

Student Outcomes in Dual Language Programs
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Purpose and Perspectives

The past two decades have witnessed a proliferation of dual language programs in the U.S., whose stated goals are bilingualism, biliteracy, and grade-level achievement. Many educators, policy makers and others have questioned whether a dual language program is appropriate for students of different, especially high-risk, backgrounds. This presentation examines research on the student outcomes of language proficiency and academic achievement. In addition, outcomes for different demographic profiles of student participants in dual language programs from elementary through secondary levels are presented.

Evidence and Results

1. Academic Achievement Outcomes

Considerable research has examined the reading and/or math achievement of students in dual language (DL) programs (for reviews see Bickle, Hakuta & Billings, 2004; Lindholm-Leary, 2001; Lindholm-Leary & Borsato, 2006; Lindholm-Leary & Genesee, 2010; Lindholm-Leary & Howard, 2008). This research base consistently demonstrates that students in DL programs achieve at or above the performance of their peers who are not in DL programs. While most of this research looks at reading achievement, there are a few studies that examine math achievement and even fewer that look at achievement in other content areas; these results hold whether we examine outcomes in reading or other content areas. Furthermore, the result that DL students score as well as or higher than their peers in non-DL programs has been reported in Spanish, Italian, Chinese, and Korean DL programs (e.g., Bae, 2007; Chiappe, Glasser & Ferko, 2007; Lindholm-Leary, 2001, 2011; Lindholm-Leary & Howard, 2008; Montanari, 2013).

Figures 1 and 2 below provide an illustration of the reading achievement results from Spanish, Chinese, Korean, and Japanese programs for EL and NES students. As Figure 1 shows for EL students, Spanish speakers in Spanish DL programs start at a low level, making steady progress across the grade levels until they reach the proficient level (score of 350) at sixth grade and then meet the scores of English speakers in English mainstream programs in grade 8. In Korean and Chinese programs, there are few EL students and they score high in English reading/language arts (Lindholm-Leary, 2011). Among NES students in DL programs, from third grade, students in Spanish, Chinese, and Korean programs score above to far above the average for NES in English mainstream. A sample of Spanish NES students, whose parent education level was high and comparable to those for the Korean and Chinese students, demonstrates that there are initially differences between the Spanish and the Korean and Chinese students in reading/language arts, but these differences decrease across the grade level to fairly comparable scores in grades 7-8.

Figure 1. English reading/language arts scale scores for grades 2-8 ELs in DL programs

