Achieving Equity through Identification, Interpretation and Instruction

### Brulles & Lansdowne PAGE 2022

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### Identification

### Interpretation

Instruction: Inclusive Programming

### **1. Identification**

## Why is there a need for these new ability tests for gifted?

Efforts toward equitable identification in gifted is of paramount importance in schools today. In this session, the magnitude of this problem, historical obstacles and the impact ability tests have had are explained. Solutions are offered!

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### Clarification of Terms

### *Gifted* **\*** Very Smart

### Talented \* Very Accomplished

### **G&T: One definition**

Francois Gagné ~

"Giftedness designates the possession and use of untrained and spontaneously expressed natural abilities (called aptitudes or gifts), in at least one ability domain (e.g. intellectual, creative, socio-affective, perceptual/motor, and 'others')..."

"By contrast, 'talent' designates the superior mastery of systematically developed abilities *(or skills)* and knowledge in at least one field of human activity."

### Solution: Measure Thinking, not Knowledge

What does the student have to know to complete a task?

This is dependent upon educational opportunity.



## How does the student have to think to complete a task?

This is dependent on the brain.



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## How we have identified students for GT

Which of these factors is addressed in your district's definition of gifted/talented? Select all that apply.





### National Survey of Gifted Education

Which of the following assessments does your district use to identify gifted students? Select all that apply.



Research Center Gifted Education Results of a National Survey

EdWeek



### **Making Identification Equitable**

Gifted and Talented students are often identified with traditional ability tests comprised of:

- Verbal directions that include many verbal concepts and verbal comprehension
- Verbal and quantitative test items that demand knowledge
- Oral response demands expressive language skills

Using a test of *ability* that demands *knowledge* is not reasonable or fair

### It's a movement!



#### 848,400 non-White 247,500 ELL gifted in grades K-12 not served

### Number of Students Missed = 848,402

Table 1. Number of Students in US Public Schools Grades K-12 in 2018

			Actual Numbers of	
		<b>Potentially Gifted</b>	Students in Gifted	Numbers of
		(8%) of US	& Talented	students Not
	<b>US</b> Population	Population	Programs	Identified
White	26,822,930	2,145,834	2,065,366	80,468
Black	8,530,756	682,460	366,823	315,637
Hispanic	15,888,681	1,271,094	778,545	492,549
Native American	572,330	45,786	25,183	20,603
Two or More Races	1,782,991	142,639	123,026	19,613
Total non-White	26,774,758	2,141,979	1,293,577	848,402

English language learner (ELL) students enrolled in public elementary and secondary schools in 2015 by Race and Ethnicity

Total	4,854,160	388,333	140,771	247,562
Two or More Races	31,136	2,491	903	1,588 (64%
Native Am./ Alaska Native	38,792	3,103	1,125	1,978 (64%
Pacific Islander	26,992	2,159	783	1,377 (64%
Asian	511,703	40,936	14,839	26,097 (64%
Hispanic	3,772,633	301,811	109,406	192,404 (64%
Black	178,141	14,251	5,166	9,085 (64%
White	294,763	23,581	8,548	15,033 (64%
	N of ELL in Public Ed	N Potentially Gifted (8%)	N students Identified	N Missed (% Missed)

Could this be related to the content of the tests?

## **APA's Apology**

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

### **Another Perspective Toward Identification**



- Explicitly constructed for equitable identification of students from diverse cultural, linguistic, or socioeconomic backgrounds
- Verbal, Nonverbal and Quantitative formats to measure general ability:
  - 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,

**Measuring General Ability Equitably** 

Using the Naglieri General Ability Tests: Verbal, Nonverbal and Quantitative



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#### Introducing a New Generation of Measures

Putting Fairness, Equity, and Representation First in Gifted & Talented Education



The Naglieri-V measures general ability using pictures of objects representing verbal concepts. The items are comprised of universally recognized pictures that do not rely on knowledge acquired in academic settings.

The student's task is to identify which of the six pictures does *not* represent the verbal concept shared by the other five.

The test items require close examination of *the relationships among the pictures*.



Naglieri General Ability Test – Verbal (Naglieri & Brulles)



The Naglieri-NV measures general ability using questions that require a student to recognize the relationships among the shapes.

The structure of the items varies, but all items require that the student decipher the logic behind *the relationships among the shapes*, sequences, spatial orientations, patterns, and other distinguishing characteristics.

This nonverbal test is conceptually similar to the NNAT3 but it contains many NEW kinds of items not included before.



Naglieri General Ability Test –Nonverbal (Naglieri)



The Naglieri-Q measures general ability using numbers and/or symbols. Students must decipher the logic behind the relationships among the numbers and symbols to identify the answer.

Items require the student to determine equivalency of simple quantities, analyze a matrix of numbers and solve mathematical sequences.

Items require minimal academic knowledge, and the calculation requirements are simple.

The items have no verbal requirements (i.e., no math word problems) so that they can be solved regardless of the language used by the student.



Naglieri General Ability Test – Quantitative (Naglieri & Lansdowne)





How do *different* tasks use the *same* ability?

 Even though the tests have different content (shapes, words, numbers) they all rely on general ability ('g')

•They all require understanding relationships among things or ideas

### **Initial Research Results** (2019)

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.

