Woodcock-Johnson Cognitive Ability Test

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Authors

- Acronym: WJ III COG
  (Woodcock-Johnson III, 2004)
- Dr. Richard Woodcock, Dr. Kevin S. McGrew, Dr. Nancy Mather
  (Plake, 2003)
- F. A. Shrank (computer software)
  (Woodcock-Johnson III, 2004)
Publication & Price

- Current Price:
  - Achievement Battery: $444.00
  - Complete basic examiner’s kit: $631.00
  - With Case: $714.00
(Woodcock-Johnson III, 2004)
Tests intellectual ability and cognitive ability with auditory phonemic awareness (Woodcock-Johnson III, 2004)

Major Areas Tested: (Plake, 2003)
- General intellectual ability
- Specific cognitive abilities
- Scholastic aptitude
- Oral language

Age Range: 2-90+ (Flanagan, 2001)
Examiner Qualifications: specific training required (Plake, 2003)
Test Type - Cognitive: Individual (Plake, 2003)
Validity

- Content Evidence – Aligned with core curricular areas and domains specified in federal legislation (McGrew, 1991)
- Substantive Evidence – Broad and narrow abilities are measured (Shrank, 2001)
- Internal Structure Evidence – Aligned with a stratified model of intellectual abilities defined by CHC Theory (Carrell, Horn, and Carroll) (Plake, 2003)
Validity

- External Structure – Correlates well with other tests measuring similar constructs (Shrank, 2001)
- Predictive Validity – reliabilities are sufficiently high, almost all in the .90’s (Shrank, 2001)
- Concurrent Validity – good concurrent validity overall (Shrank, 2001)
Evidence

- Reliability evidence – (over time) test-retest (one day) median scores range from .81-.85 (Plake, 2003)
- Reliability evidence – (over assessors) Interrater reliability for writing are reported to be in the high .90’s (Plake, 2003)
- Reliability evidence – (over content) split-half or Rasch analysis was used (McGrew, 2003)
Evidence

- Generalization evidence – focuses on test item level and the level of aggregated items. Checks on item fairness based on bias and sensitivity (McGrew, 1991)
- Consequential evidence – index of the precision with position in a group is indicated (McGrew, 1991)
- Practicality evidence – designed for convenience without using cumbersome test materials (McGrew, 1991)
Scores

- Scores obtained – Reliabilities are sufficiently high to make inferences about individual test takers: grade, age, percentile, discrepancy (Plake, 2003)
- Composite scores – 10 standard battery test scores (Plake, 2003)
- Scale scores – Formula for scale scores and two sets of discrepancy information, ability/achievement and intra-ability discrepancies (McGrew, 1991)
Scores

- Mean, standard deviation, standard error - norm based ability, same ability at the same age or grade level (Shrank, 2001)
- Composite scores – determines the significance of a subject’s score when it differs from others at the same age or grade level (Shrank, 2001)
- Scale scores – differentially g-weighted score that make up the General Intellectual Ability (GIA) or different tests have different weights (Satler, 2001)
Time

- Timed performance (Plake, 2003)
- Testing time – approximately 5 minutes per test; 55-65 minutes for standard battery (Plake, 2003)
Standardization Sample Information

- Sample size – 8,818 individuals from preschool age to adults (Plake, 2003)
- Demographic characteristics – matched to geographic region, community size, gender, race, and type of school. Adults on education & occupation levels and employment status (Plake, 2003)
Standardization Sample Information

- Special populations – students with disabilities (part-time in regular classes) and English language learners (Plake, 2003)
- Alternate forms available – forms A and B can be used interchangeably (Plake, 2003)
- Additional Notes – measures what it measures well, it may not cover some abilities efficiently (Plake, 2003)
Bibliography