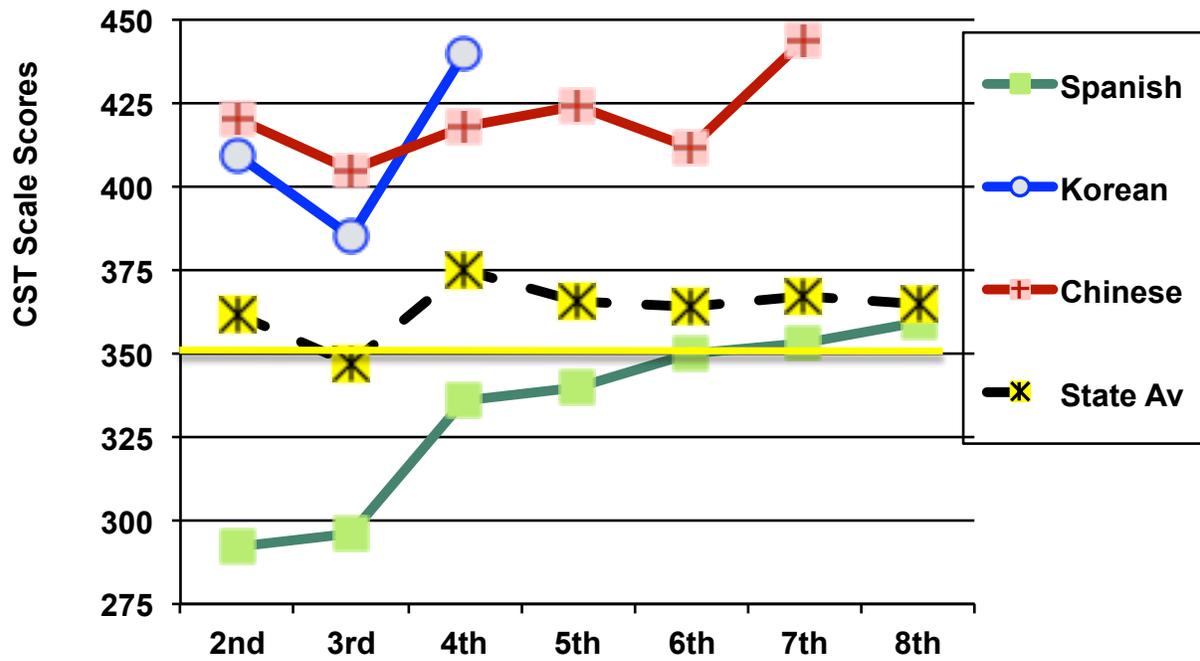
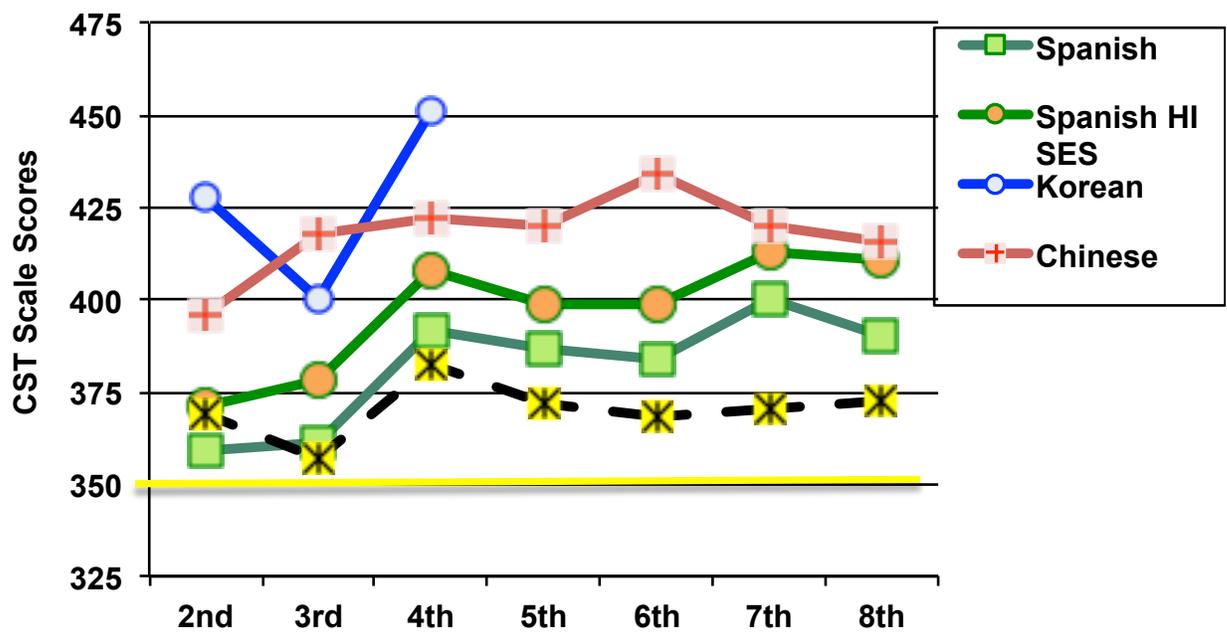
