
FAIR TRADE: TWO-WAY BILINGUAL EDUCATION

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One approach to bilingual education that has gained increasing support from parents, educators, and researchers in the United States is one in which English language learners and English proficient students share a classroom and receive instruction in both English and the dominant language of the English language learners. In most such two-way bilingual education programs, the stated goal is for both groups of students to learn each other's language. In this paper, I briefly review the background to this approach. Following this, I present a case study of one such two-way bilingual program in which the student population came from Latino and African-American backgrounds. Some of the Latino students were Spanish-dominant while others knew little Spanish. The African-American students knew little or no Spanish when they arrived at school and, furthermore, many had limited experience with the variety of Standard American English spoken in the classroom. Students in the two-way bilingual education program did as well as or better than their peers who were being educated either in English-only classes or in transitional bilingual education classes. For students in the two-way program, Spanish reading ability for Spanish speakers developed at a faster rate than English reading ability for English speakers, and Spanish-dominant students did better in English than English-dominant students did in Spanish. Data from classroom observation show that the formal assessment procedures were not able to capture much of the learning that took place in the classrooms. Nevertheless, the findings add to the evidence found in previous research that two-way bilingual education is an effective approach for both English proficient students and English language learners.

Key words: bilingual education, two-way bilingual education, minority language

Un enfoque empleado para la enseñanza bilingüe que viene recibiendo un respaldo cada vez mayor por parte de padres, educadores e investigadores de los EE.UU. consiste en la integración de aprendices de inglés y de usuarios nativos de la lengua, los cuales comparten aula y reciben enseñanza tanto en inglés como en la lengua dominante de los aprendices de inglés (español). En la mayoría de estos planes de enseñanza bilingüe de doble vía, el objetivo explícito es que cada grupo aprenda la lengua del otro. En este trabajo hago un breve repaso de los antecedentes de este enfoque y luego presento un estudio de caso que se basa en un plan bilingüe de doble vía en el cual el alumnado proviene de las comunidades latino y afroestadounidense. Algunos de los alumnos latinos tenían el español como lengua dominante mientras que otros sólo tenían conocimientos básicos de la lengua. Los alumnos afroestadounidenses tenían conocimientos básicos o nulos de español al inicio del plan; además, muchos tenían poca experiencia con la variedad de inglés estadounidense estándar que se usaba en el aula. Los alumnos del plan bilingüe de doble vía obtuvieron resultados iguales o superiores a los de sus compañeros que recibían clases impartidas bien sólo en inglés o de enseñanza bilingüe transitoria. En el caso de los alumnos del plan de doble vía, la destreza de lectura en español para los hispanohablantes se desarrolló con mayor rapidez que la destreza de lectura en inglés para los anglohablantes; además, los alumnos que tenían el español como lengua dominante obtuvieron mejores resultados en inglés que aquellos obtenidos en español por los alumnos que tenían el inglés como lengua dominante. Los datos de las observaciones de clase muestran que los procedimientos formales de evaluación no fueron capaces de captar una buena parte del aprendizaje que tenía lugar en el aula. Sin embargo, los resultados se suman a las pruebas provenientes de investigaciones previas que indican que la enseñanza bilingüe de doble vía es un enfoque eficaz tanto para usuarios nativos como para aprendices del inglés.

Palabras clave: enseñanza bilingüe, enseñanza bilingüe de doble vía, lengua minoritaria

1. Introduction

In much of the world, learning more than one language is an ordinary fact of life --both in and outside the school setting. In the developing world and in countries with small populations, people understand from an early age that opportunities for education and employment often depend on learning another language. In larger or more affluent nations, especially those where English is the majority language, the mastery of other languages is pursued primarily by people who want to travel or work abroad. In some countries, "elite" bilingualism has characterized the lives of the wealthy, who can afford foreign tutors and nannies to give their children access to additional languages. In recent decades, families in many countries have made efforts to ensure that their children learn English, the language that is seen as opening the greatest number of doors to economic opportunity.

