning environment in which the second language is valued and acquisition is optimized.

Duration

Early immersion programs begin in kindergarten and extend through the end of elementary school, and in some cases through the end of secondary school. Delayed immersion programs also provide academic instruction in the second language through the elementary grades and, ideally, throughout secondary school. Late immersion programs provide intensive academic instruction through the second language for one or two years, usually beginning in Grade 7, and provide follow-up courses in academic subjects in the second language during the remaining grades of secondary school. Continuous provision of instruction in the second language during all grades is critical if students are to acquire advanced levels of functional proficiency in the language (Genesee, 1987; Snow, 1990b). Parents are discouraged from enrolling their children for only a year or two, and school districts are advised to limit access to immersion after the first year or two unless the prospective students can demonstrate some proficiency in the second language.

Parental involvement

Parental involvement in and support for immersion is critical to its success. The effectiveness of immersion is further enhanced when it is supported by the whole community and, if it is a program within a school, by the whole school. In some communities, family members are encouraged to learn the second language, although it is not a requirement. Heritage and indigenous immersion programs, in particular, place great importance on family members learning the language in order to strengthen the language in the community at large and to thereby expand opportunities for use and acquisition of the second language outside of school (Kamanā & Wilson, 1996).

Developmentally appropriate curriculum and instruction

Immersion teachers are sensitive to students' level of language development when planning content instruction. In the beginning, when students' proficiency in the second language is rudimentary, teachers use a variety of instructional strategies that do not require advanced levels of language proficiency to teach the academic objectives of the curriculum. Demonstrations, visuals, and hands-on techniques allow students access to new concepts and knowledge without demanding language skills they do not yet have. At the same time, teachers identify and teach language skills that students will need for later instruction, so that the linguistic foundations for later

learning are built before they are actually needed. By linking new content and skills to what students already know and can do, teachers make new knowledge and skills more readily accessible and learnable. These instructional techniques are effective in any kind of program. They are particularly useful for accommodating immersion students' developing language skills and needs while ensuring that challenging and grade-appropriate academic skills and knowledge are taught.

Assessment

Immersion teachers continually conduct informal assessments of students' developing second language proficiency so that they can use instructional strategies that match students' current linguistic skills. Ongoing language assessment also permits immersion teachers to identify aspects of their language use that require attention because they are linked to future instructional goals. In addition to informal assessments, immersion teachers use appropriate standardized or district-mandated procedures to make sure their students are meeting expectations established for all students in the district. Immersion teachers and district personnel understand that students in early immersion programs do not attain district norms in English during the first 2 or 3 years of the program, when all instruction is provided in the second language. They know that immersion students' true achievement in both academic and linguistic domains is evident only at the end of fifth or sixth grade, after 1 or 2 years of instruction in and through English.

High standards

Immersion students are held to the same high standards of achievement in all subject areas and in English as students in non-immersion classrooms. Research indicates that immersion students achieve at the same levels as their non-immersion peers in both English and content areas. In addition, immersion students acquire advanced levels of proficiency in the second language (Genesee, 1987).

Necessary Resources

Fluent second language teachers

Immersion teachers are native speakers or have native-like proficiency in the second language. Moreover, immersion teachers are proficient in the use of the second language for academic purposes. A teacher who is proficient using a language for social purposes does not necessarily have the proficiency needed to use it to teach complex, abstract academic skills and knowledge. Heritage and indigenous language immersion programs are challenged to find teachers with these qualifications, because the second language may be used only or primarily for social purposes. In some communities where the language is at risk of extinction, it can be difficult to identify a sufficient number of individuals who are proficient in the language in any context (Yamauchi & Ceppi, 1998). As much as possible, immersion programs also employ certified teachers with a sound understanding of effective pedagogy; language proficiency alone is not sufficient to qualify a teacher to teach in immersion classrooms. Where teachers lack the full set of desired qualifications, the district may provide in-service or additional professional development opportunities that permit them to acquire the academic language and pedagogical skills they need to function effectively in an immersion classroom.

