

**Promising Practices: Dual Language Enrichment
For ELL Students K-12**

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ABSTRACT

Dual language programs are not new in this country. However, the interest in dual language education has increased dramatically in the last 15 years (Howard & Christian, 2002). This article describes a unique One-Way 50/50 Dual Language Enrichment (DLE) model that is currently being implemented at two South Texas elementary schools and at one middle school. The dual language program utilized by these schools divides language of instruction by subject area as well as by time. The model has been successfully implemented in regions with high concentrations of Latino students. The schools studied in this article implemented a One-Way DLE model and therefore did not require a 50/50 balance of native English speakers and native Spanish speakers. In addition to describing the model implemented by the three schools, this article reports standardized test results indicating that students learning under this DLE model are achieving at high levels of academic proficiency as demonstrated on English-based reading and mathematics statewide assessments of both elementary and middle school grades.

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“No Child Left Behind” (NCLB) legislation and mandates have raised the stakes for educators across America to more effectively meet the academic needs of all students and, in particular, of children who have historically performed poorly in our schools. In this pursuit, educators across the country are turning to second language acquisition research to provide them with guidance for implementing promising practices that will better meet the academic and linguistic needs of second language learners. This renewed search for “what works with ELLs” (English language learners) has led more and more educators to Dual Language Enrichment (DLE) models.

Dual language programs are not new in this country. The Spanish/English Coral Way program in Florida and the French/English Ecole Bilingüe in Massachusetts were implemented in the 1960s. However, the interest in dual language education has increased dramatically in the last 15 years (Howard & Christian, 2002). Part of the appeal of DLE programs for educators is that they promise more effective academic and linguistic success for both ELLs and mono-English speaking students alike! Howard and Christian (2002) state that “Two-way immersion education is a dynamic form of education that holds great promise for developing high levels of academic achievement, bilingualism and biliteracy, and cross-cultural awareness among participating students.” (p.1) The promise of research-based DLE programs has in turn fueled the expansion of DLE programs across the country, including the largest ELL population states of California, Texas, and Florida. In Texas, the Texas Two-Way Consortium listed 234 DLE programs in the state at the end of 2005, compared to fewer than ten DLE programs in 1995 (<http://texastwoway.org>). This growth represents an increase of over 2,000% in the number of DLE programs across Texas over the past decade! In all likelihood, the number of dual language programs in the state of Texas and across the country is a conservative figure, given that a significant number of DLE programs—particularly new ones—are not registered. An example of this undercount is illustrated by information available from the national Two-Way directory at the Center for Applied Linguistics (CAL) (<http://www.cal.org/twi/directory/>). In the spring of 2004, the Center for Applied Linguistics (CAL) listed 283 dual language programs in 24 states, including 100 DLE programs in California. Adding the Texas Two-Way Consortium count of 234 to the CAL count for California alone (100) results in more DLE programs than CAL has listed for all 24 states!

For many, implementing a DLE program has been a journey based on faith in DLE research that consistently finds that ELL students learn English and academic content more effectively when taught in their native language for at least half the school day. Thomas and Collier (2002) state the following:

Enrichment 90-10 and 50-50 one-way and two-way developmental bilingual education (DBE) programs (or dual language, bilingual immersion) are the only programs we have found to date that assist students to fully reach the 50th percentile in both L1 [first language] and L2 [second language] in all subjects and to maintain that level of high achievement, or reach even higher levels through the end of schooling. (p. 7)

ELL students must learn English not just for social settings but also for academic settings in order to compete academically with their native English-speaking peers. Academic proficiency--or Cognitive Academic Language Proficiency (CALP) as it is referred to in second language research--is a longer process requiring five to seven years for ELL students to master (Cummins, 1991). The time required to develop CALP is the rationale given for making academic and linguistic goals for DLE programs be at the end of fifth grade and not goals for third or fourth grade. A sizeable majority of students engaged in a well implemented DLE program for a minimum of six years (if starting from Kindergarten) should be able to fully close the achievement gap with native--English speakers (Thomas & Collier, 2002). Thus, educators implementing DLE programs wait patiently (and sometimes not so patiently) as their DLE program is initiated at Kindergarten and/or first grade and then progresses to the following grade level with each subsequent school-year. Educators wait for up to six years for academic and linguistic validation of the faith they have placed on second language acquisition research. They wait to review ELL fifth grade state reading and mathematics assessments, written in English, as measured by statewide assessments. The DLE program academic results presented in this article are from three schools in South Texas that followed the research, implemented a quality DLE program, and waited for more than eight years to validate the decision made by school staff, school board, and the local communities. The findings presented are intended to inform, guide, and further the study of promising practices in educating ELL students. The findings are also one more affirmation, among a growing body of evidence, that faith placed in DLE research has not been misplaced.

Dual Language Enrichment Characteristics

Common Characteristics of Dual Language Programs

Although dual language programs vary widely in design and implementation, they all share certain characteristics. Students in the programs usually include some native English speakers in addition to the native speakers of another language. These two groups of students study together most of the day. In their classes, students learn language through academic content instruction in both languages. All students become proficient in using two languages for communication and learning. In addition, in this era of high stakes testing, researchers have shown that both groups of students do as well as or better on standardized tests given in English than students learning only in English (Lindholm-Leary, 2001; Thomas & Collier, 2002). Figure 1 lists some common characteristics of dual language programs (Freeman, Freeman, & Mercuri, 2005).

Figure 1: Common Characteristics of Dual Language Programs

Students include English speakers and native speakers of another language
Students are integrated during most content instruction
Instruction is provided in two languages
Students become proficient in two languages
Student achievement in English for all students is equal to or exceeds that of students learning in English only

Variations among Dual Language Programs

Although dual language programs share certain characteristics and are based on the same orientation, they vary in several ways. For one thing, they are called by different names. They involve different languages and different student populations. In addition, there are different program models, and these models are implemented in a variety of ways.

