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Impact of Two-way Bilingual Elementary Programs on Students' Attitudes Toward School and College

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**IMPACT OF TWO-WAY  
BILINGUAL ELEMENTARY  
PROGRAMS ON STUDENTS'  
ATTITUDES TOWARD SCHOOL  
AND COLLEGE**

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**CENTER FOR RESEARCH ON EDUCATION,  
DIVERSITY & EXCELLENCE  
2001**

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## Abstract

The purpose of this study was to examine the influence that participation in a two-way bilingual elementary program has had on former program participants' language and achievement outcomes; current schooling path and college plans; and attitudes toward school, self, and others. Study participants were current high school students who were enrolled in a two-way program throughout elementary school. Participants (n=142) were categorized into three ethnic/language groups: Hispanic previous English Language Learning (ELL) students (66%), Hispanic native English speakers (20%), and Euro American students (13%). Results suggest that most students valued their bilingualism and were still using Spanish, had very positive attitudes toward school and attending college, believed they would not drop out of school, and gave very high marks to the two-way program. Few ethnic/language group differences were found, with the exception that the program was evaluated much more favorably in some areas by Hispanic students compared to Euro students, with Hispanic former ELL students typically providing the highest ratings.



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## Impact of Two-Way Bilingual Elementary Programs On Students' Attitudes Toward School and College

Nationally, the academic performance of minority students is considerably below majority norms (e.g., August & Hakuta, 1997; Darling-Hammond, 1995; National Center for Educational Statistics, 2000; Riley, 2000). Recent research suggests that the school drop out rate for Hispanic students has risen at the same time it has decreased for other minority groups (McQueen, 2000; President's Advisory Commission on Educational Excellence for Hispanic Americans, 1996; Riley, 2000). A number of risk factors are implicated in school drop out for ethnic and language minority students; one of these factors includes limited-English-language proficiency at school entry. While many of these students are able to acquire the English skills necessary to carry on an everyday conversation, they often have difficulty mastering the academic language required for school-related tasks. Reviews of research on the underachievement of language minority students show that this negative trend is prevalent across the United States (August & Hakuta, 1997; National Center for Educational Statistics, 2000; President's Advisory Commission on Educational Excellence for Hispanic Americans, 1996; Riley, 2000). Studies such as these provide an overall picture of the persistence of unfavorable educational conditions for language minority students throughout the country.

Interest in the achievement of Hispanic students has gained momentum among professionals, parents, and even the White House (Bowman, 2000). Until recently, the majority of research in this area has concentrated on examining the poor achievement of these students within the public school system. However, educators are increasingly more focused on understanding what can be done to promote high achievement among Hispanic students (Galindo & Escamilla, 1995; Gándara, 1995; Gándara, Larson, Rumberger & Mehan, 1998; Padrón, Waxman, & Huang, 1999). Some research suggests that by focusing on the characteristics of successful students, it is possible to formulate programs that will assist Hispanic students in maintaining or improving their achievement and status in school (Gándara et al., 1998).

Research on resilient students—those who live in adverse situations but appear to adjust quite well—and successful students—those who come from high risk environments but achieve at high levels in school—has yielded a similar set of factors that are related to the achievement and adjustment of successful Hispanic students (Alva, 1991; Galindo & Escamilla, 1995; Gándara, 1995; Gándara, 1998; Padrón, Waxman, & Huang, 1999). Such factors include the following:

- 1) students' internal characteristics, such as motivation to study hard and a belief in academic competence;
- 2) a school environment that is safe and supportive and involves students in extracurricular activities;
- 3) a family that is supportive, places a high value on education, and influences and monitors the education of their children; and
- 4) a peer group that values education.

Over the past several years, the U.S. Department of Education has funded numerous two-way bilingual—also called two-way immersion or dual language education—programs at elementary schools across the country. These two-way programs integrate native English-speaking students and English Language Learning (ELL) students for all content instruction in two languages. The goal is to promote high levels of bilingual proficiency; academic achievement; and positive attitudes toward school, self, and others. Studies of several elementary school programs show that two-way programs that are implemented correctly have very positive student outcomes at the



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elementary and early middle school levels (Christian, Montone, Lindholm & Carranza, 1997; Lindholm-Leary, 2001; Lindholm & Molina, 2000; Thomas & Collier, 1997). There is little information, however, on the impact participation in these programs has on students' success in high school or on their preparation for college. Nor have there been studies exploring whether native English-speaking students continue to use Spanish after they exit these programs, how they rate their Spanish proficiency, or their attitudes toward the two-way program and bilingualism.

## Purpose of Study

The purpose of this study is to examine the influence that participation in a two-way bilingual elementary program has on former program participants' language and achievement outcomes; current schooling path and college plans; and attitudes toward school, self, and others. Study participants are now current high school students who were enrolled in the a two-way program through elementary school. A second purpose of the study is to compare the outcomes for three groups of students:

- 1) Hispanic Spanish bilinguals who began the program as ELLs (Hisp-SB);
- 2) Hispanic English bilinguals who began the program as English-only or English-dominant speakers (Hisp-EB); and
- 3) Euro American English bilinguals who entered the program as English-only speakers (Euro).

## Method

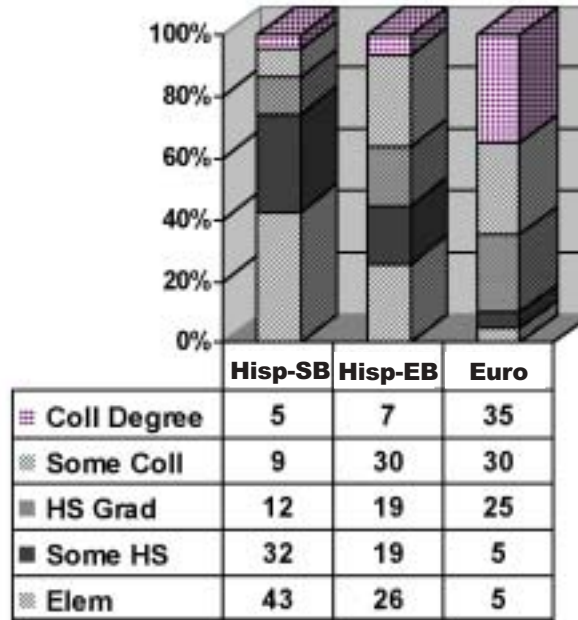
### Participants

#### Sample #1-Two-Way High School Students

A total of 142 students in Grades 9-12 participated in the study. The students had been enrolled in a two-way bilingual program since kindergarten or first grade at one of three public elementary schools in California, referred to in this report as School A, B, and C. Approximately equal numbers of boys (46%) and girls (54%) were represented among the students. About half were ninth or tenth graders (49%), and half were eleventh and twelfth graders (51%), with approximately one fourth of students representing each grade level. Of the 142 students, 84% identified as Hispanic/Latino/Mexican, 13% as Anglo/Euro American/White non-Hispanic, 2% as African American/Black, and 1% each as Asian and Native American. About 19% of the students identified themselves as biracial/biethnic. Half of the students (50%) who identified themselves as Hispanic biracial/biethnic ( $n = 20$ ) also identified as Euro, 40% as Native American, and 5% each as African American or Asian. For the two African American biracial/biethnic students, one identified as Hispanic and one as Euro. Five Euro students were biracial/biethnic, with one identified as Hispanic, and two each as Asian and Native American.

Students were categorized into one of three groups on the basis of their ethnic group (for biracial/biethnic students, the first ethnic group they identified with) and language background. While all students were bilingual at the time of the study, they were classified according to whether they started kindergarten as a native English speaker or a native Spanish speaker/English learner. For this sample, 66% of students were Hispanic Spanish bilinguals (Hisp-SB); 20% were Hispanic English bilinguals (Hisp-EB); and 13% were Euro American English bilinguals (Euro). The remaining eight students were not classified into any category, because there were too few African American, Asian American, or Native American students who participated in the study.

Figure 1. Mothers' Levels of Education



Students in these three ethnic/language groups differed considerably with respect to their mothers' educational backgrounds. As Figure 1 shows, significantly higher levels of education were represented among the parents of Euro American students, followed by Hispanic EB students. The lowest levels of education were found among Hispanic SB students ( $\chi^2 = 38.8, p < .001$ ). In fact, 43% of Hisp-SB students, 26% of Hisp-EB and 5% of Euro students had mothers with an elementary level education. In contrast, 65% of Euro, 37% of Hisp-EB, and only 14% of Hisp-SB students had mothers who had earned a college degree or attended some college.

Significantly more Hisp-SB students (77%) participated in the free lunch program while they were in elementary school than Hisp-EB (56%) or Euro (29%) students ( $\chi^2 = 15.58, p < .001$ ).

Over two-thirds of the students lived with both parents, although Hisp-EB (82%) were more likely than Hisp-SB or Euro (66% and 61%) students to live with both parents. About 11-15% of students lived with a single mother, 10% lived in a blended family, and 9% lived with other relatives or in some other situation.

## Sample #2 – Comparison Group – Non-Two-Way High School Students

A small sample ( $n = 17$ ) was selected as a comparison group for the Hisp-SB students; this sample comprised Hispanic students who had entered kindergarten speaking Spanish. In terms of the mothers' educational level, 44% of these students' mothers had an elementary education (compared to 42% of Hisp-SB students), 71% participated in the free lunch program (compared with 77% of Hisp-SB students), and close to two thirds (65%) lived with both parents (similar to the 66% of Hisp-SB who lived with both parents). Thus, these students were very similar in background to the Hisp-SB students, except that they had not participated in a two-way program during elementary school.

