


EQUITABLE TESTS YIELD EQUITABLE RESULTS

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RESEARCH

- Bias vs. equity and existing approaches to cognitive assessment
- Under-representation of racially and linguistically diverse students in gifted programs and over-representation in special education
- Where is the value in assessing intelligence?
- How do intelligence tests inadvertently contribute to inequity?
- Where do we see the greatest impact?

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IS A TEST EQUITABLE

- What does the student need to know?
- How does the student have to think?

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UNDERSTANDING INTELLIGENCE

- Pintner: A good intelligence test must avoid, as much as possible, anything that is learned.
- Why intelligence is not knowledge
- Why intelligence test questions that demand knowledge are not equitable

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INTELLIGENCE IS

- Defined on the basis of brain function
- A test of intelligence should be explicitly developed according to a theory of intelligence
- The PASS neurocognitive theory of intelligence was used to develop the Cognitive Assessment System first and second editions

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IMPACT OF EVALUATIONS

- Our evaluations change the course of a child's life.
- As school psychologists we routinely conduct comprehensive assessments with the goal of better understanding each student so that learning and academic success can be maximized
- The measurement of intelligence plays a pivotal role in the assessment process
- Selection of the most accurate and equitable tools demands knowledge of the research on the tests we use and especially the extent to which these measures are fair for all students

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INTELLIGENCE TEST

What is the theoretical underpinning of the test?

Traditional tests

- Best interpreted at the total test (Full Scale) score level and as a measure of general ability
- Scales on traditional intelligence tests do not have enough specificity to be interpreted independently

The only exception is the Cognitive Assessment System

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TALKING TO THE STUDENT

- The most important person to debrief
- Outline strengths and weaknesses

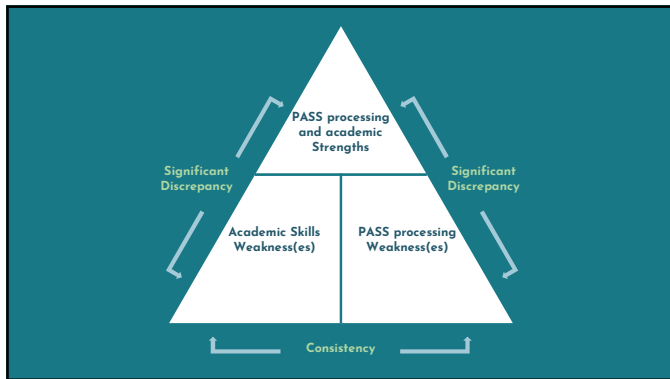
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THE DISCREPANCY CONSISTENCY MODEL

- Organizes the strengths and struggles in cognition and academics

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[illegible][illegible]

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[illegible]

PsychEd

WHY THIS IS MORE CRITICAL THAN EVER

- Pandemic and educational inequities
- School behavior

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STANDARDIZATION PROCESS

- Correlates raw scores to standard scores
- The way in which items are examined determine standardization

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EQUITABILITY

- Relates to average scores different groups obtain
 - The content of the question

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AMERICAN PSYCHOLOGICAL ASSOCIATION

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.

Resolution adopted by the APA Council of Representatives on October 29, 2021

The American Psychological Association failed in its role leading the discipline of psychology, was complicit in contributing to systemic inequities, and hurt many through racism, racial discrimination, and degradation of people of color, thereby failing short on its mission to benefit society and improve lives. APA is profoundly sorry, accepts responsibility for, and owns the actions and inactions of APA itself, the discipline of psychology, and individual psychologists who stood as leaders for the organization and field.

