NASP 2023
ANNUAL CONVENTION
FEBRUARY 7-10, 2023
Denver, CO | Colorado Convention Center
#NASP2023 NASP

Historically Discriminatory Assessment Practices and Changes We Need to Make

Peter Faustino, PsyD
John Kelly, PhD
Jack A. Naglieri, PhD

pcfaustino@verizon.net
jkellyphd@gmail.com
jnaglieri@gmail.com

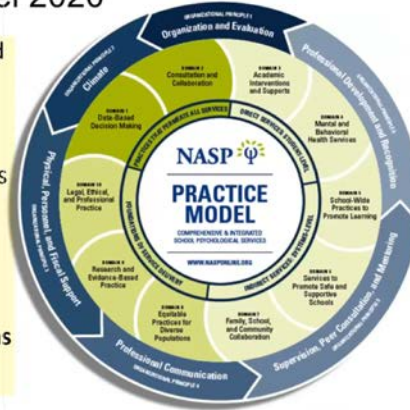# Professional Practice and Ethical Standards

Dr. John Kelly on Professional Responsibilities

The NASP Practice Model 2020

❖ The Model for Comprehensive and Integrated School Psychological Services (also known as the NASP Practice Model) represents the official policy of the National Association of School Psychologists (NASP) regarding the delivery of comprehensive school psychological services

❖ School psychologists provide comprehensive and integrated services across **10 general domains of school psychology practice**

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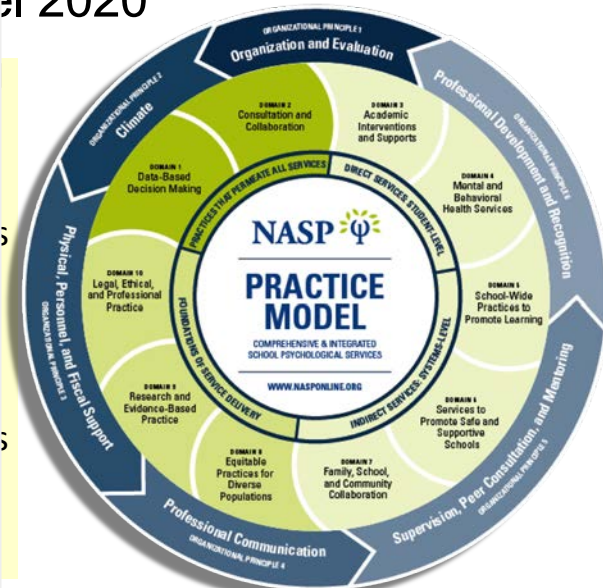
PRACTICES THAT PERMEATE ALL ASPECTS OF SERVICE DELIVERY

❖ Domain 1: **Data-Based Decision Making**

❖ School psychologists **understand and utilize assessment methods** for identifying strengths and needs; for developing effective interventions, services, and programs; and for measuring progress and outcomes within a multi tiered system of supports. School psychologists use a problem-solving framework as the basis for all professional activities.

DIRECT AND INDIRECT SERVICES FOR STUDENTS, FAMILIES, AND SCHOOLS STUDENT-LEVEL SERVICES

❖ Domain 3: Academic Interventions and Instructional Supports

❖ School psychologists understand the biological, cultural, and social influences on academic skills; human learning, cognitive, and developmental processes; and evidence-based curricula and instructional strategies.

FOUNDATIONS OF SCHOOL PSYCHOLOGICAL SERVICE DELIVERY

❖Domain 8: **Equitable Practices for Diverse Student Populations**

❖School psychologists have **knowledge of, and inherent respect for,** individual **differences, abilities, disabilities, and other diverse characteristics and the effects they have on development and learning**. They also understand principles and research related to **diversity in children, families, schools, and communities**, including factors related to child development, religion, culture and cultural identity, race, sexual orientation, gender identity and expression, socioeconomic status, and other variables.

FOUNDATIONS OF SCHOOL PSYCHOLOGICAL SERVICE DELIVERY

❖ School psychologists recognize that **equitable practices for diverse student populations, respect for diversity in development and learning, and advocacy for social justice are foundational to effective service delivery**. While equality ensures that all children have the same access to general and special educational opportunities, equity ensures that each student receives what they need to benefit from these opportunities.

NASP Ethical Standards 2020

❖ GUIDING PRINCIPLE I.3 FAIRNESS, EQUITY, AND JUSTICE

➢ *In their words and actions, school psychologists promote fairness and social justice*.

■ Standard I.3.1 **Discrimination**
- *School psychologists do not engage in or condone actions or policies that discriminate* against persons, including students and their families, other recipients of service, supervisees, and colleagues based on actual or perceived characteristics.

■ Standard I.3.2 **Correcting Discriminatory Practices**

- School psychologists strive to ensure that all children and youth have equal opportunity to participate in and benefit from school programs and that all students and families have access to and can benefit from school psychological services. *They work to correct school practices that are unjustly discriminatory or that deny students or others their legal rights*. School psychologists take steps to foster a school climate that is supportive, inclusive, safe, accepting, and respectful toward all persons, particularly those who have experienced marginalization in educational settings.

❖ Standard II.1.3 **Continuing Professional Development**

➢ School psychologists engage in continuing professional development. They **remain current regarding developments in research, continuing professional development, and professional practices** that benefit children and youth, families, and schools.

GUIDING PRINCIPLE II.3 RESPONSIBLE ASSESSMENT AND INTERVENTION PRACTICES

❖ School psychologists maintain the highest standard for **responsible professional practices in educational and psychological assessment** and direct and indirect interventions.

➢ Standard II.3.2 **Assessment Techniques**
■ School psychologists use assessment techniques and practices that the profession considers to be **responsible, research-based practice**.

➢ Standard II.3.3 **Instrument Selection**
■ School psychologists select assessment instruments and strategies that are **reliable and valid for the examinee and the purpose of the assessment.**

➢ Standard II.3.4 Normative Data
■ If using norm-referenced measures, school psychologists choose instruments with **norms that are representative, recent, and appropriate for the person being evaluated**.

➢ Standard II.3.8 Validity and Fairness
❖ School psychologists conduct valid and fair assessments. They actively pursue knowledge of the student's disabilities and developmental, cultural, linguistic, and experiential background and then **select, administer, and interpret** assessment **instruments and procedures in light of those characteristics.** School psychologists ensure that assessment results are used to enhance learning opportunities for students.

