

ABSTRACT

DISSERTATION: Exploring Cultural Loading in the Cognitive Assessment of Preschoolers:

Item Analysis of the DAS-II and WPPSI-IV

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A tremendous need is present for valid, reliable, and culturally sensitive measures of cognitive ability for the preschool-age child. Although a large body of research suggests that standardized cognitive tests are not culturally biased against diverse groups, the empirical base is limited regarding the assessment of cultural loading on cognitive tests. This study used Differential Item Functioning (DIF) to explore ways that individual dichotomous items on the DAS-II and WPPSI-IV were impacted by factors including race/ethnicity, socioeconomic status, and overall cognitive ability with a sample of preschool-age children. Results identified several items across both measures that demonstrate DIF based on various demographic variables. On the WPPSI-IV, three items from the Matrix Reasoning ($p < .001$) and Information ($p < .05$) subtests were detected as DIF items based on group differences across race/ethnicity, income, maternal education, paternal education, and overall cognitive ability. Similarly, fifteen items from the DAS-II Verbal Comprehension ($p < .05$), Picture Similarities ($p < .05$), Naming Vocabulary ($p < .05$), Matrices ($p < .001$), and Early Number Concepts ($p < .05$) subtests were identified as displaying DIF for all demographic variables. Specific cultural groups disfavored by DIF were varied based on the individual item. Implications, limitations, and suggestions for future research are discussed.