

Research rules out executive function advantage for some bilingual children

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Bilingual children are on equal footing with monolingual children when it comes to regulating their behavior, planning and problem-solving, according to a new Florida International University study.

For more than 20 years, research has suggested children who are

bilingual have an advantage when it comes to executive functions, which are the cognitive processes that have to do with managing behaviors and attention. But researchers at the FIU Center for Children and Families say that is not the case for American 9- and 10-year-olds.

"In one of the largest studies to date addressing this question, we failed to find consistent evidence for a bilingual advantage for executive function," said FIU psychologist and lead author Anthony Dick.

Executive function is responsible for self-monitoring, paying attention, organizing and planning, initiating and completing tasks, and regulating behavior. While parents shouldn't look to bilingualism as a way to create an advantage for executive function, knowing a [second language](#) does offer other benefits including better family relationships, improved cross-cultural communication and in some cases enhanced [economic opportunities](#).

"Although our study indicated slightly lower English vocabulary for [bilingual children](#), I think the benefits to learning a second language far outweigh any of the costs," Dick said. "Parents should take advantage of opportunities for their children to learn a second language and should continue practices that promote [language development](#) more generally, such as reading nightly with their children."

Using data from the Adolescent Brain Cognitive Development Study ([ABCD](#))—the largest long-term study of brain development and child health in the United States—researchers evaluated a demographically representative sample of 4,524 children ages 9 and 10 across the United States. While they were able to replicate some findings related to language development, when they investigated whether there were additional advantages across executive function tasks, they failed to find any evidence favoring bilingual children. They suggested prior findings showing a bilingual advantage might have been due to chance because

smaller numbers of children were investigated in those studies.

Results from the current study point to opportunities for further research into ways to mitigate the deficiencies. Dick explains that future research may identify specific circumstances where a bilingual advantage in [executive function](#) may be present in some children and determine if the current results apply to a broader range of ages.

The study was published in the journal *Nature Human Behaviour*.

More information: Anthony Steven Dick et al. No evidence for a bilingual executive function advantage in the nationally representative ABCD study, *Nature Human Behaviour* (2019). [DOI: 10.1038/s41562-019-0609-3](#)

Provided by Florida International University

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