The Effect of Bilingualism on the Multitasking Ability of Adolescents

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The effect of bilingualism on the multitasking ability of adolescents was investigated by comparing the performance of twelve monolingual and twelve bilingual subjects on a nineteen-question online multitasking test. The student researcher used a survey to obtain twenty-four subjects from all four grade levels of High Technology High School, of which six male and six female respondents were chosen as the monolingual subjects, and an additional six male and six female respondents were chosen as the bilingual subjects. The bilingual subjects were furthermore divided into four categories: three adolescents who spoke an Indian language, three who spoke a Chinese dialect, three who spoke Russian, and three who spoke other languages (in this case, Spanish, Hebrew, and Tagalog). Each subject's nineteen reaction times were averaged by the student researcher, and this mean reaction time was inputted into a formula to produce the inverse efficiency score of each subject. Statistical analysis was then performed on the inverse efficiency scores. While there was a significant difference in the performance of the bilingual and monolingual subjects on the online multitasking test, it was the monolinguals who were significantly faster and not the bilinguals, contrary to the student researcher's expectations. The results of this study thus suggest that the bilingual advantage at executive function control and at multitasking may diminish significantly during adolescence.

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