While there is widespread agreement about the success of dual language programs, there is not the same agreement about what the programs should be called. Programs that share the characteristics listed in Figure 1 have been given a variety of names (Cloud, Genesee, & Hamayan, 2000; Crawford, 2004; Soltero, 2004):

- dual language education (DLE)
- dual immersion (DI)
- two-way bilingual education (TWBE)
- enriched education
- two-way immersion (TWI)

I have chosen to use a relatively new term, dual language enrichment (DLE), because this term captures more completely the essential components as well as ancillary benefits associated with dual language enrichment programs that are just beginning to be researched and documented. These benefits include the following:

- student-centered instruction/learning
- use of two languages for instruction
- biliteracy (academic proficiency) in two languages
- project-based/discovery learning
- students demonstrate stronger self-esteem and self-confidence
- mutual multicultural respect
- increased parental involvement
- higher expectations by teachers, administrators, students, and parents
- biliteracy favorably affecting aspects of mental health as demonstrated by early brain research
- reduced identification for special education services
- increased identification for gifted and talented or highly capable services

Given the partial list of benefits associated with quality DLE programs, I felt that the term “enrichment” is a fair descriptor to any program touching so many areas. Still, the primary goal is for all students to develop full conversational and academic proficiency as they study academic content in two languages.

There is also variation in the languages included in the programs. Dual language enrichment (DLE) programs have been implemented in the United States for native English speakers and speakers of Spanish, Cantonese, Korean, French, Portuguese, Haitian-Creole, Tagalog, Arabic, and Japanese. Districts have also considered implementing programs in Hmong and Vietnamese. The Center for Applied Linguistics (CAL) (<http://www.cal.org/twi/directory/tables.html>) maintains a database of dual language enrichment (DLE) programs. New programs are added frequently, and the

list of non-English languages continues to expand. However, Spanish is the non-English language in the overwhelming majority of DLE programs.

Dual language enrichment (DLE) programs vary in both languages of instruction and student characteristics. In Two-Way DLE programs, about half the students are native English speakers and about half are native speakers of the non-English language featured in the program. In these programs, though, there can be considerable variation in the ethnicity and race of the native English speakers. Native English speakers may include Anglos, African Americans, and members of other ethnic groups such as Latinos. Often, students come from different social and economic backgrounds. In some programs, all students are of the same race/ethnic group but differ in their language proficiency. For example, in South Texas, almost all students are Latinos. However, some are English-dominant, some are Spanish-dominant, and some are more balanced bilinguals.

Dual language enrichment programs also vary in the amount of time they allocate for instruction in each language. The two basic models, the 90/10 model and the 50/50 model, exemplify this variance. In the 90/10 model, the non-English language is used 90% of the time in early grades, and gradually more English is added until students are in the third or fourth grade when the instructional time in both languages is equal. Many schools have adopted this model with the early emphasis on the non-English language to help compensate for the dominant power of English outside the school context.

One variation within the 90/10 model involves literacy instruction. In most 90/10 programs, all students learn to read and write in the non-English language. However, in some programs all students receive initial literacy instruction in their native language, and the rest of the day is divided with 90% of the instructional time in the non-English language and 10% in English.

In the 50/50 model, students learn in each language about half the time throughout the program. In many programs, all students learn to read in their primary language and then add the second language. Time for the two languages may be divided in various ways—half day, alternate day, or even alternate week. This model is often used in areas with limited numbers of bilingual teachers. Teachers can team teach, and the bilingual teacher can provide the non-English language to one group in the morning and the other group in the afternoon (or on alternate days or weeks), thus maximizing faculty language resources.

As this brief review indicates, despite the common characteristics among DLE programs, considerable variation exists in the languages used for instruction, the student population, and the time each language is used. Schools planning to implement a dual language program should choose the model that best fits their student population and is most responsive to community perceptions and needs.

Potential Problems with Dual Language Enrichment Programs

Although research supports the implementation of DLE programs, and many examples of successful programs can be found, certain potential problems still exist. No program for English

language learners is a panacea. Effective programs must be well implemented and have adequate administrative, faculty, and resource support. There is always the danger that critics of bilingual education will seize on data from poorly conceived or implemented programs and use those program results as ammunition in their ongoing opposition to any form of bilingual education.

In addition, even proponents of bilingual education have pointed out that DLE programs may be designed to serve primarily the native English speakers who enroll in them. One reason that DLE programs have become popular is that they attract Anglo/Caucasian parents who want their children to become bilingual/biliterate. Native English speakers do very well in these programs. As Valdés (1997) has pointed out, if such programs succeed in developing these native English speakers into fully proficient bilinguals, the programs may serve to take away the one advantage that English language learners have traditionally had—the distinction of achieving a high level of bilingualism.

An even more subtle potential problem is that in some cases, DLE programs may not be established at all unless a sufficient number of native English speakers, usually at least one third of the students, are inclined to enroll. As a result, English Language Learners may be denied the opportunity to participate in a program model developed to serve their needs, and instead are at the mercy of the whim of native-English populations at their respective schools.

Gómez, Freeman, and Freeman (2005) state that the solution to these potential problems is to ensure that programs are well implemented, that the model fits the social context, and that program establishment is not dependent on the presence of a certain number of native English speakers. This article presents a model for dual language education designed for areas with high numbers of English language learners. It first describes the features of the model. Then it reports test score data from three schools where the model has been implemented. Scores data indicate high levels of academic achievement for DLE students in the schools studied.

The Gómez and Gómez Model of Dual Language Enrichment

Two South Texas elementary schools and one middle school studied in this article implemented the L. Gómez and R. Gómez DLE model, the first school doing so in 1996. Since then, the schools have taken care to implement the model as faithfully as possible, scheduling consistent trainings for staff and administrators alike, informing parents, etc.

The Gómez and Gómez (Gómez, 2000) DLE model provides for dual language enrichment that is especially well-suited for areas with high numbers of English language learners. Since 1996, approximately 100 schools have adopted the Gómez and Gómez DLE model across four states: Texas, Washington, Nevada, and Kansas. The model was developed originally for schools in the Rio Grande Valley, a 100 mile strip on the southern tip of Texas along the United States-Mexico border. The area is predominantly Mexican-American, and districts serve a significant number of limited English proficient students. According to the state's regional service center, in October 2002, 95% of students across the region were Hispanic, 82% were economically disadvantaged and approximately 41% were identified as limited English proficient.

In the three schools reviewed in this article, almost all the students are Latinos. Some are English dominant, some are Spanish dominant, and many are bilingual to some degree. There is not a clear distinction between native English speakers and native Spanish speakers in a region like this. In 1996, the first school in this study implemented a one-way DLE model. Pre-K through first grade students comprised the first DLE cohort group.

Figure 2 graphically depicts the Gómez and Gómez DLE model being utilized at the two elementary schools reviewed in this article. It is a unique school-wide 50-50 model that supports the academic and linguistic development of first and second language learners across elementary grade levels. The model was developed in 1996 and revised in 1999, based on initial results of campus implementation.