In the United States, attitudes toward the use of languages other than English do not always encourage the development and maintenance of bilingualism. In public discourse, there has been such a strong resistance to "bilingual education" that education systems that provide programs that include the use of a language other than English sometimes call them by different names. In recent decades, negative attitudes toward bilingual education have been related to a general wariness about what is perceived as a flood of immigrants (especially Hispanics) who could alter patterns of American language and culture that are perceived to be homogeneous and stable. Some Americans who have such attitudes think of bilingual education as an approach that favors minority languages or immigrants' language of origin at the expense of English, which, in their view, should be given priority in educational institutions at every level. Others, regardless of their attitudes toward a growing presence of speakers of other languages, simply assume that the best way for minority language students to learn English and to succeed in their academic work is for schools to impose the exclusive use of English as the language of education from the very beginning. In recent years, several US states, including states with comparatively large Hispanic populations (e.g., Arizona, California, and Illinois) have enacted legislation

that prohibits the educational use of languages other than English except for a brief period to help newcomers make the transition to all-English instruction. (For further information see, e.g., August & Hakuta, 1997; Brisk, 2005; Collier, 1989; García & Baker, 2007; Genesee et al., 2006; Lee & Oxelson, 2006; Rolstad, Mahoney, & Glass, 2005).

In other states, the exception to the limitation on instruction that includes languages other than English is an approach in which minority language students share classrooms with proficient English speakers and receive instruction in both English and the home language of the minority language students (Christian et al., 1997; Lindholm-Leary, 2001). Many labels have been used to describe this approach. Freeman, Freeman, and Mercuri (2005) list six different ones: *dual language education*, *developmental bilingual education*, *two-way bilingual education*, *two-way immersion*, *dual immersion* and *enriched education* (p. xvi). I have adopted the term *two-way bilingual education* in order to make it clear that the essential characteristic of the approach is that two groups of students enter the program with a knowledge of at least one language, that all students are taught in both the language they know best and another language, and that all students have opportunities to learn not only from the instruction offered by the teacher but also through interaction with peers. In some cases, the English proficient students may actually be of the same ethnic or national background as the English language learners, even though they have little or no knowledge of their heritage language. Parents sometimes see these two-way programs as opportunities for their children to regain a language that is no longer spoken by members of the younger generations, and their success has been reported by a number of researchers (see, e.g., Collier & Thomas, 2004; Howard, Sugarman, & Christian, 2003; Lindholm-Leary, 2001).

2. Becoming Bilingual in Childhood

Bialystok (1991) reported that bilingualism appears to bring children some benefits for cognitive development, especially in areas of metalinguistic abilities. Nevertheless, many educators, as well as some parents and

members of the general public, remain convinced that the best way to educate children in the United States is through the early exclusive use of English as the medium of instruction. One area of research that is often called upon to justify this view is related to the *critical period hypothesis*. This hypothesis, that only learners who begin learning a language in early childhood can fully master that language, is often invoked and used as the basis for a claim that any delay in introducing English will necessarily lead to poor outcomes. Thus, it is argued, the most effective way to teach English is to place students in English-only instruction from their earliest days at school. There are many problems with this argument. Among them is the fact that the critical period research that is often referred to is not relevant to the question of second language learning in *school* conditions. Relevant research, that is, research that has been done in school contexts points toward the ability of older learners –especially those who have acquired literacy in their first language– to achieve high levels of second language skills more quickly than younger learners (see, e.g., Abello-Contesse et al., 2006; García Mayo & García Lecumberri, 2003; MacSwan & Pray, 2005; Marinova-Todd, Marshall, & Snow, 2000; Muñoz, 2006, 2007). More important, however, is the fact that no matter how quickly children learn, there is a period during which they have difficulty learning subject matter through a language they do not yet know well (Collier, 1989; Lindholm-Leary, 2001). Providing some instruction in a language they already understand can allow them to keep learning school subjects as they learn English.

One of the benefits of two-way bilingual education programs is that they allow students to use both languages for more than a year or two. This has advantages for both minority and majority language speakers. For both groups, the longer time period is consistent with the fact that the development of a high level of skill in a second language takes thousands of hours and cannot be accomplished in a year or two. For the minority language students, the greatest benefit lies in the fact that, while they develop their second language skills, they can continue learning subject matter in the language they understand best. This increases their chances of keeping up with their peers while they continue to acquire sufficient second

language skill to learn efficiently *in* the second language. As for the majority language learners, the extended time period increases the chances that they will develop levels of proficiency that will allow them to use their second language beyond the classroom.

The amount of time and the distribution of the time given to each of the languages in two-way bilingual education vary among programs (Calderón & Minaya-Rowe, 2003). In some programs, the minority language is used from seventy to ninety per cent of the time in kindergarten and first grade, with the amount of time devoted to English being increased gradually throughout the elementary school years. One rationale for this distribution comes from the expectation that students who are speakers of the community's majority language are not likely to learn the minority language in an atmosphere where the majority language predominates, and this has led to recommendations for maximum use of these students' second language in the early years of the program. Evidence for this expectation comes from research in immersion programs, such as those in Canada, where students are taught in French, their second language, but where the language of the school and community in which they are learning is predominantly English. Research has shown that Anglophone students who receive early schooling in French succeed in learning their school subjects and rapidly compensate for any delays in the development of literacy in English. It should not be forgotten, however, that the students' first language is always an important part of their schooling, and the goal is additive, not subtractive bilingualism (Genesee, 1987).