Most of the comparison students were found through the local boys or girls club. The reason for choosing students from a group organization rather than a school was the difficulty in obtaining a sample of comparable students who were attending a high

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school that was supportive of the project and for whom we could obtain permission from parents. Because these students were participating in an after-school activity, they were not the perfect comparison group; generally, students who participate in extracurricular activities are more likely to have positive attitudes toward school than those not participating in extracurricular activities (Alva, 1991). This comparison group is referred to as Hisp-sp.

## Instrumentation

Students in the study completed a questionnaire comprised of questions concerning identity and motivation; attitudes toward school; current schooling path and college ambitions; attitudes toward bilingualism and the two-way bilingual program; parental involvement and attitudes; and school environment. Considerably more students from School A (n = 81) and School C (n = 56) returned questionnaires than students at School B (n = 5). The Hisp-sp 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. Four items required students to rate their proficiency in Spanish. These items were based on the student rating portion of the Stanford Foreign Language Oral Skills Evaluation Matrix.

Most of the items were rated on a five-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (5). Some items asked students specific questions about the type of college they want to attend, how important it is to do well in school, their support systems, and their participation in extracurricular activities. Other items requested demographic information (e.g., ethnicity, mother's educational background, participation in free lunch program, household composition). [See the Appendix for specific items.]

## Procedures

The former two-way students were contacted through their classroom teachers and asked to complete the questionnaire. Students filled out the questionnaire on their own and returned it in a sealed envelope either directly to the researcher or to their teacher, who sent the questionnaires on to the researcher. The comparison students completed the questionnaires at a club meeting and returned them to the research assistant.

## Results

Overall, there were very few ethnic/language group differences among the groups of two-way students. Thus, results are displayed for the whole group, except when there are significant group differences or findings to underscore. Results for the Hisp-SB students will be highlighted, along with those of the comparison Hisp-sp, as it is these students who are most at risk for school dropout and most likely to lack preparation for college.

### Academic Competence and Attitudes Toward School

The first set of analyses examined students' academic competence and attitudes toward school. As Table 1 shows, students scored close to 4 (indicating agreement) on items regarding their academic competence, motivation and persistence, participation in school tasks (discussion, homework), and attitudes toward school subjects (reading, math) and school in general. Items representing behaviors associated with academic challenges, such as taking time to figure out school work, taking time to go back over work not understood, participating in classroom

discussions, doing homework on time, were rated slightly lower than the more attitudinal items about academic competence (good student, good at school work, reads well in English, can do almost any problem).

Two-way students' responses did not vary significantly according to their ethnic/ language background, with only one exception. In taking part in class discussions, Spanish Bilinguals (M = 3.3) were less likely to participate than English Bilinguals, regardless of their ethnic background (Euro M = 3.7, Hisp-EB M = 3.9). Though it was not a statistically significant difference ( $p = .06$ ), when answering the item "I read well in English," Euro students had the highest score (M = 4.4), followed by Hisp-EB (M = 4.1), and lastly by Hisp-SB (M = 3.8) students.

Table 1. Mean Scores for Academic Competence and School Attitude Items

ITEMS	All Two-Way Students HIGH SCHOOL Mean (SD)	Hisp-SB Two-way HIGH SCHOOL Mean (SD)	GROUP Differences
I am a good student	4.0 (.74)	4.0 (.75)	None
I am good at my school work	3.9 (.76)	3.9 (.76)	None
I can read <b>well</b> in English	4.0 (.92)	3.8 (.95)	None
I like challenging problems	3.4 (.88)	3.6 (.73)	None
I take time to figure out school work	3.7 (.85)	3.7 (.83)	None
I go back over work I don't understand	3.6 (.85)	3.6 (.89)	None
I can do almost any problem if I keep working at it	3.9 (.86)	3.9 (.86)	None
I take part in class discussions	3.5 (.90)	3.3 (.86)	** Hisp & Euro EB > Hisp-SB
I do homework on time	3.7 (.95)	3.7 (.92)	None
I like reading	3.5 (1.1)	3.5 (1.0)	None
I like math	3.5 (1.1)	3.4 (1.2)	None
I like school	3.7 (.95)	3.6 (1.0)	**Hisp-sp> Hisp-SB * School C>School A

Note. Range is from 1 (disagree strongly) to 5 (agree strongly)

\*  $p < .05$  \*\*  $p < .01$

The only item that revealed a significant difference by school site was whether students liked school; Hisp-SB students at School C were significantly more likely to answer that they liked school (M = 3.8) than their peers at School A (M = 3.4,  $t(85) = 2.1$ ,  $p < .05$ ). This was also the only item for which there was any difference between the Hispanic two-way students (M = 3.6) and the Hispanic comparison group (M = 4.4); the comparison group scored significantly higher than the two-way students ( $t(104) = 3.2$ ,  $p < .01$ ).

## Current School Environment

Students were asked a variety of questions about their classroom and school environment to determine the extent to which these environments were supportive of their ethnicity and achievement. As the means in Table 2 show, for the most part, two-way students perceived that they were accepted on campus by other students and by

teachers, that they did not experience discrimination, that teachers treated them well and respected their intelligence, and that there was at least one staff member they could talk to or who made them feel valued at school. Two-way students did not vary in their responses according to their ethnic/language background. However, Hispanic students at School C ( $M = 3.4$ ) were significantly more likely to report that there were gangs at their school than their peers at School A ( $M = 2.6$ ,  $t(85) = 3.2$ ,  $p < .01$ ).

Table 2. Mean Scores for School and Classroom Environment Items

ITEMS	All Two-Way Students HIGH SCHOOL Mean (SD)	Hisp-SB Two-way HIGH SCHOOL Mean (SD)	GROUP Differences
Students of all ethnic groups valued	4.0 (.87)	4.0 (.85)	None
I have experienced discrimination at school because of my ethnic background	2.4 (1.1)	2.4 (1.1)	None
I feel accepted by students of most ethnic groups at school	4.0 (.67)	3.9 (.72)	* Hisp-SB>Hisp-sp
Fights often occur between different ethnic groups at school	2.6 (1.0)	2.6 (1.0)	*** Hisp-sp>Hisp-SB
There are gangs at my school	3.0 (1.2)	3.0 (1.2)	** School C>School A ** Hisp-sp>Hisp-SB
Discipline is fair at this school	3.5 (.99)	3.4 (.96)	None
I don't feel safe at this school	2.1 (1.1)	2.2 (1.1)	None
Most kids care about each other in class	3.4 (.76)	3.4 (.75)	None
Most kids treated pretty equally in class	3.6 (.82)	3.6 (.86)	None
I feel valued at school by at least 1 student	3.8 (.94)	3.9 (.87)	None
I feel valued at school by at least 1 staff	3.8 (.87)	3.8 (.86)	None
I have at least 1 staff member at school I can talk to	3.9 (1.1)	3.9 (1.1)	None
Most teachers I have think I can do well	4.2 (.76)	4.2 (.71)	None
I feel comfortable getting help from at least one of my teachers	4.2 (.81)	4.0 (.86)	None
Teachers treat me like I'm smart	3.6 (.81)	3.6 (.78)	None
Some of my teachers treat me like I'm not smart	2.4 (1.1)	2.4 (1.1)	None

Note. Range from 1 (disagree strongly) to 5 (agree strongly)

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

Statistically significant differences also emerged between the Hispanic two-way and comparison students: the comparison Hisp-sp students were more likely to say there were gangs at their school and that fights erupted between different ethnic groups. Also, Hisp-sp students did not feel as accepted by other ethnic groups as did the two-way Hisp-SB students.

## Attitudes Toward and Preparation for College

Figure 2. Want College Degree

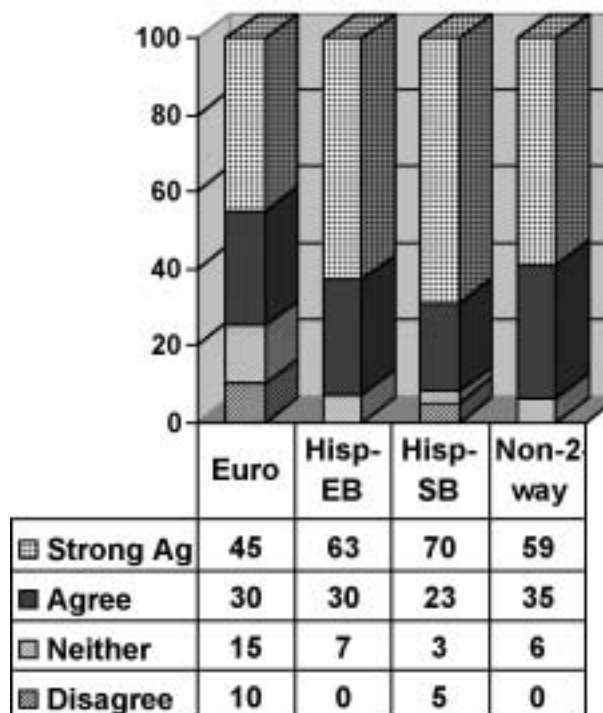


Table 3 presents the mean scores for items related to students' attitudes toward college and their preparation for college. As Table 3 indicates, most students of all three ethnic/language backgrounds and the comparison group fairly strongly agreed that they want a college degree (see Figure 2), that getting a good education is important, and that good grades are important. The only ethnic/language difference was that Hispanics, both SB and EB ( $M = 4.6$ ) more strongly agreed that they wanted a college degree than the Euro ( $M = 4.1$ ) students ( $F(2,135) = 3.2, p < .05$ ). There were no differences in these items by school site. Although more two-way than non-two way students were strongly in agreement that they wanted a college degree, there was no statistically significant difference in this area.