The model is unique in that it 1) divides languages by subject rather than time; 2) provides instruction of each subject area, except for language arts, in only one of the two languages; 3) calls for activities that support the L2 learner in the respective subject areas; 4) promotes the development of content biliteracy by the end of fifth grade; 5) requires the use of bilingual learning centers from PreK to first grade and promotes the use of project-based, discovery learning through bilingual resource centers beginning at second grade; and 6) the language for morning announcements, morning activities, storytelling, music, computer lab, physical education, and library time alternates each day. The language that is used alternatively each day is called the language of the day.

Key Academic Features of the DLE Model Implemented at Two Elementary Schools

Unlike many dual language models, the Gómez and Gómez DLE program design does not call for instruction in each subject area in both languages. Instead, it requires that all learners at the two elementary schools, regardless of language background, learn certain subjects only in the minority language (L2) and other subjects only in the majority language (L1). The philosophy underlying the model is that children can indeed learn subject matter effectively in either their L1 or L2, given the use of appropriate instructional strategies and other activities that support, in particular, the L2 learner in the respective subject area. As Cummins (2000) has maintained, content learned in one language transfers to the second language. As a result, in this model, students study each academic content area subject, except for language arts, in just one language.

The underlying premise for subject area instruction in only one language is the need for consistency of vocabulary and conceptual development of that subject in the same language. Using one language for each subject area allows teachers to develop conceptual and linguistic connections. This applies to both an L1 and L2 learner, assuming the subject matter is made comprehensible through sheltered instruction strategies. Consistent teaching of a subject in one language also helps ensure there is no translation or clarification in the L1 during any instruction.

Both elementary schools followed the DLE model design, providing for mathematics instruction in English only for all learners (see the third column of Figure 2). Mathematics was selected to be delivered in English for the following reasons: 1) Mathematics books have more

limited text than science or social studies texts. Choosing math as the subject to be taught in English, therefore, supports the language minority child, traditionally the more disadvantaged of the two, 2) Mathematics is generally a more hands-on subject, with numerous manipulatives available, 3) Mathematics is more universal, and its content cuts across languages, and 4) Generally speaking, Spanish-speaking parents can usually better assist their children in mathematics than in other subject areas due to the strong math education traditionally found in Latin American countries.

Similarly, science and social studies, which require more extensive reading, were selected to be delivered in Spanish only in order to ensure a strong minority language curriculum that would support English language learners. For English-dominant students, this approach would help compensate for the strong societal dominance of the English language. The DLE model is designed to increase the chance of all learners to achieve full content literacy in both languages, but particularly in their minority language, by the end of fifth grade.

Language arts were taught in the students' native language through first grade. Beginning with second grade, all students received language arts in both languages. The time allotted for mathematics was equal to the time for science and social studies combined. The language for all other activities alternated daily (Mondays, Wednesdays, and Fridays in Spanish and Tuesdays and Thursdays in English). As a result, the model is 50/50 in both content area and time.

Conceptual Refinement

The DLE model implemented acknowledges that the primary goal of academic content is conceptual learning, while the secondary goal is linguistic development. For instance, a lesson in science is designed primarily to help students develop academic concepts in science. However, it is also intended to promote language development (in Spanish in this case) in the process of learning that concept. Both these goals can be more readily achieved by students studying in their native language. Therefore, students learning subject matter in their L2 require additional support for at least the first three years.

The activity that supports the comprehension of academic content by L2 learners is described as conceptual refinement (see the last column of Figure 2). During conceptual refinement, L2 learners of math, science, or social studies are homogeneously language-grouped and provided reinforcement for about 15-20 minutes immediately following the end of each lesson. Conceptual refinement is conducted in the same language of instruction as the original lesson, using different examples and working with the L2 learners as a smaller group. For example, in first grade, English-dominant students at the two schools learned science in Spanish and were homogeneously grouped for conceptual refinement that was delivered in Spanish immediately following the science lesson in order to clarify or reinforce the lesson/concept just taught. Conceptual refinement provided additional opportunities for students to understand subject area concepts they studied in their L2. The reverse was true for Spanish-dominant students who were instructed mathematics in English.

Conceptual refinement also promotes content biliteracy in math, science, and social studies for all learners in both languages. Mathematics, science, and social studies are learned in only one language, which is consistent with the DLE goal to begin in second grade to develop content biliteracy in those subject areas and achieve biliteracy by the end of fifth grade. By second grade, most students had developed sufficient fluency in both languages to understand directions and subject area instruction in either language.

Bilingual Learning Centers and Bilingual Resource Centers

Bilingual Learning Centers and Bilingual Resource Centers (see the second column of Figure 2) are interactive subject-based learning activities that support L1 and L2 learners. Bilingual Learning Centers were employed from Pre-K to second grade, while Bilingual Resource Centers were used from third to fifth grade. Both Bilingual Learning Centers and Bilingual Resource Centers contained activities and materials in English and Spanish.

The goal of Bilingual Learning Centers was to engage students working in bilingual pairs in self-directed learning activities for a minimum of 30 minutes per day. Bilingual Learning Centers at the PreK through second grade played an important role in the dual language model. The use of learning centers was intended to accomplish three major objectives. The centers (1) provided opportunities for students to use their first and second language in natural and meaningful contexts, (2) allowed for negotiation of content-area meaning between learners, and (3) provided students opportunities to engage in self-paced independent learning with minimal guidance from the teacher.

Bilingual Learning Centers are bilingual; that is, content activities and materials in the centers were available in both languages. This does not imply that all activities were available or translated in both languages, but simply that students worked together in bilingual pairs and were given opportunities to select activities to complete together in either language. Bilingual Learning Center activities were aligned to themes the class was studying and usually served as previews or extensions of the content objectives related to the themes. Bilingual pairs selected their centers on a weekly basis and rotated through them each week.

Bilingual Resource Centers serve as academic content specific reference areas for bilingual pairs or groups to use in cooperative learning project-based activities. Bilingual Resource Centers at the third through fifth grade levels were used exclusively with lessons during content-area instruction. Beginning in third grade, the model called for a greater emphasis on project-based discovery learning for all content-based instruction. The Bilingual Resource Centers served as content resource areas for students working in their bilingual groups to access for completing their group projects. Bilingual Resource Centers were established in mathematics, science, social studies, and language arts.