STANDARDS for Educational and Psychological Testing

❖American Educational Research Association

❖American Psychological Association

❖National Council on Measurement in Education
➢Standard 9.0

❖ **Test users are responsible for knowing the validity evidence in support of the intended interpretations of scores on tests that they use, from test selection through the use of scores, as well as common positive and negative consequences of test use.**

NASP Position Statements

Promoting Just Special Education Identification and School Discipline Practices

NASP firmly believes that every student is entitled to an education that **affirms and validates the diversity of their cultural and individual differences**,

NASP opposes **educational disparities and disproportionality that result from discriminatory or ineffective policies, procedures, or practices** marginalizing **students from historically minoritized backgrounds**.

School Psychologists' Involvement in Assessment

NASP asserts that school psychologists are **uniquely suited to promote best practices in assessment and evaluation** …

School psychologists are familiar with the
central principles of measurement
Standards for Educational and Psychological Testing
sources of test reviews

They **adhere to legal and ethical standards** of practice

They **select and use the most appropriate assessment instruments and techniques**, for the purpose for which they were designed, and for which there is supporting evidence.

School Psychologists' Involvement in Assessment

They engage in **culturally competent practices to promote fair, reliable, and valid outcomes** and modify assessments to address all aspects of diversity that might impact results

School psychologists are aware of the **limitations of assessment information**, **and they collect, interpret, report, and use assessment information in a manner that minimizes the potential for misunderstanding and misuse**.

School Psychologists' Involvement in Assessment

They acknowledge **conscious and unconscious biases**

When reporting assessment results, they **make relevant limitations explicit, especially as those limitations relate to the reliability and validity of decisions**.

Throughout their careers, they **engage in professional development** to ensure they understand the unique needs of the school leaders, teachers, specialists, parents, and students to whom they provide assessment and evaluation services.

Any Questions?

100 Years of Intelligence Tests and the Need for Equitable Assessment

Reviewing the history helps us better Understand what is needed

Knowing the research helps us make better choices

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The BIG picture

- The comprehensive assessments we provide change the course of a student's life
- The intelligence test we choose has a profound influence on what we learn and say about the student
- Equitable assessment can be achieved if we choose tests that measure how well a student **THINKS** in a way that is not confounded by what a student **KNOWS**

"What is right is not always popular and what is popular is not always right."

– Albert Einstein
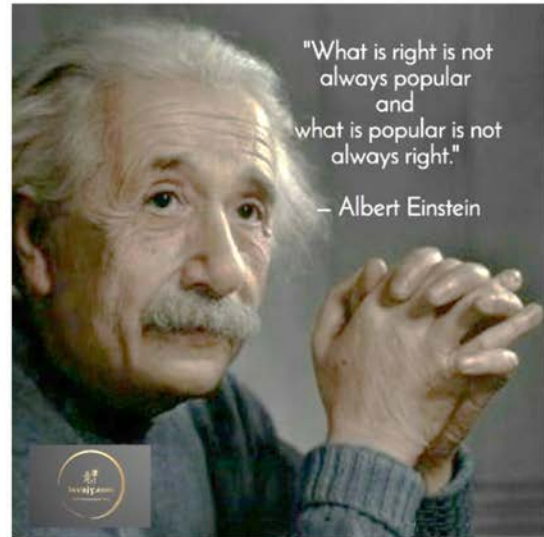
Did you Ever Wonder…

Who actually created the content of the intelligence tests we use today?

Why do we have Vocabulary questions on an intelligence test?

Why do we have Arithmetic word problems on an intelligence test?

Traditional IQ and Achievement Tests

❖ Working as a school psychologist in 1975 I noticed that items on the WISC we were VERY similar to parts of the achievement tests

➢ The *Peabody Individual Achievement Test* (1970) had a General Information and Arithmetic subtests JUST LIKE THE WISC!

➢ THAT DID NOT MAKE SENSE

➢ In 1977 UGA for Ph.D. With Alan Kaufman who said VIQ=achievement

1975 Charles Campagne Elementary, Bethpage, NY

My Feelings - Confirmed

• Teaching intellectual assessment to school psychology students at Northern Arizona University

• Was it reasonable to measure 'intelligence' with questions that required knowledge?

• Testing in Havasupai answered that question
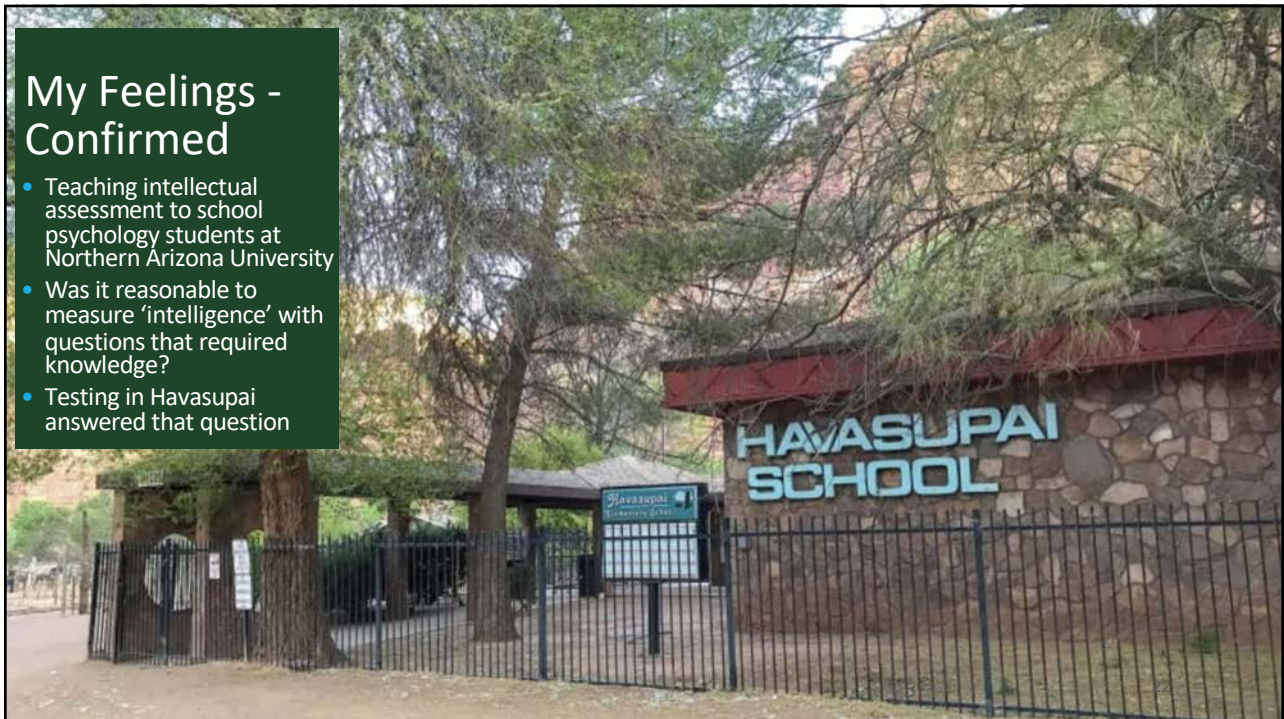
1981

