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**Educators' Beliefs about Appropriate Pedagogical Models
for Spanish-Speaking ELLs Who Differ in Home-Language and English-Language Literacy
Abilities**

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As the population of English Language Learners (ELLs) in the nation's schools has skyrocketed, vigorous debate has broken out concerning appropriate educational services for these students (Goldenberg, 2008; Haas, 2005; Harper & DeJong, 2004; Just, 2009). A key component in this debate is the recognition that ELLs are not an undifferentiated population, but instead vary in both home-language abilities and English proficiency (Blom & Paradis, 2015; Klingner & Artiles, 2006; Uchikoshi, 2014).

This variation in home-language and English abilities adds considerable complexity to the challenge of providing effective educational services for ELLs. Efforts to respond to the challenge have resulted in a diversity of pedagogical models that differ in, among other things, the goal of the pedagogical placement, the student population to be served (ELLs and/or non-ELLs), instructional language used, and instructional setting. In particular, five pedagogical models have emerged (Table 1):

The first model, *ESL self-contained* (where ESL refers to English as a second language), is a classroom wherein students with different home languages are given intensive instruction in English, and are taught core academic subjects in English, with the goal of mainstreaming them to general-education classrooms as quickly as possible (Reeves, 2006; Rubinstein-Avila, 2003; Young, 1996; Yoon, 2008). Accordingly, native English speakers are not assigned to such classrooms. The *ESL self contained* model is frequently used with students who speak a variety of home languages and no predominant language(s) emerge which would facilitate use of bilingual instructional methods. Schools sometimes employ this model when they lack certified bilingual teachers in the most dominant home language and/or have a limited supply of certified ESL teachers. Many districts select this option because it keeps ELLs learning together and does not require general-education teachers to become trained in ESL methodology.

In the second model, *ESL pullout*, ELLs are taught core academic subjects in English alongside native English speakers, but are taken to a different classroom for English instruction at some point during the school day. The concept underlying this model was to service these students in small groups and focus on the four linguistic skills (listening, speaking, reading and writing) as well as grammar and

spelling, in a distinct setting away from the native English speakers (Ford, Cabell, Konold, Invernizzi, & Gartland, 2013). ESL teachers are viewed as adjunct to the general-education teacher (Carder, 2014) with whom the students spent the majority of their instructional time (Haneda & Nespor, 2013). An advantage of this model is the sole focus on English language skills taught by the ESL teacher without the distraction of native English speakers and simultaneously occurring instruction in core academic subjects. In addition, the method offers an administrative advantage in that the ELLs can be dispersed to many classrooms, without a single general-education teacher bearing the challenge of teaching all ELLs in a particular grade. At the same time, ELLs lose instructional time in core academic subjects while removed for English instruction.

The third model, *ESL push-in*, is a relatively new programmatic initiative wherein the ESL teacher enters a general-education classroom that includes ELLs as well as native English speakers, with the goal supporting ELLs as they learn core academic subjects and develop their English skills (Maxwell, 2014). In this model, the two teachers “team teach” both groups of students (Baecher, Artigliere, Patterson, & Spatzer, 2012) – an enterprise that ideally finds the teachers planning together, developing instructional materials in tandem, parallel teaching, and engaging in collaborative assessment of student work (Honigsfeld & Dove, 2010). In *ESL push-in*, both ELLs and native English speakers benefit from instruction by both the ESL teacher and general-education teacher. In this model, ELLs are not pulled out to a different setting (as in the ESL pullout model), causing them to miss instruction occurring in the general-education classroom at the same time. A disadvantage to this method may occur if the two teachers struggle to collaborate effectively or if the ESL teacher is perceived not as a partner but as an adjunct to the general-education teacher – becoming, in effect, a teaching assistant.