Teaching materials in the second language

Challenging and appropriate instructional materials in the second language are needed for all subjects that are taught through the second language. This is a challenge for indigenous language immersion programs where the language is at risk of extinction. In such programs, curriculum development often includes an extensive materials-development component (Yamauchi & Ceppi, 1998). Because there is often an urgency

to create such materials at the same time the program itself is being implemented, materials in English are often translated into the second language. Some educators have questioned the appropriateness of this practice and have called for more materials rooted in the second language and culture (Yamauchi, Ceppi, & Lau-Smith, 1999). While clearly desirable, this requires considerable investment of funds and time. Immersion teachers in indigenous language programs are often responsible for curriculum and materials development, adding to what is an already demanding professional challenge.

Community and home support

Supportive home and community environments are critical for the success of all immersion programs.

Necessary Local Conditions

Interest in bilingualism

Effective immersion programs require strong community interest in bilingualism. Because the first language of most immersion students is the society's majority language, parents must be actively interested in their children acquiring proficiency in a minority language. In the case of indigenous language immersion, parents must be committed to supporting the development of a language that might receive little support from the larger society. Support for immersion means commitment to keeping children in immersion programs for their entire duration, as noted earlier, so that the full benefits of the program are realized.

Administrative support

Support from principals, superintendents, and other administrators is necessary for a successful immersion program. Strong administrative support ensures that immersion programs obtain the resources they need: qualified teachers, materials, building facilities, and related services. Supportive and informed school administrators also ensure that immersion programs are well integrated with other district programs and plans and that they are seen by others as a source of pride.

Case Study

An indigenous language immersion program, *Papahana Kaiapuni*, the Hawaiian Language Immersion Program, is highlighted as an example of immersion. Papahana Kaiapuni is an early total language immersion program in selected public schools in the State of Hawai'i. The program began in 1987 with two K-1 combination classes in two mainstream English schools. The program now serves over 1,300 students in kindergarten through Grade 12, at 16 sites on five of the seven major Hawaiian islands. Although most of these sites also house an English program, there are two sites that are devoted exclusively to Hawaiian immersion.

Papahana Kaiapuni began through the efforts of parents and Hawaiian language activists who were interested in preserving the Hawaiian language (Kame'elehiwa, 1992; Yamauchi et al., 1999). In 1896, the territorial government in Hawai'i banned the Hawaiian language from use in any governmental activity, including public education. Following this policy, the use and status of the language declined dramatically until it was re-established in 1978 as a second official language of the state. By this time, there were very few native speakers left, and most of them were older adults (Dunford, 1991). In 1984, in an effort to revive the Hawaiian language, a group of parents and language activists opened Punana Leo, a private Hawaiian total immersion pre-school modeled after the Maori preschool "language nests" in New Zealand (Kamanā & Wilson, 1996). The parents of Punana Leo students lobbied the state

legislature to implement a Hawaiian language immersion program in the public school system in order to ensure continuation of their efforts at the pre-school level.

Although some Kaiapuni kindergartners today are former Punana Leo students, many more have their first extensive exposure to the Hawaiian language on the first day of school. The first language of most Kaiapuni students is either English or Hawaiian Creole English (HCE) (Slaughter, 1997a). Students typically enter the program in kindergarten, although a few enter as late as Grade 3 (some even later) if they have had prior exposure to the language.

There are over 80 teachers involved in the Kaiapuni program, most of whom learned Hawaiian as a second language in college. From kindergarten through Grade 4, Kaiapuni teachers use the Hawaiian language exclusively in their classrooms. During the first few months of kindergarten, students speak to their teachers and peers in English or HCE. However, by the end of the first year, most students are speaking exclusively in Hawaiian in class (Slaughter, 1997b). In Grade 5, the teachers introduce one hour of English language instruction each day, and this continues through Grade 12. Family members of students are encouraged, but not required, to learn Hawaiian. There are usually Hawaiian language classes offered to family members in the evenings, taught by immersion and other language teachers. Parental involvement is high, and State Department of Education administrators recognize that the program has one of the most involved parent groups of all public school programs.

