

The Effect of Bilingualism on Writing Ability

Victoria Hinesly | University of Texas – Permian Basin

The goal of this study is to determine whether or not individuals who identify as bilingual have more advanced writing skills than individuals of the same educational level who identify as monolingual. The importance of this study lies in the realm of education; our cities are becoming increasingly globalized, which means that teachers must meet more linguistic needs than ever before. The results of this study and others like it can help determine which method of teaching (subtractive or additive bilingualism) is most beneficial to students learning multiple languages, and to students who only know one language. In order to determine what effect, if any, bilingualism has on writing ability, bilingual and monolingual junior- and senior-level university students (n = 4) submitted academic writing samples that are assessed via both a rubric and a holistic reading by a third-party grader. The rubric results are then compared, and a relationship is determined between “writing ability” based on the rubric, and the language classification of the participants.

The effect of bilingualism on students and teachers in classrooms across the United States is a controversial issue for many reasons. One significant reason is that American society is becoming increasingly globalized; there are minority groups in the United States now than there ever have been. With higher percentages of minority students in classrooms come new languages, new cultures, and new experiences that teachers previously did not have to address. Teachers are responsible for teaching students who may never have been to public school and who may never have spoken English before they stepped into that classroom.

Several approaches exist for teaching students who identify as learning English as their Second Language (ESL). Some educators prefer dual language methods (also called

two-way bilingual programs), and some prefer the method of immersion (or subtractive bilingualism), which can create for students a preference for their second language (L2) over their native language (L1). The “bilingual” and immersion models (additive and subtractive, respectively) are classified “depending on the role that the native language plays in instruction. Additive models add English instruction to native language instruction, whereas subtractive models focus on transitioning English learners to English immersion programs as rapidly as possible and thus subtracting native language instruction” (Barrow and Markman-Pithers 166). Barrow and Markman-Pithers plainly summarize the issues surrounding the debate about *how* to best teach ELLs, stating, “The crux of the debate surrounds the amount, frequency, and

duration with which students should use their native language in school, which is in large part associated with the underlying educational goal: Is the intent to make students bilingual (fluent in both their native language and English), or is it to make sure that English learners master the language as rapidly as possible?" (160). The benefits of speaking English have been established by many; however, the benefits of being completely fluent in multiple languages are less palpable.

The goal of the current research is to provide data that display the effects of true bilingualism (complete fluency in two languages) on writing ability. The data in this study are obtained by comparing writings of monolingual students and bilingual students at the post-secondary level ($n=4$). If the results suggest that writing samples by bilingual individuals score higher on a rubric than those of monolingual individuals, it would follow that it would be beneficial for educators/parents to foster a student's L1 while instructing them in L2 (thus, using an additive method). Only when students benefit from being completely monolingual does a subtractive bilingual program make sense. The research question being addressed is thus: Do bilingual individuals score higher than monolingual individuals on a rubric when being evaluated for writing ability? A qualification to this question is that each individual being evaluated must be of roughly the same achievement level, determined by the participants' education, classification (junior/senior), and field of study.

Literature Review

One study by Ardasheva et al. is similar to the present study, in that they measure reading and mathematics scores of students who are native English speakers, students

who are current ESL students, and students who were previously considered to be ESL students but were fluent in both L1 and L2 at the time of the study. Their study concludes that past ESL students (fluent in L1 and L2) have higher scores in both reading and mathematics when compared to native English speakers and current ESL students. The implications of this study are that teachers should aim for fluency in both L1 and L2 for higher cognitive functioning in reading and mathematics (see also Ginsberg and McCoy).

Hakuta addresses one prevalent issue that is also addressed by the current study: whether transitioning bilingual students into being monolingual is a "handicap" to the student, as opposed to fostering both L1 and L2 equally. Hakuta hypothesizes that a true bilingual student (knowing two languages fluently) will outperform monolingual students in many areas, including metalinguistic awareness, spatial relations, ambiguity detection, nonverbal measures, and egocentrism. These areas are all metacognitive, whereas the current study is testing not metacognition itself but rather the outward effects of metacognition on writing ability.