Test Results and Interpretations:

On the WISC-R, Amanda earned a Performance IQ of 95±7 which falls in the average range of intelligence and at the 37th percentile rank in comparison to the children her age in the standardization sample. In contrast to this score of average non-verbal intelligence was her Verbal IQ of 52±7. This score is quite low and indicates that her level of facility with the English language falls at about the 1st percentile rank. This score can NOT be considered an estimate of verbal intelligence because Amanda speaks mostly Supai and little English. Due to the large difference between these scores, no Full Scale IQ was computed.

Within the WISC-R a clear pattern emerged: Amanda performed well on tasks that required little or no English language comprehension or expression, and poorly on all tasks which did require these linguistic skills. In fact, even if a task was visual and non-verbal, but required English language comprehension of instructions, she performed more poorly.
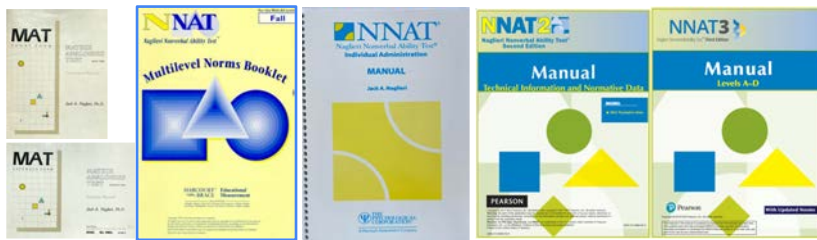
Naglieri, J. A. (1982). Does the WISC-R measure verbal intelligence for non-English speaking children? *Psychology in the Schools, 19*, 478-479.

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Naglieri's Nonverbal Tests: 1985 to Present

❖ **Research on Six**

MAT Short and Expanded Forms 1985 | Naglieri Nonverbal Ability Test 1997 | NNAT –Individual, 2003 | NNAT -2 2008 | NNAT3 2016

Each of these versions of the NNAT showed similar scores by RACE, ETHNICITY, & SEX and had strong correlation with achievement

This research convinced me that measuring intelligence using test questions that measured how well a student can think was a valid and equitable way to measure general intelligence 'g'.

I realized that we should measure intelligence in a way that was not dependent on knowledge

My career as a test developer began with this goal
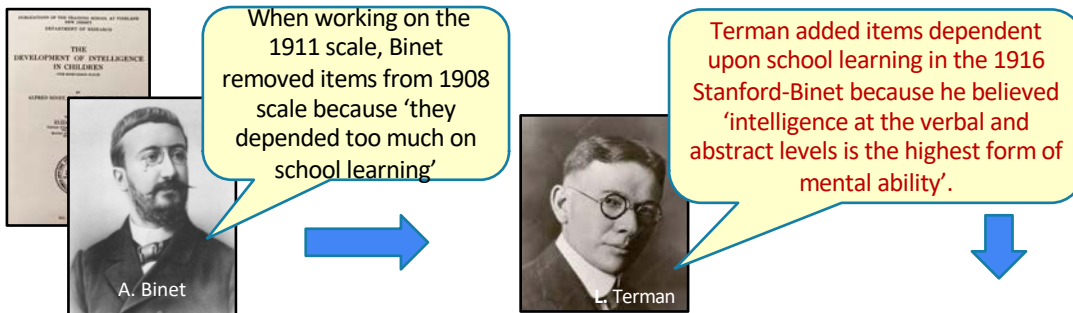
Tests with Equity as a Goal 1985-Present

Traditional Tests

1. Naglieri, J. A. (1985). Matrix *Analogies Test - Expanded Form*. San Antonio: The Psychological Corporation.
2. Naglieri, J. A. (1985). Matrix *Analogies Test - Short Form*. San Antonio: The Psychological Corporation.
3. Naglieri, J. A. (1997). Naglieri *Nonverbal Ability Test.* San Antonio, TX: The Psychological Corporation.
4. Naglieri, J. A., & Bardos, A. N. (1997). General *Ability Scale for Adults.* San Antonio, TX: Pearson.
5. Naglieri, J. A. (2003). Naglieri *Nonverbal Ability Test - Individual Form.* San Antonio, TX: Pearson.
6. Wechsler, D., & Naglieri, J. A. (2006). *Wechsler Nonverbal Scale of Ability*. San Antonio, TX: Pearson.
7. Naglieri, J. A. (2008). *Naglieri Nonverbal Ability Test – 2nd Edition.* San Antonio, TX: Pearson.
8. Naglieri, J. A. (2016). *Naglieri Nonverbal Ability Test – Third Edition*. San Antonio, TX: Pearson.

Second Generation

9. Naglieri, J. A., & Das, J. P. (1997). Cognitive *Assessment System. Austin: ProEd*
10. Naglieri, J. A., Das, J. P., Goldstein, S. (2014). *Cognitive Assessment System Second Edition*. Austin, ProEd.
11. Naglieri, J. A., Das, J. P., & Goldstein, S. (2014). *Cognitive Assessment System Second Edition - Brief*. Austin, ProEd.
12. Naglieri, J. A., Moreno, M. A., & Otero, T. M. (2017). *Cognitive Assessment System – Español*. Austin, ProEd.