Grade Level	Heterogeneous Instructional Grouping	Separation of Languages for Content-Area Instruction	L1 & L2 Computer Support	Instructional Staff	L1/L2 Conceptual Refinement
PK	[Except Language Arts] <i>Content-Area Instruction & Bilingual Learning Center activity conducted in Bilingual Pairs/Groups</i>	Language Arts in Student's <u>Native Language</u> Mathematics (English) Social Studies/Science (Spanish) P. E., S.S.R., Music, Computer Lab & Library <i>(Language of the Day--alternate in English & Spanish)</i> <i>Learning Centers in English and Spanish</i>	Initial Computer Literacy <i>(English/Spanish)</i>	Bilingual Certified and/or ESL Certified Teacher-Aide (recommended)	L2 Content Support English Speakers-SSL: SS or Science Spanish Speakers-ESL: Mathematics
K	[Except Language Arts] <i>Content-Area Instruction & Bilingual Learning Center activity conducted in Bilingual Pairs/Groups</i>	Language Arts in Student's <u>Native Language</u> Mathematics (English) Social Studies/Science (Spanish) P. E., S.S.R., Music, Computer Lab & Library <i>(Language of the Day-- alternate in English & Spanish)</i> <i>Learning Centers in English and Spanish</i>	Support of Linguistic & Cognitive Development via <u>Respective Language of Instruction</u>	Bilingual Certified and/or ESL Certified Teacher-Aide (recommended)	L2 Content Support English Speakers-SSL: SS or Science Spanish Speakers-ESL: Mathematics
1st	[Except Language Arts] <i>Content-Area Instruction & Bilingual Learning Center activity conducted in Bilingual Pairs/Groups</i>	Language Arts in Student's <u>Native Language</u> Mathematics (English) Social Studies/Science (Spanish) P. E., S.S.R., Music, Computer Lab & Library <i>(Language of the Day-- alternate in English & Spanish)</i> <i>Learning Centers in English and Spanish</i>	Support of Linguistic & Cognitive Development via <u>Respective Language of Instruction</u>	Bilingual Certified and/or ESL Certified Teacher-Aide (recommended)	L2 Content Support English Speakers-SSL: SS or Science Spanish Speakers-ESL: Mathematics
2nd	<i>Content-Area Instruction & Bilingual Learning Center activity conducted in Bilingual Pairs/Groups</i>	Language Arts/Mathematics (<i>English</i>) Language Arts/Social Studies/Science (<i>Spanish</i>) P. E., S.S.R., Music, Computer Lab & Library <i>(Language of the Day-- alternate in English & Spanish)</i> <i>Learning Centers in English and Spanish</i>	Support of Linguistic & Cognitive Development via <u>Respective Language of Instruction</u>	Bilingual Certified and/or ESL Certified Teacher-Aide (recommended)	L2 Content Support English Speakers-SSL: SS or Science Spanish Speakers-ESL: Mathematics
3rd	<i>Content-Area Instruction, Enrichment Activities & Resource Centers in Bilingual Pairs/Groups</i>	Language Arts/Mathematics (<i>English</i>) Language Arts/Social Studies/Science (<i>Spanish</i>) P. E., S.S.R., Music, Computer Lab & Library <i>(Language of the Day-- alternate in English & Spanish)</i> <i>Resource Centers in English and Spanish</i>	<i>Specialized Content-Area Vocabulary Enrichment</i> <i>English: SS & Science</i> <i>Spanish: Mathematics</i>	Bilingual Certified and/or ESL Certified	<i>Specialized Content-Area Vocabulary Enrichment</i> <i>English: SS & Science</i> <i>Spanish: Mathematics</i>
4th	<i>Content-Area Instruction, Enrichment Activities & Resource Centers in Bilingual Pairs/Groups</i>	Language Arts/Mathematics (<i>English</i>) Language Arts/Social Studies/Science (<i>Spanish</i>) P. E., S.S.R., Music, Computer Lab & Library <i>(Language of the Day-- alternate in English & Spanish)</i> <i>Resource Centers in English and Spanish</i>	<i>Specialized Content-Area Vocabulary Enrichment</i> <i>English: SS & Science</i> <i>Spanish: Mathematics</i>	Bilingual Certified and/or ESL Certified	<i>Specialized Content-Area Vocabulary Enrichment</i> <i>English: SS & Science</i> <i>Spanish: Mathematics</i>
5th	<i>Content-Area Instruction, Enrichment Activities & Resource Centers in Bilingual Pairs/Groups</i>	Language Arts/Mathematics (<i>English</i>) Language Arts/Social Studies/Science (<i>Spanish</i>) P. E., S.S.R., Music, Computer Lab & Library <i>(Language of the Day-- alternate in English & Spanish)</i> <i>Resource Centers in English and Spanish</i>	<i>Specialized Content-Area Vocabulary Enrichment</i> <i>English: SS & Science</i> <i>Spanish: Mathematics</i>	Bilingual Certified and/or ESL Certified	<i>Specialized Content-Area Vocabulary Enrichment</i> <i>English: SS & Science</i> <i>Spanish: Mathematics</i>

Figure 2: Gómez and Gómez Dual Language Model

Key Linguistic Features of the DLE Model Implemented at Two Elementary Schools

The Gómez and Gómez DLE model implemented by both elementary schools included components and activities that take into account the academic and linguistic developmental growth of children developing their first language and adding a second language. Students developed literacy in their native language while developing academic proficiency in their second language through subject area instruction.

Students received language arts in their native language during Pre-K-first grade, and received language arts in both languages from second to fifth grades. For English-dominant students, mathematics also supported native language development from Pre-K to fifth grade, and similarly, for Spanish-dominant learners, science and social studies supported native language development.

There is a major change in the model as students move from second grade to third grade (indicated with dark black line on Figure 2), based on the need for addressing the greater academic demands of the upper grades and the ongoing biliteracy development of all learners. By the end of second grade, most students had become sufficiently bilingual that the need for second language instructional support was less critical. Students still required instruction that was meaningful and contextually supported. However, students were now bilingual, more confident, and more readily followed directions and content area instruction in the L2. At this point, the model called for greater emphasis on challenging students to use their second language because they now had the capacity to do so.

Bilingual Pairs

A central component of the DLE model implemented was bilingual grouping. Even in One-Way DLE programs, as was the case in these two South Texas elementary schools, virtually all the students were Latinos. However some students were more dominant in English and others more dominant in Spanish. Learners were grouped in bilingual pairs or bilingual groups (composed of two or three bilingual pairs) for all content-area instruction and for participation in bilingual learning centers, resource centers, and enrichment activities. The pairing changed regularly, usually on a weekly or biweekly basis. Throughout the instructional day, English-dominant learners were paired or grouped with Spanish-dominant learners.