Poorebrahim et al. analyzed the effect of bilingualism on writing performance (as compared to monolingualism). Their study assesses students at the university level in freshman and senior level courses according to their language abilities. The study aimed to identify metacognitive strategies being used by more advanced writers that are not being used by the less advanced writers, and to identify any relationship between bilingualism and monolingualism and high or low writing achievement. The researchers find that "bilinguals used more metacognitive strategies and had higher writing scores than

monolinguals” (1). Researchers used a background questionnaire, a writing metacognitive strategy questionnaire, and participants’ compositions, and statistical analysis (including two-way factorial ANOVA and Kruskal-Wallis tests) (1). The present study uses different methods—compositions are evaluated against a rubric—and does not analyze metacognition.

None of the studies reviewed test bilingual writing samples against monolingual writing samples using the same method or with the same implications in mind as the present study. Several researchers have studied the effect of bilingualism on academic achievement; however, few studies have been done that evaluate writing ability specifically among bilinguals as compared to monolinguals using the same methods as the present study—namely, attaining academic writing samples from students with similar intellectual levels (gauged by their status in one university as junior/senior English and Spanish majors).

One scholar cited by several sources (regarding bilingualism and academic achievement) is James Cummins. In “Linguistic Interdependence and the Educational Development of Bilingual Children,” Cummins addresses factors that can influence studies of academic differences in bilingual and monolingual students, including linguistic, socio-cultural, and “school program” factors (223). This is a critical viewpoint. Cummins states that because bilingual students are most commonly minority individuals, their academic performance is generally poorer compared to the majority population because of the effects caused by their language situations, socio-cultural statuses, and school programs. Cummins says that

these situations are reflecting on their academic performance, but when their education is fostered to the same extent as a monolingual individual, they outperform the monolingual student. My study also addresses these issues by narrowing the sample size of the bilingual population. While this study did not statistically account for linguistic, socio-cultural, or school program factors, it did evaluate the writing of bilingual and monolingual students at the same university, on the same academic level (approximately), in the same type of program (humanities and language-oriented).

Much research, then, supports teaching writing in a bilingual environment. Most studies find that students who are bilingual outperform monolingual and prospective bilingual students in many areas, including reading, mathematics, metalinguistic awareness, spatial relations, ambiguity detection, nonverbal measures, egocentrism, and metacognition in general.

Methods

Participants

The participants whose writings were examined in this study were students at the University of Texas of the Permian Basin. Three of these students were on track to receive their B.A. in English, and one graduated UTPB with a B.A. in Spanish the previous semester. These two degrees, Spanish and English, are comparable in requirements regarding language acquisition and writing skills. These students’ writings were completed in their junior or senior year in either a Spanish or English course, controlling for difference in level of preparation.

Additionally, each participant’s writing sample was in English, which made the comparison between monolingual and

bilingual writing samples more accurate (compared to the bilingual participants submitting writing samples in Spanish, their native language)—especially important for this study because what is being measured is writing ability *because* of bilingual ability. In order to evaluate a native Spanish speaker's fluency as a result of *language acquisition* and "writing skill," the writings are evaluated in the L2 to show their command of not only language itself, but their ability to succeed in writing in their *second* language.

Obtaining linguistic background on bilingual participants (i.e. submersion or immersion students, students who participated in a bilingual program, representatives of the age at which second language was acquired, etc.) was not necessary to complete the present study, as questions such data would address were not the focus of the study.

Design

This study is a quasi-experiment. Participants were divided into two groups, bilingual and monolingual, which are the quasi-independent variables. Samples of writing had been written prior to the study, controlling Hawthorne-effect bias (students did not perform better or worse because of being in a testing situation). Students provided a sample written within the preceding six months (in order to avoid bias from using documents and information much earlier in students' development). The writing was not evaluated based on specific content (as the writing sample could have been about anything), but rather for mechanics, clarity, language, and structure.

