

The Bilingual Advantage: Limitations of Research and Considerations for Practice

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Introduction

The presence of the bilingual advantage, defined as an executive functioning advantage, is currently being disputed. While there are studies that support and oppose its existence, the limitations have not been thoroughly examined. The purpose of this poster is to discuss those limitations. Additionally, this poster aims to offer considerations and suggestions for school psychologists when working with bilingual students throughout the referral, assessment, and intervention process.



Executive Functioning

Executive functioning can be defined to encompass the following cognitive functions: initiating behavior, inhibition, self-monitoring, planning/organization, working memory, shifting, task-monitoring, and emotional control (Gioia et al., 2015). Therefore, these eight cognitive functions are the most widely accepted as categorizations of executive functioning and will be used as the guidelines in the present study. Executive functions are typically assessed using direct assessments such as the Delis-Kaplan Executive Function System (D-KEFS), Wisconsin Card Sort Task (WCST), and the National Institutes of Health Toolbox Cognition Battery (NIHTB-CB). Additionally, questionnaires from parents and teachers are used to gain understanding of executive functioning of children in multiple areas such as the Behavior Rating Inventory of Executive Function, Second Edition (BRIEF-2), Comprehensive Executive Function Inventory (CEFI), and Delis Rating of Executive Functions (D-REF).

The Bilingual Advantage Debate

Supporting

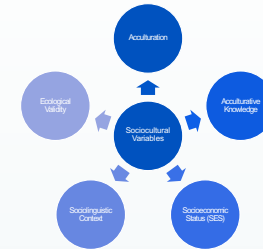
- Studies have shown that there are inhibition and working memory advantages for bilingual adults (Bialystok, 2004)
- After controlling for socioeconomic status (SES) and differences in access from social capital, bilingual children showed advantages in executive function abilities (Carlson and Meltzoff, 2008).
- The bilingual advantage was especially noted for children from lower SES families for which the advantage served as a protective factor

Opposing

- No advantages were seen in inhibition, shifting, and updating tasks (Arizmendi et al., 2018).
- Context of the bilingual language and factors related to acculturation should be considered
- There is publication bias in the field to publish studies that show a bilingual advantage, meaning that studies that show no advantage are usually not published (Paap et al., 2015).
- Differences in bilingual versus monolingual groups usually have very small effect sizes which is not enough to show statistical significance between groups (Paap et al., 2019).
- Using comprehensive assessment batteries for executive functioning have actually show disadvantages in vocabulary knowledge for bilingual students (Dick et al., 2019).



Sociocultural Variables



There are sociocultural variables to consider that are limitations identified and not consistently in the research that would further impact the differences in executive functioning abilities in bilingual children. They include: acculturation, acculturative knowledge, SES, sociolinguistic context, and ecological validity. Here are some considerations when working with bilingual children:

- Acculturation is the degree to which a person feels connected to their culture.
 - For bilingual children, their linguistic abilities may connect them to different cultures which will then influence their perspective.
- It is not enough to say that being bilingual implies understanding of contextual knowledge in both languages (acculturative knowledge).
 - Psychologists are responsible for choosing fair and ethical assessments that considers acculturative knowledge.
- SES impacts the availability to resources that promote additional learning and growth outside of the classroom. SES limits social capital which allows for connections to additional resources.
 - Psychologists should consider family income or parental level of education during their evaluation to better understand the limitations of the child's environment.
- Sociolinguistic context is the consideration of the degree of proficiency of both languages and an understanding of the environment which those languages are being spoken (Widorowitz et al., 2020).
 - Understanding where and with whom they are speaking both languages gives information about their degree of knowledge and use.
- Ecological validity refers to the degree that executive functions are being assessed in a way that looks at these skills in a non-structured, assessment environment which is common in this area of research.
 - Psychologists should consider parent and teacher questionnaires to give information about executive functioning in the real world.