Correlation between intelligence, reading achievement and attention measures from a sample of students with basic reading disabilities
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This study compared measures of attention from the Cognitive Assessment System (CAS) to the Wechsler Intelligence Scale for Children-Third Edition (WISC-III) and reading achievement scores from the Woodcock–Johnson Revised Tests of Academic Achievement (WJ-R). Sixty 6- to 13-year-old public school students with basic reading disabilities were participants. The participants came from 3 western states. The inclusion criteria were a WJ-R Basic Reading score less than 90 and a WISC-III Full Scale IQ score 15 points higher than the Basic Reading score. All participants had a WISC-III Full Scale IQ score of 80 or higher, spoke English as a primary language, and did not have a history of being identified with an emotional disability. The 3 measures of attention from the CAS (Receptive Attention, Numbers Detection, and Receptive Attention) had low correlations with the WISC-III and WJ-R reading scores. The range of these correlations was -0.02 to 0.39. Four correlations were significant at the 0.01 level. However, these correlations were low. The significant correlations were: a) Number Detection and FS IQ, \( r = 0.34 \), b) Number Detection and Broad Reading, \( r = 0.37 \), c) Receptive Attention and Broad Reading, \( r = 0.39 \), and d) Receptive Attention and Basic Reading, \( r = 0.36 \). These findings emphasize the notion that measures of attention on the CAS are measuring a mental ability not assessed in traditional intelligence and reading achievement tests such as the WISC-III and WJ-R.

Confirmatory factor analysis of the WISC-III in a clinical sample with cross-validation in the standardization sample
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A maximum likelihood confirmatory factor analysis of the Wechsler Intelligence Scale for Children-III was performed by applying LISREL 8 to a general clinical sample (N=318). Analyses were designed to determine which of 9 hypothesized oblique factor solutions could best explain intelligence as measured by the WISC-III in the general clinical sample. Competing latent variable models were identified in previous studies and a priori model modifications were made to test derivations of the 9 base models. Results in the clinical sample were cross-validated by testing all models in the WISC-III standardization sample (N=2200). Findings in both the clinical and standardization samples supported a 5-factor model including Verbal Comprehension, Constructional Praxis, Visual Reasoning, Working Memory, and Processing Speed factors. Our analysis differed from that presented in the WISC-III manual as we tested more complex models of intelligence. Additionally, our 5-factor model was identical to the model derived for the WAIS-III using the same set of hypothetical constructs with 1 exception. The factor structure in regards to verbal intelligence was less complex in the child sample using the WISC-III compared to the adults using the WAIS-III. This is consistent with the hypothesis that verbal intelligence may be less well developed in children as reflected by a less complex latent structure.

GAMA: relationship to academic achievement
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The measurement of intellectual ability is an important component of many psychological assessments conducted by mental health professionals. The General Ability Measure for Adults (GAMA; Naglieri