# Impact of Two-Way Immersion on Students' Attitudes Toward School and College 

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One program model that has shown positive outcomes for Hispanic students is two-way immersion (Lindholm-Leary, 2001), al so known as two-way bilingual or dual Ianguage education. Two-way programs integrate native English speakers and English language learners in the same classroom and provide content instruction in both English and the native Ianguage of the English Ianguage learners. These programs aim to provide high quality educational experiences for all students and promote higher levels of academic achievement.

This digest reports on a study that examined the impact of participation in a two-way immersion program on the language and achievement outcomes of former program participants and on their current schooling path and college plans. The study explored outcomes for three groups of students: 1) Hispanic students who began the two-way program as English Ianguage learners; 2) Hispanic students who began the program as Eng-lish-only or English-dominant speakers; and 3) European American students who entered the program as monolingual speakers of English.

## Method

Subjects. A total of 142 high school students who were enrolled in two-way immersion programs when they were in elementary school participated in the study. All students were bilingual at the time of the study but were classified according to whether they had started kindergarten as a native English speaker or a native Spanish speaker/English learner. This is the breakdown of students for this sample: 66\% were Hispanic students with Spanish as their native language (Hispanic Spanish speakers); 20\% were Hispanic students with English as their native or dominant language (Hispanic English speakers); and 13\% were non-Hispanic students with English as their native language (European American English speakers).

Student characteristics. Students in these three groups differed considerably with respect to their mothers' educational background and their participation in the free lunch program. Significantly higher levels of education were represented among the mothers of European American students, followed by the mothers of Hispanic English speakers. Thelowest levels of education were found among the mothers of Hispanic Spanish speakers. Significantly more Hispanic Spanish speakers had participated in the free lunch program while they were in elementary school than had Hispanic English speakers or European American students.

Comparison group. A small sample (17 students) was selected as a comparison group for the Hispanic Spanish speakers. This comparison group was composed of Hispanic students who had entered kindergarten speaking Spanish but did not participate in a two-way program. Their socioeconomic background was very similar to that of the Hispanic Spanish speakers in the study who had participated in a two-way program during elementary school.

Instrumentation. Two-way students and comparison students completed a questionnaire concerning identity and motivation, attitudes toward school, current schooling path and college ambitions, attitudes toward bilingualism and the two-way immersion program, parental involvement, and
school environment. Students in the comparison group did not respond to the section of the questionnaire that inquired about attitudes toward bilingualism and the two-way program. Students rated the items on a five-point Likert scale, ranging from strongly disagree to strongly agree.

## Results

Results of the study revealed very few differences among the three groups of former two-way students. Most of the students reported fairly high academic competence and motivation to do well in school. They value education strongly and bel ieve that getting a good education is the best way to have a better life. They also understand that it is important to get good grades to get into college. In fact, most of the students agreed or strongly agreed that they want a college degree, but more Hispanic students, both English- and Spanish-speaking (93\% of each group), feel that way than European American students (75\%). Thus, the students have very positiveattitudes with respect to their own academic competence and their future enrollment in college.

College preparation. Two-way students reported engaging in activities or behaviors that are conducive to doing well in college: taking part in classroom discussions, going back over work they do not understand, taking time to figure out school work, and doing homework on time. In addition, most twoway students know the entrance requirements for various colleges and have attended college presentations at their high schools.

Mathematics enrollment. Only six two-way students are enrolled in basic math classes; the others are taking higherlevel math, such as geometry, algebra, trigonometry, and calculus, which will help them prepare for college and get into more prestigious schools. However, more European American than Hispanic students are taking higher level math. Interestingly, Hispanic Spanish speakers are morelikely to be enrolled in higher level math courses than their native-English-speaking Hispanic peers. These results are in stark contrast to a number of studies demonstrating substantial differences in mathematics course taking among different groups, with Hispanic immigrant students typically enrolled in lower-level and basic math courses (see, e.g., Darling-Hammond, 1995).

Grades. Hispanic Spanish speakers reported the poorest grades (most Bs/Cs/Ds), and European American students reported the highest (mostly As or As/Bs), especially in Ianguage arts and social studies. However, a much higher percentage of Hispanic Spanish speakersthan Hispanic English speakers earn As and Bs in language arts and social studies courses, content areas that would typically be expected to favor a native English speaker over an English learner. Although Hispanic Spanish speakers receive fewer As and As/Bs in math and science than Hispanic English speakers, they are taking higher level math courses.

Dropout. In the United States, the school dropout rate for Hispanic students, especially Spanish speakers, is higher than for any other ethnic group (President's Advisory Commission on Educational Excellence for Hispanic Americans, 1996). M ost of the two-way students agree that they will not drop out of
school. Of those who have at least considered dropping out, most say they will stay in school because they need an education. Only a very small percentage of European American students, but one third of Hispanic English speakers and almost one half of Hispanic Spanish speakers, feel that their participation in the two-way program has kept them from dropping out of school.

