



A Social Justice Approach to Identifying Gifted Students

3/23/2022

Presented by

Jack A. Naglieri, Ph.D.

School Psychologist/Professor, UVA



Hosted by

Dr. John Kelly

& George Dayton

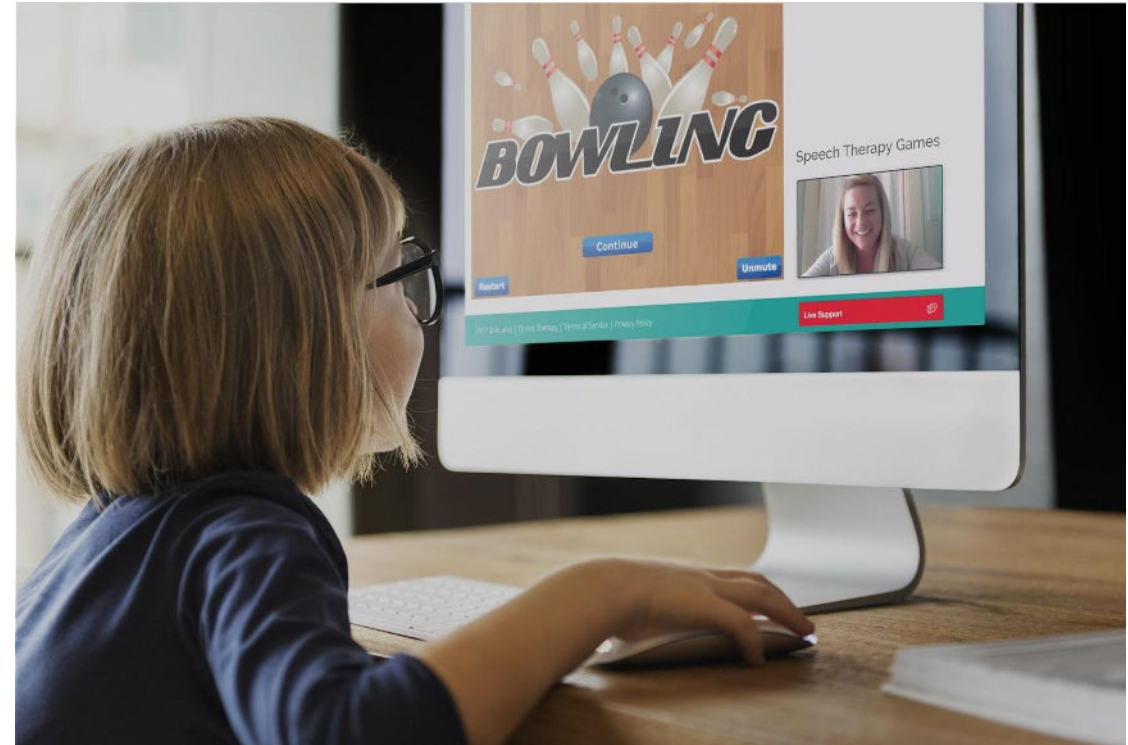
Agenda

Introduction	5:00 pm EST (5 minutes)
Presentation	5:05 pm EST (25 minutes)
Discussion	5:30 pm EST (20 minutes)
Q&A	5:50 pm EST (10 minutes)

Who is eLuma?