In some schools, there is pressure from many sources to start teaching English as early as possible. Yet, as noted above, there is substantial evidence that, in school-based second language learning, a strong grounding in the first language (or, in the case of bilingual communities, two "first" languages) is a good basis for building second language ability. However, the widely held view that "younger is better" for second language learning tends to prevail, and parents from both minority and majority communities often insist that schools introduce English as early as possible. A more convincing reason for providing instruction in both languages from

the outset lies in the evidence that there are advantages in acquiring literacy in a language that one already understands. Learning to decode words on a page can be done by a learner who has limited vocabulary and oral language skill. However, understanding what one has decoded requires a greater level of language proficiency and supports the development of literacy. Thus, some schools, including the one that is the subject of this paper, choose to introduce literacy to all students in the language they know best. This usually means giving a more even distribution of time to the two languages, since literacy training is such a large part of early schooling.

3. Pedagogical Advantages of Two-Way Bilingual Education

Dual or two-way bilingual education solves one of the most intractable problems of second and foreign language pedagogy: the ratio of teachers to students. In second language instruction, including immersion, the teacher is often the only proficient speaker of the target language. Twenty or thirty learners depend on the teacher's input and feedback as the primary source of their classroom learning. Current pedagogical techniques have increasingly used group and pair work to allow students to interact with each other, and new technologies provide opportunities for students to hear and use their second language with other speakers, whether real (electronic pen pals) or virtual (computer assisted instruction and recorded voices). These changes have led to an increase in students' opportunities to use the target language. Nevertheless, the fact remains that students in both second and foreign language learning situations often have limited exposure to proficient speakers.

It might seem that, for the minority language student, the best option would be placement in a class where most other students are speakers of the majority language –so-called “mainstream” or “submersion” situations. However, there are several reasons to question the wisdom of this solution. First, the language that is used for instruction in such classrooms will not be adapted to the needs of second language learners, and those students tend to fall further and further behind as they try to learn subject matter in a

language they do not yet understand well (see Cummins, 1991; Echevarría, Vogt, & Short, 2004). In addition, students in such settings are often isolated from their peers –either inadvertently, by virtue of their inability to keep up with the class, or intentionally, by teachers who wish to give them special attention, but end up depriving them of opportunities to learn from their peers (Toohey, 1998).

4. Social/Community Advantages of Two-Way Bilingual Education

In a two-way bilingual class, half of the students are proficient speakers of each language. This differs from typical situations where minority group children may make up a substantial proportion of a class but where their first language has no status. In these classes, for part of the instructional time, each student's stronger language is the language of instruction. This affects not only the students' ability to learn the subject matter that continues to be taught while they learn the second language but also their role as competent speakers, a fact that changes the motivational and status dynamics of the classroom.

In “foreign language” classes –whether of the 30-minutes-a-day variety or in immersion or CLIL classes-- students who learn a second language in classrooms where all the other students share their first language have limited access to the kind of target language input that might be expected to trigger changes in their interlanguage development. Hearing the language used by other students who share their L1 can lead to the reinforcement of interlanguage patterns (Lightbown & Spada, 2006). In addition, the input that students do get from the most proficient speaker (the teacher) is likely to be characterized by the style and register appropriate for an adult speaker. Students' language acquisition may show the effects of a lack of opportunity to learn the age-appropriate variety of the second language (Tarone & Swain, 1995). In two-way bilingual programs, students also learn from their peers, who provide models not only of the target language as it is spoken by proficient speakers but, more specifically, by speakers who are using the language that is typical of their age group.

5. The Science in Two Languages Program

From 2001 to 2006, I was an observer and evaluator in a two-way bilingual education program in a mid-sized city in the northeastern United States. The city is best known as the location of a prestigious university. This means that there is a population of highly educated families with middle and upper-middle level incomes and that the city enjoys the kinds of cultural advantages that are often found in a university town. However, the population of the city also includes a substantial number of people with low income and limited education, including a large number of African Americans and a growing number of immigrants. In the neighborhood where this school is located, the majority of residents are Latino and the largest minority is African American. In the school itself, which had a total enrollment of approximately 400 students, there were very few students from any other ethnic group. The socioeconomic level of the students is revealed in part by the fact that the majority of the students were entitled to receive free lunch and that breakfast was also provided to students when they arrived at school.