13. Naglieri, J. A. (2022). *Naglieri General Ability Test: Nonverbal*. Markham, Canada: MHS.
14. Naglieri, J. A. & Brulles, D. (2022). *Naglieri Ability Test: Verbal*. Markham, Canada: MHS.
15. Naglieri, J. A. & Lansdowne, K. (2022). *Naglieri Ability Test: Quantitative*. Markham, Canada: MHS.

Why we measure intelligence the way we do?

The History of IQ tests

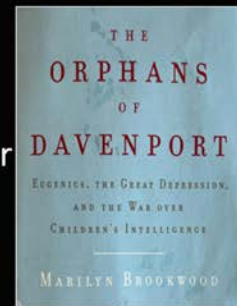**Binet   Stanford-Binet   Army Mental Tests   WISC, CogAT, Olsat**

When working on the 1911 scale, Binet removed items from 1908 scale because 'they depended too much on school learning'

A. Binet

Terman added items dependent upon school learning in the 1916 Stanford-Binet because he believed 'intelligence at the verbal and abstract levels is the highest form of mental ability'.

L. Terman

Lewis Terman 1916 Stanford-Binet

- He viewed VERBAL as the highest form of intelligence which distorted the evaluation of intelligence for countless numbers of people
- Terman predicted that the Stanford-Binet would reveal "significant racial differences in general intelligence...which cannot be wiped out by any scheme of mental culture" (Brookwood, 2021 p. 68)

➤ His aim was identification of low intelligence children and adults who would be involuntarily institutionalized and sterilized for the improvement of society

THE ORPHANS OF DAVENPORT
EUGENICS, THE GREAT DEPRESSION, AND THE WAR OVER CHILDREN'S INTELLIGENCE
MARILYN BROOKWOOD

Brookwood, M. (2021). The Orphans of Davenport. New York: Norton & Company. See Chapter 4.

Robert Yerkes – Army Mental Tests 1920

- Robert Yerkes, of Harvard University was president of the *American Psychological Association*
- and leader of the *Eugenics Section of the American Breeders' Association's Committee on the Inheritance of Mental Traits*
- which advocated institutional segregation and sterilization for persons with low intelligence.
- Co-author of the Army Mental Tests

ARMY MENTAL TESTS

COMPILED AND EDITED BY CLARENCE S. YOAKUM AND ROBERT M. YERKES

PUBLISHED WITH THE AUTHORIZATION OF THE WAR DEPARTMENT

NEW YORK
HENRY HOLT AND COMPANY
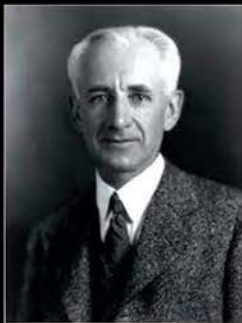
Brookwood, M. (2021). The Orphans of Davenport. New York: Norton & Company. See Chapter 4.

Florence Goodenough 1926

Stanford-Binet "IQ by Racial Stock"

RACIAL DIFFERENCES IN THE INTELLIGENCE OF SCHOOL CHILDREN

BY FLORENCE L. GOODENOUGH

Institute of Child Welfare, University of Minnesota

TABLE II

DISTRIBUTION OF INTELLIGENCE QUOTIENTS BY RACIAL STOCK

IQ	American	Armenian	Italian	Spanish-Mexican	California Negroes	Southern Negroes	Hoopa Valley Indians	Jewish	Chinese	Japanese	Germans	Portuguese	English and Scotch	French and Swiss	Danish, Swedish and Norwegian	Assyrian, Slavonian and Serbian
Total cases	500	123	456	367	69	613	79	55	25	42	29	11	14	14	31	29
Mdn.	100.3	91.8	87.5	87.2	82.7	76.5	85.6	106.3	103.1	99.5	98.8	93.3	99.5	92.8	104.5	94.5
Mean	101.5	92.3	89.1	88.5	85.8	78.7	85.6	106.1	104.1	101.9	101.1	94.5	100.2	94.5	103.5	92.8
S.D.	18.3	15.6	16.0	17.5	18.7	17.5	14.1	16.2	18.0	18.0	19.3	16.5	16.8	19.6	17.8	18.8

Raymond Cattell - 1933

- spoke out against race mixing, and he lobbied to overturn the 1954 Brown v. Board Education

Binet   Stanford-Binet   Army Mental Tests   WISC, CogAT, Olsat

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L. Terman

Arthur Otis (Terman's student) was instrumental in the development of the U.S. Army Alpha (Verbal & Quantitative) and Beta (Nonverbal) and the Otis-Lennon Ability Test

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APA Apology for Promoting Racism

•'APA recognizes the roles of psychology in promoting…racism, and the harms that have been inflicted on communities of color … and the ways measurement of intelligence has been systematically used to create the ideology of White supremacy'
•Throughout the 1900s prominent psychologists involved in IQ test development supported eugenics
•1933 Raymond Cattell (CHC & WJ) spoke out against race mixing and he lobbied to overturn the 1954 Brown v. Board Education
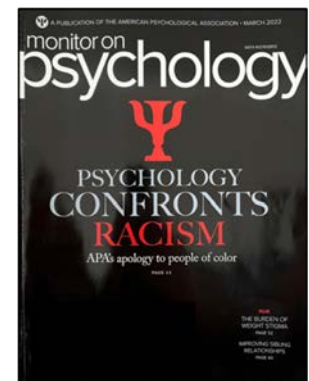
APA Apology to People of Color for APA's Role in Promoting, Perpetuating, and Failing to Challenge Racism, Racial Discrimination, and Human Hierarchy in U.S.

- This early history of psychology, **rooted in oppressive psychological science to protect Whiteness, White people, and White epistemologies**, **reflected the social and political landscape of the U.S. at that time.**
- Psychology developed under these conditions, **helped to create, … and often continues to publish research that conforms with White racial hierarchy**
- The American Psychological Association … was **complicit in contributing to systemic inequities**, and hurt many through **racism, racial discrimination, and denigration of people of color**, thereby falling short on its mission to benefit society and improve lives.