A few limitations to this study's design must be addressed. One is that students in this study did not have the opportunity to create perhaps their "best" piece of writing to be evaluated; however, writing samples

were submitted for a grade in a college course, suggesting some incentive against poor performance which would bias study results. Another limitation is that the study's N of 4 is not sufficient to permit statistical analysis. The fact that only four participants submitted writing samples may decrease this study's internal validity, since higher scores might be a result of differences in academic or intellectual ability or other differences (student type, procrastination habits, assignment selected as a writing sample, etc.). A third limitation could have occurred when a grader evaluated the writing samples against a rubric. While the grader was not aware which writing sample belonged to which student (bilingual / monolingual), it is possible that the grader had a preference for a certain type of writing or was biased against one type of mistake over another (for example, a professor might be especially inclined to deduct points for improper grammar usage over another type of mistake). Further, the grader was not a professional, but a peer-tutor, which could limit reliability if training was insufficient. A fourth limitation is that the only L2 spoken by the study participants was Spanish, and all bilingual participants were of Hispanic ethnicity. It is possible then that the two bilingual students scored higher on the rubric because of cultural backgrounds, familial expectations, or an aspect of the Spanish language that aids in comprehension or fluency. Finally, it is also possible that these students used an outside source to help them compose these writing samples; the samples were not checked for plagiarism, and the students were not asked if anyone or anything (computer program, for example) aided their writing sample composition.

Materials

Grades were assigned to each writing sample based on the grader's evaluation of the sample against a rubric from the University of Colorado at Denver (Appendix A). Using a rubric to evaluate the writing samples is beneficial in that while the blind, third-party grader could have had a specific perception of what things such as "logical organization" or "sophisticated vocabulary" should look like, the evaluator graded every sample writing based on the rubric's categories. This eliminated most grading biases based on the evaluator's perception of a specific trait of writing.

Procedure

Data were collected by requesting and receiving (via email) one sample academic writing previously completed by each participant. Participants were either current enrollees in a junior- or senior-level Spanish or English course, or had been during the previous 6 months. Samples were written during one of the following courses, which I visited to recruit participants: SPAN 4360, Spanish Golden Age; SPAN 3302, Advanced Conversation and Composition; ENGL 3336, Supernatural Global Literature; ENGL 3320, American Fiction 1860-1900; ENGL 3371, English Language; and ENGL 4371, Rhetoric and Composition. I also contacted some students by phone and requested that they participate in the research. I requested that samples have name and other identifying information removed. Samples were then blind-evaluated by a student English Language Arts tutor at UTPB's Success Center based on the previously noted rubric (Appendix A). Scores were recorded for Spanish and English majors separately, and then compared and analyzed for implications.

Results

The average rubric scores for each classification (bilingual or monolingual) show that monolinguals outperformed bilinguals in "writing ability" according to the rubric by 0.25 points, 9.25/12 versus 9/12. (See Appendix B, Tables 4 and 5, for raw scores.) However, when evaluating the findings from each rubric section, the average scores are more telling. Table 1 shows that the bilingual students outrank the monolingual students in two out of four rubric sections, and have identical average scores in another.

Table 1
Average Scores by Rubric Traits

Trait	Average Monolingual Score	Average Bilingual Score
Structure/Org.	2.5	1.5
Grammar/Mech.	2	2.5
Content/Info.	2.5	2.5
Language	2.25	2.5

Monolingual students outranked bilingual students only in Structure and Organization (by a sizable margin, given the 3-point rubric scale). Total score averages are therefore somewhat misleading as to students' actual performance.

Discussion

The findings of this study are similar to related studies. Many studies find that truly bilingual individuals have some sort of advantage over monolingual individuals, whether that be metacognitively or academically. A finding unique to this study, warranting further research, is that monolingual students' writing was rated as being better organized than bilingual students'. While data from this

study are too limited to make this result certain, it's an indication of possible challenges for bilingual students writing in an L2 that bears followup study with a larger dataset. Likewise, results rating bilingual students' writing as demonstrating equivalent or higher-quality grammar, content, and language compared to monolinguals' writing may point specifically to bilingual students' linguistic abilities. These writing ratings are consistent with the hypothesis that grammar usage, ability to determine appropriate content, and command of language are indeed facilitated

by bilingualism.