During the period of my involvement with the school, instruction was provided to students from kindergarten (age 5 years) through grade 4 (age 9 years). In most years, there were three or four classes at each grade level. The creation of a two-way bilingual education program came in part as a response to a statewide policy that limited to 30 months the amount of time a student could spend in bilingual education classes. Thus, a child who spoke only or mainly Spanish and who entered the school's bilingual education program in kindergarten had to be transitioned to full mainstream English instruction by the beginning of grade 3. The only exception to this rule was allowed in two-way bilingual programs, where students could continue receiving instruction in a language other than English. Some of the school personnel, together with some administrators from the city's central educational bureaucracy, applied to the federal government for funding to implement an experimental two-way bilingual program, one in which they proposed that science instruction would be the unifying theme. The project

goals included developing an integrated curriculum, encouraging and facilitating parent involvement, training paraprofessionals, providing for professional development for teachers, and enhancing student achievement in language, literacy, and academic performance in both English and Spanish

The project received special funding for five years, the first of which was devoted to planning and preparation of curriculum and materials. Teachers and administrators laid the foundation for a curriculum that could be adapted and updated over the coming years in a way that would reflect both the goals of the program and the requirements of the state and local school authorities. In the second year of special funding, the program was launched with an enrollment of approximately 50 students in kindergarten. Half of the students were more proficient in Spanish than in English and half were speakers of English. In each of the following years a new kindergarten group was added as the previous year's group moved up to the next grade. Thus, at the end of the period of observation and evaluation reported in this paper, the program included students from kindergarten through grade 3.¹ There were four classes at each grade level: two class groups participating in the two-way bilingual program, as well as one class group of students – mostly English monolinguals– whose instruction was entirely in English, and one class group of students who entered school as Spanish-dominant, with a variety of abilities in English. This last group, who will be referred to as the *transitional bilingual education* (TBE) group, received instruction in both Spanish and English in kindergarten. Then, in first and second grade, teachers used less and less Spanish, with the goal of preparing students to use only English once they had completed the 30 months of Spanish support they were entitled to by the state guidelines. In grade 3, all students who were not in the two-way bilingual education program received all instruction in English.

¹ There were also students in grade 4, but none of them had participated in the two-way bilingual program, so they are not included in this discussion.

Both the English-only and the transitional bilingual classes were self-contained classes with a single teacher. In the transitional bilingual classes, at each grade level, there was one teacher, and there was some variation over time and among individual teachers as to how the two languages were mixed or separated during a given instructional activity. In the two-way bilingual classes, the entire group of approximately 50 students at each grade level was taught in two classrooms by two teachers, each of whom taught in his or her dominant language. At any given time, each teacher was working with approximately half of the students. Over time, there was variation in the exact amount and distribution of time students spent in their first or second language. Nevertheless, the aim was for each student to be exposed to both languages for a part of every day with a 50-50 distribution overall.

In general, students in the two-way program started each day in mixed groups, and engaged in the usual “morning meeting” types of activities in the language of the teacher whose classroom they were in. Thus, activities such as breakfast, greetings, observations about the date and weather, reviews of vocabulary related to daily topics, and some songs or chants were done by both English-dominant and Spanish-dominant students in the language of the classroom they were in on that day. In alternate weeks, students started the day in the other language. Following the morning meeting activities (roughly half an hour on most days), students were divided into groups by language dominance, and pre-literacy (kindergarten) and literacy (grades 1-3) activities were provided for each group in their dominant language. Early math instruction was also provided in the students’ dominant language, but as the students progressed through the program, mathematics instruction was provided to mixed groups in each language in alternate weeks. Science instruction was always given to mixed groups in each language in alternate weeks.

An important aspect of the two-way bilingual instruction was that material taught in each language was not repeated in the other language. When students began a math or science lesson with a teacher speaking either Spanish or English, there might be review of material covered in the

previous week in the other language, but there was not a pattern of repeating the same material in both languages. The teachers used highly coordinated curriculum materials and worked closely together in planning so that students were expected to *continue* rather than to *repeat* a unit of instruction in math or science.