eLuma

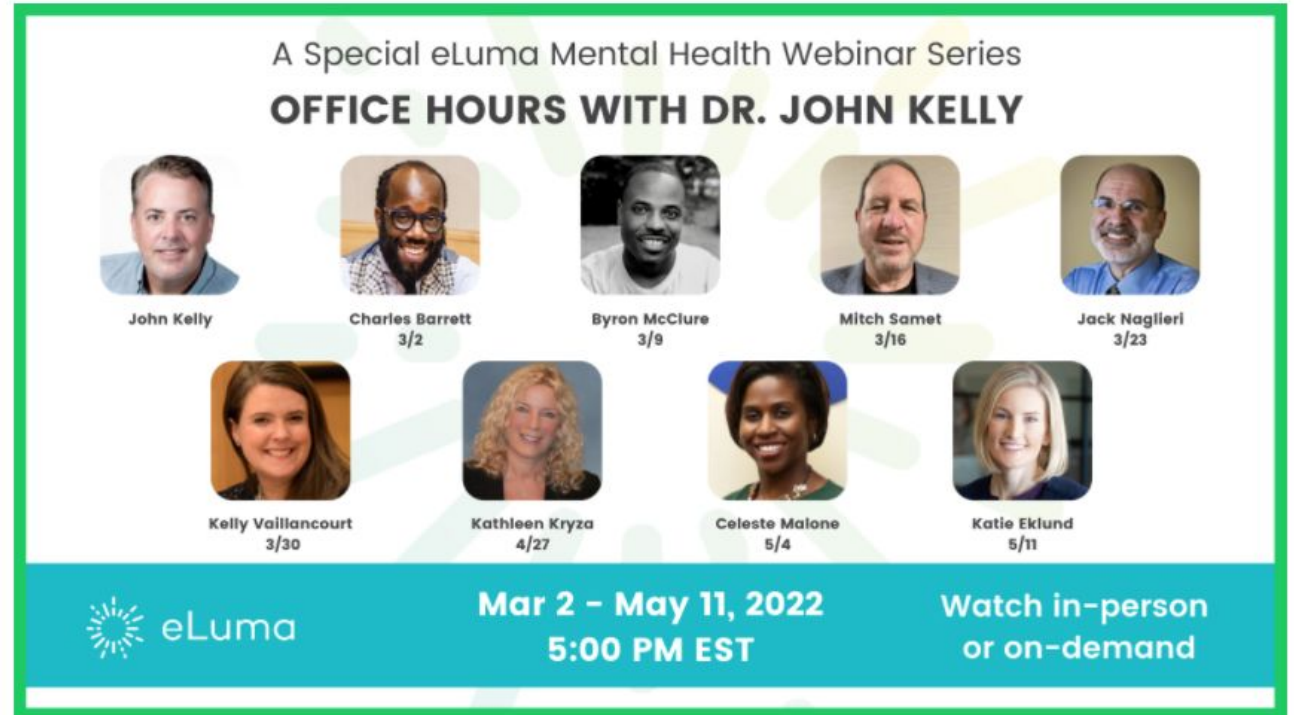
- ▶ Dedicated to solving problems in the areas of special education and mental health
- ▶ Provides live services online with dedicated therapists
- ▶ Founded in 2011
- ▶ Comprised of 300+ dedicated team members
- ▶ Over 30,000 students served in 36 states
- ▶ Follow us on Twitter [@eLumaTherapy](https://twitter.com/eLumaTherapy)
- ▶ Follow us on Facebook facebook.com/elumatherapy/



The Webinar

A few facts:

- ▶ Part of our Webinar Series, "Office Hours with Dr. John Kelly."
- ▶ Closed captioning provided via Zoom
- ▶ Recording link, Slide Deck and Certificate of Attendance will be sent after the webinar.

A promotional graphic for a webinar series. It features a white background with a green border. At the top, it reads "A Special eLuma Mental Health Webinar Series" and "OFFICE HOURS WITH DR. JOHN KELLY". Below this, there are two rows of circular headshots of speakers. The first row includes John Kelly, Charles Barrett (3/2), Byron McClure (3/9), Mitch Samet (3/16), and Jack Naglieri (3/23). The second row includes Kelly Vaillancourt (3/30), Kathleen Kryza (4/27), Celeste Malone (5/4), and Katie Eklund (5/11). At the bottom, there is a teal banner with the eLuma logo, the dates "Mar 2 - May 11, 2022", the time "5:00 PM EST", and the text "Watch in-person or on-demand".