Most students planned to attend a 4-year college (60%), regardless of their ethnic/language background. However, 10% fewer Euro students expected to attend a 2-year college compared to Hispanic students.

Students who indicated that they wanted to attend college were asked when they planned to attend college: immediately after high school, after a one-year break, or eventually. Most students responded that they would attend immediately (62%), although 29% wanted to wait a year, and 10% chose "eventually." These responses varied by ethnic/language group, but the differences were not statistically significant ( $\chi^2 = 8.6, p = .07$ ). Hisp-SB students were most likely (68%) to want to go to college right after high school compared to Hisp-EB (56%) and Euro (40%) students. Further, Hisp-SB students in the two-way program (68%) were more likely to want to go right to college than their comparison peers (50%).

Table 3. Mean Scores for College Preparation and Attitude Items

ITEMS	All Two-Way Students HIGH SCHOOL Mean (SD)	Hisp-SB Two-Way HIGH SCHOOL Mean (SD)	GROUP Differences
I want a college degree	4.5 (.85)	4.6 (.81)	Hisp>Euro
Getting a good education is best way to have a better life when I'm older	4.8 (1.6)	4.9 (1.8)	None
It is very important to get good grades	4.4 (.72)	4.5 (.69)	None
Important to me that I do well — scale of 1 (not at all) to 4 (very)	3.6 (.80)	3.6 (.81)	None
Good grades are important for getting into college	4.5 (.89)	4.5 (.94)	None
I know the entrance requirements for the college I plan to attend	3.5 (1.0)	3.6 (.99)	** Hisp-SB>Hisp-sp
I have attended presentations at my high school to prepare for applying to college	3.4 (1.1)	3.4 (1.1)	* Hisp-SB>Hisp-sp
Some of my friends think I'm better than them because I want a good education	2.7 (.98)	2.8 (1.0)	None
Feel like an outsider among friends because I study hard	2.4 (1.0)	2.5 (1.0)	None
Hang around with kids who study a lot	3.2 (.92)	3.2 (.84)	None

Note. Range from 1 (disagree strongly) to 5 (agree strongly).

\* p < .05 \*\* p < .01

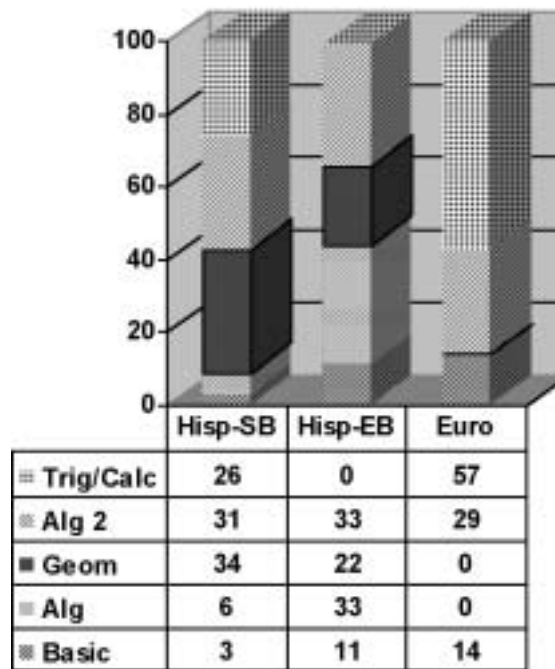
While the results are very positive regarding the percentage of students who view college and good grades as important for their future success, the actual grades students say they receive tell a slightly different story. Many students report average grades (Bs and Cs) in language arts, social studies, math, and science. However, grades in these areas vary significantly by group. As Table 4 demonstrates, Hisp-SB students received more Bs/Cs/Ds than the other groups. Euro students were more likely to obtain mostly As or As/Bs in language arts and social studies (61%); Hisp-SB received higher grades (51% As or As/Bs) than Hisp-EB students (30% As or As/Bs) ( $\chi^2 = 14.08, p < .05$ ). While Hispanic students received more Bs/Cs/Ds in math and science than did Euro students, there was no significant difference in the distribution of grades across the three ethnic/language groups, with these groups earning 28-39% As or As/Bs.

When the students' coursework in mathematics is examined, some interesting findings emerge. First, it is important to distinguish these findings according to grade level, as students could differ in which math class they were taking simply because of grade level. Thus, students were categorized into two grade levels: Grades 9-10 and Grades 11-12, with about half of the students represented at each grade level. At the ninth and tenth grade level, only 6% of students were enrolled in basic math: two Hisp-SB and one Hisp-EB. About one third of students were enrolled in algebra, and 30% of Hispanics, both SB and EB, were enrolled in geometry. However, twice as many Euro students (67%) compared to Hispanic students (28-30%) were taking algebra.

Table 4. Grade Distribution and Student Ethnic/Language Background

GRADE DISTRIBUTION ITEMS	Two-Way Students Hisp-SB	Two-Way Students Hisp-EB	Two-Way Students Euro
Grades in Language Arts/Social Studies			
Mostly As	16%	11%	28%
As/Bs	35%	19%	33%
<b>Total for Above</b>	<b>51%</b>	<b>30%</b>	<b>61%</b>
Bs/Cs	15%	44%	11%
Bs/Cs/Ds	34%	26%	28%
Grades in Math/Science			
Mostly As	7%	12%	11%
As/Bs	21%	23%	28%
<b>Total for Above</b>	<b>28%</b>	<b>35%</b>	<b>39%</b>
Bs/Cs	31%	35%	39%
Bs/Cs/Ds	41%	31%	22%

Figure 3. Type of Math Class Ethnic/ Language Background (Grade 11-12 Only)



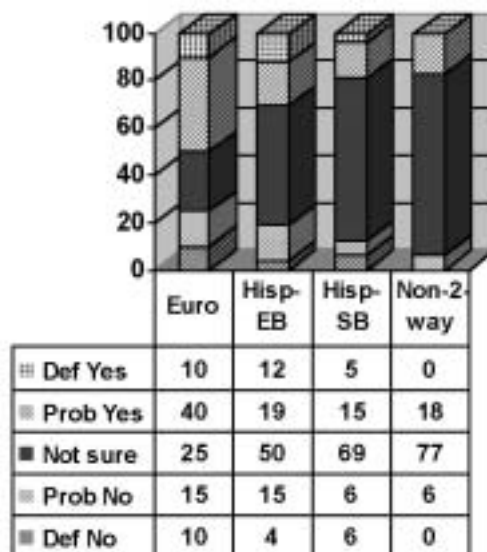
At the Grade 11 and 12 level, one student in each ethnic/language group was enrolled in basic math. Algebra and geometry accounted for 40% of Hisp-SB and 55% of Hisp-EB students. Another third (29-33%) from each group was taking algebra II. The biggest difference was in trigonometry/calculus, where 26% of Hisp-SB, no Hisp-EB, and 57% of Euro students were enrolled. This difference in distribution across ethnic/language groups was statistically significant ( $\chi^2 = 15.85, p < .05$ ).

In comparing the Hispanic two-way students and the comparison group students, it is clear that the two-way students were enrolled in higher-level math classes. These analyses were not carried out by grade level, as many of the comparison students did not provide their specific grade level. Almost half (47%) of the Hisp-sp students were



taking basic math compared to only 3% of two-way students. For both groups, 30% were enrolled in algebra and 24-26% in geometry. However, none of the comparison students were taking algebra II or trigonometry/calculus compared to 28% of Hisp-SB for algebra II and 13% for trigonometry/calculus. This variation in math class enrollment across the two groups was highly statistically significant ( $\chi^2 = 32.46, p < .001$ ).

Figure 4. Likelihood of Enrolling in AP Class



When students were asked about the likelihood of taking an Advanced Placement (AP) course, their responses varied according to ethnic language group ( $\chi^2 = 16.52, p < .05$ ). About half of the Euro students indicated that they probably or definitely would take an AP course, compared to only 20% of Hisp-SB and 31% of Hisp-EB students. Only 25% of Euro students were unsure whether they would take an AP course, although 69% of Hisp-SB and 50% of Hisp-EB were not sure. As Figure 4 indicates, there was little variation between Hisp-SB and their non-two-way peers (Hisp-sp) in their likelihood of enrolling in an AP course. Most were unsure (69-77%), although 18-20% were leaning toward a positive response.

In examining the knowledge base supporting college entrance (i.e., knowing the entrance requirements and having attended college presentations), two-way students did not vary. However, two-way Hispanics had more knowledge than their comparison peers about college entrance requirements ( $M = 3.6$  vs.  $M = 2.7, t(104) = 3.2, p < .01$ ) and were more likely to have attended presentations on colleges ( $M = 3.4$  vs.  $M = 2.7, t(104) = 2.2, p < .05$ ).

Participation in community activities and volunteerism did not vary much by group. Over half of Hisp-SB (61%), Hisp-EB (59%), and Euro (56%) were involved in church, boys or girls club, junior achievement or tutoring, community agencies or other community activities. Thus, most students were actively involved, which will facilitate their enrollment in a 4-year institution.

In addition, 35% were involved in athletics, 11% in performing arts, and 5% in school leadership. Another 25% were involved in other extramural activities, and 25% of students worked.

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Students in the study tended to disagree with the statements "Some of my friends think I'm better than them because I want to get a good education" ( $M = 2.7$ ) and "I feel like an outsider among my friends because I study hard" ( $M = 2.4$ ).