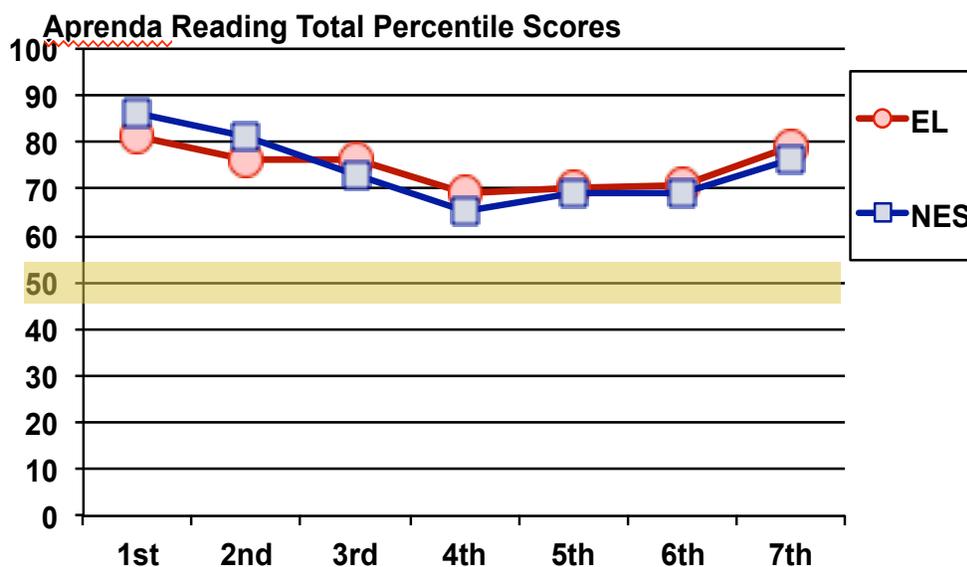