A Special eLuma Mental Health Webinar Series
OFFICE HOURS WITH DR. JOHN KELLY

John Kelly
Charles Barrett 3/2
Byron McClure 3/9
Mitch Samet 3/16
Jack Naglieri 3/23

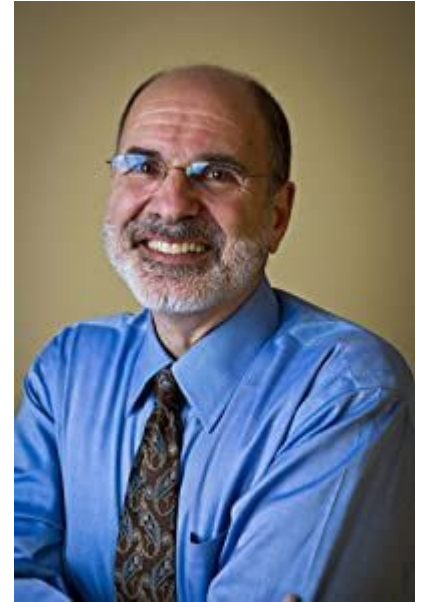
Kelly Vaillancourt 3/30
Kathleen Kryza 4/27
Celeste Malone 5/4
Katie Eklund 5/11

eLuma
Mar 2 - May 11, 2022
5:00 PM EST
Watch in-person
or on-demand

The Presenter

Jack Naglieri, Ph.D.

- ▶ Jack A. Naglieri, Ph.D. is Research Professor at the University of Virginia and Senior Research Scientist at the Devereux Center for Resilient Children.
- ▶ He published 23 books, 51 tests and rating scales, and 300 research papers. He is widely known for his emphasis on innovative approaches to assessment of intellectual ability using tests such as the Cognitive Assessment System–2nd Edition, Naglieri Nonverbal Ability Tests, Autism Spectrum Rating Scale, Comprehensive Executive Function Inventory and most recently the Naglieri General Ability Tests: Verbal, Nonverbal and Quantitative.
- ▶ He has an extensive test development and research program with emphasis on psychometric quality, equitable assessment, academic interventions and uniting sound theory with practice.



Jack Naglieri, Ph.D.

