



The Woodcock-Muñoz Foundation

RESEARCH BRIEF

DOCTORAL DISSERTATION ABSTRACT

**A JOINT CONFIRMATORY FACTOR ANALYSIS OF
THE KAUFMAN ASSESSMENT BATTERY FOR
CHILDREN, SECOND EDITION AND THE
WOODCOCK-JOHNSON TESTS OF COGNITIVE
ABILITIES, THIRD EDITION WITH PRESCHOOL
CHILDREN**

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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 study was to explore the construct validity of the Kaufman Assessment Battery for Children, Second Edition (KABC-II: Kaufman & Kaufman, 2004a) and the Woodcock-Johnson Tests of Cognitive Abilities, Third Edition (WJ-III COG: Woodcock, McGrew, & Mather, 2001) with a sample of 200 preschool children, ranging in age from 4 years, 0 months to 5 years, 11 months, and attending preschool and daycare programs in and around a Midwestern city. This study attempted to determine if the Cattell-Horn-Carroll (CHC) factor structure represented on these tests can be identified with young children. Individual confirmatory factor analyses were conducted separately with the KABC-II and WJ-III COG. Moreover, a joint confirmatory factor analysis was conducted using both the KABC-II and WJ-III COG. The results of the individual KABC-II factor analyses indicated a two-tiered *Gf-Gc* model provided the best fit to the data, although the three-tiered CHC model also fit the data well. This suggests the underlying factor structure of the KABC-II is well represented by the CHC theory. The WJ-III COG was best represented by an alternative CHC model, in which the *Gf* factor and subtests had been removed, indicating not all CHC constructs represented on the WJ-III COG can be reliably identified among young children. The joint confirmatory factor analysis indicated the strongest measures of the shared CHC factors on the KABC-II and WJ-III COG, which can help to guide cross-battery assessment with preschool children. Overall, the results confirmed multiple CHC abilities can be assessed with young children, implying clinicians should be using preschool tests that provide scores for several cognitive abilities. This study also revealed the constructs of the CHC theory may be represented somewhat differently on preschool tests due to developmental influences. Strong correlations were evident between unrelated tasks, primarily because the verbal and linguistic demands of many subtests caused them to load unexpectedly on the *Gc* factor. Suggestions for future research include conducting the same study using preschool children with suspected disabilities, as well as with older children, examining other instruments that include a *Gf* factor, and conducting exploratory factor analysis with subtests from the KABC-II and WJ-III COG that contain significant components of more than one ability.

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