Freeman and Freeman (2001) describe a supportive L2 environment as one in which students are motivated and encouraged to collaborate and use different modes of learning. Bilingual grouping facilitated comprehension of content area by the L2 learners, who received linguistic and academic support from their native-speaking partner. For instance, during mathematics instruction, English-dominant learners supported Spanish-dominant learners since mathematics was learned in English. During science and social studies, Spanish-dominant learners supported English-dominant learners since science and social studies were taught in Spanish. Similarly, during other instructional activities, such as bilingual learning centers and enrichment activities, students worked together in bilingual pairs.

Vocabulary Enrichment

All students received vocabulary enrichment (see the last column of Figure 2). During these lessons, the focus was on language rather than conceptual development. The enriched lessons introduced specialized academic language in the students' native language for concepts studied in their second language. For example, second grade specialized science vocabulary that was taught in Spanish was introduced in English to native English speakers during the following week. These enrichment activities were conducted twice a week for approximately 30 minutes. The activities are contextualized, not simply lists of vocabulary items. The vocabulary enrichment activities are designed to help students transfer knowledge already learned in their L1 to their L2, and vice-versa. These enrichment lessons also help ensure that students who study a subject in one language can perform well in a test in that subject in either language.

Language of the Day (LOD)

Both elementary schools accounted for classroom activities and language that was not tied specifically to academic instruction with what is called the "language of the day" (LOD), which alternated daily. The central purposes for this component are to 1) promote bilingualism across the campus and in all uses of language by all school staff, and 2) develop vocabulary in both languages, but primarily for the learners' L2. The language of the day applied to all language used in school by all students and staff other than during mathematics, science, social studies, and language arts instruction (to the extent possible).

Activities such as morning announcements, the pledge of allegiance, daily news, daily calendar activities, physical education, storytelling, library visits, sustained silent reading, music, lunch breaks, water breaks, and end-of-day clean-up were conducted in the language of the day (LOD). The LOD was implemented campus-wide with Mondays, Wednesdays, and Fridays, in Spanish and Tuesdays and Thursdays in English. This system validates both languages and helps students develop both conversational and academic language. The LOD is an important part of the Gómez and Gómez DLE model. Teachers hung a sign outside their classroom doors indicating the LOD. Visitors were asked to adhere to the language of the day to the extent possible.

Academic Results

Two Elementary DLE Schools

Because one of the major goals of the DLE program is for students to achieve biliteracy in both English and Spanish by the end of 5th grade, all 5th grades who received dual language enrichment instruction for *at least three years* were administered the TAKS (Texas academic state assessment—need to spell out the actual acronym) in English rather than the native language (Spanish) of the super majority of students who participated in the program.

As depicted in Figure 3, 94% of participating 5th grade students from the two DLE Texas elementary schools met the **reading standard** set by the State of Texas in 2005. In comparison, the total school district 5th grade rates for meeting the state fixed standards on the 2005 TAKS reading test was 73%--a significant difference in TAKS results of 21 points between the DLE students and the rest of the fifth grades in the district. This difference is made even more

significant since all of the 95 DLE students scores were included in the district's "all" fifth grade scores! No "new" students were brought into the schools other than their naturally zoned population, no change in staffing was undertaken, and no new curriculum was utilized. A major portion of the schools' higher scores can only be explained as a result of using an "enriched" DLE model of education. As explained in the *Program Implementation* section of this article, language arts instruction was provided only in their *native* language pre-kindergarten through 1st grade and in both languages grades 2nd through 5th.

These results are extremely significant and indicate that students are not only on grade level in reading in English, but, having had instruction in their native language for at least three years has resulted in their achievement of one of the ultimate goals of the program--to produce students who are fully proficient and biliterate in both English and Spanish. It is worth noting again that students in the DLE program received language arts instruction exclusively in their native language (Spanish for the great majority) during the formative years between kinder and second grades and added English language arts beginning with second grade.

The TAKS results for the 5th grade **mathematics standards** resulted in similar findings when comparing the two DLE elementary schools to the school district totals (see Figures 4). DLE program students meeting the **mathematics standard** in 2005 were an impressive 93% versus 78% for the district total! This is a 15 point difference in favor of DLE students. Again, it must be noted that all students received mathematics instruction in English in grades PK through 5th grade. Furthermore, DLE students' scores were also included in the district totals!

Middle School Results

The entering 2002-2003 6th grade students at the Middle School were the first middle students to receive dual language instruction in this South Texas school district. These students attended DLE Elementary schools from 1996 to 2002 for at least three years and continued a dual language education at the 6th grade level in 2002-2003. Figure 5 depicts the results of the standardized assessment in reading in **English** for three years (2002-2005) for this cohort group. The TAKS test in English reading was administered for the first time in the spring of 2003; thus this trend analysis is particularly useful. It is also useful to compare the results from this cohort of students with the total Hispanic and total white student populations in Texas for the same years, since virtually all of the students in the cohort group are Hispanic and the white student population is the most successful group in meeting standard on the TAKS assessment. Results indicate that 84% of the DLE cohort successfully met standard on the TAKS reading test in 2003, 83% met it in 2004, and 82% did so in 2005. These rates of meeting standards on the TAKS are comparable to the total Hispanic population for Texas during the 2003 and 2004 school years (83% and 84%) respectively. However, the middle school DLE cohort group shows an advantage over the state Hispanic population for the 2005 school year. The middle school DLE cohort was able to maintain its rate of meeting standard on the English reading TAKS with 82%, but the total state Hispanic student population meeting standard on the eighth grade English reading TAKS dropped to (75%). This significant difference will also surface later in this report when we examine the rates of achieving a score with commendations for each group.

It is also interesting to note the rate of commendations awarded to students from the DLE middle school cohort group as compared to the total Hispanic and white student populations for the state for the three years, 2002-2005. Twenty percent of the DLE middle school cohort group

were awarded commendation for high scores on the reading TAKS in 2003, 25% were in 2004, and 30%--or almost one third of the middle DLE cohort group—were in 2005. This contrasts sharply with the total state Hispanic student population during those same years. This population had commendations of 15% in 2003, 13% in 2004, and 24% in 2005. Still, the rate of commendations for the DLE Middle school cohort group, although better than the comparison total Hispanic group, lags behind the white student population, who received commendations of 37% in 2003, 33% in 2004, and 53% in 2005.