A Social Justice Approach to Identifying Gifted Students

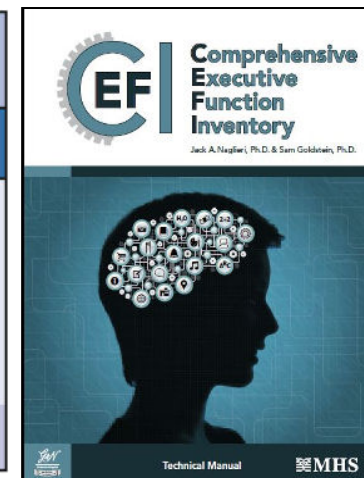
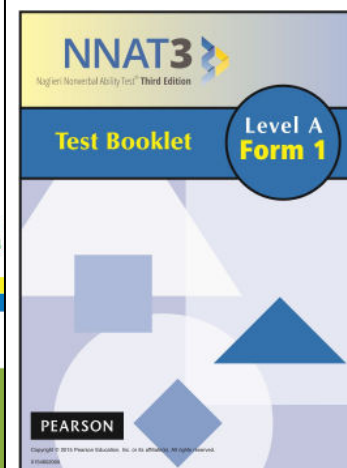
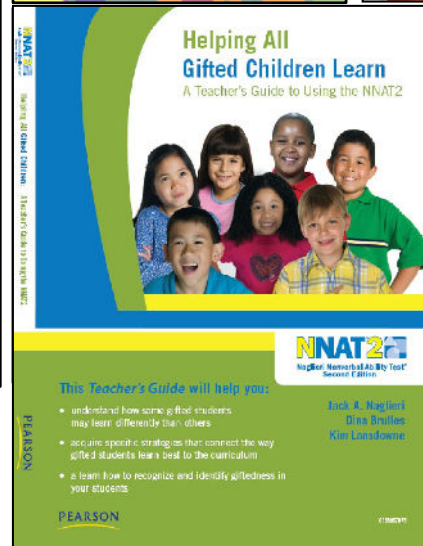
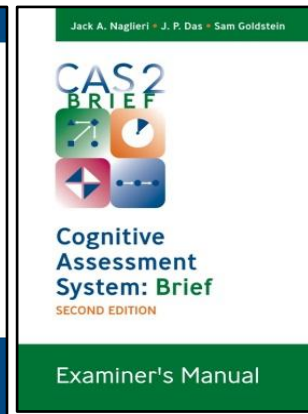
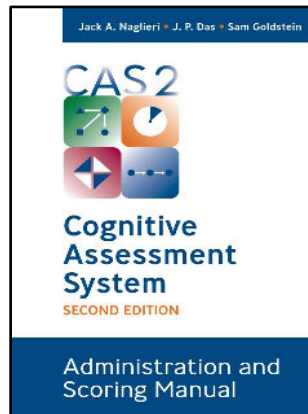
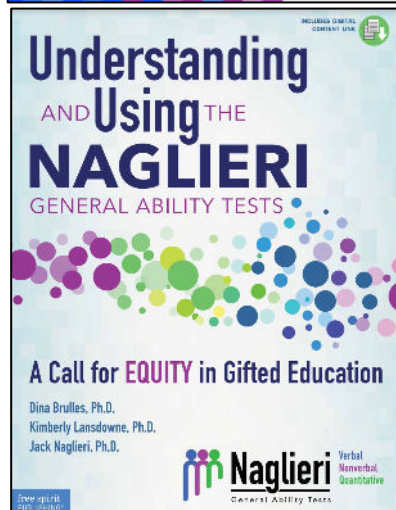
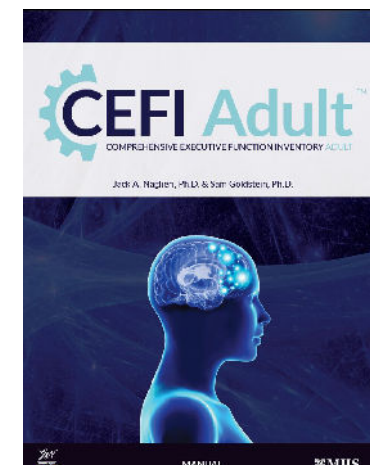
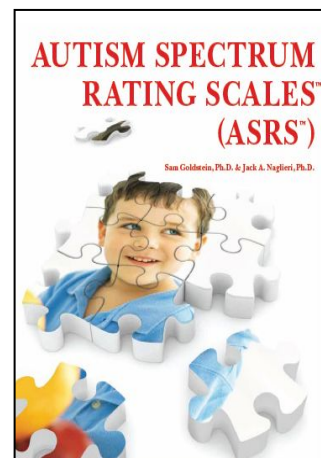
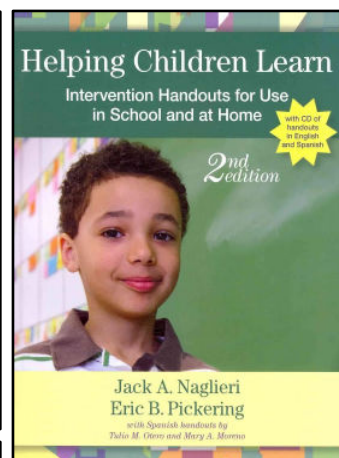
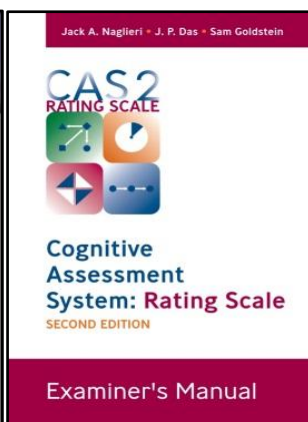
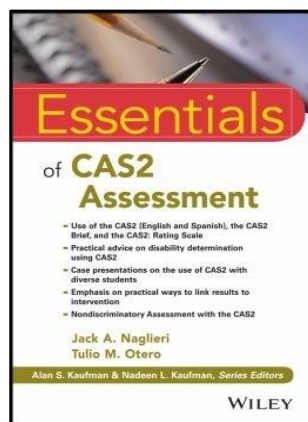
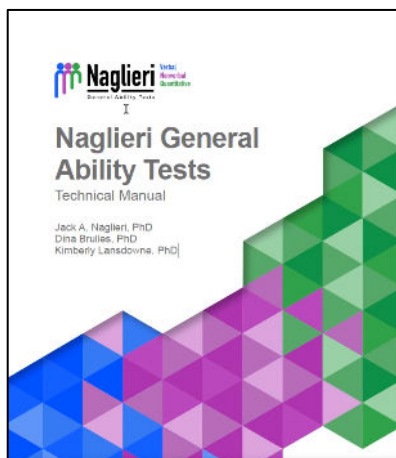
Jack A. Naglieri, Ph.D.