In the fourth model, *bilingual education*, ELLs are placed in classrooms without native English speakers to learn core academic subjects taught in the home language, with daily periods of English instruction. In this context, Bilingual refers to Transitional or early- exit Bilingual programs, most

prevalent in this country, in which students are serviced for a minimum number of years, usually two or three (Martinez, Slate, & Martinez-Garcia, 2014), until it is deemed they have mastered sufficient English to participate in a mainstream class. Goals here include proficiency in English, and use of the home language to learn core academics (Gallo, Garcia, Pinuelas, & Youngs, 2008). Bilingual programs often begin with most core-academic instruction in the home language, abetted by intensive instruction in English. Over time, English is increasingly used for core-academic instruction, and students are often moved into general-education classrooms for English-only instruction. This program offers the benefit of quick transition to an English-only environment; however, a premature transition into an English-only classroom may not allow ELLs to catch up to native English speakers in core academics and English literacy skills (Cummins, 1980, 2001).

Dual language, the fifth and final model, is actually a form of bilingual education in that it employs both languages in instruction (Takahashi-Breines, 2002; Torres-Guzman, Kleyn, Morales-Rodriguez, & Han, 2005). However, while the bilingual model serves only ELLs, the dual language classroom includes both ELLs and native English speakers. Additionally, the bilingual model works to diminish use of the home language in instruction (in favor of English), but the dual language model employs both languages for academic-core instruction on an ongoing, alternating basis – making an explicit goal of teaching a language other than English to native English speakers (Gomez, Freeman, & Freeman, 2005; Mora, Wink, & Wink, 2001; Thomas & Collier, 1997).

Students in dual-language classrooms become bilingual, biliterate, and bicultural (Esposito & Baker-Ward, 2013), and research has shown that students in dual language programs perform better on standardized English tests than students taught only in English (Lindholm-Leary, 2001; Thomas & Collier, 1997). However, it can be challenging to enroll a sufficient number of native English speakers to execute a dual language program, since not all parents support core-academic instruction in a language

other than English. And, paradoxically, these programs are sometimes perceived as designed primarily to enrich native English speaking students (Gomez, Freeman, & Freeman, 2005).

These five models offer alternatives in the delivery of educational services to ELLs, although all share a goal in providing explicit instruction to foster English proficiency among these students. Research has shown that ELLs taught in these models have better results in English proficiency and academic-core learning relative to ELLs assigned to immersion (“sink or swim”) models wherein students are expected to absorb English without additional support (Adams & Jones, 2006; Haas, 2005; Tong, Lara-Alecio, Irby, Mathes, & Kwok, 2008).

At the same time, the research literature has heretofore been silent concerning how educators believe these five pedagogical models best meet the needs of ELLs who vary in home-language and English abilities. These beliefs are of some importance, because educators are heavily involved in decision-making concerning which models are offered in a school district and how individual students should be placed. Below we move into the breach by providing research data concerning educators’ beliefs about the effectiveness of the five pedagogical models for ELLs who differ in home-language and English abilities.

Methods

The basic design of the research was to develop and administer a survey on which respondents rate their level of support for each of the five pedagogical models for each of four populations of students:

- A. Students with a high level of ability in both the home language and English literacy skills
- B. Students high in home language but low in English literacy skills
- C. Students low in home language but high in English literacy skills
- D. Students with a low level of ability in both home language and English skills

The survey was distributed to both administrators and teachers at the school level; although administrators are ultimately responsible for program models implemented in the schools, the teachers have input into the decisions as they directly work with these students. Each respondent produced a total of 20 ratings, all rendered using six-point scales (6 = effective, 1 = ineffective). The survey also asked participants to provide demographic information including age, gender, ethnicity, years of teaching experience, years of administrative experience, educational attainment, ESL certification (yes/no), bilingual certification (yes/no), and school level (elementary, middle, high). See Appendix for survey instrument.

Although ELLs have many different home languages in the diverse city in which this research was conducted, the vast majority are native Spanish-speakers (Soto, Hooker, & Batalova, 2015). Hence, this research was focused on respondents' beliefs about serving ELLs whose home language is Spanish.

Participants. The survey was administered to 366 teachers and administrators in six schools in a large city in the northeastern United States. Respondents reported a mean age of 36.5 (SD = 10.4) and an average of 10.0 (7.0) years of teaching experience. Four percent of the respondents had administrative experience with a mean of 10.1 (5.6) years. The sample was 79.8% female and 20.2% male. Participants were 60.1% white, 23.5% Hispanic, 7.1% Asian, 5.5% black, and 3.8% other. As for educational attainment, 10.1% held a bachelor's degree, 33.3% held a master's, 43.7% were master's plus 30, 11.5% were master's plus 60, and 1.4% held a doctorate. ESL certification was held by 82.8% of respondents and Bilingual certification by 78.4%, and 61.8% held both. As for school level, 50.8% worked in elementary schools, 47.3% in middle schools, and 1.9% in high schools.