Figure 3: Results of Standardized Assessment in Reading using the Texas Assessment of Knowledge and Skills (TAKS) of 5th Grade Students for 2004-2005

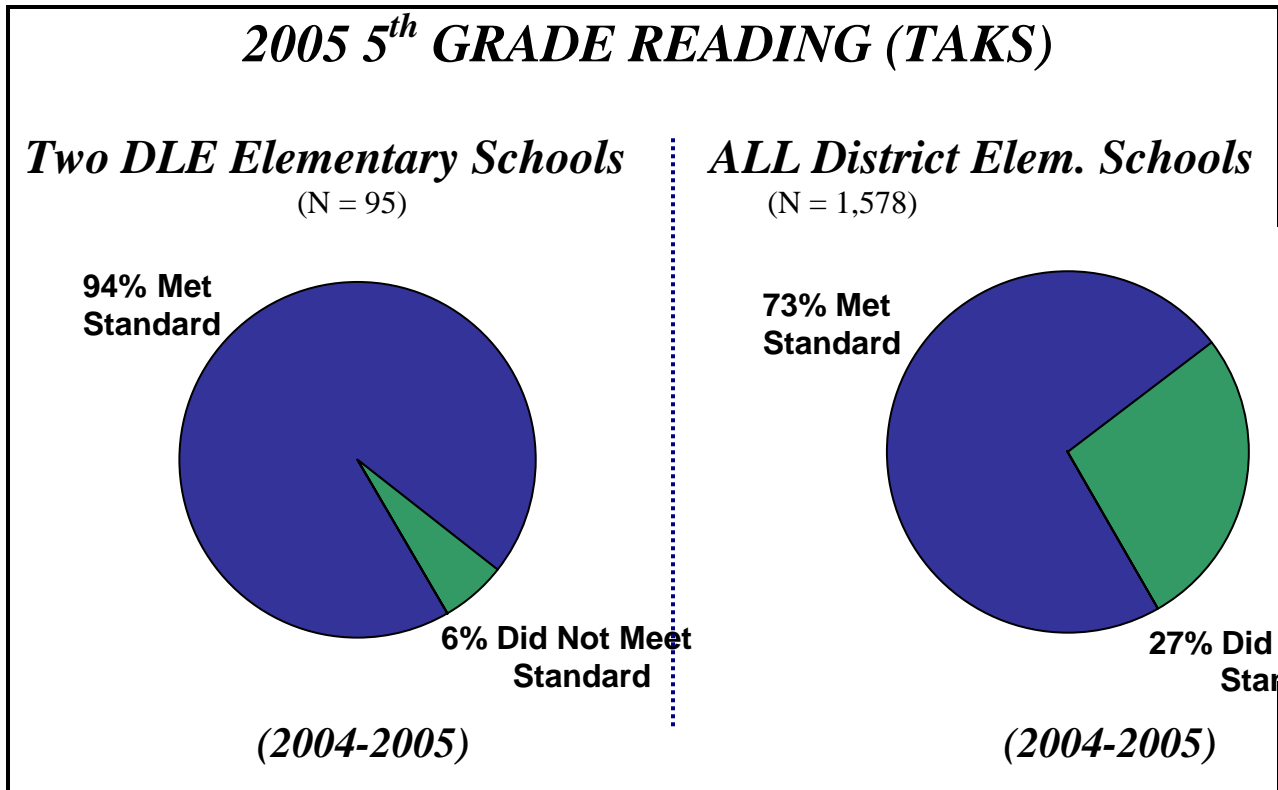
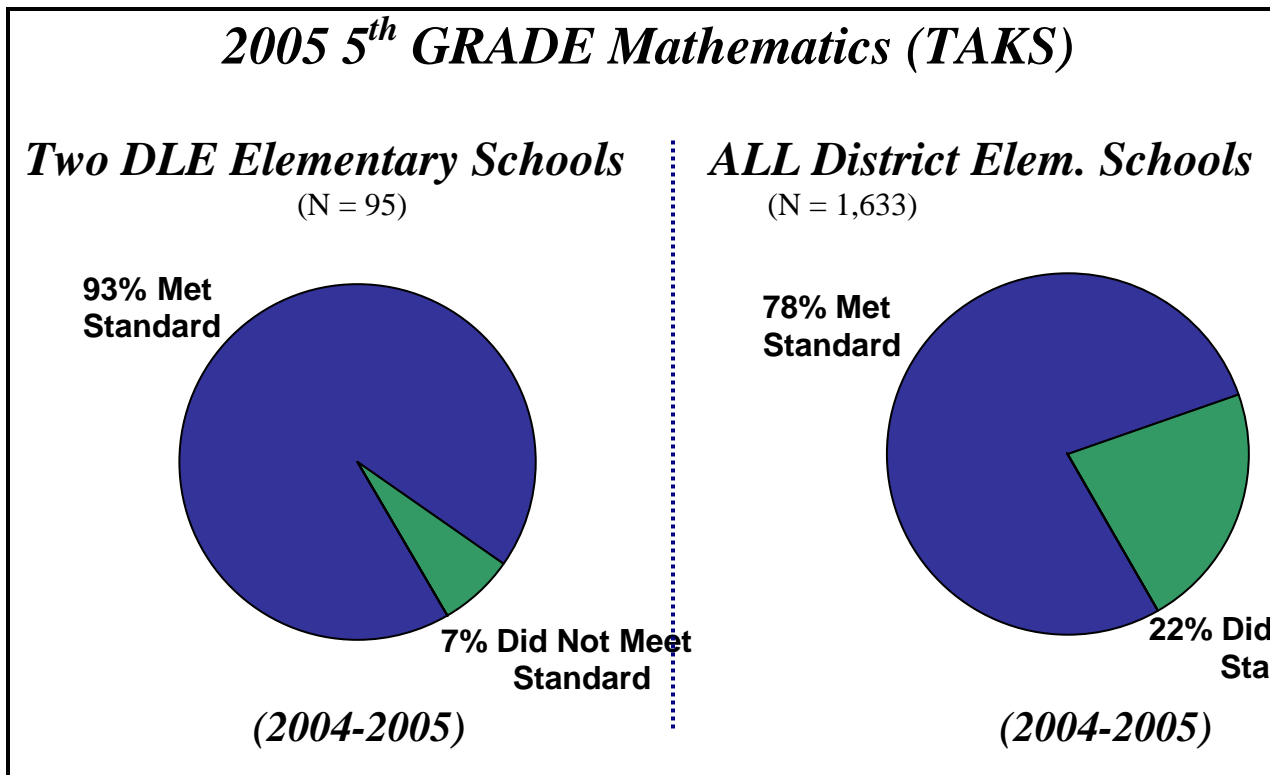
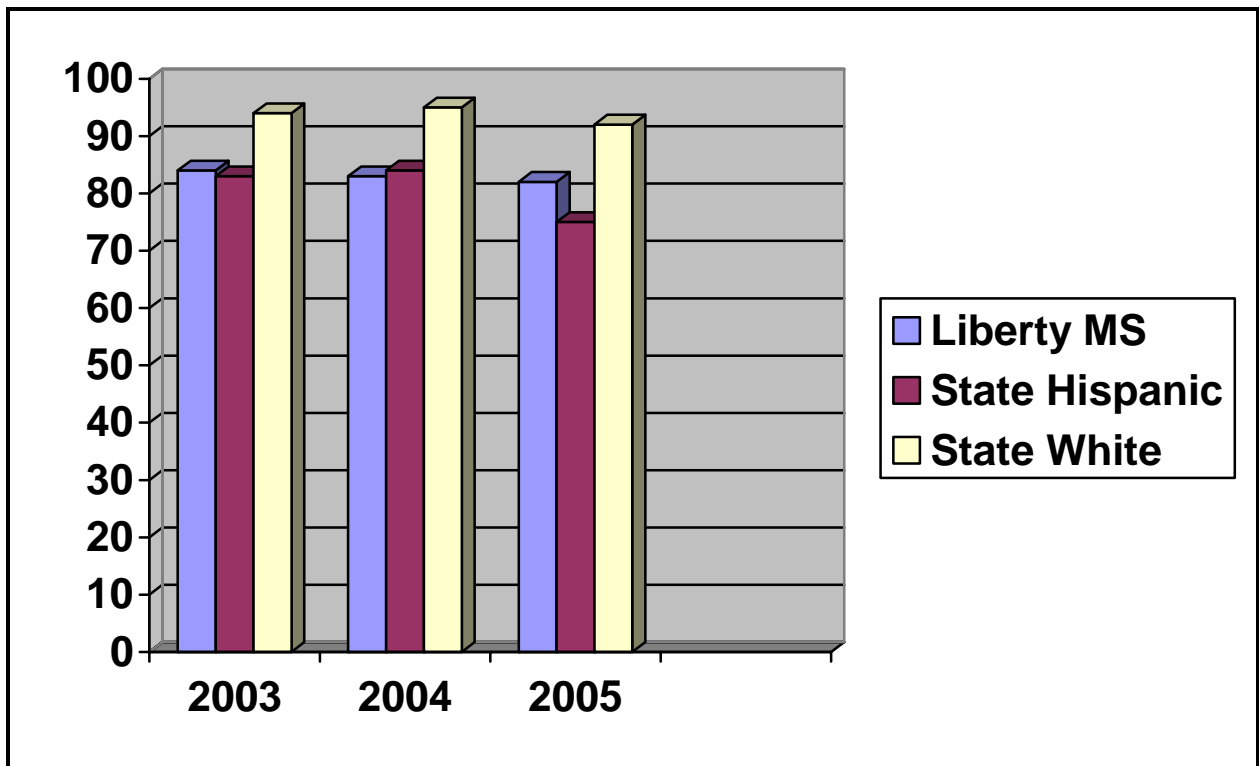