Figure 2. English reading/language arts scale scores for grades 2-8 NES in DL programs



In looking at reading achievement in the target language, as Figure 3 shows, both groups of students, ELs and NES, score well above average to high, with little difference between EL and NES students. Other studies also show that DL students in Spanish and Mandarin programs can read and write in the target language at or above grade level (for reviews, see Lindholm-Leary, 2011, in press; Lindholm-Leary & Howard, 2008).

Figure 3. Spanish reading percentiles for grades 1-7 EL and NES in DL programs



In addition, studies show that DL programs are successful at the secondary level. Compared to their peers in English mainstream programs, DL middle and high school students are: 1) as or more likely to be enrolled in higher level math courses (Lindholm-Leary & Borsato, 2005); 2) as or more likely to pass the high school exit exam (Lindholm-Leary, 2010); 3) less likely to drop out of school (Thomas & Collier, 2002); and 4) more likely to close the achievement gap with native English speaking (NES) peers at least by the end of high school (Lindholm-Leary, 2014; Lindholm-Leary & Borsato, 2006; Thomas & Collier, 2002).

2. Language Proficiency Outcomes

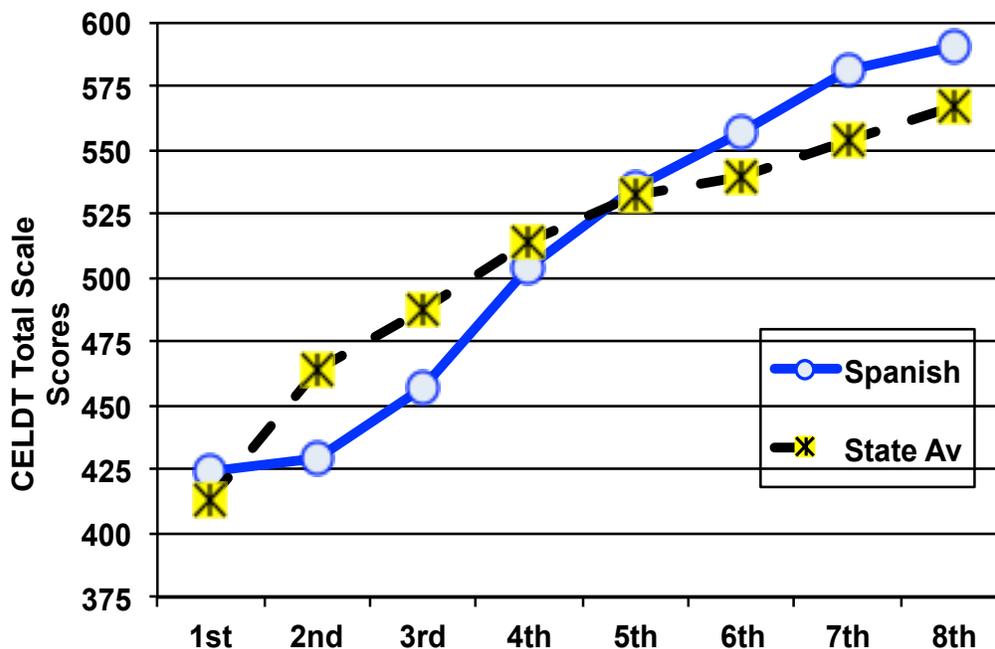
There is little research on the linguistic development of either English or a second (non-English) language of students in DL programs in the U.S. (Lindholm-Leary & Howard, 2008; Saunders & O'Brien, 2006). Most of the research is concentrated on the English proficiency of native speakers of Spanish, but not on the development of language skills in English for NES or the partner language for either ELs or NES. Further, the majority of research is focused on language development or language proficiency derived from various assessments (e.g., Language Assessment Scales, California English Language Development Test) rather than analyses of the students' language skills or language use. Nevertheless, this body of research shows that both native English speakers and native speakers of the target language (e.g., Spanish, Chinese) in DL programs develop bilingual proficiency in DL programs; that is, they have developed oral and literate proficiencies in both languages that enable them to engage in schoolwork at the appropriate grade level.

Because English language proficiency, particularly for EL students, has been a major concern of educators, those results will be highlighted here. A number of studies report that, on average, despite less instruction in and exposure to English, most EL (Spanish-, Korean-, Chinese-speaking) students in DL programs are orally proficient in English and achieve at or above grade level norms in English reading and writing by Grades 5 to 7, if not sooner (de Jong, 2002; Howard & Sugarman, 2007; Lindholm-Leary, 2001; Lindholm-Leary & Hernández, 2011; Lindholm-Leary & Howard, 2008; Thomas & Collier, 2002).

Length of participation in DL programs has been found to impact student outcomes for both EL and NES students. More specifically, in a review of research on DL programs for EL students, Lindholm-Leary and Borsato (2006) reported an initial lag of three to five years in English, but noted these students caught up to and sometimes surpassed their comparison peers in mainstream programs by the end of elementary school. Still other studies have found that EL students even surpass their peers in mainstream programs after several years in a DL program, despite initial lags in performance (Lindholm-Leary & Genesee, 2010).

Figure 4 provides an illustration of the growth of English language proficiency for EL students in the DL program compared to Spanish-speaking EL peers across the state who are typically enrolled in English mainstream, using the California English Language Development Test (CELDT). As this figure indicates, DL EL students score similar to their statewide peers in first grade, but drop behind during grades 2-3, and then catch up again in grades 4-5, and then surpass them in grades 6-8. Furthermore, by grades 7-8, 61% of students have been reclassified as Fluent English Proficient, and another 24% have reached Early Advanced or Advanced on the CELDT, which means that they will likely be reclassified as Fluent English Proficient in the next academic year. Thus, a total of 85% of students are proficient in English by grades 7-8.

Figure 4. English language proficiency scale scores for grades 1-8 ELs in DL programs (CELDT) compared to state average for Spanish-speaking ELs



In looking at the development of the target language, most native speakers are rated as fluent in their primary language across the grade levels in middle and high school, largely using teacher rating rubrics and measures (for reviews, see Lindholm-Leary, 2011 for Chinese; Lindholm-Leary, 2001, in press; Lindholm-Leary & Howard, 2008). Not surprisingly, the native Spanish- and Chinese-speaking students were scored significantly higher than were the NES (Lindholm-Leary, 2011; Lindholm-Leary & Hernandez, 2011). Furthermore, in both Spanish and Chinese DL programs, heritage language students scored higher than non-heritage students (Lindholm-Leary, 2011).