The APA Resolution read, in part …

WHEREAS APA was established by **White male leadership**, many of whom contributed to scientific inquiry … that **perpetuated systemic racial oppression**, **including promoting the ideas of early 20th century eugenics; Eugenics** is the idea that **racial differences and hierarchies are biologically based and fixed**, and was used to **support segregation, sterilization, and anti-marriage laws (Cummings Center, 2021).**

…eugenicists focused on the measurement of intelligence … and **used systemically to create the ideology of White supremacy and harm communities of color** (Cummings Center, 2021; Gillham, 2001).

WHEREAS psychologists **created, sustained, and promulgated ideas of human hierarchy through the construction, study, and interpretation of racial difference**, and therefore contributed to the financial wealth gap and social class disparities experienced by many communities of color (Cummings Center, 2021).

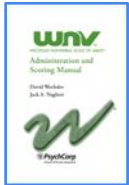# Binet   Stanford-Binet   Army Mental Tests   WISC, CogAT, Olsat

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Wechsler based his intelligence test on the U.S. Army Mental Tests (Verbal, Quantitative & Nonverbal)

Arthur Otis (Terman's student) was instrumental in the development of the U.S. Army Alpha (Verbal & Quantitative) and Beta (Nonverbal) and the Otis-Lennon Ability Test

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Alpha & Beta   Wechsler

- **Army Alpha**
  - Synonym- Antonym
  - Disarranged Sentences
  - Number Series
  - Arithmetic Problems
  - Analogies
  - Information

Verbal & Quantitative IQ (Knowledge)

- **Army Beta**
  - Maze
  - Cube Imitation
  - Cube Construction
  - Digit Symbol
  - Pictorial Completion
  - Geometrical Construction

Nonverbal IQ (Thinking)

WISC, WJ CogAT & Otis-Lennon

Wechsler's View of General ability

➢ Wechsler "believed that his Verbal and Performance Scales represented different ways to access *g* (general ability)", but he never believed [in verbal and] nonverbal intelligence as being separate from g. Rather he saw the Performance Scale as the most sensible way to measure the general intelligence of people with … limited proficiency in English. (Kaufman, 2008)

"The aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment (1939)"

Knowledge is Included in "Ability" Tests

Stanford-Binet-5	WISC-V	WJ-IV	KABC-II	OLSA	CogA
• Verbal • Knowledge • Quantitative Reasoning • Vocabulary • Verbal Analogies	• Verbal Comprehension Vocabulary, Similarities, Information & Comprehension • Fluid Reasoning Figure Weights, Arithmetic	• Comprehension Knowledge: Vocabulary & General Information • Fluid Reasoning: Number Series & Concept Formation • Auditory Processing: Phonological Processing	• Knowledge / GC • Riddles, • Expressive Vocabulary, • Verbal Knowledge	• Verbal • Following directions • Verbal Reasoning • Quantitative • Verbal Arithmetic Reasoning	• Verbal Scale • Analogies • Sentence Completion • Verbal Classification • Quantitative • 45 pages of oral instructions

Very Similar Items on "Different" Tests

Woodcock-Johnson Cognitive & Achievement Tests (CHC)
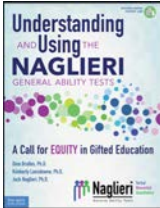

Test Bias vs Test Equity

According to the *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 2014) Psychometric TEST BIAS and EQUITY are two different ways of measuring test fairness.

❖ **. . . if a person has had limited opportunities to learn the content in a test of intelligence, *that test may be considered unfair* even if there is no evidence of psychometric test bias.**

❖ Evidence of EQUITY is examined by test content and mean score differences

Race and Ethnic Differences for *Traditional* and *Second-Generation* Intelligence Tests

Understanding AND Using THE NAGLIERI GENERAL ABILITY TESTS
A Call for EQUITY in Gifted Education
Dina Brulles, Ph.D.
Kimberly Lansdowne, Ph.D.
Jack Naglieri, Ph.D.
Naglieri

Note: Even though traditional intelligence tests may not show psychometric bias (Worrell, 2019) the large mean score differences suggest they are unfair (Brulles, et al., 2022).

Note: The results summarized here were reported for the Otis-Lennon School Ability Test by Avant and O'Neal (1986); Stanford-Binet IV by Wasserman (2000); Woodcock-Johnson III race differences by Edwards and Oakland (2006) and ethnic differences by Sotelo-Dynega, Ortiz, Flanagan, and Chaplin (2013); CogAT7 by Carman, Walther and Bartsch (2018) and Lohman (2016), WISC-V by Kaufman, Raiford, and Coalson (2016); Kaufman Assessment Battery for Children-II by Lichtenberger, Volker, Kaufman & Kaufman, (2006) and Scheiber, C., Kaufman, A.S. Which of the Three KABC-II Global Scores is the Least Biased?. Journal of Pediatric Neuropsychology 1, 21–35 (2015); CAS by Naglieri, Rojahn, Matto, and Aquilino (2005); CAS-2 and CAS2:Brief by Naglieri, Das, and Goldstein, 2014a and 2014b; Naglieri Nonverbal Ability Test by Naglieri and Ronning (2000), and Naglieri General Ability Tests by Naglieri, Brulles, and Lansdowne (2022).

|	By Race	By Ethnicity
Tests that require knowledge	**Mn = 9.4**	**Mn =6.6**
Otis-Lennon School Ability Test (district wide)	13.6	
Stanford-Binet IV (normative sample)	12.6	
WISC-V (normative sample)	11.6	
WJ- III (normative sample)	10.9	10.7
CogAT 7 Nonverbal	11.8	7.6
CogAT 7 - Verbal	6.6	5.3
CogAT 7-Quantitative	5.6	3.6
CogAT- Nonverbal	6.4	2.9
CogAT-Total (V, Q & NV)	7.0	4.5
K-ABC II Fluid-Crystallized Index	9.4	9.8
K-ABC II Mental Processing Index	8.1	8.2
WISC-V (statistical controls)	8.7	
Tests that require minimal knowledge	**Mn = 4.3**	**Mn = 2.9**
K-ABC (normative sample)	7.0	
K-ABC (matched samples)	6.1	
KABC-II (adjusted for gender & SES)	6.7	5.4
CAS-2 (normative sample)	6.3	4.5
CAS (statistical control normative data)	4.8	4.8
CAS-2 (statistical control normative data)	4.3	1.8
CAS-2 Brief (normative samples)	2.0	2.8
NNAT (matched samples)	4.2	2.8
Naglieri General Ability Test-Verbal	2.2	1.6
Naglieri General Ability Test-Nonverbal	1.0	1.1
Naglieri General Ability Test-Quantitative	3.2	1.3

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## What is the Practical Impact of intelligence tests that are confounded by knowledge?