Procedure. Data were collected in Fall 2014 at five schools in a large city in the northeast United States. At each school, surveys were administered by research assistants and building administrators at faculty meetings. Instructions indicated that the instrument is an opinion survey with no correct or incorrect answers. All educators asked to complete a survey did so, and none were compensated. Survey data were entered into SAS (version 9.4) for statistical analysis.

Results

The survey yielded 366 responses to 30 questions, 10 of which were demographic in nature. The remaining questions related to ratings (*response*) regarding the effectiveness of all 20 combinations of literacy language skills (*language*) and types (*type*) of pedagogical models. Each respondent was asked to rate all 20 using 6-point scales (1= ineffective...6= effective). The most frequent median *response* was “4” for 13 ratings, “3” for five ratings, and “6” and “5” each for two ratings. The means of the 20 response variables ranged from 3.0 to 5.02. Overall, there was reasonable variation within all rating scales, with standard deviations ranging from 1.3 to 1.9. There were four language skill categories, EH-SH, EH-SL, EL-SH and EL-SL, where E and S stand for English and Spanish, respectively, and H and L and denote high and low literacy skill levels. There were five categories of pedagogical models, *ESL self-contained*, *ESL pullout*, *ESL push-in*, *bilingual*, and *dual language*.

Given the structure of 20 responses for each participant, the data were analyzed using a within-subjects two-factor with interactions design (Meyers, Well, & Lorch, 2010). The subject identifier (*IDS*) was treated as a random blocking factor and the other factors, *language* and *type*, were treated as fixed factors. The mixed model (a form of general linear modeling) was estimated using the SAS MIXED procedure (Dickey, 2008). The mixed model was estimated using 366 responses to each of the 20 different combinations of fixed factor levels, resulting in a total of 7,320 responses. A comparison of 40 means was undertaken using Bonferroni’s correction for simultaneity of hypothesis testing (Mendenhall & Sincich, 2012). In total, there were 190 possible comparisons of means in the interaction model; the restriction to 40 comparisons was based on the reasonable assumption that the respondents were selecting *type* given *language* skills.

The mixed model was estimated using the default REML (restricted maximum likelihood) method. The residuals showed no evidence of heteroscedasticity, influence, or leverage effects. All residuals were within three standard deviations of mean zero, and thus no outliers were present.

However, the residuals failed the Anderson-Darling test of normality. Despite the well-structured tails of the residual distribution, the center mass of the distribution had a negative skew (-0.1), which is detectable with a large sample size. Given that the F-statistic is known to be robust to violations of normality and the fact that the obtained p-values were very small (less than .0001), the analyses provided in Table 2 strongly suggest that there was a highly significant and meaningful interaction between *language* and *type*. The mixed model procedure does not report an R^2 statistic but does produce an overall measure of effectiveness, based on the reduction in variation in *responses*, which showed that after a correction for degrees of freedom, the model resulted in a 31% reduction in total variation in *responses*. The final mixed model included interactions between subjects (*IDS*) and *type* and *language* as well as an interaction between the fixed effects *type* and *language*. This model had the lowest Akaike (AIC) and Bayesian Information Criteria (BIC) of the four competing mixed models (Greene, 2008). The AIC and BIC measures penalize models for the over- and under-fitting, and lower information criteria scores indicate a better model fit. Comparisons of information criteria results were made within a specific information criteria, not across different information criteria.

The results indicate that the variance components of the mixed model were greater than zero by a statistically significant margin, indicating that these components belong in the model (Table 2). Results of fixed-effects hypothesis testing strongly indicate a statistically significant interaction between *language* and *type* in their effect on the responses. In the presence of an interaction effect there is no meaning to the comparison of factor-level means for *language* and *type*, separately. Hence, comparisons of combinations of *language* and *type* factor levels means were undertaken. As noted, a restricted number of comparisons was made across all *type* levels within each level of *language*, separately. Figure 1 provides an interaction plot of the 20 treatment means. The *language* factor levels are on the horizontal axis and the trace of the *type* factor levels are mapped across the graph.