Because almost an entire generation in Hawai'i grew up without access to the Hawaiian language, it is not surprising that recruiting qualified teachers for the program is an ongoing challenge (Slaughter, 1997a; Yamauchi et al., 1999). This is especially true for the secondary grades, where teachers are required to be specialists in an academic discipline. Kaiapuni program administrators emphasize the importance of teachers being both highly qualified in their language skills (especially because most of them are second language speakers) and also in their general pedagogical skills.

Curriculum development is also a challenge. When the program started, there was no appropriate curriculum in the Hawaiian language. Teachers and parents worked long hours cutting and pasting Hawaiian translations into English books. It was not uncommon for teachers to be translating text the day before they used it. The language itself also presented some special problems when used in a modern context. Sometimes there were no words in Hawaiian for modern English words and more technical concepts. A committee of native speakers and educators was convened to invent new Hawaiian words as they were needed. Over 10 years later, teachers still struggle with a shortage of materials for their classrooms. Currently, there is a movement to develop new materials in Hawaiian, rather than relying on translations from English. Many see this as a significant change toward a more culturally relevant curriculum.

Program evaluations to date indicate that Kaiapuni students are proficient in both English and Hawaiian (Slaughter, 1997). Kaiapuni students score as well as their non-immersion peers on standardized achievement tests in English. Although there are no norms for Hawaiian language development against which to compare immersion students' achievement in Hawaiian, Kaiapuni students are achieving literacy at grade-level standards set by Kaiapuni educators. Kaiapuni students also display positive attitudes about themselves and their skills in both English and Hawaiian. Moreover, the Hawaiian language is surviving. While there were only 30 people under 18 years of age who spoke Hawaiian in 1984, today there are over 1,000 young speakers who are learning Hawaiian through total immersion education.

TWO-WAY IMMERSION

Overview

Two-way immersion (TWI) programs (also known as two-way bilingual education and dual language immersion) are becoming an increasingly attractive option for schools and districts that are looking for ways to develop bilingualism in all of their students. TWI provides integrated language and academic instruction for native English speakers and native speakers of another language with the goals of high academic achievement, first and second language proficiency, and cross-cultural understanding (Christian, 1994). In TWI programs, as in other immersion programs, language learning is integrated with content instruction. Academic subjects are taught to all students through both English and the other language. As students and teachers interact socially and work together to perform academic tasks, the students' language abilities are developed along with their knowledge of academic subject matter. Most programs start in kindergarten or first grade and continue through the end of elementary school. While there is a great deal of variation with regard to certain program features, there are also some important core similarities among programs.

- Each class is usually composed of 50% native English speakers and 50% native speakers of the other language.
- Academic instruction takes place through both languages, with the non-English language being used at least 50% of the time. In this way, all students have the opportunity to be both first language models and second language learners.
- All students experience an additive bilingual environment, because the first language of each group of students is developed as well as their second language.

Theoretical Rationale

The theoretical rationale for TWI is based on research findings concerning both first and second language acquisition. First, bilingual education research indicates that academic knowledge and skills acquired through one language pave the way for acquisition of related knowledge and skills in another language (Collier, 1989). When instruction through the first language is provided to language minority students along with balanced second language support, these students attain higher levels of academic achievement than if they had been taught in the second language only.

Second, research indicates that English is best acquired by students with limited or no proficiency in English after their first language is firmly established. Specifically, strong oral and literacy skills developed in the first language provide a solid basis for the acquisition of literacy and other academic language skills in English (Edelsky, 1982; Eisterhold-Carson, Carrell, Silberstein, Kroll, & Kuehn, 1990; Lanauze & Snow, 1989; Saunders & Goldenberg, 1999). Moreover, common skills that underlie the acquisition and use of both languages transfer from the first to the second language, thereby facilitating second language acquisition.

Third, immersion programs for language majority students (those who are native speakers of English) enable them to develop advanced levels of second language proficiency without compromising their academic achievement or first language development (Genesee, 1983, 1984, 1987; Swain & Lapkin, 1982).

Finally, language is learned best by all students when it is the medium of instruction rather than the exclusive focus of instruction. In TWI settings, students learn language while exploring and learning academic content because there is a real need to communicate.