Numbers of Gifted Students Missed = **1,235,434**

Total Enrollments by Race and Ethnicity as of 2020.

	N in Public Education K-12 in 2020	N Potentially Gifted (8%; 92 %tile)	N Students in gifted programs	Difference Between Potential and Identified
White	23,834,458	1,906,757	1,937,350	30,593
Black	7,754,506	620,360	330,774	-289,586
Hispanic	14,337,467	1,146,997	600,498	-546,499
Native American/ Alaska Native	484,766	38,781	27,712	-11,069
Two or More Races	1,641,817	131,345	105,371	-25,974
Total Non-Whites	24,218,556	1,937,484	1,064,355	-873,129
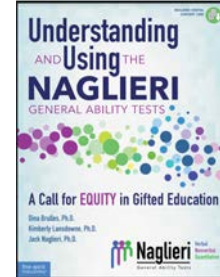
873,129 +
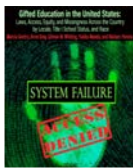
Percent of Schools that do not Identify	41.5%
Additional non-white gifted students = 41.5% of 873,129	N = 362,305
Total non-white gifted students missed	**N = 1,235,434**

Understanding AND Using THE NAGLIERI GENERAL ABILITY TESTS

A Call for EQUITY in Gifted Education

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OSEP Office of Special Education Programs
Office of Special Education and Rehabilitative Services

OSEP Fast Facts: Race and Ethnicity of Children with Disabilities Served under IDEA Part B

For the purposes of this fact sheet, racial ethnic groups are defined in the IDEA Part B Child Count and Educational Environments for School Year 2019-2020, OSEP Data Documentation. https://www2.ed.gov/programs/osepidea/618-data/collection-documentation/data-documentation-files/part-b/child-count-and-educational-environment/idea-partb-childcountandedenvironment-2019-20.pdf

Risk Ratio of Students with Disabilities by Disability Category and by Specific Race and Ethnicity, Ages 5 (in kindergarten) through 21: SY 2019-20

< Intellectual disability ⌄ >

	Risk Ratio
All Students with Disabilities	0.06
American Indian or Alaska Native	0.99
Asian	1.03
Black or African American	1.48
Hispanic/Latino	0.99
Native Hawaiian or Other Pacifi...	1.08
Two or more races	0.77
White	0.84

0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6
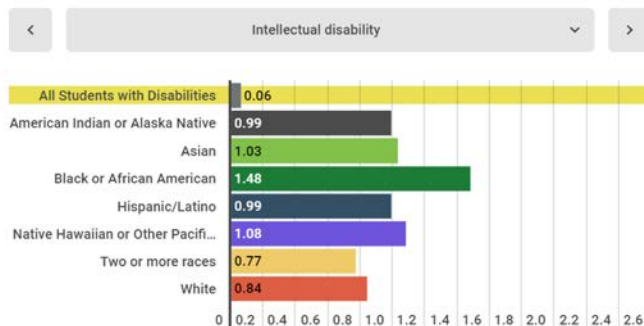
The relative risk ratio of students with disabilities under IDEA by race and Ethnicity is the probability of a student with a disability being identified for intellectual disability. The higher the number, the larger the probability. Nationally, **Black Students are 1.48 times more likely to be identified with intellectual disability** compared to all students with disabilities.

https://ldaamerica.org/lda_today/disproportionate-identification-of-students-of-color-in-special-education/

Measuring Thinking using CAS

❖ *White* children earned similar scores on the Verbal and Performance scales

❖ *Black* children earned lower VIQ than PIQ scores   low Full Scale

❖ *Black* children earned *higher* Full Scale scores on CAS than whites

❖ *Fewer* Black children would be identified as having intellectual disability based on Full Scale scores using CAS than WISC-III

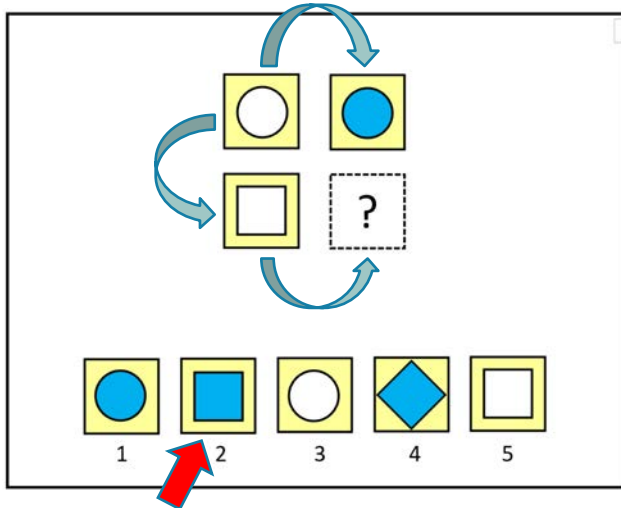*American Journal on Mental Retardation, 2001, Vol. 106, No. 4, 359–367*

Intellectual Classification of Black and White Children in Special Education Programs Using the WISC-III and the Cognitive Assessment System

Jack A. Naglieri
George Mason University

Johannes Rojahn
The Ohio State University
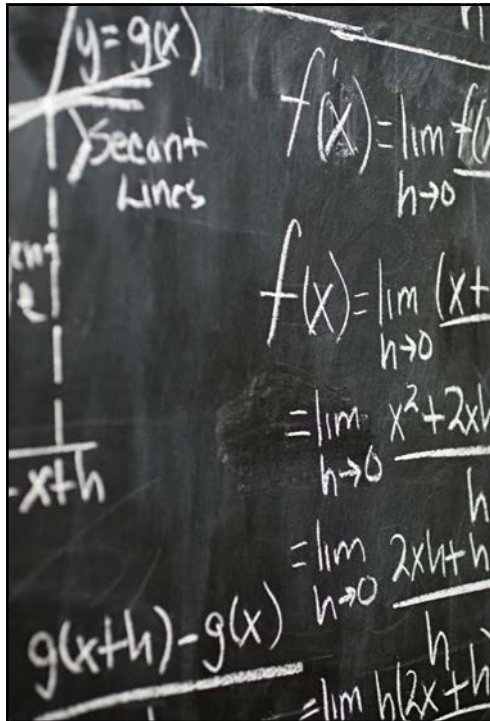
Tests that Measure Thinking or Knowing?