## School Drop Out

Obviously, the students participating in the study were still enrolled in school, because they answered the questionnaire. However, they provided some interesting insight into their attitudes regarding school drop out. In one question asking whether students intended to drop out of school, 89% said they would not, while 11% indicated they might. There were no statistically significant group differences in response to this question, but more Euro students (95%) than Hisp-EB or Hisp-SB students (88-89%) responded that they would not drop out of school. Students did not vary by grade level (Grades 9 - 10 vs. 11 - 12) in whether they would drop out, although 6% more ninth and tenth graders than eleventh and twelfth graders said they might drop out of school.

In another question asking how students felt about school, in an attempt to link their attitudes toward school to their likelihood of dropping out, almost half (47%) indicated that they liked school and would not drop out; almost half (41%) were bored but would stick with it; and another 6% did not feel they were getting anything out of school but did not intend to drop out. There were no significant ethnic/language group differences among students' responses.

When students were asked why they considered dropping out of school, if they ever had, nearly a third selected "work" as the major reason (32%). The reason "I don't care about school," yielded about 10% of responses, although this varied considerably by ethnic/language group, with 30% of Euro, 17% of Hisp-EB, and only 4% of Hisp-SB choosing this response.

In questioning students why they did not drop out of school if they had considered it, over half said they needed an education (57%), 12% said their parents would not let them, 9% had friends who had talked them out of it, and 19% said they just decided they did not want to drop out.

There was a significant difference between the three ethnic/language groups in the perception that the two-way program kept them from dropping out of school. Three times as many Hispanic SB (43%) and twice as many Hispanic EB (37%) compared to Euro (15%) students indicated agreement that the two-way program kept them from dropping out of school ( $\chi^2 = 15.3, p < .05$ ).

## Attitudes Toward the Two-Way Program

Table 5 presents the mean scores and percentages of students who agreed with items related to attitudes toward the two-way program. Most students agreed that learning two languages made them smarter, helped them learn how to think better, and helped them do better in school. Students also tended to agree that learning in two languages gave them a sense of accomplishment, gave them confidence to do well in school, and challenged them to do better in school than they would have otherwise. While there were no statistically significant group differences for most of these items, Hispanic, especially SB, students tended to have higher levels of agreement than Euro students. The difference was statistically significant for the item that the program challenged them to do better in school than they would have otherwise.

Figure 5. Benefits of Learning Through Two Languages

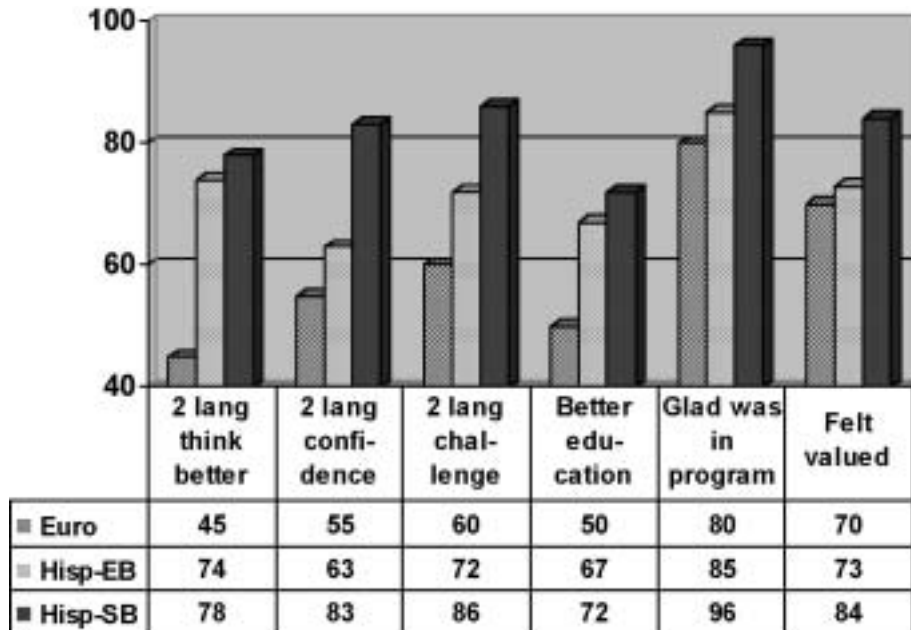


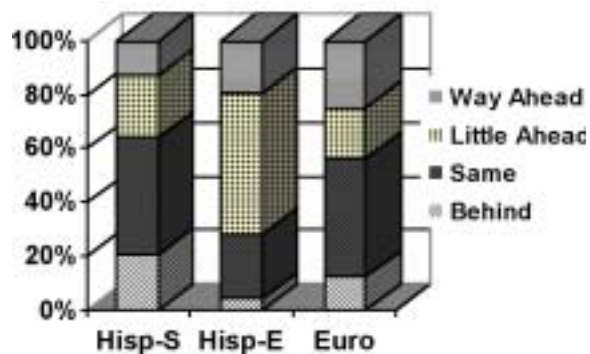
Table 5. Mean Scores (Standard Deviations) and Percent Agreement for Two-Way Attitude Items

ITEMS	All Two-Way Students HIGH SCHOOL Mean (SD)	Percent in Agreement (Strong Agreement)	Group Differences
Learning 2 languages made me smarter than learning only 1	4.2 (.89)	74% (49%)	None
Learning 2 languages helped me learn to think better	4.1 (.93)	72% (39%)	None
Learning 2 languages helped me do better in school	4.5 (.69)	92% (58%)	None
The two-way program gave me a greater sense of accomplishment	4.1 (.92)	78% (40%)	None
Learning 2 languages gave me more confidence to do well in school	4.1 (.91)	74% (42%)	None
The two-way program challenged me to do better in school	4.2 (.85)	79% (43%)	* Hisp-SB>Euro
I got a better education in the two-way program than I would have in a regular class	4.0 (.99)	67% (36%)	None
Learning through two languages will help me get a better job	4.7 (.63)	93% (77%)	** Hisp>Euro
I remember the two-way program with fond memories	4.4 (.88)	85% (61%)	None
I felt valued in the two-way program	4.2 (.91)	80% (45%)	* Hisp-SB>Euro
I'm glad I was in the two-way program	4.6 (.70)	91% (66%)	* Hisp-SB>Euro
I would recommend other kids take the two-way program	4.4 (.84)	86% (57%)	None

Most students also agreed that learning through two languages enabled them to get a better education, and their bilingualism would enhance their prospects of getting a better job. While almost all students felt that they would get a better job because of their bilingualism, Hispanic students were in stronger agreement with this idea than were Euro students ( $F(2,121) = 4.1, p < .05$ ). In addition, Hispanic, especially SB, students were more apt to agree that being in the two-way program gave them a better education than they would have had if they had been in some other program, although the group difference was not statistically significant.

Most students also agreed that they remembered the program fondly, felt valued in it, were glad they participated in it, and would recommend it to other kids. As Figure 5 illustrates, more Hispanic students, especially SB, tended to agree with these items than Euro students. For the items about feeling valued in the program and being glad they were in the program, there were statistically significant group differences ( $F(2,119) = 6.6, p < .05, F(2,121) = 4.0, p < .05$ ).

Figure 6. Achievement Compared to Non-Two-Way Peers



When students were asked how they compare in their schoolwork with peers who were not in a two-way program, a fifth of the students felt that they were behind students in non-two-way programs, whereas, 41% felt they were ahead of their peers. The remaining third of students felt their academic performance was comparable to that of their peers.

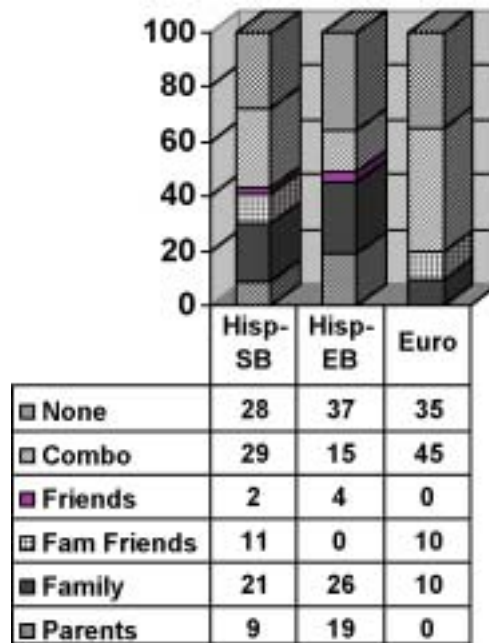
Students were also asked what they felt was the most important benefit of studying through Spanish. Job benefits (43%) came in first, however, a strong identity (24%) and having gotten a good education (17%) were also selected as the most important benefits.

## Support for and Use of Spanish

Students were asked a variety of questions in which they were to indicate what support and encouragement or discouragement they received for speaking Spanish, the frequency with which they spoke Spanish, and the contexts in which they used Spanish.

