

## Language Use and Attitudes among Bilingual Graduates of TWI Programs

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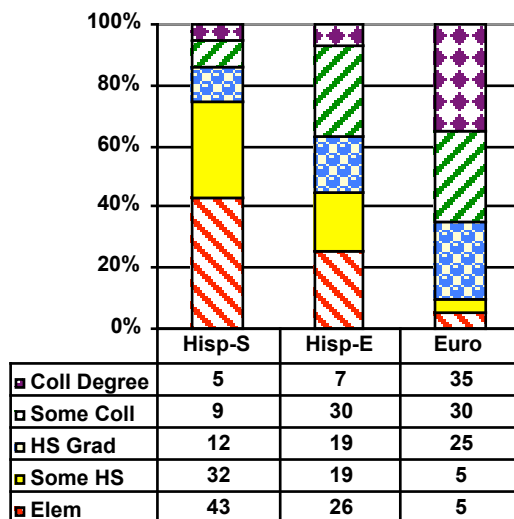
Over the past several years, the Two-Way Bilingual--also called Two-Way Immersion or Dual Language Education--programs at elementary schools across the country have become very popular. One major purpose of these programs is to provide a high quality educational experience for language minority students and to promote higher levels of academic achievement. These Two-Way programs integrate native English-speaking students (including Hispanic students) and English Language Learning students for all content instruction in two languages. The goals of these programs are 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 the two-way programs that are implemented correctly have very positive student outcomes at the elementary and early middle school levels for both English speakers and English learners. Most studies of two-way and other bilingual programs have also focused on achievement outcomes, so there is little information on the students' perceptions of: the benefits of bilingualism or the two-way program; their own language proficiency; or their use of Spanish. The purpose of this study is to examine the influence that participation in a two-way bilingual, elementary program has had on graduates' (current high school students) attitudes, proficiency, and use of Spanish. A secondary purpose is to compare the outcomes for three groups of students: 1) Hispanic Spanish bilinguals (who began program as English Language Learners)--Hisp-SB; 2) Hispanic English bilinguals (who began program as English only speakers)--Hisp-EB; and 3) Euro American English bilinguals (who began the program as English only speakers)--Euro.

### Method

**Participants.** A total of 142 ninth- through twelfth-grade students participated in the study; they had been enrolled in a two-way bilingual program since kindergarten or first grade. There were about 1/2 boys and 1/2 girls, and about 1/4 of students represented each grade level. While all students were bilingual at the time they responded to the questionnaire, they were classified according to whether they began school as a native English speaker or a native Spanish speaker/English learner. About 66% of students were Hispanic Spanish bilinguals (Hisp-SB); 20% were Hispanic English bilinguals (Hisp-EB); and 13% were Euro American English bilinguals (Euro-EB). Significantly higher levels of education were represented among the parents of Euro American students, followed by Hispanic EB students, and the lowest levels of education among Hispanic SB students ( $\chi^2 = 38.8, p < .001$ ): 43% of Hisp-SB students, 26% of Hisp-EB and 5% of Euro students had moms with an elementary-level education.

**Instrumentation.** Students completed a questionnaire that comprised questions concerning their proficiency, use of Spanish, and attitudes toward bilingualism and the two-way bilingual program. Most of the items were rated on a five-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (5).

Mom's Level of Education



## Results

### 1. Language Proficiency and Achievement

There was no current language proficiency assessment data on these students, so data were gathered from students' scores on the SOLOM *at the fifth grade level* (terminal grade in elementary school) in each language (Spanish & English).

- Most students were rated as fluent in Spanish (100% for Hisp-SB and Hisp-EB and 90% for Euro) and English (82% for Hisp-SB, 94% for Hisp-EB, and 100% for Euro).
- Close to half of the students scored at the top of the scale in both languages. More Hisp-SB scored at the top in both languages (45%) than Hisp-EB (39%) or Euro (30%) students.