Girl is woman as boy is to _man_ ?

3 is to 9 as
4 is to _16_ ?

C^7 is to F as
E^7 is to _A_ ?

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How Can we Test the Hypothesis that Knowledge Confounds the Measurement of General Intelligence?

CREATE GENERAL INTELLIGENCE TESTS THAT DO NOT RELY ON KNOWLEDGE!

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Naglieri General Ability Tests

❖ We **explicitly made tests for equitable identification** of students from diverse cultural, linguistic, or socioeconomic backgrounds

❖ We used the traditional Verbal, Nonverbal and Quantitative formats to **measure general ability** and to ensure equity we used:

- Test questions that do not require academic knowledge,
- Verbal and Quantitative test questions that can be solved using any language,
- Animated instructions remove the need for comprehension of directions,
- A multiple-choice response removes the need for verbal expression.
- Universal assessment using local and national norms
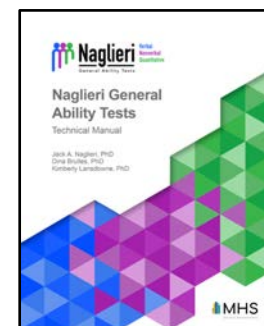
Naglieri General Ability Tests: Verbal, Nonverbal and Quantitative (Naglieri, Brulles & Lansdowne, 2022)
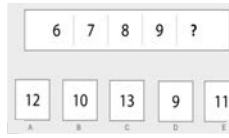
NONVERBAL TEST

VERBAL TEST

QUANTITATIVE TEST

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Research Evidence of Equity (N = 8,953)

Selvamenan, M., Paolozza, A., Solomon, J., Naglieri, J. A., & Schmidt, M. T. (submitted for publication, Nov. 2020). Race, Ethnic, Gender, and Parental Education Level Differences on Verbal, Nonverbal, and Quantitative Naglieri General Ability Tests: Achieving Equity.

NONVERBAL TEST	VERBAL TEST	QUANTITATIVE TEST
• N= 3,630 Sample closely matches the US population on key demographics	• N= 2,482 Sample closely matches the US population on key demographics	• N= 2,841 Sample closely matches the US population on key demographics
• **No GENDER differences** found between **males** and **females** for raw score across all forms	• **No GENDER differences** found between **males** and **females** for raw score across all forms	• **No GENDER differences** found between males and females for raw score across all forms
• **No RACE/ETHNICITY differences** among **White, Black, & Hispanic** for raw score across all forms	• **No RACE/ETHNICITY differences** among **White, Black, & Hispanic** for raw score across all forms	• **No RACE/ETHNICITY differences** among White, Black, & Hispanic for raw score across all forms
• **No PARENTAL EDUCATIONAL differences** among five education levels (No high school diploma; High School graduate; Some college/Associate's degree; Bachelor's degree; Graduate/professional degree) for raw score across all forms	• **No PARENTAL EDUCATIONAL differences** among five education levels (No high school diploma; High School graduate; Some college/Associate's degree; Bachelor's degree; Graduate/professional degree) for raw score across all forms	• **No PARENTAL EDUCATIONAL differences** among five education levels (No high school diploma; High School graduate; Some college/Associate's degree; Bachelor's degree; Graduate/professional degree) for raw score across all forms

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Academic Learning Loss & COVID

- COVID-19 has increased the impact of disparities in access and opportunity for students of color and they are even further behind than they were before.
- Their **scores on traditional intelligence tests** which demand knowledge **are even more inaccurate.**
- **Solutions**:
  - For traditional tests, use post-COVID norms only.
  - Use intelligence tests that are not dependent upon knowledge
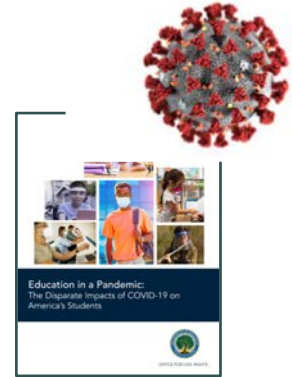
Education in a Pandemic: The Disparate Impacts of COVID-19 on America's Students. US Dept. of Ed- Office of Civil Rights. June, 21, 2021.
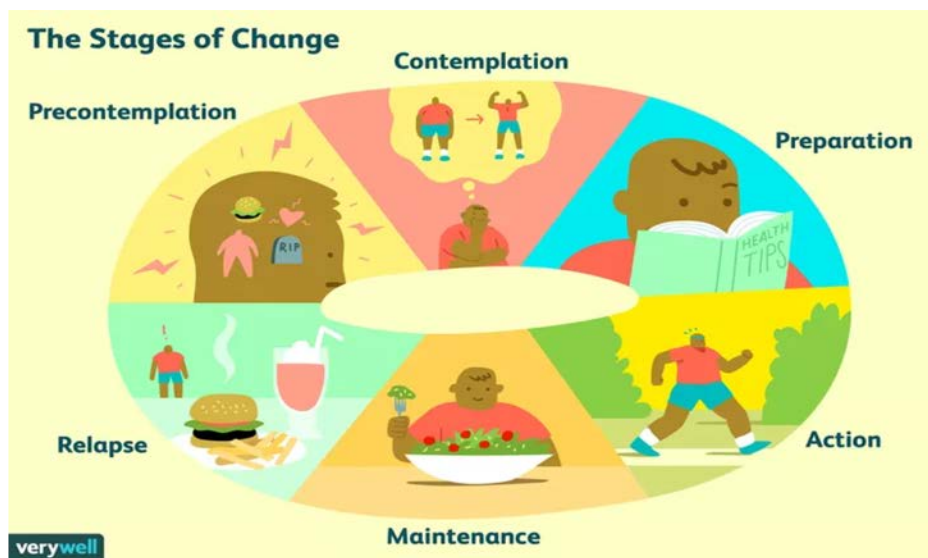**https://www2.ed.gov/about/offices/list/ocr/docs/20210608-impacts-of-covid19.p**

53

WE CAN DO BETTER
We Must do Better

Challenging our own assessment practices

When you know better, you must do better …

CASE Study - Suburban School

The Stages of Change — Precontemplation, Contemplation, Preparation, Action, Maintenance, Relapse (verywell)

Change is Slow

To succeed, you need to understand the three most important elements in changing a behavior:

Readiness to change: Do you have the resources and knowledge to make a lasting change successfully?