More generally, the rationale for TWI grows out of sociocultural theory that maintains that learning occurs through social interaction (Vygotsky, 1978). More specifically, the integration of native English speakers and native speakers of another language facilitates second language acquisition, because it promotes authentic, meaningful interaction among speakers of the two languages. Because all of the students in TWI programs are native speakers of one of the two second languages being promoted, native language models are available in the classroom for both groups of second language learners.

Salient Pedagogical and Program Features

Teaching strategies for language and content

TWI teachers tend to use cooperative learning techniques, thematic units, hands-on materials, and visual and graphic displays to teach academic content through the medium of the second languages. Strategies such as repetition and rephrasing are also used to make language comprehensible. In addition to language modeling provided by the teacher, TWI students have access to native-speaker peer models, a definite advantage for second language learning that students in single language immersion programs do not have. TWI teachers give students many opportunities to interact with and learn from native speakers of the second language so that language learning is optimized (Cloud, Genesee, & Hamayan, in press).

Separation of languages by teachers and students

Teachers in TWI programs teach for extended periods in one designated language, and they encourage both native speakers and second language learners to communicate in the language of instruction to the best of their ability. Mixing of the two languages and translation are discouraged, because they allow students to rely on their first language.

Integration of students

Students from both language backgrounds learn together for all or most of the day. Some programs separate students by language background for language arts instruction in the first or second language, while others integrate students from both language groups for all instructional activities throughout entire day.

Duration of program

TWI programs provide bilingual instruction for at least 4 to 6 years, and parents are advised that continuous participation for the duration of the program is essential if their children are to realize the full benefits. TWI is not advised for districts with very transient student populations, where many students would not be in the program long enough to reap the benefits.

Parental involvement

The most successful TWI programs recognize the importance of support from all families as well as from the community at large. Serious efforts are made to ensure that the cultures of both parent groups are valued equally, so that all parents are included in school decision-making processes.

Developmentally appropriate curriculum and instruction

Curriculum and instructional strategies in effective programs reflect students' developmental levels in both cognitive and linguistic areas. In particular, TWI teachers plan academic instruction in accordance with students' language proficiency. They anticipate students' language needs and provide opportunities for them to acquire language skills that are critical for dealing with content that will be taught later.

Assessment

Teachers make use of ongoing assessment to fine-tune instruction to promote students' language and academic development. Assessment is linked to instructional goals and plans and takes into account students' developing language proficiencies. In other words, TWI teachers make sure that assessment that is focused on mastery of academic content does not require language skills beyond the students' current level of proficiency.

High standards

Students in two-way programs are held to the same high academic and language standards that are set by the district for native-English-speaking students in all-English programs.

Equal status of both languages

In order to promote additive bilingualism and full participation by members of the two language groups, the two languages are accorded equal status within the school. For example, announcements and public displays are bilingual, and support services from resource teachers and other support staff are provided in both languages to the extent possible.

Necessary Resources

Bilingual instructional staff

Since an explicit goal of TWI is bilingualism and biliteracy for all students, ideally all instructional staff are fully bilingual. If some teachers are fully proficient in only one language, instruction is often organized according to the language proficiency of the teachers.

Bilingual teaching materials

In order to ensure the development of high levels of proficiency in both languages and high levels of academic achievement through both languages, it is essential that instructional materials, including textbooks, computer software, and other pedagogical materials, be available in both languages. If it is not possible to obtain all materials in both languages, the curriculum can be split so that subjects are taught in the language for which appropriate materials are available.

Leadership

Successful TWI programs have administrative leadership that is knowledgeable about and prepared to advocate for the program. Effective leadership requires a thorough understanding of the research findings and pedagogical principles underlying TWI programs.

Necessary Local Conditions

Population

It is necessary to have sizeable populations of both native English speakers and language minority students from a single language background. If the program is a neighborhood school, these populations must co-exist within the same school boundaries. If, however, the program is offered in a magnet school, students can be drawn from the entire district, as long as transportation is provided.

Interest in bilingualism

Even if the necessary populations exist in the community, a TWI program will be possible only if both populations express an interest in bilingualism. That is, the language minority population must have an interest in maintaining their language in

addition to learning English, and the native-English-speaking population must have an interest in developing a second language.