Figure 4: Results of Standardized Assessment in Mathematics using the Texas Assessment of Knowledge and Skills (TAKS) of 5th Grade Students for 2004-2005



This study also compared the rates of meeting standard on the math TAKS test for the DLE middle school cohort group as well as the total Hispanic and white student populations for the same school-years, 2002-2005. The DLE middle school cohort group experienced the same downward trend in the number of students meeting standard on the math TAKS as did the other two groups. However, the DLE middle school cohort group was significantly higher than

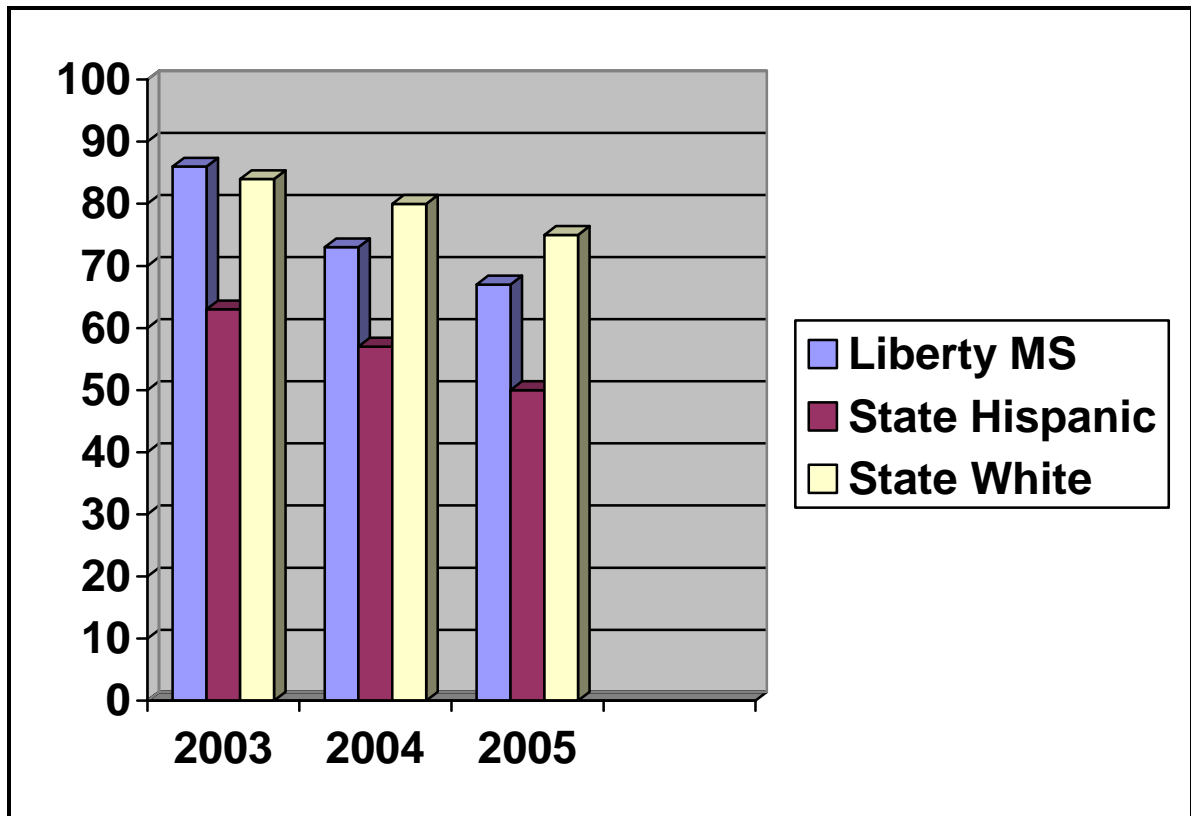
Figure 5: Comparison of 6th – 8th Grade Middle School DLE Cohort versus “Total” 6th – 8th Grade Hispanic and White Students in Texas Who Met or Bettered the Standard in Reading as Measured by the Texas Assessment of Knowledge and Skills (TAKS) from 2002-2005