In the absence of interaction effects, sampling error, and the equality of factor-level means, the plotted line segments in the interaction plot would all be parallel. Here, the plot indicates strong interaction effects, primarily though not exclusively driven by the rated effectiveness of the *dual language* model, across levels of the *language* factor. The graph also indicates that, for a given level of *language*, many means may not differ by a statistically significant margin. To determine which means are significantly different at a given level of *language*, a multiple comparison of means was undertaken; for the 40 comparisons being made, the Bonferroni adjustment was used to maintain a Type I error rate of approximately 5%. In Table 3, any of the 40 comparisons of means that were not statistically significant at a 5% level are omitted. The *Effect Size* column in Table 3 is based on Hedge's *g* statistic, which is the ratio of the estimated difference to the estimated standard deviation of the residuals (Durlak, 2009).

In summary, the analysis undertaken here used a mixed model of random and fixed effects, with an interaction between the fixed effects and interactions between random and fixed effects. The results indicate that there was a significant interaction between the fixed effects *language* and *type* in the determination of ratings of effectiveness. A multiple comparison of means using the Bonferroni method was undertaken to detect differences in *type* means, within each level of the *language* factor. This procedure produced 22 significant pairwise comparisons with effect sizes ranging from .28 (moderate) to 1.89 (very large). The outcomes in these comparisons are analyzed in the following section.

Discussion

The data indicate a clear pattern in participants' beliefs about optimal pedagogical placement for students who vary in home-language and English literacy abilities. To begin with, the *ESL push-in* and *ESL pullout* models were not favored for any of the four ELL populations. But the *dual language*, *bilingual*, and *ESL self-contained* models were favored, each in its own role depending on students' literacy skills in the given language.

Participants preferred the *dual language* model with students who are proficient in English literacy, regardless of their home-language abilities. The effect was remarkably strong for ELLs with well-developed literacy skills in both English and the home language; participants preferred dual language over the other models with effect sizes ranging from 1.23 to 1.89 and averaging 1.57. These are very strong preferences, bearing in mind that an effect size (Hedge's *g*) of .8 is considered "large" (Durlak, 2009). Participants apparently regarded high levels of literacy ability in both the home language and English as advantages befitting placement in a dual-language setting, where both languages are used to teach core academic subjects. A closer look at the results for ELLs high in both English and home language literacy reveals that the models can be arranged on four levels, in descending order of preferences: 1) *dual language*; 2) *bilingual* and *ESL push-in*; 3) *ESL pullout*; 4) *ESL self-contained*.

This preference for the *dual language* model was found as well for ELLs with well-developed English literacy skills but weak home-language literacy, but the effect was moderate in strength. Effects sizes ranged from .39 to .75 with an average of .58. In this case, participants' preferences fell on two levels, with *dual language* in the lead and the other four models tied in second place. Taken together with the previous result, this finding suggests that participants favored *dual language* for students with strong English literacy abilities – even when students' home-language literacy skills are not strong.

Participants favored the *bilingual education* model when students' home-language literacy skills are strong but their English literacy skills are not. The effect was of moderate strength, with effect sizes ranging from .28 to .45 with an average of .36. Participants' ratings again fell on two levels, with a preference for *bilingual education* and the other four models tied in second place. Apparently, literacy strength in the home language was regarded as an asset that can be best

leveraged in the bilingual environment, where the home language is used as an instructional vehicle for teaching content in core academic subjects.

Lastly, when students' literacy abilities are low in both English and the home language, participants preferred *ESL self-contained* over the other models. Obtained effect sizes were .48, .42, .46, and 1.02, with an average of .60. The effect size of 1.02, a very strong effect, indicates that participants much preferred *ESL self-contained* over *dual language* for this student population. The other effect sizes average .45, indicating moderate effects. Accordingly, three levels are evident here: *ESL self-contained* was most preferred, followed by *ESL pullout*, *ESL push-in*, and *bilingual*; with *dual language* least preferred. Respondents evidently regarded students with low levels of literacy ability in both the home language and English as needing placement in a self-contained classroom. In such an environment, intensive ESL instruction can be intervened throughout the school day, which is apparently the educational formula that respondents believe to be best for these students.