Attitudes toward the two-way program. All of the students' attitudes toward the two-way program are very positive. Most believe that learning through two languages made them smarter and helped them do better in school. Hispanic students in particular felt valued in the program, were glad they participated in it, and would recommend it to other students. Although most students were in agreement, Hispanic students agreed more strongly than European American students that the two-way program challenged them to do better in school, gave them more confidence, and gave them a better education.

Attitudestoward bilingualism. Almost all students felt that being bilingual would help them get a better job. However, students differed in how they rated their use of and proficiency in Spanish. Overall, students reported using Spanish at least weekly. Hispanics were more likely to use it on a daily basis. While one might assume that native Spanish speakers would continue to use more Spanish at home and with their friends, survey results revealed otherwise. Only one fifth of Hispanic Spanish speakers useonly Spanish at home, and many use only or mostly English. Similarly, few Hispanic Spanish speakersuse only Spanish with their friends; most use both languages, although English dominates. While one fourth of students feel very uncomfortable speaking Spanish in public, most students report feeling comfortable. Twice as many Hispanics as European American students feel very comfortable.

M ost students rated their Spanish proficiency in a medium range; Hispanic Spanish speakers were slightly more likely to rate themselves in the higher range of proficiency. Most students felt that they werefluent in classroom discourse, although Hispanic Spanish speakers perceived their fluency with peers to be much higher than their fluency in the classroom. European American students were much morelikely than Hispanic students to be complimented as well as praised by a teacher or administrator for speaking Spanish.

School environment. M ost students rated their school and classroom environments as conducive to learning: they feel safe; discipline is fair; there are few fights among different ethnic groups; there is little gang activity; they do not feel discriminated against; they perceive that there are teachers who will help them if they need it; and they believe that teachers generally think they are smart.

## Benefits of Two-Way Program for Hispanic Spanish Speakers

M ost of the differences between the two-way students and the comparison students were not statistically significant. Each finding in and of itself could lead to the conclusion that a two-way program is no more advantageous for Hispanic English language learners than any other program. Examining the findings as a whole, however, there are a number of results that favor the two-way students. For example, it is particularly striking that almost half of the Hispanic Spanish speakers in this study believed that the two-way program kept them from dropping out of school. In addition, two-way students are more likely than their comparison peers to want to go to college immediately following high school. This may be due to their knowing significantly more than their non-two-way peers about college entrance requirements and being more likely to
have attended presentations about college. Thus, two-way students are more likely to know that they need to take higherlevel math courses to get accepted at college.

Indeed, thereis a huge difference in theenrollment in math courses. Almost half ( $47 \%$ ) of the comparison-group students are taking basic math compared to only 3\% of two-way students. For both groups, 30\% are enrolled in algebra and 2426\% in geometry. However, noneof the comparison students is taking algebra II or trigonometry/cal culus, whereas $28 \%$ of Hispanic Spanish speakers from two-way programs are enrolled in algebra II and 13\% in trigonometry/calculus.

## Conclusion

The results of this study areimpressive on two counts. First, they demonstrate that high school students who participated in the two-way program developed high levels of academic competence and motivation, ambitions to go to college, knowledge about how to apply to and get into college, and pride in bilingualism. In addition, they were highly satisfied with their education in the two-way program.

Second, the results point to the development of a sense of resiliency among Hispanic students, particularly those learning English and those from low-income families. These students appear to possess high self-esteem, motivation to study hard, belief in academic competence, perception of a positiveschool environment, a supportivefamily, and a peer group that values education - characteristics that have been identified with resilient and successful students, that is, those living in adversity or from high-risk environments but who are well adjusted and achieve academic success (Gándara, Larson, Rumberger, \& Mehan, 1998; Padrón, Waxman, \& Huang, 1999). Thus, it is not surprising that most of these students have ambitions to attend college and will not drop out of school.

## References

Darling-Hammond, L. (1995). Inequality and access to knowledge. In J. A. Banks \& C. A. M cGee Banks (Eds.), Handbook of research on multicultural education. New York: Macmillan.
Gándara, P., Larson, K., Rumberger, R., \& M ehan, H. (1998, May). Capturing Latino students in the academic pipeline(California Policy Seminar Brief Series No. 10). Retrieved April 5, 2002, from the California Policy Research Center Web site: http://www.ucop.edu/cprc/pipeline.html
Lindholm-Leary, K. J. (2001). Dual Ianguage education. Avon, England: Multilingual Matters.
Padrón, Y., Waxman, H., \& Huang, S. (1999). Classroom and instructional learning environment differences between resilient and non-resilient elementary school students. Journal of Education for Students Placed at Risk of Failure, 4, 6381.

President's Advisory Commission on Educational Excellence for Hispanic Americans. (1996). Our nation on the fault line: Hispanic American education. A report to the President of the United States, the Nation, and the Secretary of Education. Washington, DC: U. S. Department of Education. Retrieved April 5, 2002, from http://www.ed.gov/pubs/FaultLine/ index.html

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