the total Hispanic group in the number of its students meeting standard on the math TAKS for all three years observed (see Figure 6). The total Hispanic group had 63% meeting the math standard in 2003, 57% in 2004, and 50% in 2005. These numbers compare to the DLE middle school cohort group which had 86% in 2003, 73% in 2004, and 67% in 2005. On average over the three years from 2003-2005, the DLE Middle school cohort group was 18.7 points higher than the total Hispanic student population for the state.

Although the middle school DLE cohort group’s rate for meeting the state standard on the math TAKS was not as high as the total white student population from 2002-2005, it nevertheless produced a strong showing (see Figure 6). In the first comparison year 2002-2003,

Figure 6: Comparison of 6th – 8th Grade DLE Middle School Cohort versus “Total” 6th – 8th Grade Hispanic and White Students in Texas Who Met or Bettered the Standard in Math as Measured by the Texas Assessment of Knowledge and Skills (TAKS) from 2002-2005



the middle school DLE cohort group actually performed better than the state's total white student population! That year, 86% of the Liberty cohort met state standard in math versus 84% for the white student population in the state. This advantage disappeared the following two years, 2003-2004 and 2004-2005, with the total white student population meeting the math standard at 80% and 75%, respectively. Still, though trailing the most successful student group in the state, the liberty cohort group lagged only an average of (4.3%) behind over the three-year period. This closing of the gap between the middle school DLE cohort group and the total white student population is even more apparent when we examine the number of students receiving commendations for high scores on the math TAKS. The high performer here is the middle school DLE cohort group! All three student groups examined in this report increased in the number of students receiving commendation on the TAKS math test. However, the middle school DLE cohort group, except for a dip in 2004, posted an average over the three years of 18.7% more students achieving scores of commendation than the total state Hispanic group and 4.3% more commendations than the total white student population. The state Hispanic group received commendations on the math TAKS for 3% in 2003, 6% in 2004, and 9% in 2005. The total white student population received commendations of 10% in 2003, 19% in 2004, and 22% in 2005. The middle school DLE cohort group eclipsed these numbers in two out of the three years observed with 23% in 2003, 7% in 2004, and 35% in 2005.

Direction for Future Study

The academic data from these DLE schools is promising. However, additional research is needed. The TAKS tests provide only a snapshot of student performance. Meeting the TAKS standard only requires a student to answer a little more than half the questions correctly. To ensure that the DLE model is promoting biliteracy and content area knowledge in two languages, Spanish tests should be administered and results analyzed.

Further studies would provide a more in-depth picture of student performance. Studies could include classroom observations and interviews with students, teachers, and parents. Researchers could also examine students' reading ability using running records or miscue analysis. Writing samples would show evidence of students' developing proficiency. Science and social studies projects could be examined to determine how well students can present subject-matter knowledge. In all these areas, data could be collected in both languages to assess how well the program is meeting its goal of promoting content area knowledge and high levels of biliteracy.

Conclusion

Dual Language Enrichment results such as those presented in this article hold promise for a large number of the approximate three million English Language Learners in our country. Research findings as to what practices are more effective in the instruction of ELLs are particularly important to address the "counterintuitive" nature of second language acquisition in academic settings. Common sense for those not familiar with second language acquisition research tugs at many educators and laypersons alike who hold to the old adage that "practice makes perfect." If so, ELL students would do better academically when immersed entirely in English. However, the research consistently finds the opposite to hold true. Elementary level

ELL students immersed in all-day English programs fared the worst on state assessments beginning with their fourth year of academic instruction. On the other hand, ELL students instructed in DLE programs, where at minimum half their academic instruction was delivered in their native language, scored the highest on English written reading and mathematics assessments. It is the academic variable versus the social language that makes all the difference.

References

- Cloud, N., Genesee, F., & Hamayan, E. (2000). *Dual language instruction: A handbook for enriched education*. Boston: Heinle & Heinle.
- Crawford, J. (2004). *Educating English learners*. Los Angeles: Bilingual Education Services.
- Cummins, J. (1991). Interdependence of first and second language proficiency in bilingual children. In E. Bialystok (Ed.), *Language processing in bilingual children* (pp. 70-89). Cambridge, UK: Cambridge University Press.
- Cummins, J. (2000). *Language, power and pedagogy: Bilingual children in the crossfire*. Tonawanda, NY: Multilingual Matters.
- Freeman, D. E., & Freeman, Y. S. (2001). *Between worlds: Access to second language acquisition*, (2nd ed.). Portsmouth, NH: Heinemann.
- Freeman, Y., Freeman, D., & Mercuri, S. (2005). *Dual language essentials for teachers and administrators*. Portsmouth, NH: Heinemann.
- Gómez, L. (2000). Two-way bilingual education: Promoting educational and social change. *The Journal of the Texas Association for Bilingual Education*, 5(1).
- Gómez, L., Freeman, D., & Freeman, Y. (2005). Dual language education: A promising 50-50 model. *Bilingual Research Journal* 29(1), 145-164..
- Howard, E. R., & Christian, D. (2002). *Two-way immersion 101: Designing and implementing a two-way immersion education program at the elementary level*. Santa Cruz: Center for Research on Education, Diversity & Excellence, University of California, Santa Cruz.
- Lindholm-Leary, K. J. (2001). *Dual language education*. Clevedon: Multilingual Matters.
- Ruíz, R. (1984). Orientations in language planning. *Journal of the National Association of Bilingual Education*, 8, 15-34.
- Soltero, S. W. (2004). *Dual language: Teaching and learning in two languages*. Boston: Pearson.
- Thomas, W. P., & Collier, V. P. (2002). A national study of school effectiveness for language minority students' long-term academic achievement. Retrieved 9/4/02, 02, from www.crede.usc.edu/research/llaa/1.1_es.html
- Valdés, G. (1997). Dual-language immersion programs: A cautionary note concerning the education of language-minority students. *Harvard Educational Review*, 67(3), 391-422.