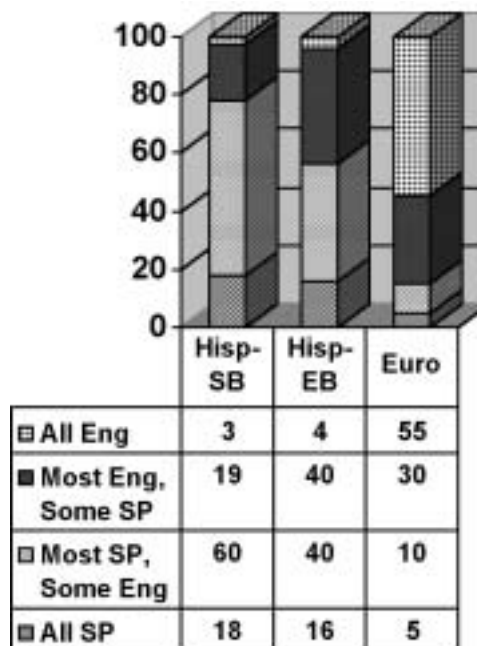
When students were asked how often they used Spanish, from never (1) to daily (5), there was a statistically significant ethnic/language group difference ( $F(2,124) = 5.7, p < .01$ ). According to Scheffé comparisons, Hisp-SB ( $M = 4.6$ ) and Hisp-EB ( $M = 4.7$ ) students used Spanish significantly more often than Euro students ( $M = 3.9$ ). However, looking at the means, the Euro students did use Spanish weekly on average. Therefore, overall students were using Spanish on a regular basis.

Figure 7. Contexts in Which They Speak Spanish



In asking students with whom they use Spanish, Figure 7 shows that one quarter (Hisp-SB) to one third (Hisp-EB and Euro) of students did not use Spanish with family, family or personal friends, or in social settings. Few students, including only 9% of Hisp-SB, used Spanish with their parents. Another 10-26% spoke Spanish with family members. Overall, about 10% (Euro) to 30% (Hisp-SB) to 45% (Hisp-EB) of students used Spanish within a family context (with family or parents). Surprisingly few students (0-4%), even native Spanish speakers, used Spanish with close friends and another 0-11% spoke Spanish with family friends. From 15-45% of students used Spanish in some of these contexts.

Figure 8. Language Use at Home



Students' responses in rating how often they used each language at home (see Figure 8) revealed substantial variation by ethnic/language group ( $\chi^2 = 55.6, p < .001$ ). Not surprisingly, Euro students were most likely to use all English at home. However, the result that only 18% of native Spanish-speaking students use only Spanish at home was surprising. In fact, almost one quarter of these students were using all English or mostly English. In addition, 80% of Hispanic and 40% of Euro students were using both languages at home.

Similarly, when we look at language use with friends, there is also a statistically significant relation between language use and ethnic/language group ( $\chi^2 = 25.6, p < .001$ ). Few students used only Spanish with their friends, but 10-37% used mostly Spanish and some English, including the native English speaking students. In all, 55-82% of students spoke both languages, although English was more predominant. These data on language use are consistent with students' responses about how many of their friends speak Spanish: from none, one to two, small group (three to five), or many/most. Their answers did not vary by ethnic/language group. Few students said they had no friends who spoke Spanish (4-6%). Most students indicated that they had many or that most of their friends spoke Spanish, although the percentages varied from 55% among Euro students to 81% among Hisp-SB students. Thus, it is not surprising that many students used at least some Spanish with their group of friends.

It is one thing to know Spanish and have friends who speak it, but another for adolescents to feel comfortable speaking it in public. As Figure 10 illustrates, twice as many Hispanic students, both SB and EB (53-60%), compared to Euro (30%) students, felt "very comfortable" speaking Spanish in public. Overall, from 60-72% of students felt at least "comfortable" speaking Spanish. It is interesting that a quarter of students felt "very uncomfortable" speaking Spanish in public.

Figure 9. Language Use With Friends

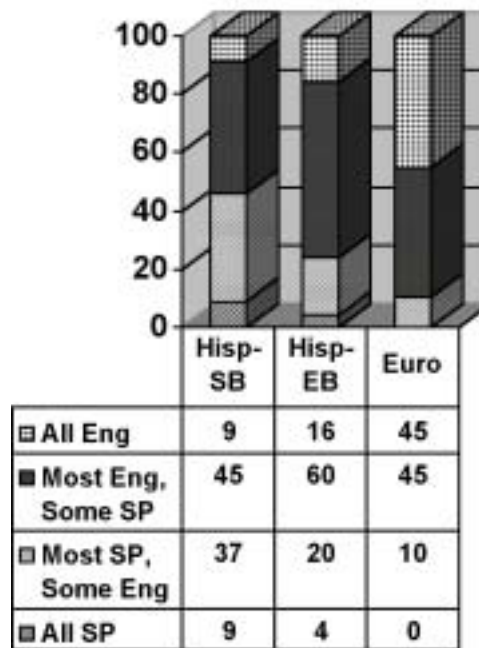
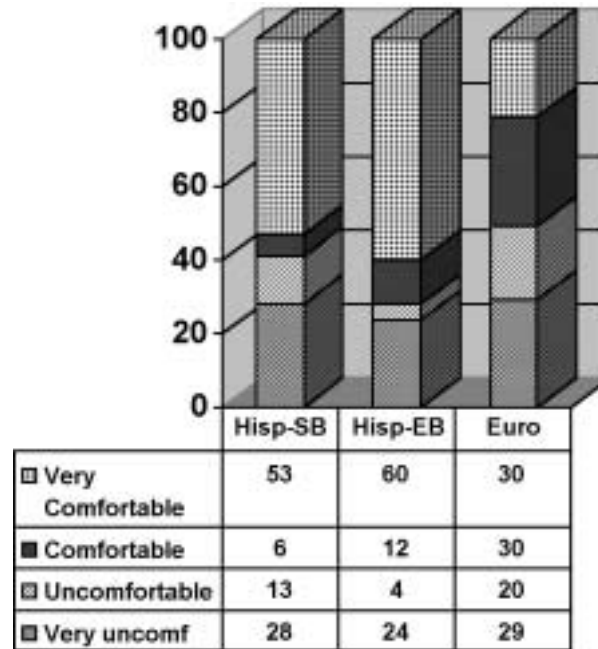


Figure 10. Comfort Level Speaking Spanish in Public



This discomfort may reflect how students think that others perceive them speaking Spanish. Thus, students were asked how often they were made fun of and how often they were complimented when speaking Spanish, whether teachers ever put them down for using Spanish, and whether they were praised for being bilingual. Most students (77%) disagreed that teachers had ever put them down for using Spanish. Similarly, almost two-thirds of students said they had never (or maybe once) been made fun of for using Spanish, although this percentage varied from 55% for Euro to 80% for Hisp-EB students. About a quarter of students said they had been made fun of a few times. On the other hand, close to half of students (48%) said they had been complimented many times for their Spanish; Euro students (70%) perceived many more compliments than Hispanic students (45%). Similarly, 55% of Euro students had been praised by teachers or administrators for being bilingual compared to 41% of Hisp-SB and 36% of Hisp-EB students.

Questions were also asked about parents' pride in the students' bilingualism, and whether they encouraged students to keep up their Spanish. Almost all students perceived that their parents were proud that they were bilingual, although this result was stronger for Hispanic than Euro students. Also, the majority of students felt that their parents encouraged them to keep up their Spanish, with Hisp-EB parents stronger advocates of Spanish than the other parents.

One way for students to keep up their Spanish is to have siblings in the two-way program with whom they can practice their Spanish. At least three-fourths of students reported that they had a sibling in the immersion program.

## Attitudes Toward Bilingualism and Proficiency in Spanish

Almost all of the students were proud of being bilingual, and they were also in agreement that they speak a language other than English. These findings hold regardless of the ethnic/language background of the students. However, these results also show that Hisp-SB students, while proud they were bilingual, were less likely to strongly

agree that they speak a language other than English. Because they come from Spanish-speaking homes and are around native Spanish speakers more often than the other two groups of students, they most likely had a different—and higher—standard of comparison for evaluating their Spanish proficiency.

Tables 6 and 7 present results from the students' ratings of their proficiency in Spanish listening comprehension, fluency, vocabulary, and grammar. Three fourths of Hisp-SB and Euro students and half of Hisp-EB students rated themselves at a level 4 or 5 on the 5-point scale for listening comprehension. There was a statistically significant difference in ratings across the groups ( $\chi^2 = 33.8, p < .001$ ). It is interesting that a third of the Hisp-EB and 18% of the Hisp-SB students rated their listening comprehension at a level 1 or 2, whereas only 10% of Euro students did. With respect to fluency in Spanish, the distributions were quite different across the ethnic/language groups, although this variation was not statistically significant. Two-thirds of Hisp-SB, half of Hisp-EB, and one third of Euro students rated their fluency as a 4 or 5. Across all groups, about a third figured they were a level 4. However, a quarter of all Hisp-EB and Euro students, but only half as many Hisp-SB students, decided they should rate their fluency as a 1. At least two thirds of students rated themselves as a 3 or higher: 78% (Hisp-SB), 67% (Hisp-EB), and 65% (Euro).