Table 1 presents the **students' ratings of their current proficiency in Spanish listening comprehension, fluency, grammar and vocabulary.**

- Listening comprehension – 3/4 of Hisp-SB and Euro students and 1/2 of Hisp-EB students rated themselves at a level 4 or 5 on the five-point scale for listening comprehension. There was a statistically significant difference in ratings across the groups ( $\chi^2 = 33.8$ ,  $p < .001$ ). 1/3 of the Hisp-EB and 18% of Hisp-SB students rated their listening comprehension at a level 1 or 2, though only 10% of Euro students did.
- Fluency – 2/3 of Hisp-SB, 1/2 of Hisp-EB and 1/3 of Euro students rated their fluency as a 4 or 5. Across all groups, about a third figured they were a 4. At least two thirds of students rated themselves as a 3 or higher: 78% (Hisp-SB), 67% (Hisp-EB), and 65% (Euro).
- Vocabulary -- 1/2 of Hispanic students and 1/3 of Euro students gave themselves a 4 or 5 for vocabulary. The great majority of students rated their vocabulary at a level 3 or higher (75% for Hisp-SB, 64% for Hisp-EB, and 70% for Euro).
- Grammar -- received the lowest ratings, with 1/3 to 1/2 of students feeling like they had at least a good command of grammar (levels 4-5). However, few students believed they were only a 1 (5-17%), though they were more likely to select 1 if they were Hisp-SB (17%) than Euro (5%). Most students felt they were 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 the 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.
- Gender differences -- females rated themselves significantly higher in every area: listening, fluency, vocabulary, and grammar.

Table 2 presents the students' scores on **standardized norm-referenced achievement tests in English and Spanish reading.**

- Grade 2 -- statistically significant difference, with Euro students (NCE = 44) scoring significant higher than Hisp-SB students (NCE = 16), who scored extremely low.
- Grade 6 -- no statistically significant difference, as all three groups were scoring about average. Interestingly enough, while the Hisp-SB started at a significant disadvantage due to their limited English proficiency, they outscored the Hisp-EB group, which was proficient at school entry. As a group, by sixth grade, these students have the reading skills of the average California English speaking student, and therefore ought to be able to keep up in their various content areas that require reading skills in English.

**Table 1 Self Rated Proficiency in Spanish**

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> Understand simple questions & statements – slow speed, repetition	8%	19%	0%
<b>Level 2:</b> Understand main point(s) of short dialogue -slower speed; repetition	10%	15%	10%
<b>Level 3:</b> Understand most of what is said -near normal speed	10%	11%	15%
<b>Level 4:</b> Understand nearly everything at normal speed- occasional repetition	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> Participate in simple conversation, familiar topics at slower speed	12%	26%	25%
<b>Level 2:</b> Use simple language, make mistakes, pause a lot w/ complex ideas	11%	7%	10%
<b>Level 3:</b> Effortlessly speak near normal speed; occasional slow w/ complex	16%	15%	30%
<b>Level 4:</b> Generally fluent, occasional minor pauses	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>
<b>Spanish Vocabulary</b> <i>No significant group differences</i>			
<b>Level 1:</b> Enough vocabulary to make simple statements and questions	14%	22%	15%
<b>Level 2:</b> Adequate basic vocabulary, some synonyms, express simple ideas	12%	15%	15%
<b>Level 3:</b> Vocabulary to participate in everyday conversation, alternate ways	21%	15%	35%
<b>Level 4:</b> Vocabulary -more extended discussions on various topics, nuances.	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> Very basic sentence patterns with frequent grammatical errors	17%	12%	5%
<b>Level 2:</b> Few complex sentence constructions, noticeable grammatical errors	7%	4%	10%
<b>Level 3:</b> Range of complex patterns & grammatical rules, occasional errors	29%	44%	50%
<b>Level 4:</b> Command over a large range of complex grammar, errors 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>