Because rubrics which measure only a few facets of writing can be too reductive, I asked the grader to also rank the writing samples holistically, apart from the rubric. The response is interesting in that the grader ranked Monolingual 2's writing sample above Bilingual 1's writing sample, contradicting the rubric score, on which B1 scored 10/12 (highest in set) and M2 scored 9.5/12 (second highest in set). The grader's reasoning, though, is still rubric-based and reflects M2's organization and structure (see Table 2).

Table 2
Commentary on Holistic Ranking of Samples

Holistic Ranking (best to worst)	Commentary
Monolingual 2	This sample had the best organization of all the samples received. It also had the best example of critical analysis.
Bilingual 1	It had some moments where it lost a formal tone and used simple transitions.
Monolingual 1	This sample's content was not the best choice in submission, as it was multiple smaller questions. The sample had great organization but there is a huge difference in organizing short answers and an essay. It also relied on fact instead of critical analysis/interpretation.
Bilingual 2	While the language was the most sophisticated of the samples received, the organization was the least sophisticated.

The ultimate reason given for ranking Monolingual 2 as the best writing sample is that the writer had the best *essay* organization and best evidence of critical analysis. This seems to contradict the rubric score of 2 for Structure/Organization for M2; however, the terms "structure" and "organization" are defined by the rubric, whereas in a holistic approach they were undefined.

I also identified the best writer in each category, based on the rubric scores (see Table 3).

Table 3
Top-Ranking Sample by Rubric Trait

Best Structure	Best Grammar	Best Content	Best Language
M1	B2	M2 and B1	B2

This analysis gives additional insight into, and another perspective from which to view, raw scores (Appendix B, Tables 4 and 5): Table 3 more clearly articulates that a monolingual student scored the highest in

structure and bilingual students scored highest in grammar and language, with equally high ratings on content. Grammar (syntax, punctuation) and language (vocabulary, tone) are what are most often used to evaluate “fluency” in a given language. In this set of writing samples, we can fairly conclude that issues bilingual writers had were not with language. The equivalent monolingual/bilingual averages in content/information—as well as overall paper scores—further suggests that not only did these bilingual writers use language and grammar more effectively/correctly (according to the rubric) than their monolingual counterparts, but that they wrote well—their ability to use information was equal to that of these monolinguals.

Implications and Future Research

Given that these results suggest advantages of bilingualism over monolingualism in many central aspects of writing, this study supports the argument that subtractive (L2-only focused) language acquisition methods are inferior to additive (fully bilingual) approaches that support fluent bilingualism. Subtractive methods that foster language acquisition by focusing all a student’s attention on the L2 (avoiding using the L1 as a gateway into the new language) stand to be hindered in their academic success compared to the potential of active bilingualism—all the more in language acquisition programs whose *goal* is to “forget” about the L1 in acquiring an L2. This study’s results suggest that such subtractive methods should be altered to incorporate the L1 into the learning of the L2, and both languages fostered once the learning is fluent in both.

These findings also support the movement

to alter the course of language education for monolingual students. Currently in Texas, high school students are required to take two years of a second language in order to graduate. Two years is not enough time to become fluent in a second language, and moreover, fluency will be attained more easily at a younger age. Since we have indications that bilingualism can yield benefits in writing quality, early-age bilingual education should be offered to all students, so as to bring them closer to full fluency in two languages. The results of this study, if validated in a larger population, could mean that students who are bilingual have an advantage over those who are monolingual; this evidence could be sufficient to alter education requirements (or standards) accordingly.

Finally, these findings support initiatives to promote bilingualism rather than obstruct it, suggesting that monolingual students may be at a disadvantage compared to bilingual students in writing. Lower ratings for bilingual students in structure and organization, if validated in a larger population, would be an indication to educators of an area of struggle for bilingual writers.