In addition to the classes taught by the two-way bilingual teachers, students in the program –like students in the English-only and transitional classes-- had a few hours a week of instruction in art, physical education, or music, taught by specialist teachers, usually in English. When they went to the school library, the bilingual librarian interacted with them in both languages, ordinarily using the language of the teacher who had brought the class to the library. In the school corridors, administrative offices, and the cafeteria, students encountered adults and older students who spoke to them in either Spanish or English. When parents visited the school, they were received in the language of their choice. When regular announcements were made on the school's public address system, they were made in both Spanish and English. Indeed, one very striking aspect of the school was the easy acceptance of two languages by staff, students, and parents.

6. Classroom Observation

During the five years that I was involved with the school as the evaluator, I visited many times, usually for several days at a time. The visits were not regular, but overall, I was in the school at least five or six times each year. During my visits, I spent time observing classes, meeting with teachers and administrators, participating in professional development activities and teachers' meetings, observing some of the testing procedures, and collecting or clarifying the test data that were to be used in the assessment of students' progress. The observations were informal. While in the classroom, I often took notes that I discussed after the observation, with the teacher or with one of the administrators –the principal or the program coordinator. During other observations, I interacted with the students when they were involved in small group activities in “learning centers.”

7. Assessment of Learning

Students' progress was measured through a number of assessment procedures. Some of these were administered only during kindergarten; some were administered only to English language learners; some were administered only to students in the two-way bilingual education classes. Some of the assessments were administered by testers who were trained by the local school board; most were administered by the classroom teachers. This paper provides an analysis of students' reading ability, as measured by tests that were first administered to students at the end of kindergarten and then repeated two or three times in each subsequent year.

The test of English reading is the Developmental Reading Assessment, the DRA (Beaver, 1997). It is administered to each child individually and it includes reading skills that range from identifying the front and back of the book to making inferences about something that is not explicit in the text. The scoring method is somewhat complicated, but the range is from "A" –essentially a "0", reflecting the absence of any reading or pre-reading skill– to a number that corresponds roughly to the grade level to which the child should be promoted in the following year, multiplied by 10. For purposes of this paper, the relevant scores are approximately 18 at the end of grade 1, 30 at the end of grade 2 and 38 at the end of grade 3.²

There are several important advantages to using the DRA as an indicator of students' progress. First, the test is administered one-on-one by a teacher or another adult whom the student knows, increasing the chances that students will feel at ease and be able to do their best in the testing situation. Another advantage is that the test is cumulative. The first items are very easy and students continue the test until they reach a point where, over

² In fact, at each grade level, there are three criterion scores that represent different degrees of success. During the period of this study, these scores were as follows: 1st Grade – Basic 14 & below; Proficient 16, Goal 18; 2nd grade - Basic 24 & below; Proficient 28; Goal 30; 3rd grade – Basic 30 and below; Proficient 34; Goal 38.

several successive items, they can no longer perform successfully. This means that a student's progress can be tracked from year to year, on a measure that is essentially the same, rather than comparing the results of tests with different levels of difficulty or different orientations. Another important advantage of using the DRA is that Spanish reading can be assessed with a Spanish version of the same test (*Evaluación del desarrollo de la lectura –EDL*). In principle, this means that students in the transitional and two-way bilingual programs can be tested on the development of their L1 reading ability as well as their progress in English. Unfortunately, in practice, the EDL was not always administered to all students who entered school as Spanish-dominant.

The performance of two groups of students will be reported here: Cohort A is made up of students who entered the school in the first year of the two-way program; Cohort B students entered in the following year. At the end of 2006, when the data presented below were collected, Cohort A had students completing grade 3; Cohort B students were completing grade 2. Thus, they had accumulated almost 40 and almost 30 months of primary school education respectively. Although student performance will be reported for students according to the program in which they spent the first 30 months of their schooling, Cohort A students who were in the transitional bilingual education program had already spent grade 3, in mainstream English-only instruction. Only students who could be followed throughout the period are included in the analyses. Therefore, the number of students is less than 25 for some groups.

8. Students' Progress in Language Learning

Students' performance on the DRA, the measure of English reading ability, is shown in Figures 1 and 2.³ For both Cohort A and Cohort B, students in all

³ Detailed results of different assessments, including statistical comparisons of the different groups and of each group over time, are included in the reports that were prepared for the school board and the federal government (Lightbown, 2005, 2006). For this paper, I have chosen to summarize the findings, using a graphic representation of the means scores on two reading tests.

instructional types show progress over time. The average score did not always reach the level set as the standard for the grade level, but some individual students reached and surpassed that standard. Students in the two-way bilingual education program performed at least as well as those in the English-only and transitional bilingual programs. The slope of the learning curve for students in the two-way program who entered the school as Spanish-dominant is particularly noteworthy. What Figures 1 and 2 do not show is that students in the two-way programs *also* developed proficiency in Spanish.