Taken together, the results show a clearly articulated pattern in educators' beliefs about the five pedagogical models. *Dual language* was preferred for students whose English literacy skills are well-developed, regardless of their home-language literacy proficiency. *Bilingual* was favored when students are weak in English literacy but proficient in home language literacy skills. And *ESL self-contained* was rated highest when students struggle with literacy in both languages.

This clear pattern is also a strong one. The effect sizes with which participants expressed their preferences produced a grand mean of .78, which is at the top end of statistical effects considered moderate in strength, slightly shy of the .80 level at which effects are considered large. The smallest of the effects was .28, which means that none of the effects showing model preferences classifiable as small. And five of the obtained effects had extremely large effect sizes of 1.02 or higher, ranging up to 1.89.

That participants expressed such clearly-articulated and strongly-held beliefs has implications for the likelihood that these beliefs influence how students are actually placed. Beliefs do not always comport with behavior, of course, and not all models are offered in all districts. But to the extent that different models are available for student placement, beliefs as such seem likely to drive how placements are made to meaningful extent. A poorly-articulated pattern, or one with weaker effects, would leave open the possibility that teachers would respond one way on the survey but another way when actually placing students. But the clarity and strength of the pattern make it likely that the results predict to a meaningful extent how ELLs are actually placed in classrooms utilizing different pedagogical models.

Limitations and future research. These data were collected in one geographical area and in an urban setting, and it is possible that results could vary in other areas and in different settings. Replication with a larger sample size could product different results, although the sample examined in this research was not small. Research involving home languages other than Spanish might vary. This study's data tap educators' beliefs about the five pedagogical models, but still unknown is the extent to which actual placements in school districts follow suit. This research did not distinguish between administrators and teachers, and these groups potentially could differ in their beliefs; future research might well take this distinction into account.

Finally, as telling as the results reported herein are, they do not speak to the issue of how well educators' beliefs comport with actual educational outcomes produced by different student populations taught with different pedagogical models. Input from educators is vital to decision-making as to which placement is best for a given student, but it remains unclear how productive this input is. Future research assessing the efficacy of these pedagogical models for different student populations seems warranted.

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Table 1

Pedagogical Models

Model	Goal	Student Population	Instructional Language	Instructional Setting
1. ESL Self-contained	Learn English and transfer to gen-ed class	ELLs only	English	Self-contained
2. ESL pullout	Learn English and eliminate need for ESL services	ELLs taught with non-ELLs except when pulled out for ESL instruction	English	Pullout for ESL
3. ESL push-in	Learn English and eliminate need for ESL services	ELLs taught with non-ELLs	English	Push-in for ESL support
4. Bilingual (Transitional)	Use home-language skills, develop English skills, and transfer to gen-ed class	ELLs only	Home language for all content areas with daily ESL periods	Self-contained
5. Dual Language	ELLs and non-ELLs become bilingual and biliterate	ELLs taught with non-ELLs	English alternating with home language every day or half-day	Self-contained

Table 2

Summary Results for the Mixed Model (Stacked Data)

Number of Observations	
Number of Observations Read	7320
Number of Observations Used	7318
Number of Observations Not Used	2

Iteration History			
Iteration	Evaluations	-2 Res Log Likelihood	Criterion
0	1	27734.8	
1	2	26655.9	0.00000000

Convergence criteria met.

Covariance Parameter Estimates					
Covariance Parameters	Ratio	Estimate	Standard Error	Z Value	Pr > Z
<i>IDS</i>	0.1277	0.1963	0.035	5.56	<.0001
<i>IDS*Type</i>	0.3216	0.4945	0.034	14.74	<.0001
<i>IDS*Language</i>	0.2260	0.3475	0.029	12.08	<.0001
<i>Residual</i>	1.0000	1.5376	0.033	46.79	<.0001

Fit Statistics	
-2 Res Log Likelihood	26655.9
AIC (Smaller is stronger)	26663.9
AICC (Smaller is stronger)	26663.9
BIC (Smaller is stronger)	26679.5