Table 6. Ratings of Spanish Proficiency: Listening Comprehension and Fluency

ITEMS	Hisp-SB	Hisp-EB	Euro
<b>Spanish Listening Comprehension</b> <i>Significant group differences (<math>\chi^2 = 33.8, p &lt; .001</math>)</i>			
<b>Level 1:</b> Can understand simple questions & statements in short dialogues if they are repeated at slower-than-normal speed	8%	19%	0%
<b>Level 2:</b> Can understand main point(s) of a short dialogue if spoken at slower-than-normal speed; may need repetition	10%	15%	10%
<b>Level 3:</b> Can understand most of what is said (all main points & most details) at near normal speed	10%	11%	15%
<b>Level 4:</b> Can understand nearly everything at normal speed, although occasional repetition may be necessary	9%	4%	55%
<b>Level 5:</b> Can understand everything at normal speed like a native speaker	63%	48%	20%
<b>Totals for Levels 4-5</b>	<b>72%</b>	<b>52%</b>	<b>75%</b>
<b>Spanish Fluency</b> <i>No significant group differences</i>			
<b>Level 1:</b> Can participate in simple conversation on familiar everyday topics at slower-than-normal speed	12%	26%	25%
<b>Level 2:</b> Can express myself using simple language but make mistakes and pause a lot when trying to express complex ideas	11%	7%	10%
<b>Level 3:</b> Can effortlessly express myself at near normal speed. Occasionally have to slow down when expressing complex ideas and less-common expressions	16%	15%	30%
<b>Level 4:</b> Generally fluent, but occasionally have minor pauses when I search for the correct manner of expression	33%	33%	30%
<b>Level 5:</b> Native-like fluency	29%	19%	5%
<b>Totals for Levels 4-5</b>	<b>62%</b>	<b>52%</b>	<b>35%</b>



As Table 7 shows, half of Hispanic students and one third of Euro students gave themselves a 4 or 5 for vocabulary. Between 14-22% of students did not feel that their vocabulary was adequate and rated it a 1. However, the majority of students rated their vocabulary at a level 3 or higher (75% for Hisp-SB, 64% for Hisp-EB, and 70% for Euro).

Table 7. Ratings of Spanish Proficiency: Vocabulary and Grammar

ITEMS	Hisp-SB	Hisp-EB	Euro
<b>Spanish Vocabulary</b> <i>No significant group differences</i>			
<b>Level 1:</b> Enough vocabulary to make simple statements and ask questions in a simplified conversation	14%	22%	15%
<b>Level 2:</b> Adequate working vocabulary. Know some synonyms and can express simple ideas in a few ways	12%	15%	15%
<b>Level 3:</b> Enough vocabulary to participate in everyday conversation and know many alternate ways of expressing simple ideas	21%	15%	35%
<b>Level 4:</b> Enough vocabulary to participate in more extended discussions on various topics. Also know nuances of some words and expressions	31%	30%	25%
<b>Level 5:</b> Extensive native-like vocabulary	23%	19%	10%
<b>Totals for Levels 4-5</b>	<b>54%</b>	<b>49%</b>	<b>35%</b>
<b>Spanish Grammar</b> <i>No significant ethnic/language group differences</i>			
<b>Level 1:</b> Produce very basic sentence patterns with frequent grammatical errors	17%	12%	5%
<b>Level 2:</b> Few complex sentence constructions with noticeable grammatical errors	7%	4%	10%
<b>Level 3:</b> Good range of complex patterns and grammatical rules, with occasional errors	29%	44%	50%
<b>Level 4:</b> Good command over a large range of complex grammar and errors are infrequent	34%	28%	25%
<b>Level 5:</b> Native-like command of complex grammatical patterns	14%	12%	10%
<b>Totals for Levels 4-5</b>	<b>48%</b>	<b>40%</b>	<b>35%</b>

Spanish grammar received the lowest ratings, with one third to one half of students feeling like they had at least a good command (levels 4-5). Few students believed they were only a 1 (5-17%), although they were more likely to select 1 if they were Hisp-SB (17%) than Euro (5%). Most students rated themselves at least a 3 or higher (77% for Hisp-SB, 84% for Hisp-EB, and 85% for Euro). Again, Hisp-SB students rated themselves lower than Hisp-EB or Euro students. It is hard to believe that the Hisp-SB students had any less command over Spanish than their native English speaking peers in the two-way program.

Another question looked at how the students rated their ability to use Spanish with their friends in the classroom, from 1 (not at all fluent) to 5 (very fluent). Overall, students rated their fluency at least a 3.5 among friends, and there was a statistically significant ethnic/language group difference ( $F(2,2123) = 5.5, p < .01$ ). According to Scheffé comparisons, Hisp-SB students ( $M = 4.3$ ) scored significantly higher than Euro students ( $M = 3.6$ ). In the classroom context, however, there was no statistically significant ethnic/language group variation. There were differences in the proficiency

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with which the various groups rated themselves in these two contexts. Using paired-comparison t-tests, Hisp-SB students rated their proficiency higher with peers than in the classroom ( $M = 4.3$  vs.  $M = 4.1$ ,  $t(76) = 2.6$ ,  $p < .05$ ). For the other two ethnic/language groups, there was no significant difference between their self-rated proficiency among friends compared to the classroom.

Students' level of proficiency with friends might have been influenced by their ability to use common adolescent language and appropriate colloquialisms. This type of communication, necessary for peer talk, is not typically found in the language used and learned in the classroom. When students were asked if they wished they had learned more colloquial Spanish, 70% of Euro students, 41% of Hisp-SB students, and 33% of Hisp-EB students agreed that they would have benefited from learning more colloquial Spanish.

Finally, students were asked to rate the extent to which they felt they were bicultural. Responses to this item varied but not significantly. Only 35% of Euro, 49% of Hisp-SB, and 65% of Hisp-EB students felt that they were bicultural. Because they were agreeing or disagreeing with the statement "I am bicultural," it is possible that many students did not perceive that they knew enough about Hispanic culture to agree or even strongly agree with that statement. About 30% of students were unsure, and another 20% of students disagreed. What is interesting is that the Hisp-EB students were more likely to feel bicultural than the Hisp-SB students.

## Discussion

In sum, the results are generally very positive and show few differences among program participants. Most students possess fairly high academic competence and are motivated to do well in school. They value education and strongly believe that getting a good education is the best way to have a better life. Almost all students want a college degree, but Hispanic students more strongly do than Euro students. Hispanic students also understand that it is important to get good grades to get into college. Thus, with respect to their own academic competence and attitudes toward college, the students have very positive attitudes.

In terms of college preparation, most students engage to some extent in 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 two-way students know the entrance requirements for various colleges and have attended college presentations at their high school.

Students are also enrolled in higher-level math classes (algebra II, trigonometry/calculus), which will help them prepare for college and get into more prestigious schools. At both grade levels (9-10 and 11-12), however, Euro students are taking higher-level math courses than their Hispanic peers. Interestingly enough, Hisp-SB students are more likely 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 that have demonstrated substantial differences in mathematics course-taking among different ethnic groups, with Hispanic and immigrant students typically enrolled in lower-level and basic math courses (Darling-Hammond, 1995; Olneck, 1995). Thus, these data demonstrating the higher level of advanced math courses among the Hispanic as well as Euro students are very encouraging as another step in preparing these students for college.

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In terms of grades, Hisp-SB students have the poorest grades (most Bs/Cs/Ds), and Euro students have the highest grades (mostly As or As/Bs), especially in language arts and social studies. However, a much greater percentage of Hisp-SB students than Hisp-EB students earn As and Bs in language arts and social studies courses, content areas that would typically favor a native English speaker over an English learner. While Hisp-SB students receive fewer As and As/Bs in math and science than Hisp-EB students, they are taking higher level math courses.

As pointed out previously, the national rate for school drop out for Hispanic students, especially Hispanic ELLs, is higher than for any other ethnic group and has risen while it has decreased for other groups (Riley, 2000). Among the two-way students, most are in agreement that they are not inclined to drop out of school. Obviously, this is a sample of students who have so far stayed in school. However, even 87% of ninth and tenth graders, together with 93% of eleventh and twelfth graders, say 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 Euro students, but one third of Hisp-EB and almost one half of Hisp-SB students feel that the two-way program has kept them from dropping out of school.

Students' attitudes toward the two-way program were very positive. Most believed that learning through two languages helped them learn to think better, made them smarter, and helped them do better in school. Students, especially Hispanics, felt valued in the two-way program, were glad they participated in it, and would recommend it to other students. Although most students were in agreement, Hispanic students felt even stronger that the two-way program challenged them to do better in school, gave them more confidence to do well in school, and gave them a better education.

Almost every student 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 used Spanish at least weekly, although 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, these students revealed otherwise. Only one fifth of Hisp-SB students use all Spanish at home and many use all or mostly English. Similarly, few Hisp-SB students use only Spanish with their friends, and most use both languages, although English predominates. While one fourth of students feel "very uncomfortable" speaking Spanish in public, most students feel comfortable. Twice as many Hispanics compared to Euros feel "very comfortable."

Most students rated their proficiency at a medium range; Hisp-SP students were slightly more likely to rate themselves in the higher range of proficiency. Most students felt that they were fluent in classroom discourse, while Hisp-SB students perceived their fluency with peers to be much higher than their fluency in the classroom. Euro students were much more likely to be complimented as well as praised by a teacher or administrator for speaking Spanish than were Hispanic students.

While almost all students were proud they were bilingual, ratings were lower when it came to examining biculturalism. Hisp-EB students were most likely to agree that they were bicultural and twice as likely as their Euro peers, with Hisp-SB falling in between.

Most 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 (although there is more at one school site than another); they do not feel discriminated against; they perceive that there are teachers

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who will help them if they need it; and they feel that teachers generally think they are smart. Whether the schools that these students attend would be considered to be “effective schools,” —those typically associated with higher levels of achievement (Levine & Lezotte, 1995)—the students view them as possessing characteristics associated with effective schools and therefore higher achievement.

In looking at the differences between the two-way students and the comparison students, at first glance, most of the differences were not statistically significant. Each finding, in and of itself, could lead to the conclusion that the two-way program is no more advantageous for the Hispanic ELL student than other programs. However, when we examine the findings as a whole, there are a number of results that favor the two-way students. While both groups of students aspire to attend college, students in the two-way program are more prepared to move into a 4-year institution. Two-way students are more likely to want to go right to college than their comparison peers. This may be because Hisp-SB students know significantly more than their non-two-way peers about the entrance requirements and are more likely to have attended presentations about college. Thus, the two-way students are more likely to know that they need higher-level math courses. There was a huge difference in the enrollment in math courses; close to half of the comparison students were in basic math compared to only one Hisp-SB student, and no comparison students were in the advanced algebra II or trig/calculus courses compared with 41% of two-way students.