**Table 2 Mean NCE Scores (Standard Deviations): Reading Achievement in English & Spanish**

	Hisp-SB	Hisp-EB	Euro	Differences
<b>ENGLISH READING</b>				
Grade 2 (n=24, 11, 9)	15.5 (11.1)	29.8 (22.7)	44.4 (31.0)	Euro>Hisp-SB**
Grade 6 (n=26, 14, 6)	46.7 (10.6)	44.6 (18.3)	53.6 (15.3)	NS
Grade 8 (n=10)	50.9 (15.2)			
<b>SPANISH READING</b>				
Grade 2 (n=25, 11, 9)	42.5 (21.6)	45.0 (23.8)	45.9 (13.6)	NS
Grade 6 (n=26, 14, 5)	55.0 (16.6)	49.7 (22.1)	55.8 (30.9)	NS
Grade 8 (n=12)	54.9 (13.8)			

Note. Scores are averaged for all students who had 2<sup>nd</sup> or 6<sup>th</sup> or 8<sup>th</sup> grade scores.

Table 3 presents the correlations among the self-rating measures and also with the fifth-grade SOLOM teacher ratings in Spanish.

- Teacher ratings of the students' Spanish proficiency in 5<sup>th</sup> grade is totally unrelated to the students' self-ratings of listening comprehension, fluency, vocabulary, or grammar – for either English or Spanish speakers. Suggest that the English speakers are more likely to consider themselves more proficient and the Spanish speakers less proficient than they really are?
- Highly significant correlations among the listening, fluency, vocabulary, and grammar ratings, though the strength of the relationship varies slightly by language background. For Spanish speakers, just because they can understand Spanish well does not lead them to rate their fluency, vocabulary or grammar higher, which is not as likely the case for the English speakers. Further, fluency has a lower and non-significant relation to grammar for English speakers ( $r = .30$ ), but a highly significant relationship for Spanish speakers ( $r = .52, p < .001$ ).

**Table 3 Correlations Among Spanish Language Proficiency Measures**

	Teacher Rating	Listening	Fluency	Vocabulary	Grammar
Teacher Rating SOLOM–Gr 5	1.0	-.04	.03	-.04	-.04
Listening	-.03	1.0	.46***	.58***	.44***
Fluency	-.02	.66***	1.0	.65***	.52***
Vocabulary	-.04	.70***	.68***	1.0	.49***
Grammar	-.04	.49***	.30 <sup>^</sup>	.58***	1.0

Coefficients above diagonal -- native Spanish speakers, below diagonal -- native English speakers  
<sup>^</sup>  $p = .06$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

In looking at the students' **self-reported grades in their English language/literature/social studies**, which were taken in English:

- Many students reported average grades (Bs&Cs).
- Grades varied significantly by group: Hisp-SB students received more Bs/Cs/Ds than the other groups. Euro students were more likely to obtain mostly As or As/Bs, though Hisp-S received higher grades than Hisp-E students ( $\chi^2 = 14.08, p < .05$ ).

The results varied somewhat when students were asked whether they would **enroll in an Advanced Placement Spanish course**, which provides college credit.

- 1/5 of Hispanic – both EB and SB – were currently enrolled in Spanish AP compared to only 6% of Euro students. However, a much larger percentage of Euro students had definite plans to enroll in Spanish AP. Few students had totally ruled out taking Spanish AP, but more of these were Euro than Hispanic.
- The likelihood of taking a Spanish AP course was highly correlated with students' self-rated Spanish listening, fluency, grammar, and vocabulary ( $r = .34-.36, p < .001$ ).
- Females were significantly more likely to say that they would enroll in a Spanish AP course ( $M = 3.3$ ) than males ( $M = 2.6$ ),  $t(98) = 3.1, p < .01$ .