Type 3 Tests of Fixed Effects				
Effect	Numerator <i>df</i>	Denominator <i>df</i>	F Value	Pr > F
<i>Type</i>	4	1460	18.56	<.0001
<i>Language</i>	3	1095	42.18	<.0001
<i>Language*Type</i>	12	4378	60.52	<.0001

Notes. IDS = subject identifier. AIC = Aikake Information Criteria; AICC = Aikake Information Criteria Corrected. BIC = Bayesian Information Criteria. Type = pedagogical model. Language = combination of English and Spanish skills

Table 3

Significantly Different Treatment Means

<i>Literacy Skills</i>	<i>Differences</i>	<i>Estimate</i>	<i>Std. Err.</i>	<i>t-statistic</i>	<i>p-value</i>	<i>Effect Size</i>
<i>English High Spanish High</i>	<i>SC - BI</i>	-0.49	0.11	-4.64	<0.0001	0.45
	<i>SC - DU</i>	-1.82	0.11	-17.27	<0.0001	1.68
	<i>PULL - PUSH</i>	-0.47	0.11	-4.46	<0.0001	0.43
	<i>PULL - BI</i>	-0.72	0.11	-6.84	<0.0001	0.67
	<i>PULL - DU</i>	-2.05	0.11	-19.47	<0.0001	1.89
	<i>PUSH - DU</i>	-1.58	0.11	-15.01	<0.0001	1.46
	<i>BI - DU</i>	-1.33	0.11	-12.63	<0.0001	1.23
<i>English High Spanish Low</i>	<i>SC - DU</i>	-0.72	0.11	-6.82	<0.0001	0.66
	<i>PULL - PUSH</i>	-0.39	0.11	-3.68	0.0002	0.36
	<i>PULL - DU</i>	-0.81	0.11	-7.67	<0.0001	0.75
	<i>PUSH - DU</i>	-0.42	0.11	-3.99	<0.0001	0.39
	<i>BI - DU</i>	-0.56	0.11	-5.34	<0.0001	0.52
<i>English Low Spanish High</i>	<i>PULL - BI</i>	-0.49	0.11	-4.62	<0.0001	0.45
	<i>PUSH - BI</i>	-0.38	0.11	-3.58	0.0003	0.35
	<i>BI - DU</i>	0.41	0.11	3.92	<0.0001	0.38
<i>English Low Spanish Low</i>	<i>SC - PULL</i>	0.52	0.11	4.90	<0.0001	0.48
	<i>SC - PUSH</i>	0.46	0.11	4.33	<0.0001	0.42
	<i>SC - BI</i>	0.50	0.11	4.74	<0.0001	0.46
	<i>SC - DU</i>	1.11	0.11	10.49	<0.0001	1.02
	<i>PULL - DU</i>	0.59	0.11	5.60	<0.0001	0.54
	<i>PUSH - DU</i>	0.65	0.11	6.17	<0.0001	0.60
	<i>BI - DU</i>	0.61	0.11	5.75	<0.0001	0.56

Notes. For interpretation of effect sizes (Hedge's *g*): 0.2 = small; 0.5 = medium; 0.8 = large. SC = self-contained ESL; BI = bilingual; PULL = ESL pullout; PUSH = ESL push-in; DU = dual language.

Appendix

Survey Instrument

Opinion Survey: Teaching Spanish-Speaking English Language Learners

Gender: Male Female

Ethnicity: White Black Hispanic Asian Other

Educational attainment: Bachelor’s Master’s Master’s +30 Master’s +60 Doctorate

Do you hold *ESL* certification? Yes No

Do you hold *bilingual* certification? Yes No

Years as an administrator: _____ (write “0” if you have never worked as an administrator)

Years as a teacher: _____

Age: _____

In the table below, please circle the number that best summarizes how effective you believe each program model is for the population of English Language Learners (ELLs) listed on the left. This is an opinion survey with no correct answers. All responses are confidential. **See descriptions of the five program models below.** (See Table 1 for these descriptions.)

Level of English and Spanish literacy skills	Program Model				
	ESL Self-Contained	ESL ESL pullout	ESL ESL push-in	Bilingual	Dual Language
English = high Spanish = high	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective
English = high Spanish = low	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective
English = low Spanish = high	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective
English = low Spanish = low	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective	6 5 4 3 2 1 effective ineffective