Administrative support

In order for TWI programs to be successful, there must be buy-in on the part of the school and district administration. Interest on the part of parents and teachers, while necessary, is not enough. Principals, resource specialists, and superintendents should all understand and support the program.

Equity across programs

TWI programs and students should have access to the full range of services available to other schools in the district. In particular, all services must be available in the minority language. An imbalance in the services provided to TWI students is not only likely to result in restricted student success, but conveys the message that the bilingual program is less valued.

Case Studies

In order to illustrate how TWI works, two case studies will be presented: one that portrays a 90/10 program (Spanish used 90% of the time, English 10%), the other a 50/50 program (Chinese used 50% of the time, English 50%).

Example 1: Spanish/English program (90/10)

The Spanish/English TWI program at Cesar Chavez Elementary School was started 6 years ago. The program began as a strand within a regular school, but it is now housed in its own building. The program began with two kindergarten classes and has added an additional grade level each subsequent year. The program now spans kindergarten through Grade 5, and there are plans to extend it into the middle school. Because of increasing community interest in the program, there are now four classes each at the kindergarten through second-grade levels. There are two classes per grade level in Grades 3 to 5, with the expectation that the number of classes per grade level will increase as the larger cohorts currently at the primary level move through the program.

The program functions as a magnet school, so all children from the district are eligible to attend. New students are chosen by lottery, but priority is given to siblings of current students. Transportation to the school is provided by the district, in accordance with district policy for magnet programs.

The program has been fortunate to recruit a staff of teachers and instructional assistants who are able to deliver instruction in both English and Spanish. In kindergarten and Grade 1, students receive 90% of their instruction in Spanish from their classroom teachers. The 10% English instruction at those grade levels consists of oral language development and is delivered by a designated English language development specialist who works with all of the kindergarten and first grade students.

By Grade 2, English instruction increases to 20% with the addition of "specials," such as art, music, and physical education. These classes are taught in English by teachers who have received ESL training. Oral English language development continues, and initial English literacy activities, such as choral reading and poetry chanting, are added to the curriculum. This instruction is provided by the classroom teacher during a designated English language instructional period. By Grade 3, English instructional time increases to 30% as formal English literacy instruction is added to the curriculum. Again, the classroom teacher provides this instruction.

In Grades 4 and 5, the time devoted to English increases to 50%. At these grade levels, math, language arts, and specials are taught in English, while science, social studies, and language arts are taught in Spanish. With the exception of specials, all instruction is provided by the classroom teacher. The program will maintain a 50/50 ratio of Spanish to English through Grade 8.

Example 2: Chinese/English program (50/50)

Since 1990, King Elementary School has housed the Chinese/English TWI program that now spans kindergarten through Grade 5. The program began with two classes in kindergarten and expanded one grade level per year until Grade 5. There are no plans at this time to increase the number of classes at any grade level.

At each grade level, there is a designated English teacher and a designated Chinese teacher. This approach works well for this program, both because the design calls for 50% instructional time in each language at each grade level, and because the teachers in the program tend to be dominant in English or Chinese, rather than being balanced bilinguals. In this way, the teachers' language dominance is an asset rather than a liability. The two classes of students at each grade level spend each morning working in one language and each afternoon working in the other. Each class is balanced in terms of the language dominance of the children.

In addition to the division of languages by teacher, the program further divides language use by curricular area. Instruction in language arts, math, social studies, and music is provided in English, while instruction in language arts, science, physical education, and art is provided in Chinese. Efforts are made to link the curriculum thematically across the two languages at each grade level, so that there is continuity despite the division of curriculum by teacher and language.

King Elementary School is a neighborhood school, so only children in the neighborhood are eligible to participate. Because the community is located in an integrated urban area with high proportions of both Chinese and English speakers, there are sufficiently large populations of each language group in the community to fill all available slots.

MAKING CHOICES

When choosing among available alternatives, educators must first make a critical decision about whether they want to promote bilingual proficiency while promoting students' academic development. Developmental bilingual, two-way immersion, and foreign/second language immersion programs are appropriate choices when bilingual proficiency is a goal. Newcomer programs that use the student's first language are also appropriate, provided plans are made to place students in one of the above programs once they leave the newcomer program.