To address several of the limitations of this study, future studies should recruit more participants. Additionally, future studies should consider the benefits of completing a true experimental study by having students compose in a controlled setting, which would help verify that participants are using innate ability. (However, Hawthorne bias could increase if the setting was controlled and the subjects knew the purpose for which they were writing.) Alternatively, participants could respond to a standard writing prompt, or researchers could specify a narrow range of acceptable sample types. (However, biases

would exist if a researcher was to provide a writing prompt, as well.) Lastly, future studies should consider recruiting a professional grader, recruiting participants who have

acquired an L2 other than Spanish (but could include Spanish), and/or recruiting students with similar backgrounds.

Appendix A

“Evaluating a College Writing Sample Rubric,” University of Colorado—Denver

CRITERION / SCALE	1 Frustratingly Inadequate	2 Weakly Inadequate	3 Marginally Adequate	4 Adequate
Main Issue <ul style="list-style-type: none"> Organization Flow of thought Transitions Focus 	<ul style="list-style-type: none"> Paper is logically incoherent Badly followed Difficult to search and follow transitions Professional focus 	<ul style="list-style-type: none"> Paper has a clear organizational structure with some fragments, inadequacies or omissions Badly followed Hard to search Unclear focus 	<ul style="list-style-type: none"> There is some level of organization though fragments, omissions, and omissions are too many Difficult to follow Ineffective transitions Unclear focus 	<ul style="list-style-type: none"> There is an apparent organization to the work Difficult to follow No apparent transitions No focus
Qualities/Issues/Errors <ul style="list-style-type: none"> sentence structure grammatical mechanics 	<ul style="list-style-type: none"> Unreadable complex sentences for which support is insufficient No punctuation or punctuation errors 	<ul style="list-style-type: none"> Clear sentence structure Few punctuation or mechanical errors 	<ul style="list-style-type: none"> Clear sentence structure Too many punctuation and/or mechanical errors 	<ul style="list-style-type: none"> Too simple sentence
Language <ul style="list-style-type: none"> Necessity use of vocabulary Tone 	<ul style="list-style-type: none"> Vocabulary is mechanical and limited as an academic which may be necessary with length Tone and register are not specific Vocabulary for affect Writer's voice is flat, mechanical and appropriate to academic audience 	<ul style="list-style-type: none"> Transitions to connect, specific and appropriate Frequently use relevant specific vocabulary correctly Writer's tone is clear and is generally appropriate to audience 	<ul style="list-style-type: none"> Transitions to read properly though sentence may be simple Frequently use relevant specific vocabulary correctly Writer's voice is clear and level of audience correctly 	<ul style="list-style-type: none"> Transitions to sophisticated, and read properly in very simple sentences Too subject specific vocabulary too simple
Content/Information <ul style="list-style-type: none"> Clarity of purpose Critical and original thought Use of examples 	<ul style="list-style-type: none"> Content idea is not developed and clarity of purpose is not clear throughout the paper Illustration of evidence of critical, useful thought and analysis and/or insight Evidence and examples are not well-specific, little to no analysis 	<ul style="list-style-type: none"> Content idea and clarity of purpose are generally in line throughout the work Evidence of critical, useful thought and analysis and/or insight There are good, relevant supporting examples and evidence 	<ul style="list-style-type: none"> The content idea is represented though it may be rigid or too broad, some areas of purpose is represented throughout the work Some evidence of critical, useful thought and analysis and/or insight There are some examples and evidence though general 	<ul style="list-style-type: none"> Content idea and clarity of purpose are clear or incompletely represented and not sustained Only to an extent of critical, useful thought or analysis and/or insight There are few but no examples and evidence of work are mostly general

Appendix B

Table 4

Trait Scores by Writer

Classification	Structure/Org.	Grammar/Mech.	Content/Info.	Language	Total
Monolingual 1	3	2	2	2	9/12
Monolingual 2	2	2	3	3	9.5/12
Bilingual 1	2	3	3	3	10/12
Bilingual 2	1	2	2	2	8/12

