Traditional IQ: 100
Years of Misconception and Its Relationship to Minority Representation in Gifted Programs

Jack Naglieri’s work, presented by Angela Wilson
Background

- Underrepresentation of ethnic minorities as one of biggest issues in gifted education
- Multiple criteria and varying definitions as efforts to address
- Intelligence tests as influential contribution by psychology but engrained in culture as “the” way to measure ability
Ability or Achievement?

- CogAt Equation Building subtest as example
- Should Math skills be used to measure ability? Acquired skills influenced by ability and instruction
- Evaluation of CogAT sentence completion test for students in grades 5-6 showed readability of 6.1 with individual items ranging from grades 3.7 to 10.4
Equitable evaluation for students with limited opportunity must involve tests that do not gauge ability on basis of verbal and quantitative skills.

Concept of general intelligence (of the past 100 years) must be reexamined.

Originators of these tests did not see separate areas of intelligence—sought fairer ways of assessing (nonverbal - Army Alpha and Beta).
Wechsler

- Verbal and nonverbal were NOT different types of intelligence
- Nonverbal tests help to balance tests too verbal in content
- Similarity of verbal, quantitative, and nonverbal subtests
- Nonverbal measures of general ability as a solution
- Nonverbal and visual/spatial are not interchangeable
General Ability Using Nonverbal Tests

- Do not contain verbal and quantitative questions
- Naglieri Nonverbal Ability Test with spoken directions
- Wechsler Nonverbal Scale of Ability with pictorial directions
- Universal Nonverbal Intelligence Test with pantomime directions
NNAT

- Group administered
- Organized into multiple levels of items
- Items composed of diagrams
- 38 items in blue, white, and yellow (least influenced by color-impaired vision)
- Online version?
Research on the NNAT

- Large samples K-12 matched on many criteria (geography, socioeconomic status, ethnicity, type of school, etc.)
- Difference of 4 standard score points between white and African-American samples
- Difference of 3 SS points between white and Hispanic samples
- Difference of 1 SS point between those with limited English and those without
- No difference by gender
Scoring at 95th percentile: 5.6% of the white, 5.1% of the African-American, and 4.4% of the Hispanic samples

At 98th percentile: 2.5% of white, 2.6% of African-American, and 2.3% of Hispanic samples

Conclusion: similar results across multiple variables, effective at identifying diverse students at gifted education levels
Wechsler Nonverbal Scale of Ability

- Individually administered
- Subtests modeled after other Wechsler tests and the Naglieri Nonverbal Ability Tests
- Directions are pictures showing what’s required with gestures by examiner linking pictures with stimuli in front of subject, supplemented by verbal ones in native language
- Examiner provides additional assistance as needed
WNV Research

- Few studies due to recent publication
- Strong correlation with other Wechsler tests
- High ceiling – 170
- Same score (.4 standard score point difference) between English-speaking and those learning English
General Ability

- Traditional tests and nonverbal ones measure the same construct.
- Nonverbal assessment as a way to measure general ability, not as a separate ability.
- Nonverbal assessments less influenced by opportunity, language, achievement.
Way of identifying children who might otherwise be excluded
Nonverbal score suggests child CAN acquire information
Shows children who have great potential for academic achievement (b/c of ability)
Allows more children opportunity for additional educational resources?
Nonverbal as method of testing, not type of thinking
Does not mean instruction should be nonverbal
Ability to learn at a fast pace...see the big picture and understand detail
Implications

- GA Rule – NNAT as composite or component?
- WISC-IV vs. WNV
- Success of students with qualifying NV scores in gifted classrooms
- Improving practice for students from diverse backgrounds and with learning disabilities