If it is decided to adopt a program that aims for bilingual proficiency, then a second critical and related decision must be made concerning the student population to be served. If the population to be served speaks English but is a cultural minority, then foreign/second language immersion is clearly the appropriate choice. If the population to be served is comprised of students who speak limited or no English, then a developmental bilingual program, a two-way immersion program, or a newcomer program with appropriate follow-up is recommended. A developmental program or newcomer program with follow-up is appropriate if only limited English proficient students are to be served; a two-way immersion program is appropriate if there are English-speaking students from the majority cultural group who wish to participate in the program along with English language learners.

If the decision is made to adopt a program that does not promote bilingual proficiency, three alternatives are possible: (1) transitional bilingual education, (2) a newcomer program that does not use the students' first language or transition students to a bilingual follow-up program, or (3) sheltered instruction. Newcomer programs are most appropriate for students whose educational needs exceed the resources that the district has in its other programs. These special needs are usually a result of no or minimal literacy and no or limited prior schooling, two factors that severely hamper students' ability to fit into other programs. Newcomer programs are transitional in nature. They provide short, intensive programs that are specially designed to meet the immediate needs of English language learners. Newcomer programs make it possible for English language learners to participate in a district's other programs more successfully. With few exceptions, they do not provide long-term responses to the education of these students. Follow-up programs must be put in place with teachers who are prepared to work effectively with English language learners in order to meet the long-term educational needs and aspirations of students after they exit the newcomer programs. The case studies presented here have highlighted newcomer programs for middle and high school students, because there is less time for these students to acquire English and learn academic content before high school graduation. However, there are newcomer programs for elementary school students; they serve the same kinds of students and have the same general objectives as middle and high school programs.

Transitional bilingual programs are usually 2 to 3 years in duration and thus provide more extended responses to the needs of English language learners. It is important to understand that they are transitional in nature. The long-term educational needs of English language learners are not met by transitional programs. Provision must be made to create follow-up programs that ensure that English language learners attain the same high standards in English and academic subjects as English-speaking majority-group students. This cannot be accomplished within transitional programs.

Sheltered instruction can serve students at any grade level and can be implemented as the sole approach to addressing the learning needs of English language learners or be used to complement all of the programs we have discussed. For example, sheltered instructional approaches could be used within the framework of a newcomer program or during those phases of transitional or developmental bilingual education when English is used as the medium of academic instruction. Use of SI would be particularly appropriate when academic instruction through English is first implemented—that is, when English language learners are most in need of modified English input to ensure their comprehension of academic material. Sheltered instruction is desirable no matter what program might be adopted, because, if implemented effectively, SI ensures that English language learners comprehend academic instruction when it is delivered in English. Clearly, this is an issue whether or not one of the other specialized alternative programs described in this monograph is adopted.

If a district adopts sheltered instruction as the sole approach to meeting the needs of its English language learners, teachers must be selected for the program who are familiar with and competent using SI approaches at all relevant grade levels for all relevant academic instruction. SI must also be harmonized with the mainstream program, so that integration of English language learners with native English speakers is complete and successful. A decision to adopt a transitional bilingual or a newcomer program is a commitment to develop and maintain distinct, stand-alone programs. This does not mean that these alternatives should not be harmonized with the mainstream, all-English program. Indeed, they should be in order to maximize their effectiveness. Serious consideration should be given to the implications of these commitments as part of the decision-making process.

While these program alternatives have been discussed as separate options, a school district can in fact implement more than one in order to better meet the diverse needs of its student population. For example, a district with large numbers of new English language learners as well as a substantial population of English language learners who have lived in the district for some time might choose to offer a newcomer program along with a developmental bilingual program. Large schools may likewise offer more than one alternative.

In summary, virtually all schools in America are being called upon to provide educational services to linguistically and culturally diverse students. It is imperative for the well-being of these students, the communities in which they live, and the nation at large that they be provided with the best education possible. We have described and discussed alternatives that work. Choosing and implementing effective education for students with diverse linguistic and cultural backgrounds calls for an understanding of the available alternatives and a careful consideration of a district's goals, resources, and the needs and characteristics of its students.

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