Barriers to change: Is there anything preventing you from changing?

Likelihood of relapse: What might trigger a return to a former behavior?

The secret of change is to focus all of your energy not on fighting the old, but on building the new.

SOCRATES

Starting the Conversation

PASS Theory & Cognitive Assessment System-2nd Edition

Jack A. Naglieri, Ph.D.
www.jacknaglieri.com   jnaglieri@gmail.com
Research Professor, Univ. of Virginia
Senior Research Scientist Devereux
Emeritus Faculty George Mason Univ.

Selecting the CAS2 for Re-evaluations

Forgive me if this email is lengthy but I am hoping to offer some context, and psychological assessment rarely has a simple answer.

Under IDEA regulations for Evaluations it states that schools use, "assessments and other evaluation materials include those tailored to assess specific areas of educational need and not merely those that are designed to provide a single general intelligence quotient." - https://sites.ed.gov/idea/regs/b/d/300.304

And specifically for Re-evaluations that we are charged with two requirements, "In the case of a reevaluation of a child, whether the child continues to need special education and related services; and whether any additions or modifications to the special education and related services are needed to enable the child to meet the measurable annual goals set out in the IEP." - https://sites.ed.gov/idea/regs/b/d/300.305

Over the past several years in light of conversations around equity and inclusion, the Wechsler Scales (WISC-V and WAIS-IV) have received increasingly poor reviews for measuring anything beyond 'g' or general intelligence. The Wechsler Scales are based on tests that measure general knowledge and the use of language, with unreliable measures of reasoning, memory, and timed spatial skills. What the system does well is take scores on individual segments of the tests and combine them to produce an overall Intelligence Quotient (or IQ score).

In searching for a more responsible assessment measure to use in appropriate situations, I came across the CAS 2 in the professional literature.

The CAS 2 is less dependent on general knowledge and language because it is passed on a different theory of intelligence. The CAS2 uses a well-researched cognitive/neuropsychological theory called PASS (Planning, Attention, Simultaneous, and Successive). It provides practitioners with a valid and reliable tool to evaluate the strengths and weaknesses of children and adolescents in important areas of cognitive processing... and has greater connection to academic achievement and identification of various learning disabilities.

'PASS Scores correlate with achievement higher than all other intelligence tests'

PASS Profiles are different for students with different disabilities

Choosing to do something different

Wechsler Intelligence Scale for Children – Fifth Edition (WISC-V)
Date of Previous Testing: ██ / ██ / 2018

Composite Scores Summary

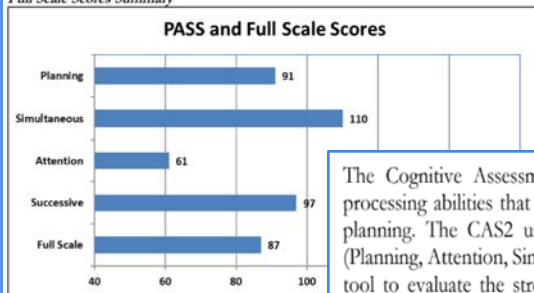| Scale	Composite Score	Percentile Rank	Qualitative Description
Verbal Comprehension (VCI)	108	70th	Average
Visual Spatial (VSI)	132	98th	Superior
Fluid Reasoning (FRI)	112	79th	High Average
Working Memory (WMI)	97	42nd	Average
Processing Speed (PSI)	80	9th	Low Average
Full Scale IQ (FSIQ)	**107**	**68th**	**Average**
General Ability Index	**115**	**84th**	**High Average**

Report of the CAS2 Results

Current Testing:

Cognitive Assessment System for Children-Second edition (CAS2)
Date of Current Testing: 3/7/22, 3/9/22

Full Scale Scores Summary

PASS and Full Scale Scores

Scale	Score
Planning	91
Simultaneous	110
Attention	61
Successive	97
Full Scale	87

The Cognitive Assessment System, Second Edition (CAS2) is designed to measure cognitive processing abilities that are important for a broad range of differential diagnoses and instructional planning. The CAS2 uses the well-researched cognitive/neuropsychological theory called PASS (Planning, Attention, Simultaneous, and Successive). It provides practitioners with a valid and reliable tool to evaluate the strengths and weaknesses of children and adolescents in important areas of cognitive processing.

The CAS2 Full Scale score is made up of separate scales called **Planning, Attention, Simultaneous, and Successive cognitive processing**. Because there was significant variation among the PASS scales, the Full Scale will sometimes be higher and other times lower than the four scales in this test.

Rationale

In light of my review of ▓▓▓▓▓▓ records and IEP - the focus has consistently been, "▓▓▓▓ attentional needs as well as executive functioning challenges have a significant impact on her ability to access the general education curriculum. Mr. and Mrs. ▓▓▓▓▓▓ to continue to develop strategies to support her ability to maintain focus and executive functioning. In addition, they would like her teachers to reinforce her areas of strength."

My selection of the CAS 2 for ▓▓▓▓ was best practice with gathering additional information focused on the referral question of Planning and Attention and her executive functioning challenges.

The results of ▓▓▓▓ CAS 2 were VERY LOW for Attention... certainly more concerning than we have measured in the past and supportive of her continued need for Special Education eligibility. I also believe that there is great value in these results for goal setting and teacher awareness of her challenges that would not have existed using a WISC-V. Given her consistent profile of average to above average WISC scores with lower processing speed, one could argue that her needs could be met with accomodations (504). The results of the CAS 2 show that ▓▓▓▓ needs are more appropriately addressed thru special education, which was the original charge of a triennial re-evaluation.

I am sure this is more than you asked for but please let me know if I can clarify more.

What is the Practical Impact?

The test you choose **determines** the **results** you receive, the **decisions** you make, and the **future** of that student.

Maybe It's Time to Let the Old Ways Die

NYASP 2022
Legends in
School
Psychology
Award Interview