Figure 1. DRA results for Cohort A at the end of grades 1, 2, and 3

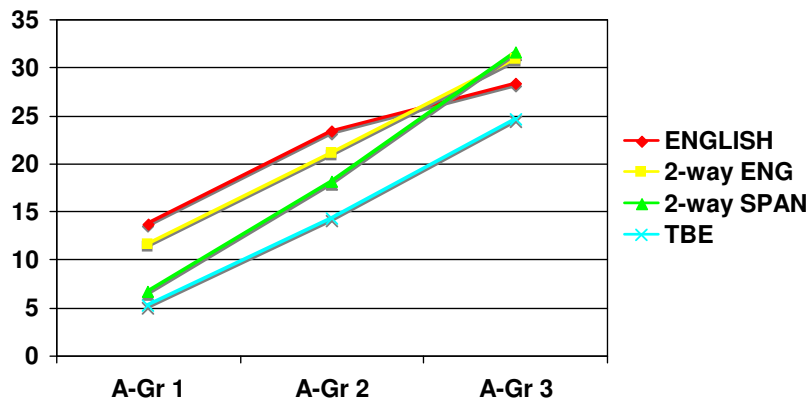
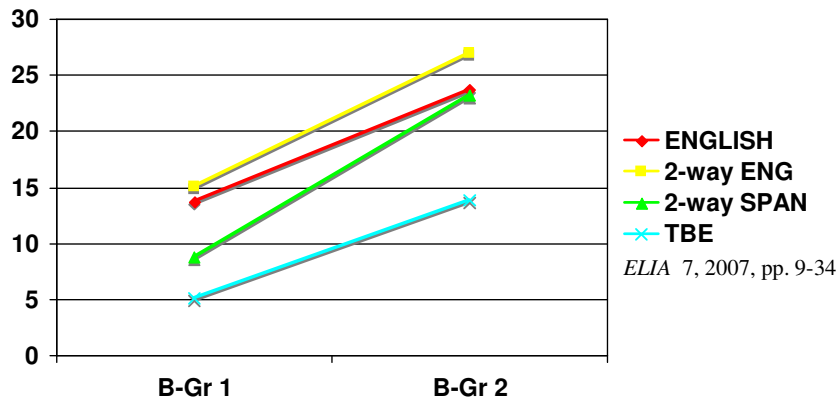


Figure 2. DRA results for Cohort B at the end of grades 1 and 2



Figures 3 and 4 show the results for students' performance on the test for Spanish reading ability. Unfortunately, as noted above, the data for Spanish reading are incomplete, because the school did not have sufficient resources to test the reading abilities students were developing in Spanish. Students in English-only instruction were almost all English-dominant when they arrived at school, so there is no expectation that they would have acquired any Spanish skills, and they were never tested in Spanish. However, part of the instruction provided for students in the transitional program was in Spanish and it would be important to know whether their weaker abilities in English were balanced or compensated for by greater strength in Spanish. Anecdotal evidence and reports from school administrators confirm, however, that Spanish was not emphasized in TBE classes. Furthermore, TBE students in cohort A had had English-only instruction throughout grade 3.

Figure 3. EDL results for Cohort A at the end of grades 1 and 2

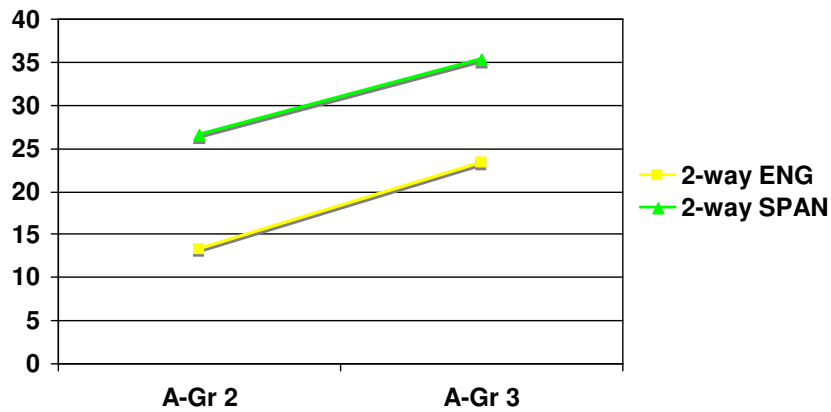
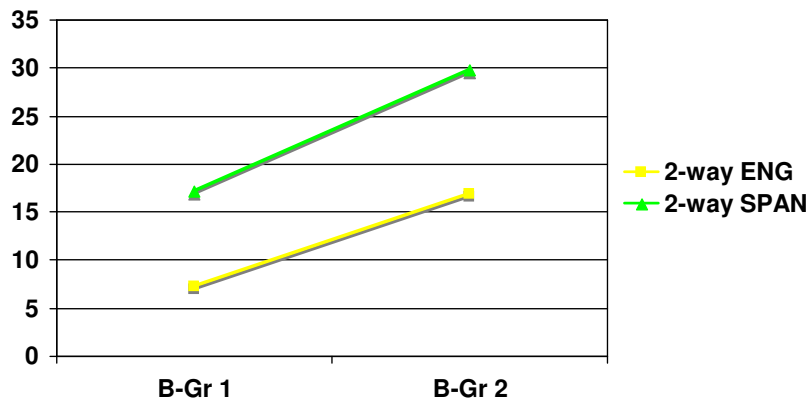


