



The Woodcock-Muñoz Foundation

RESEARCH BRIEF

DOCTORAL DISSERTATION ABSTRACT

THE RELATIONSHIP BETWEEN EXECUTIVE FUNCTIONS AND BROAD WRITTEN LANGUAGE SKILLS IN STUDENTS AGES 12 TO 14 YEARS OLD

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The Woodcock-Muñoz Foundation (WMF) is a private non-profit operating foundation that supports the advancement of contemporary cognitive assessment practices. The Doctoral Dissertation Abstract Project is part of the Foundation's efforts to disseminate research findings that bridge the theory-to-practice gap in cognitive assessment.

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Abstract

The purpose of this investigation was to explore the relationship between executive functions and written language skills. Five hundred and forty-three students between the ages 12 and 14 were administered the Planning, Retrieval Fluency, Pair Cancellation, and Number Reversal subtests from the Woodcock-Johnson Tests of Cognitive Abilities – Third Edition (WJIII; Woodcock, McGrew, & Mather, 2001a) and the subtests included under the Broad Written Language cluster of the Woodcock-Johnson Tests of Achievement – Third Edition (WJIII; Woodcock, McGrew, & Mather, 2001b). The sample was taken from the larger sample used to norm the WJIII tests. Relationships were explored between the executive function subtest scores and Broad Written Language scores and were found to be significantly correlated. The four executive function measures and gender were entered simultaneously into a multiple regression equation and found to significantly predict Broad Written Language scores. Further examination revealed that all the composites with the exception of the Planning subtest significantly predicted Broad Written Language skills. Subtests measuring the executive functions working memory and attention (Number Reversal and Pair Cancellation) were the most significant contributors when the composite scores were examined. Results provide researchers with a foundation to further investigate the underlying executive functions that may help or hinder students' ability to produce quality written products and eventually design intervention studies based on areas of executive functioning. Limitations of the study are presented as well as implications for research and practice and directions for future research.