On a rating of 1 (not very) to 3 (very) bilingual, Lindholm-Leary and Hernandez (2011) reported that over half of students rated themselves as “very bilingual” (56%) and 41% as “somewhat bilingual”, indicating that students perceived themselves to be at least somewhat bilingual. Further, their ratings were significantly correlated with the teacher ratings (Lindholm-Leary & Hernandez, 2011). Potowski’s (2007) observations of fifth- and eighth-grade students in a Spanish/English DL program showed that while students did develop bilingual skills, they did not develop highly proficient or balanced bilingual skills, since they were dominant, and felt more comfortable, speaking in English than in Spanish.

3. Outcomes for Different Demographic Groups

Though little research on student outcomes in dual language programs has specifically examined outcomes according to student background characteristics, results are consistent in showing that: 1) Students from different ethnic/racial groups develop oral and literate proficiency in two languages and achieve in English to the same or higher levels as their peers in English mainstream programs at least by the end of elementary school; these results have been obtained in studies with students from Euro-American, Hispanic, African-American, and Asian-American backgrounds; 2) parent education has a highly significant effect on language proficiency and reading achievement assessments conducted in both Spanish and English, and for English and Spanish speakers (for reviews, see Lindholm-Leary, 2001, 2011; Lindholm-Leary & Block, 2010; Lindholm-Leary & Genesee, 2010; Lindholm-Leary & Howard, 2008).

In addition, Lindholm-Leary and Hernández (2011) examined data from a longitudinal study of three groups of grades 4-8 Hispanic students in DL programs who differed in English language proficiency: 1) native English speakers, 2) Previous EL but current English proficient students, and 3) current ELs. They found that the three groups varied significantly in parent education, language proficiency in Spanish, and achievement as measured in Spanish and English. They also found that Fluent English Proficient/Previous ELs were the most Spanish proficient and the most bilingual, achieved at higher levels in English and Spanish, and closed the achievement gap with native English speakers in English mainstream programs. Drawing on the same sample of fourth- through eighth grade Hispanic students, Lindholm-Leary (2013) further differentiated the ELs into four language-proficiency categories based on their current English language proficiency score (Beginner/Early Intermediate, Intermediate, Early Advanced/Advanced, or reclassified as Fluent English Proficient – FEP). A retrospective analysis was used in which the students in each of the four language proficiency levels were followed back across the grades to determine whether there were differences in their scores at kindergarten or first grade and how students scored in language proficiency and academic achievement across the grade levels. Results showed that in each of the three outcome measures (English language proficiency, English reading achievement, Spanish reading achievement), language proficiency group had a significant impact on the outcome measure, with FEP students

outscored Early Advanced/Advanced, who outscored Intermediate, who outscored Beginner/Early Intermediate students. However, the students did not only differ significantly in these outcome measures, but they also varied significantly in their background characteristics. That is, students who were still at Beginner/Early Intermediate levels were most likely to be economically disadvantaged, to have parents who had a high school diploma or less, to have special education services and least likely to have a parent who was a college graduate. In addition, students within each increasing proficiency level had greater economic and parent education advantages and less likelihood of being identified for special education. These outcome and student background differences suggest that these students are not at all homogeneous, but are quite distinct, though they were all identified as primarily low SES Spanish-speaking ELs when they started school.

Significance

Research is consistent across numerous studies in a variety of communities and with students from different backgrounds that students in dual language programs achieve at similar or higher levels compared to their peers in English mainstream. These results point to the success of dual language programs in meeting the educational needs of students of different backgrounds, including high-risk students from different ethnic, low income, and language minority groups.

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