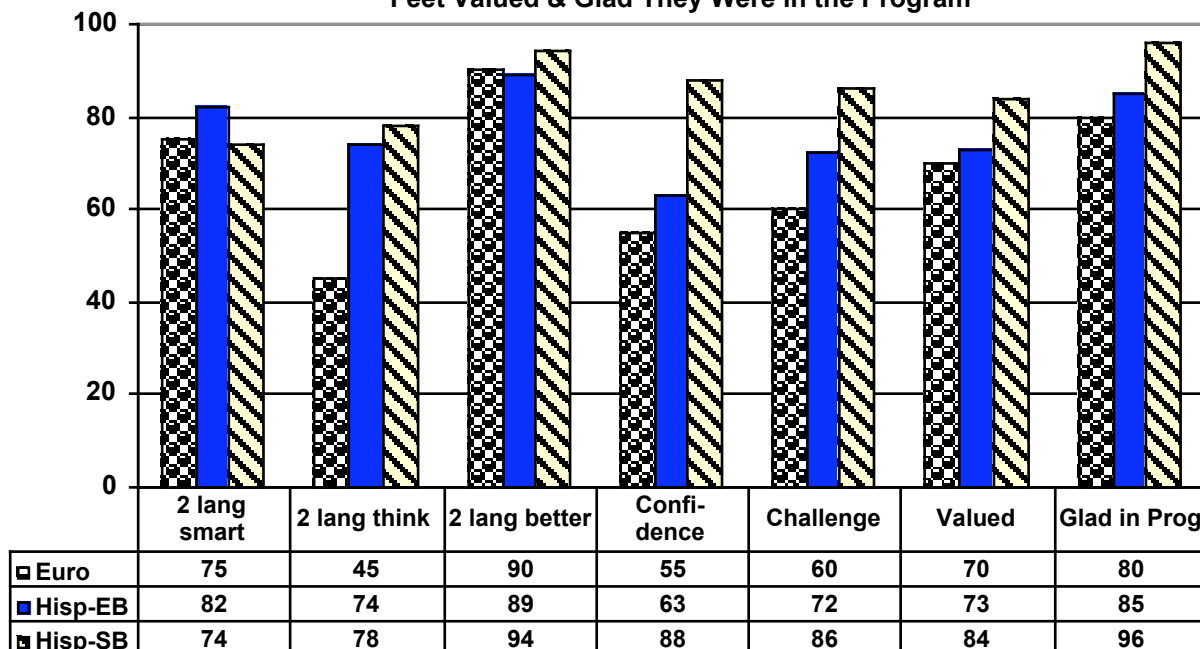
## **2. Attitudes Toward the Two-Way Program**

Students expressed very positive attitudes and saw many benefits to bilingualism and the program.

- Most students agreed that learning two languages:
  - Made them smarter ( $M = 4.2$ ) and challenged them to do better in school ( $M = 4.2$ )
  - Helped them learn how to think better ( $M = 4.1$ ) and do better in school ( $M = 4.5$ )
  - Gave them a sense of accomplishment and confidence to do well in school ( $M = 4.1$ ).

- Most students also agreed that benefits from learning in the two-way program:
  - Enabled them to get a better education than they would have otherwise
  - Hispanic, especially SB, tended to agree more strongly than Euro students, that they felt valued in the program and were glad they participated ( $F(2,119)=6.6, p < .05$  and  $F(2,121)=4.0, p < .05$ ).
- 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.
- When students were asked how they compared in their schoolwork with their peers who were not in two-way program, a fifth of students felt they were behind compared to students in non-two-way programs; 41% felt they were ahead of their peers. The remaining third of students felt their academic performance was comparable to that of their peers. While not statistically significant, twice as many Hisp-EB (64%) compared to Hisp-SB and Euro students (35-37%) felt they were ahead of their peers in their school-related skills.

**Learning in 2-way Made Students: Smarter, Think Better, Do Better in School, More Confidence, More Challenged, Feet Valued & Glad They Were in the Program**