Table 5
Trait Scores by Writer

Classification	Structure/Org. <i>Score out of 3</i>	Grammar/Mech. <i>Score out of 3</i>	Content/Info. <i>Score out of 3</i>	Language <i>Score out of 3</i>	Total <i>Score out of 12</i>
Monolingual 1	Score: 3 Commentary: Exceeds expectations; each answer is logically organized, and transitions are smooth.	Score: 2 Commentary: Not a lot of manipulation of sentence length and structure for maximum impact; however, the paper is also not limited to simple sentences and has few grammar mistakes.	Score: 2 Commentary: Very clear content; most is factual with some evidence of careful critical thinking.	Score: 2 Commentary: Some clichés such as “big picture”; however, the language is most often varied and appropriate for the audience.	9/12
Monolingual 2	Score: 2 Commentary: Meets expectations; however, some of the transitions between Emerson and Whitman can be difficult to follow.	Score: 2 Commentary: Very few mistakes that do not detract from reading; i.e.: “One question that comes to mind is if those changes are for better or for worse?” Needs a period instead of question mark.	Score: 3 Commentary: Wonderful examples and great supporting textual evidence. Incredible thoughts! The idea of continuity between current and past generations and the stifling nature of conformity are wonderful.	Score: 2.5 Commentary: Some strange wording and redundancy; i.e.: “revolving circle”, “that same Brooklyn ferry that he is riding on.” While the textual evidence is wonderful and adds greatly to the writer’s point, there is some poor integration. i.e.: “belief that ‘Therefore, we value the poet...’”	9.5/12

Bilingual 1	Score: 2 Commentary: Does not have many transitions – when transitions are present, they are simple.	Score: 3	Score: 3	Score: 2 Commentary: Some informal language; this may be acceptable in personal thoughts, but for the assignment, not acceptable for an abstract.	10/12
Bilingual 2	Score: 1 Commentary: Some conflicting ideas that are never resolved; thesis discusses gender roles and nationalism, yet is very broad, leaving the reader with instances where the paper is difficult to follow.	Score: 2 Commentary: Some obvious mistakes that do not overly detract from the paper.	Score: 2 Commentary: Demonstrates great critical thinking, careful analysis and relevant citations, yet the central theme is somewhat difficult to follow and is not concise.	Score: 3 Commentary: Overall, this paper has the most complex grasp of vocabulary and audience of all the papers; maintains a formal tone.	8/12

Acknowledgements

I would like to acknowledge Dr. Rebecca Babcock at the University of Texas of the Permian Basin for assisting in the process of beginning, completing, and finalizing this study, and for encouraging students to attempt academic achievements that others might consider beyond students' abilities. I would also like to acknowledge my classmates, including Dr. Babcock's graduate assistant, Aliethia Dean, for contributing to discussion and ideas that are included in this proposal and that will contribute to the success of this study. I would like to acknowledge one classmate and English Language Arts tutor specifically, Katherine Smith, for serving as the third party, unbiased grader for this study.

Works Cited

- Ardasheva, Yuliya, et al. "English Language Learners and Academic Achievement: Revisiting the Threshold Hypothesis." *Language Learning*, vol. 62, 2011, pp. 769–812.
- Barrow, Lisa, and Lisa Markman-Pithers. "Supporting Young English Learners in the United States." *The Future of Children*, vol. 26, no. 2, 2016, pp. 159–83.
- Cummins, James. "Linguistic Interdependence and the Educational Development of Bilingual Children." *Review of Educational Research*, vol. 49, 1979, p. 222.
- Ginsburg, Harvey J., and Ingeborg H. McCoy. "An Empirical Rationale for Foreign Languages in Elementary Schools." *The Modern Language Journal*, vol. 65, no. 1, 1981, pp. 36–42.
- Hakuta, Kenji. "Degree of Bilingualism and Cognitive Ability in Mainland Puerto Rican Children." *Child Development*, vol. 58, 1987, p. 1372.
- Poorebrahim, Fatemeh, et al. "Bilingual and Monolingual EFL Learners' Use of Writing Metacognitive Strategies and Writing Performance." *Applied Research on English Language*, vol. 6, no. 1, 2017, 1-22.
- University of Colorado at Denver. "Evaluating a College Writing Sample Rubric," www.ucdenver.edu/faculty_staff/faculty/center-for-faculty-development/Documents/Tutorials/Rubrics/documents/ex_writing_sample.pdf, 14 Feb. 2018.