#### • VERBAL SAMPLE

 2,482 That closely matches the US population on key demographics

#### • GENDER

 No differences between males and females for raw score across all forms

#### • RACE/ETHNICITY

 No differences among White, Black, & Hispanic for raw score across all forms

#### PARENTAL EDUCATION LEVEL

 No 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

#### NONVERBAL SAMPLE

 3,630 That closely matches the US population on key demographics

#### • GENDER

 No differences between males and females for raw score across all forms

#### • RACE/ETHNICITY

 No differences among White, Black, & Hispanic for raw score across all forms

#### PARENTAL EDUCATION LEVEL

 No 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

#### • QUANTITATIVE SAMPLE

 2,841 That closely matches the US population on key demographics

#### • GENDER

 No differences between males and females for raw score across all forms

#### • RACE/ETHNICITY

 No differences among White, Black, & Hispanic for raw score across all forms

#### PARENTAL EDUCATION LEVEL

 No 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

### Summary of Reliability, Validity and Fairness

- The Naglieri–V items were subjected to a cultural review
- Reliability coefficients for the Verbal, Nonverbal and Quantitative tests were high and exceed guidelines for test reliability
- Confirmatory factor analysis of the three tests, independently and in combination supported a broad factor of general ability
- The Naglieri–NV correlated significantly with the NNAT3
- Gifted students scored considerably higher than students from the general population
- All test ITEMS were inspected for fairness by gender, race, ethnicity, parental education level (PEL), and primary language spoken using differential item functioning (DIF) and analyses of covariance; **negligible to small differences were found**
- Overall, initial findings suggest that the Naglieri General Ability Tests meet guidelines for reliability, validity, and fairness



### What does this mean to you?

### **General Ability**

General ability is what allows us to solve many different kinds of problems which may involve

 reasoning, memory, sequencing, verbal and math skills, patterning, connecting ideas across content areas, insights, making connections, drawing inferences, analyzing simple and complex ideas.

The key is to measure general ability in a way that is not confounded by knowledge

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### 2. Interpretation

How can tests and test data be used most effectively to identify more diverse groups of gifted students?

Underrepresentation continues, partly due to program entrance criteria. Using local norms takes a proactive, strength-based approach to gifted identification by not prioritizing high achievement and school-based knowledge.

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### **Gifted Identification**

Consider children who may not have good grades, or the academic skills, speak English fluently. Their test scores may not reflect their ability.

These children can become very **talented** given the opportunity to learn

How many children like this are in our country?

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Using Local Norms-a strategy to increase underrepresented populations in gifted services

National norms- Compare a student's performance to peers from the same age or grade across the country

**Local norms-** Compare a student's performance to grade level peers in the same district, school or specific grade

- district level norms
- school building level norms
- group norms (ie. if 30% of the students are (demographic), compare scores across that group)

What makes sense for your situation?

#### Rank order?

• The student's score is ranked compared to other students tested. The lower the score, the better the student's performance on the test. For example, a score of 3 indicates that the student earned a score ranked 3<sup>rd</sup> in the local comparison sample.

#### Percentile?

• The percentage of students who obtained scores that were less than or equal to the student's score. The higher the score, the better the student's performance on the test. For example, a score of 90 indicates that the student earned a score that was equal to or greater than 90% of students in the local comparison sample.

#### Total Score?

• The student's performance on all of the tests. The higher the score, the better the student's performance on the test. For example, a score of 100 is considered average and scores above 115 are above average.

Things to consider when using local norms



Students who move to other schools/districts

Local norms is a local comparison



Identification for what?

Program to fit student's needs

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Obtain scores for **ALL** students

# 3. Programming and Instruction

Following identification, how can we create more equitable and inclusive gifted programs and services?

Schools must expand their views, procedures and practices on programs for gifted learners.

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## Academic Learning Loss & COVID

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/office s/list/ocr/docs/20210608-impactsof-covid19. COVID-19 has deepened the impact of disparities in access and opportunity for students of color

> Students of color are even further behind than they were before the pandemic

ELL students had the dual challenge of learning content and English.

> These students' intellectual scores on traditional tests will reflect that larger learning gap related to COVID



### Goals of Education Equity:

How do these goals impact gifted programming?

- High achievement and positive outcomes for *all* students
- Equitable access and inclusion
- Equitable treatment
- Equitable resource distribution
- Equitable opportunity to learn
- Shared accountability

IDRA ~ Intercultural Development Research Association

Do **all** of our students believe that...



Schools have their best interests at heart?



Getting a good education will benefit everyone in the same way?



They can *each* pursue educational goals with the *same* outcomes in mind?

### Multiple Measures & *Multiple Pathways!*

Different needs and circumstances require different approaches to testing and identification

•Ex. - Universal testing and "flexing in" at Title I schools The Gifted Programming Dilemma:

The Chicken or the Egg?



WITIF SKS

ZINA

Skype

est





Four Common Program Models Examined through an equity lens

- •Cluster Grouping
- •Honors Classes
- •Enrichment Classes
- •Self-contained Programs



### Developing A Continuum of Services: Why?

- Builds inclusivity
- Provides ongoing entry points
- Recognizes strengths
- Responds to students' learning levels
- Works at district, building and classroom levels
- It's the right thing to do!

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### Developing A Continuum of Services: How?

At 3 levels:

District - ex., leveled and variable services

School building - ex., clustering, achievement levels

Classroom - ex., flexible grouping

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### Showing Growth in Gifted

#### Measure and record:

- •Ethnic representation of identified gifted students
- •Academic achievement of gifted students
- •Gifted population identified and served by year
- Professional development for teachers

\* Provide data to principals and school district admin.



Scan QR Code for access to the handout for this presentation



#### Not sure how to scan?

Open your Camera on your phone and take a picture of the QR code above. It will bring you to NaglieriGiftedTests.com to download.



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