

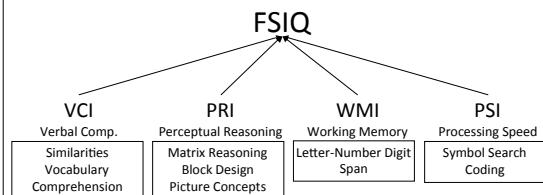
Intellectual Assessment

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Commonly Used Tests of Intellectual Ability

- Wechsler Intelligence Scales (WAIS-V, WISC-IV, WPPSI-III)
- Differential Abilities Scale (DAS-II)
- Stanford-Binet Intelligence Scales (SB5)
- Kaufman Assessment Battery for Children (KABC-II)
- Woodcock-Johnson Test of Cognitive Abilities (WJ-III NU)

WISC-IV Model



Verbal Conceptual Index

- Measures verbal reasoning, verbal expression, and acquired verbal knowledge
- Subtests include
 - Similarities
 - Vocabulary
 - Comprehension

Perceptual Reasoning Index

- Measures visual/spatial reasoning and nonverbal problem solving skills
- Subtests include
 - Block Design
 - Matrix Reasoning
 - Picture Concepts

Processing Speed Index

- Measures the ability to quickly process and respond to simple visual material
- Requires rapid visual scanning and coordination of simple visual information
- Some fine motor skills involved
- Requires focused attention
- Subtests include:
 - Coding
 - Symbol Search

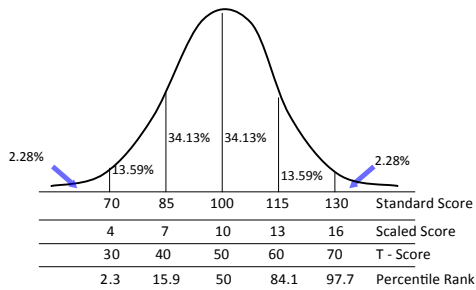
Working Memory Index

- Involves holding information in memory, performing some operation on it, and producing a result (e.g., solving arithmetic problems in your head)
- Requires focused attention
- Subtests include:
 - Digit Span
 - Letter-Number Sequencing

Interpreting Scores

- **Standard Scores** (i.e., IQ scores)
 - Mean = 100, SD = 15
- **Scaled Scores** (i.e., WISC-IV subtest scores)
 - Mean = 10, SD = 3
- **T-scores**
 - Mean = 50, SD = 10
- **Percentiles**
 - The proportion of individuals at or below a certain score.

Interpreting Scores: Percentage of people under the normal curve



General Abilities Index (GAI)

- WISC-IV Technical Report No. 4, 2005
- Provides an estimate of general cognitive ability that is less sensitive to the influence of working memory and processing speed
- Calculated using subtests of VCI and PRI only
- Useful in estimating the intellectual ability levels of children with LD, and/or ADHD
- May be used as a substitute for Full Scale IQ to determine eligibility for special education and placement classification.

Extended Norms

- WISC-IV Technical Report #7, 2008
- Used to further differentiate highly gifted children (FSIQ or GAI above 150) from gifted children (FSIQ or GAI 130–150).
- Useful when a child's score is the maximum (ceiling) on two or more subtests (e.g., obtains scaled scores of 18 or 19 points).
- These norms extend the WISC-IV upper scaled score range to 28 points for subtests and 210 points for composites.

Stability and Changes in Intelligence

- Infant test scores are virtually unrelated to intelligence at age 5 years.
- After age 5, IQ estimates have considerable stability
- Stability of IQ increases throughout childhood
- Both environment and genetics influence IQ, but the influence of environment decreases as children get older.

Diagnosis of ADHD in the Gifted Child

Misdiagnosis and Dual Diagnosis of Gifted Children and Adults

Webb, Amend, Webb, Goerss, Beljan, and Olenchak
Great Potential Press 2005

Overlap between ADHD and Gifted Behaviors

- ADHD – Barkley, 1990
- Diminished persistence when no immediate reward
- Poorly sustained attention in many situations
- Impulsivity
- Difficulty adhering to rules and regulations
- Giftedness – Webb, 1993
- Low tolerance for irrelevant tasks
- Poor attention, boredom, daydreaming in specific situations
- Judgment lags behind intellect
- Questions rules, customs and traditions

Incompatible with diagnosis of ADHD

- Returns to a task quickly after being distracted or called off task
- Delays response when spoken to, but gives thoughtful response
- Has prolonged intense concentration on challenging tasks of interest with no readily-evident immediate reward
- Interruptions of conversation are to correct mistakes of others

What should an ADHD evaluation include?

- Detailed history with parents and child
- Surveys/questionnaires to parents, teacher and/or other relevant adults (coaches, dance teachers, etc.)
- Neuropsychological tests specific to attention/concentration
- Rule out medical issues, affective issues, learning disabilities, etc.