Figure 4. EDL results for Cohort B at the end of grades 1 and 2



The average score for Spanish-dominant students in the two-way program was close to the standard considered appropriate for the grade level. For English-dominant students, reading in Spanish lagged behind, corresponding roughly to a level appropriate for students who are a year younger. More important, however, is that both English-dominant and Spanish-dominant students in the two-way program continued to make substantial progress –not only in English but also in Spanish reading ability. The direction and slope of the progress trends are very promising of future success, if students continue to have opportunities to develop their language skills.

9. Summary

Overall results from the English reading assessments, as well as other assessments not reported in this paper, showed that both English-dominant and Spanish-dominant students in the two-way bilingual education program performed as well as those in English-only instruction and better than those in the transitional bilingual classes. In addition, students in this program had

learned to read in Spanish and had learned to use Spanish as a language for instruction in mathematics and science.

10. Discussion

The overall performance of students in the two-way bilingual education program in this school was very positive. Most impressive is the finding that they performed in English reading as well as or better than English monolingual students whose instruction was in English only or Spanish-dominant students in a bilingual program that emphasized early transition to English. In addition, the Spanish-dominant students in the two-way programs developed age-appropriate reading ability in Spanish and the English-dominant students acquired considerable ability to read in Spanish. Spanish-dominant students were well ahead of the English-dominant students in Spanish reading, and they were generally able to read as well in English as the English-dominant students. This appears to support the hypothesis that learning to read in one language is a good basis for learning to read in another. This seemed to be especially true for the Spanish-dominant students, who made very rapid progress in Spanish literacy. Furthermore, their progress is consistent with the frequently heard claim that initial Spanish literacy is easier than early English literacy because of the more regular orthographic system of Spanish; building on their Spanish literacy, a number of Spanish-dominant students performed above grade level in both Spanish and English.

It is also worthy of note that the English-dominant students who participated in this study, whether in the English-only instruction or the two-way bilingual classes, were overwhelmingly African-American and speakers of a variety of English that was different in certain ways from the variety that was spoken by their classroom teachers. Effects of this were seen in the types of errors students made in both reading and writing. The African-American students may be said to be learning two new ways of speaking – Spanish, which is undoubtedly an additional language, but also Standard American English, which is an additional variety of a language they already

know (Craig & Washington, 2004). Moreover, the presence of these students as the peer models for English means that the Spanish-dominant students are likely to learn both the variety of Standard American English spoken by their teachers and that spoken by their classmates. This is an interesting and important aspect of their language learning, but one which goes beyond the scope of this discussion (see Nicoladis et al., 1998; Parchia, 2000).

The results of the DRA and EDL assessments also show some cohort differences. Students in Cohort B tended to reach grade level in reading more quickly than those in Cohort A. We may hypothesize that the pedagogical approach was more stable in the second year of the program and that this enabled students to make more rapid progress. On the other hand, observational evidence leads to another possible explanation. In Cohort A, particularly among the English-dominant students in the two-way bilingual program, there was a substantial number of students with significant behavioral and learning problems. Several students needed a great deal of special attention –from the teacher and from other professionals– to help them cope with school. The presence of students with these kinds of needs inevitably affects learning outcomes in a classroom. On the other hand, it is a strength of this school and its two-way bilingual program that it did not seek to exclude students who presented significant challenges. Furthermore, even though they did not always attain the performance levels that were mandated for their grade level, most of these students made steady progress in learning a second language and in learning the subject matter.

