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A Replication Study of the Effects of Test Language and Mathematical Skills Assessed on the Scores of Bilingual Hispanic Students

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Oral Presentation 5.4

A REPLICATION STUDY OF THE EFFECTS OF TEST LANGUAGE AND MATHEMATICAL SKILLS ASSESSED ON THE SCORES OF BILINGUAL HISPANIC STUDENTS

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In 1983, Gilberto Cuevas and Maria Llabre researched the effects of test language and mathematical skills assessed on the scores of bilingual Hispanic students. This study investigated the extent to which the language of standardized tests influenced the performance of bilingual students of differing levels of English proficiency. Two versions, Spanish and English, of the same Comprehensive Test of Basic Skills were administered to 408 bilingual Hispanic students in fourth and fifth grade, and the students were asked to complete both tests. Cuevas and Llabre found that the students performed better on the English version of this test than on the Spanish version.

For this study, I have tried to replicate Llabre and Cuevas' work. This replication study was guided primarily by the following research question: to what extent does the language of the test influence the mathematical performance of bilingual students? My methodology followed closely that of Cuevas and Llabre, however, a few adaptations were made. First, the students I worked with were slightly older than the ones in the original study (sixth, seventh and eighth grade), and the tests were altered accordingly. Additionally, my student sample was limited to approximately thirty students. The third, and perhaps most influential adaptation to the study was that the students in the replication study all received at least some mathematics instruction in Spanish. In the original study, most of the students had only received mathematics instruction in English.

While this was a replication study, I did not anticipate my results mirroring those of Cuevas and Llabre. I did not expect the students in my study to perform significantly higher in English than in Spanish as the students in the original study did. I hypothesized that the exposure these students have had to mathematical instruction and vocabulary in the Spanish language would raise their Spanish language performance to or above the level of their English language performance.