Taken together, these results are impressive on two counts. First, they demonstrate that high school students who participated in the two-way program achieved high levels of academic competence and motivation; developed ambitions to go to college and knowledge about how to pursue college; were proud to be bilingual and continued to use Spanish after they finished the program; and were very satisfied with the education they received in the two-way program.

Second, the results point to the development of a sense of “resiliency” among the Hispanic, particularly ELL and low income, students. These students have developed or appear to possess many of the characteristics of “resilient” students, described earlier in this report. These include certain internal traits, such as high self esteem, a motivation to study hard, and a belief in one’s academic competence; the perception of a positive school environment; a supportive family that places a high value on education and influences and monitors the education of their children; and a peer group that values education and does not use drugs (Alva, 1991; Galindo & Escamilla, 1995; Gándara, 1995; Gándara, Larson, Rumberger & Mehan, 1998; Padrón, Waxman, & Huang, 1999). Thus, it is not surprising that more of these students have ambitions to attend college and will not drop out of school.

This research also points to further work that needs to be done. While we have seen that the Hispanic students want to attend college and know that getting a good education is important, they may be unclear about how to prepare for college. While they are aware of college entrance requirements, have attended presentations about college, and know that going to college and getting good grades are important, Hispanic, particularly Hispanic-SB, students need higher grades if they are to get into the 4-year colleges to which they aspire.

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## Appendix: Student Questionnaire

Please mark on the attached answer sheet the extent to which you agree or disagree with the following statements. Please answer as carefully and truthfully as you can, as there is not a particular right or wrong answer. Be sure to bubble in each response clearly. Make only one choice for each item. **YOUR ANSWERS ARE CONFIDENTIAL!**

1                      2                      3                      4                      5  
STRONGLY AGREE    AGREE    NEITHER AGREE NOR DISAGREE    DISAGREE    STRONGLY DISAGREE

1. I am good at my school work.
2. I like the way I am leading my life.
3. I am happy with myself most of the time.
4. Sometimes I feel pressured not to hang out with kids from another cultural group.
5. I think that all people should be treated equally.
6. Students of all ethnic backgrounds are valued at my school.
7. Most kids care about each other in my classes.
8. Most kids treat each other pretty equally in our classes.
9. I am a good student.
10. I like challenging problems because I enjoy trying to figure them out.
11. I like challenging schoolwork because I find it more interesting.
12. I can do almost any problem if I keep working at it.
13. Sometimes people think I'm not very smart because all they see is what I look like.
14. I don't feel safe at this school.
15. Discipline is fair at this school.
16. Fights often occur between different racial/ethnic groups at my school.
17. I feel comfortable getting help from at least one of my teachers.
18. I have at least one staff member at school that I can talk to.
19. I feel pretty accepted by students of most ethnic groups.
20. I like reading.
21. I like mathematics.
22. I like school.
23. I read well in English.
24. I can speak a language other than English.
25. My parents expect me to go to college.
26. My parents think I can do well in school.
27. My parents keep in touch with my teachers and know how I'm doing in school.
28. My parents make sure I get my homework done.
29. At home, I usually get to help make decisions about things that affect me.
30. My parents help me when I need it.
31. My parents expect me to do well in school.
32. My parents know who my friends are.
33. Most teachers that I have this year think I can do well in school.
34. I want to get a college degree.
35. When I have homework, I usually get it all done on time.
36. Getting a good education is the best way to have a better life when I'm older.
37. I don't care whether I understand something or not as long as I get the right answer.
38. I take part in class discussions.
39. When I'm with my friends at school, I usually end up doing what they want to do, even if I don't want to do it.
40. Teachers treat me like I'm smart.
41. It is very important to get good grades.
42. When doing my schoolwork, I guess a lot so that I can finish quickly.
43. I take my time to figure out my work.
44. I go back over schoolwork I don't understand.

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1                      2                      3                      4                      5  
STRONGLY AGREE    AGREE    NEITHER AGREE NOR DISAGREE    DISAGREE    STRONGLY DISAGREE

- 45. I spend some time thinking about how to do my work before I start it.
- 46. I have someone who encourages me to do well in school.
- 47. I know the entrance requirements for the college I plan to attend.
- 48. I have attended presentations at my high school to prepare me for applying to college.
- 49. I spend most afternoons hanging out with my friends.
- 50. I don't do well in school-related stuff, but I am competent in something important to me.
- 51. One or more teachers has put me down for using my native language/dialect (e.g., Spanish, black English)
- 52. I feel a lot of pressure to join a gang.
- 53. I have at least one person I'm close to who uses drugs a lot.
- 54. There are gangs in my school.
- 55. My parents are too busy to spend time with me.
- 56. I feel valued at home by my parents.
- 57. My parents are pretty strict.
- 58. I feel valued at school by at least one teacher or staff member.
- 59. I feel valued at school by at least one student.
- 60. There is at least one thing I do well at school.
- 61. Some of my teachers now or in the past have treated me like I'm not very smart.
- 62. I have experienced discrimination at school because of my ethnic/racial background.
- 63. When I can't figure something out, I find someone who can help me.
- 64. I have someone outside my family (e.g., church, community agency, support group) I can turn to for help.
- 65. Most of my classmates now or in the past have treated me like I'm not very smart.
- 66. Good grades are important for getting into college.
- 67. I feel pressured by my peers not to do well in school.
- 68. Some of my friends think I'm better than them because I want to get a good education.
- 69. I feel like an outsider among my friends because I study hard.
- 70. I hang around with other kids who study a lot.

**For the following questions, select the answer that best describes what you think.**

- 71. What is most current math class you've been enrolled in?
  - a) Basic Math/General Math/Consumer Math
  - b) Algebra
  - c) Geometry
  - d) Algebra II
  - e) Trig or calculus
- 72. With whom do you primarily live?
  - a) Mom and Dad
  - b) Blended family (mom & stepdad/boyfriend; dad & stepmom/girlfriend)
  - c) Mom as single parent
  - d) Other relatives (grandparents, aunts/uncles)
  - e) Other situation
- 73. What is highest level of education your mother has?
  - a) elementary school
  - b) junior high or some high school
  - c) high school graduate
  - d) some college/community college/trade school



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- e) college degree
74. Throughout school, would you say that you were typically
- participating in the free or reduced price lunch program
  - not participating in the free or reduced price lunch program
75. What are your college plans after high school?
- I plan to go to college right after high school
  - I plan to go to college after a one-year break to travel or work
  - I want to go to college eventually, but do something else first
  - I don't want to go to college.
76. If you want to go to college, what type of college?
- 2 year community or vocational
  - 4 year state university (e.g., San Jose State, UCLA)
  - private university or college (Howard, Stanford)
77. To whom would you go for help if you had a school or homework-related problem?  
(Bubble in all that apply)
- Friend
  - Parent
  - Teacher/ Counselor
  - Sibling/Other family
  - Other
- (no bubble) None of the above
78. To whom would you go for help if you had a personal problem?  
(Bubble in all that apply)
- Friend
  - Parent
  - Teacher/ Counselor
  - Sibling/Other family
  - Other
- (no bubble) None of the above
79. I participate in the following types of community activities (Bubble in all that apply)
- church youth program
  - boys or girls club or scouts
  - junior achievement/tutoring
  - volunteer at community agency
  - Other
- (no bubble) None
80. I participate in the following types of extramural (after-school) activities  
(Bubble in all that apply)
- athletics (individual/team sports)
  - performing arts (choir,band,orchestra,cheerleading,drama)
  - school government leadership/clubs (yearbook, honor society, student government, leadership)
  - work
  - Other

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(no bubble) None

81. I would describe myself as:
- a) Latino/Hispanic/Mexican/Mexican American/Other Latino heritage
  - b) African American/Black
  - c) Anglo/White non-Hispanic
  - d) Asian/Filipino/Chinese/Japanese/Korean
  - e) Native American/Alaskan Native/American Indian
82. If you are biracial, which is the second group you identify with (select from above)
83. Which group do you **mostly** hang out with?
- a) Mostly Latino friends
  - b) Mostly African American friends
  - c) Mostly Anglo friends
  - d) Mostly friends of other groups not mentioned
  - e) A real mixed group—it's hard to say mostly any one group
84. How likely are you to drop out of high school before graduating?
- a) Definitely won't
  - b) Probably won't
  - c) Not sure
  - d) Probably will
  - e) Definitely will
85. If you have considered dropping out of school, why?
- a) to work
  - b) pressure to join friends who have dropped out
  - c) don't care about school
  - d) Other
86. If you have considered dropping out but didn't, why not?
- a) My parents wouldn't let me
  - b) Friends talked me out of it
  - c) I really didn't want to
  - d) A teacher, counselor or someone at school talked me out of it
  - e) I need an education for my future
87. What has motivated you to continue in school?
- a) Role models/mentor/tutor
  - b) Parents/other relatives
  - c) Friends/classmates
  - d) I really like school
  - e) Thinking about my future
88. How likely are you to enroll in an Advanced Placement (AP) class in the future?
- a) Definitely won't
  - b) Probably won't
  - c) Not sure
  - d) Probably will
  - e) Definitely will
89. What kinds of grades do you usually get in math and science?
- a) mostly A's
  - b) A's and B's
  - c) B's and C's
  - d) B's and C's and D's