An advantage of having most of the assessments done by the teachers themselves is that it gives a certain validity to the testing procedure. Students were more likely to do their best when interacting with someone who was familiar to them than when interacting with a stranger. The DRA and EDL were in many ways similar to the pedagogical activities that students were accustomed to, increasing the chances that they would

demonstrate their abilities.⁴ Furthermore, since the teacher may be assumed to be the adult who knows the student best, there was a greater likelihood that any results that were at odds with a student's typical classroom performance would be noted, perhaps allowing for a review of the results. On the other hand, of course, there is always the danger that teachers, especially in a situation where an experimental program is being implemented, may feel pressure to make sure their students do well. This does not appear to have happened often, but the evidence that it sometimes happened, especially in one English-only classroom, was that students did less well when tested by other teachers or trained testers in following years.

A more important negative impact of having the teachers do most of the testing was fairly widely observed. Due to the testing schedule mandated by state and school district administrations, students were tested for reading abilities several times during the year. On the one hand, such a testing schedule allowed teachers to closely monitor the progress of each student and, in principle, to identify areas of strength and weakness for each student. On the other hand, the time needed for the testing resulted in teachers' extended absence from the classroom. Teachers' absences were covered by assistants and paraprofessionals, but the absence of the regular teacher led to some disruptions of classroom routines and progress.

⁴ When students were in grade 2 and grade 3, they began to experience the kind of testing that will characterize evaluations of their performance in the coming years. In these tests, administered to all students in the classroom group, students were given a cardboard barrier to prevent other students from seeing their work and to keep them from looking at other students' work. This kind of isolation, which was not typical of the pedagogical practices of the school, created considerable distress for some students. In several cases, students who performed well in regular classroom activities, gave no evidence of their learning, literally getting scores of zero on reading and writing assessments.

11. Limitations of the Study and Future Research

One concern that arose over the period of observation is one that is inevitable in all educational research that takes place in real classrooms in real schools; there were unpredictable differences among teachers in terms of their experience, training, and skill in teaching. Thus, in every class, there were times when one could observe teaching and learning that were of the highest quality. On other occasions, the quality of teaching was not up to the standard that one would hope to see in an educational setting. For this reason, it is not always possible to interpret outcomes in terms of the type of program in which a student was enrolled.

It must be emphasized that a very important element in the life of this school was the professional development that was made available to *all* teachers –not just those who were involved in the two-way classes, but those teaching in the English-only and transitional bilingual classes as well. Most significantly, there was considerable involvement by the teachers themselves, not only in determining the content of the various workshops, but in organizing and leading them as well (Lightbown, Minaya-Rowe, Benítez, & Mendía, 2007).

In all three program types, there were teachers who were devoted to their students and who made the most of classroom time. These teachers filled their classrooms with interesting materials, not least of which were their students' own productions. They used every minute of classroom time to encourage learning –not just during “lessons” but also in every interaction with students. Other teachers appeared to have less skill in managing time and student learning. Some teachers started teaching as soon as the first student entered the classroom, having prepared the day's materials and activities in advance. Others were still trying to organize things after students arrived, showing uncertainty about the day's activities, often changing plans in the middle of giving instructions about what was going to happen next.

Such variation in teaching skill was present in all programs. The result of this is that an observer sees ample evidence, in a given year, that it

is not always the pedagogical approach that is being assessed, but the implementation of it by teachers with very different levels of commitment, experience, and skill. Unfortunately, this is true in all educational research and it can result in learning outcomes that lead administrators to conclude that one approach or another is “not working.” For this reason, any approach needs to be studied in a great variety of contexts over a long period of time so that the effects of teaching skill are distributed widely, rather than influencing the outcomes in one approach or another.

12. Conclusion

The two-way bilingual education program that was implemented in this school provided a rich educational opportunity for two groups of students whose academic performance is a source of concern in many schools across the United States: English language learners and African-American students from low socioeconomic backgrounds. The atmosphere in the school was one of optimism, mutual respect, and enthusiasm for the acquisition of bilingual skills. In subsequent years, the school is being transformed into one where all students will participate in a two-way bilingual program –from kindergarten through grade 8. Such a sustained academic program in two languages promises to give all students the opportunity to become highly competent bilingual, something that has been difficult to achieve in other types of programs in American schools.

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coordinators Lillian Oquendo and Pedro Mendía shared my view that the evaluator could also be a collaborator as the program continued to evolve. Space prevents the listing of all the excellent teachers in the program, but I hope they will recognize themselves when I say that they represent some of the best teaching and most remarkable professional growth I have ever seen.

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