<https://www.apa.org/about/policy/racism-apology>

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Mean Score Differences in Group and Individually Administered Intelligence Test Scores by Race & Ethnicity		
	Race	Ethnicity
Tests that require knowledge		
Otis-Lennon School Ability Test (school system)	13.6	
Stanford-Binet IV (normative sample)	12.6	
WISC-V (normative sample)	11.6	9.1
WIJ- III (normative sample)	10.9	10.7
CogAT7 (Nonverbal scale)	11.8	7.6
WISC-V (statistical controls normative sample)	8.7	5.4
Average Across All Tests	11.5	8.3
Tests that require minimal knowledge		
KABC-2 (matched samples)	5.0	
CAS-2 (normative sample)	6.3	4.5
CAS-2 (statistical controls normative sample)	4.5	1.8
NNAT (matched samples)	4.2	2.8
CAS2: Brief (normative samples)	2.0	2.8
Average Across All Tests	4.4	3.0

Traditional Ability Tests' Overall Differences

Second Generation Ability Tests' Overall Differences

Citation: Otis-Lennon School Ability Test by Asert and O'Neil (1996); Stanford-Binet IV from Wasserman & Becker (2000); Woodcock-Johnson III test differences from Edwards & Osipow (2002) and ethnic differences from Taitchi-Oyanga, Onda, Flanagan & Chaplin (2011); CogAT7 from Carmon, Wallner and Berthoff (2014); WISC-V from Kaufman, Ballard & Coatsworth (2014); Kaufman Assessment Battery for Children from Kaufman, Taitchi-Oyanga & Kaufman (2009); CAS-2 and CAS2: Brief from Naglieri, Das & Goldstein, 2014a & 2014b; Naglieri Nonverbal Ability Test (Naglieri & Rensing, 2009); from Burton, D., Landis, K. & Naglieri, J. A. (2012) Planning Equity: Identifying and Serving All Gifted Students Using the Naglieri General Ability Tests. Minneapolis, MN: Free Spirit Publishing.

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INTELLIGENCE AND ACHIEVEMENT

A fundamental flaw is the assumption that:

- Intelligence tests can include questions that demand knowledge

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Planning, Attention, Simultaneous and Successive Processing (PASS) Theory Based on Brain Function

Figure 1.2 Three Functional Units and Associated Brain Structures
From: *Essentials of CAS2 Assessment*, Naglieri & Otero, 2017


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SOCIAL JUSTICE

- Demands
 - Self-reflection
 - Self-correction
 - Based on science

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BARRIERS TO CHANGE

- I have always done it this way
- My district only uses the [Insert bias cognitive assessment here].
- More testing is always better
 - Measuring knowledge/verbal ability is essential to predicting a student's achievement in school
 - My university only trained us on the WISC and WJ: how could using those tests be wrong?

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SUMMARY: In this presentation Drs. Naglieri and Otero will review the current state of the art in intellectual assessment and emphasize the value of the neurocognitive processing approach called PASS as measured by the Cognitive Assessment System-Second Edition (CAS2), both English and Spanish versions, as well as the CAS2: Brief and CAS2: Rating Scale. Cases will be shown which illustrate the value of the CAS2 for eligibility determination and intervention and the alignment of PASS scores to academic achievement test scores. The Discrepancy Consistency Method will be used to identify students with Dyslexia, their strengths and cognitive processing weakness, and identify interventions all within the context of equitable assessment. Topics will address intellectual disabilities, English language learners, and ADHD. The goal is the help teachers and parents better understand the impact Dyslexia can have on their students and children, respectively. In addition, to help these and other students be more resilient by engaging them in the solutions to any learning challenges that they may have.

Using the PASS Theory and CAS2 for Assessment of Dyslexia and Other Disabilities in an Equitable Manner

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BIAS VS. EQUITY

- Test can be free of bias yet not be equitable
- "We should be measuring intelligence in a way that is not confounded by what they know."

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OVERCOMING BARRIERS

- Understanding
- Teaching
- Demonstrating

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HOW TO MAKE ASSESSMENTS MORE EQUITABLE

- Eight takeaways I can use today:
 - Not all tests are created equal
 - Standardization does not ensure equity
 - Best practice is to be aware of potential bias in tests
 - Tying results to recommendations - Helping Children Learn 2nd Ed.
 - Strengths based approach (evaluation and recommendations)
 - Student feedback - provide the child feedback on the results, celebrate their strengths, identify challenges and coping strategies
 - Measure each PASS ability in every comprehensive assessment
 - Do not over rely on testing data in making determination - records, observations of how the child makes decisions

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ADDITIONAL RESOURCES


jacknaglieri.com

naglierigiftedtests.com

<https://www.apa.org/about/policy>

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learn.do



THANK YOU

Questions, email:
help@psychedlearndo.com

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