- 
- e) C's and D's
90. What kinds of grades do you usually get in English and social studies?
- a) mostly A's
  - b) A's and B's
  - c) B's and C's
  - d) B's and C's and D's
  - e) C's and D's
91. How important to you is it that you do well in school?
- a) Not at all important
  - b) Not very important
  - c) Somewhat important
  - d) Very important
92. How important to your parents is it that you do well in school?
- a) Not at all important
  - b) Not very important
  - c) Somewhat important
  - d) Very important
93. When you were in elementary school, what special programs did you participate in? (Bubble in all that apply)
- a) bilingual education—I was not proficient in English when I entered school
  - b) bilingual education—I was proficient in English when I entered school
  - c) special education
  - d) speech classes
  - e) gifted/talented
  - (no bubble) None
94. If you were not proficient in English when you entered school, what type did you receive?
- a) Nothing B just survived in English
  - b) ESL/Some specialized English instruction B for a year or two
  - c) ESL/Some specialized English instruction B for many years
  - d) bilingual (they used my home language) B for a year or two
  - e) bilingual (they used my home language) B for most of elementary school
95. If you were not proficient in English when you entered school, how do you feel about the educational preparation you received?
- a) I learned to speak, read and write in English very well; and I can still speak my home language
  - b) I learned to speak, read and write in English very well; BUT I can NOT really still speak my home language very well
  - c) I learned to speak well in English, but not to read or write very well; and I can still speak my home language
  - d) I learned to speak well in English, but not to read or write very well; BUT I can NOT really speak my home language very well
96. When I do well in school, the MAJOR reason is because:
- a) I studied hard
  - b) I am smart
  - c) the teacher explained things well

- 
- d) the work was easy.
- 97. When I do poorly in school, the MAJOR reason is because:
    - a) I did not study much
    - b) I am not smart
    - c) the teacher did not explain things well
    - d) the work was too hard.
- 98. What is your current GPA in school?
    - a) 3.5-4.0 (B+/A)
    - b) 3.0-3.4 (B/B+)
    - c) 2.5-2.9 (C+/B)
    - d) 2.0-2.4 (C/C+)
    - e) 1.5-1.9 (D+/C)
- 99. Have you taken the SAT or PSAT?
    - a) Don't know what this is
    - b) Didn't take it and won't
    - c) Didn't take it, not sure if I will
    - d) Have taken it or definitely will

**THE END.... THANK YOU VERY MUCH!!!!!!**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>STRONGLY AGREE</b>	<b>AGREE</b>	<b>NEITHER AGREE NOR DISAGREE</b>	<b>DISAGREE</b>	<b>STRONGLY DISAGREE</b>

**ANSWER THE FOLLOWING QUESTIONS ONLY IF YOU WENT TO AN IMMERSION PROGRAM IN ELEMENTARY SCHOOL.**

- 101. Learning two languages has helped me do better in school.
- 102. Knowing two languages will help me get a better job.
- 103. Learning Spanish is important so I can talk with Spanish-speaking people.
- 104. Learning two languages has made me smarter than if I had learned only 1 language.
- 105. Learning two languages helped me learn how to think better.
- 106. Learning two languages has given me more confidence to do well in school.
- 107. I want to continue studying and learning Spanish.
- 108. I try to find opportunities to use Spanish.
- 109. I'm glad I was in the Spanish immersion program
- 110. One or two of my teachers speak Spanish (not Spanish teacher or immersion teacher).
- 111. I am proud that I am bilingual.
- 112. I've had a teacher or administrator praise me for using Spanish (not in a Spanish class).
- 113. I would recommend that other kids take the Spanish immersion program
- 114. The Spanish immersion program challenged me to do better in school than I would have otherwise.
- 115. Because I was in the Spanish immersion program, people thought I wasn't very smart.
- 116. The Spanish immersion program gave me a greater sense of accomplishment.
- 117. The Spanish immersion program gave me a stronger sense of my identity.
- 118. I felt valued in the Spanish immersion program.
- 119. I remember the Spanish immersion program with fond memories.
- 120. The Spanish immersion program challenged me to think in different ways.
- 121. I got a better education in the Spanish immersion program than I would have in a regular class.
- 122. In looking back, I wish I hadn't been in the Spanish immersion program.

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1                      2                      3                      4                      5  
STRONGLY AGREE    AGREE    NEITHER AGREE NOR DISAGREE    DISAGREE    STRONGLY DISAGREE

123. Being in the immersion program probably kept me from dropping out of school.  
124. My parents encourage me to keep up my Spanish.  
125. My parents are proud that I am bilingual.  
126. I have/had a brother or sister in the immersion program.  
127. I am bicultural.  
128. I wish we'd learned in the Spanish immersion program how to use more colloquial speech in Spanish, the kind you use with friends.

**For the following questions, select the answer that best describes what you think.**

129. How often do you use Spanish?  
a) Never  
b) Once or twice a year  
c) Monthly  
d) Weekly  
e) Daily
130. With whom do you use Spanish? (Bubble in all that apply)  
a) Parents  
b) Family members  
c) Family friends  
d) Close friends  
e) Social settings (job, family events, parties)
131. What kinds of courses in Spanish have you taken since sixth grade? (Bubble in all that apply)  
a) Elementary or Intermediate Spanish  
b) Advanced Spanish or Spanish literature  
c) Spanish for Spanish/Native Speakers  
d) Content courses in Spanish  
e) None
132. How likely are you to enroll in an Advanced Placement (AP) Spanish language class in the future?  
a) Definitely or probably won't  
b) Not sure  
c) Probably will  
d) Definitely will  
e) I am in AP now
133. How comfortable do you feel speaking Spanish in public?  
a) Very uncomfortable  
b) Somewhat uncomfortable  
c) Somewhat comfortable  
d) Very comfortable
134. How many of your friends speak Spanish?  
a) None  
b) 1-2  
c) Small group (3-5)

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- d) Many/most (6-10 or more)
135. How often has anyone made fun of you for speaking Spanish?
- Never or maybe once that I remember
  - Few times
  - Many times
136. How often has anyone complimented you for being able to speak, read or write in Spanish?
- Never or maybe once that I remember
  - Few times
  - Many times
137. At home, with your parents or brothers or sisters, how often do you speak in Spanish and English?
- I speak Spanish all of the time
  - I speak Spanish most of the time; sometimes I speak in English
  - I speak English most of the time; sometimes I speak in Spanish
  - I speak English all of the time
138. When you talk with your school friends who are Spanish/English bilinguals, which language do you typically use when you meet after school or away from school?
- We speak Spanish all of the time
  - We speak Spanish most of the time; sometimes we speak in English
  - We speak English most of the time; sometimes we speak in Spanish
  - We speak English all of the time
139. How would you rate your school-related skills compared to your friends who did not study in Spanish like you?
- I am definitely behind
  - I may be a bit behind, but not very much
  - I don't think I'm behind at all—we're about the same
  - I may be ahead
  - I am definitely ahead
140. In speaking Spanish, I would rate my grammar as:
- I can produce very basic sentence patterns but with frequent grammatical errors
  - I can produce a few complex sentence constructions but with noticeable grammatical errors
  - I can speak using a good range of complex patterns and grammatical rules. However, occasional errors are present
  - I have a good command over a large range of complex grammar and errors are infrequent
  - I can speak with a native-like command of complex grammatical patterns
141. In speaking Spanish, I would rate my fluency as:
- I can participate in a simple conversation on familiar everyday topics at slower-than-normal speed
  - I can express myself using simple language, but make mistakes and pause a lot when I try to express complex ideas
  - I can effortlessly express myself at near normal speed. Occasionally I have to slow down when expressing complex ideas and less-common expressions.
  - I am generally fluent, but occasionally have minor pauses when I search for the correct manner of expression

- 
- e) I have native-like fluency
142. In speaking Spanish, I would rate my vocabulary as:
- a) I have enough vocabulary to make simple statements and ask questions in a simplified conversation
  - b) I have an adequate working vocabulary. I know some synonyms and can express simple ideas in a few ways
  - c) I have enough vocabulary to participate in everyday conversation & know many alternate ways of expressing simple ideas
  - d) I have enough vocabulary to participate in more extended discussions on various topics. I also know some nuances of some words and expressions
  - e) I have an extensive native-like vocabulary
143. In speaking Spanish, I would rate my listening comprehension as:
- a) I can understand simple questions & statements in short dialogues or passages if they are repeated at slower-than normal speed
  - b) I can understand the main point(s) of a short dialogue/passage if spoken at slower-than-normal speed; may need repetition
  - c) I can understand most of what is said (all main points and most details) at near normal speed
  - d) I can understand nearly everything at normal speed, although occasional repetition may be necessary
  - e) I can understand everything at normal speed like a native speaker
144. On a scale of 1 (not at all fluent) to 5 (very fluent), how would you rate your ability to use Spanish with your friends or family?
145. On a scale of 1 (not at all fluent) to 5 (very fluent), how would you rate your ability to use Spanish in the classroom?
146. The most important benefit in studying in Spanish was that:
- a) I am able to speak with other Spanish speakers
  - b) I have a stronger bilingual/bicultural identity
  - c) I will have better job/career advantages
  - d) I got a good education
147. The second most important benefit in studying in Spanish was that:
- a) I am able to speak with other Spanish speakers
  - b) I have a stronger bilingual/bicultural identity
  - c) I will have better job/career advantages
  - d) I got a good education

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