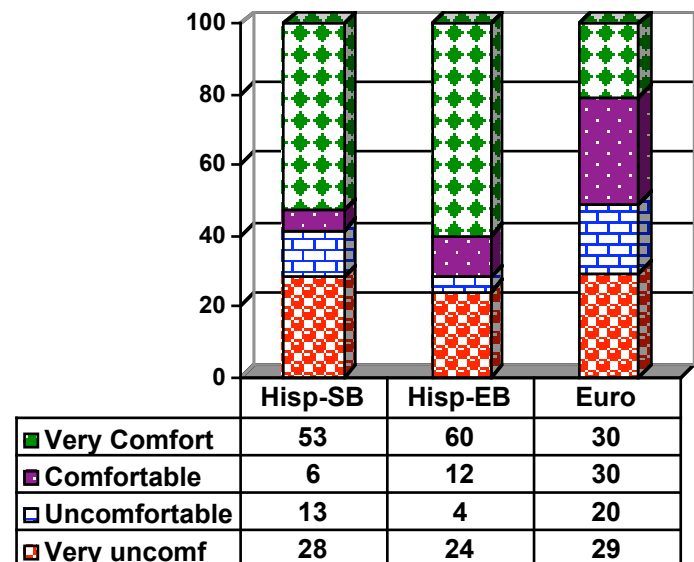
### 3. Use of Spanish

When students were queried about **how often they used each language** in interactions with others:

- In rating use of Spanish, from never (1) to daily (5), students were using Spanish on a frequent basis, but Hisp-SB ( $M = 4.6$ ) and Hisp-EB ( $M = 4.7$ ) students used Spanish significantly more often than Euro students ( $M = 3.9$ ), who spoke Spanish an average of weekly.
- In rating the frequency with which they used each language at home and with friends (from all Spanish to all English), about 1/2 of Euro but a small percentage of Hispanic students spoke only English at home or with friends. Over 3/4 of Hispanic and 1/2 of Euro students used both languages at home and with friends.

### In looking at **comfort at speaking Spanish in public:**

- Twice as many Hispanics (53-60%), compared to Euro (30%), felt very comfortable.
- 60-72% of students felt at least “comfortable” speaking Spanish.
- 1/4 of students from each group felt “very uncomfortable” speaking Spanish in public.
- There is no association between comfort level and self-rated proficiency in Spanish ( $r=.05-.14$ ).
- Females, compared to males, were more likely to feel comfortable speaking Spanish ( $M=3.1$  vs.  $2.8$ , NS).



### In examining **compliments, praise, criticism, and teasing:**

- 3/4 of students disagreed that teachers had put them down for using Spanish.
- 2/3 of students said they had never (or maybe once) been made fun of for using Spanish.
  - Teasing varied from 55% for Euro to 80% for Hisp-EB students.
  - 1/4 of students said they had been made fun of a few times.
- 1/2 of students said they had been complimented many times for their Spanish or praised for being bilingual:
  - Euro students (70%) perceived many more compliments than Hispanic students (45%).
  - 1/2 of Euro students, but only 1/3 of Hispanic students, had been praised by teachers or administrators for being bilingual.
- Females, compared to males, were more likely to have been complimented for their Spanish ( $M=2.6$  vs  $2.2$ ,  $t(98)=1.9$ ,  $p=.06$ ), and less likely to be made fun of due to their Spanish ( $M=1.4$  vs.  $1.8$ ,  $t(99)=2.5$ ,  $p<.05$ ).

## Conclusions

Results show that students who participated in the two-way bilingual program rate themselves at moderate levels of Spanish proficiency, have positive attitudes about the benefits of bilingualism and the program, and continue to use Spanish frequently. Other important findings:

- Hisp-S had slightly higher ratings of proficiency; they use Spanish more with family & friends than English speakers.
- All students use combination of both languages at home and with friends, though English predominates (slightly more for English speakers).
- More frequent use of Spanish is associated with higher levels of all areas of proficiency.
- Females rated themselves higher in Spanish proficiency, felt more comfortable speaking Spanish, perceived more compliments and praise and less criticism/teasing than males, and were more likely enrolled in Spanish AP.

Despite very low socioeconomic levels, Hispanic previous EL students were bilingual, scored average in reading, were likely to be enrolled in Spanish AP, and were receiving fairly good grades in their courses. Hispanic students perceived more benefits to the program and bilingualism than did the Euro students. Perhaps it is the perceptions of these benefits and feeling valued in program that have enabled them to succeed in school while their peers drop out.