jnaglieri@gmail.com

<https://Jacknaglieri.com>

<https://NaglieriGiftedTests.com>

Disclosures



FOR MORE INFORMATION PLEASE GO TO MY WEB PAGES



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WHY WE DO WHAT WE DO

Inequity in Gifted Testing

Recently researchers have estimated that more than 850,000 African-American, Hispanic, and Native American students in K-12 public school today could have been identified for gifted programs but were not. This problem could be addressed by using ability tests that were designed and validated to be equitable for all students.

Achieving Equity

The *Naglieri General Ability Tests* by Jack A. Naglieri, PhD, Dina M. Brulles, PhD and Kimberly Lansdowne, PhD were explicitly developed to address the need for equitable assessment of gifted students from diverse cultural, linguistic, and socioeconomic backgrounds so they can receive educational opportunities appropriate for their ability.

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JACKNAGLIERI.COM

TOOLS FOR PSYCHOLOGICAL AND EDUCATIONAL ASSESSMENT

WELCOME TO JACKNAGLIERI.COM



This site was created to provide tools and resources for both psychologists and educators alike.

Jack A. Naglieri, PhD, has held faculty appointments at Northern Arizona University, The Ohio State University, and George Mason University. He is currently a Research Professor at the University of Virginia, Senior Research Scientist at the Devereux Center for Resilient Children, and Emeritus Professor of Psychology at George Mason University.

Dr. Naglieri has developed many tests used by psychologists and educators such as the Naglieri Nonverbal Ability Test, the Cognitive Assessment System, Autism Spectrum Rating Scale, Devereux Student Strength Assessment, Comprehensive Executive Function Inventory, and forthcoming Naglieri General Ability Tests: Verbal, Nonverbal and Quantitative. He is widely known for his efforts to increase participation of traditionally under-represented students in gifted education. He is also well known for the PASS Theory of Intelligence and its application using the CAS2 for identification of specific learning disabilities using the Discrepancy Consistency Method, fair and equitable assessment of diverse populations, and academic interventions related to PASS neurocognitive processes.

NAGLIERI GENERAL ABILITY TESTS: VERBAL, NONVERBAL AND QUANTITATIVE



The *Naglieri General Ability Tests: Verbal, Nonverbal and Quantitative* provide equitable assessment of students for gifted educational programs.

HANDOUTS



Download PDF handouts of past presentations and related research on the following tests and topics

WEBINARS



A webinar library that covers a variety of topics such as EF, Autism Assessment, and SLD. We have created this library to share and learn from each other while staying home and safe.

EQUITY



xx this section provides information about equity in the CAS and equity in gifted assessment. GNAT

EXECUTIVE FUNCTION



xxx Comprehensive examination at executive function, its measurement, and intervention.

HELPING CHILDREN LEARN



Helping Children Learn was written to give parents and teachers simple ways to make learning fun and easy for any child. Handouts

Did you ever wonder...

- **Why** does the WISC-V use Vocabulary, Similarities, Information, and Arithmetic subtests to measure **intelligence**?
- **Why** does the WJ-IV have Oral **Vocabulary** on the **cognitive** test and Reading **Vocabulary** on the **achievement** test?
- **What** relevance do these questions have for **non-biased** and **EQUITABLE** assessment of gifted students?
- **What** responsibility do you have as a school psychologist to ensure that your assessment process is **fair and equitable** for all students?

Alpha & Beta □ Wechsler

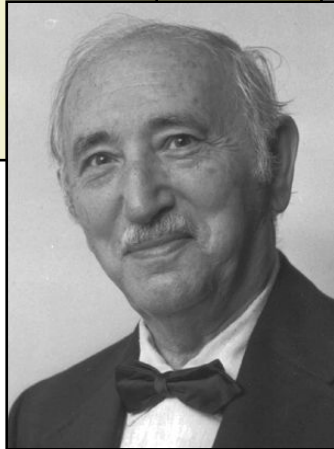
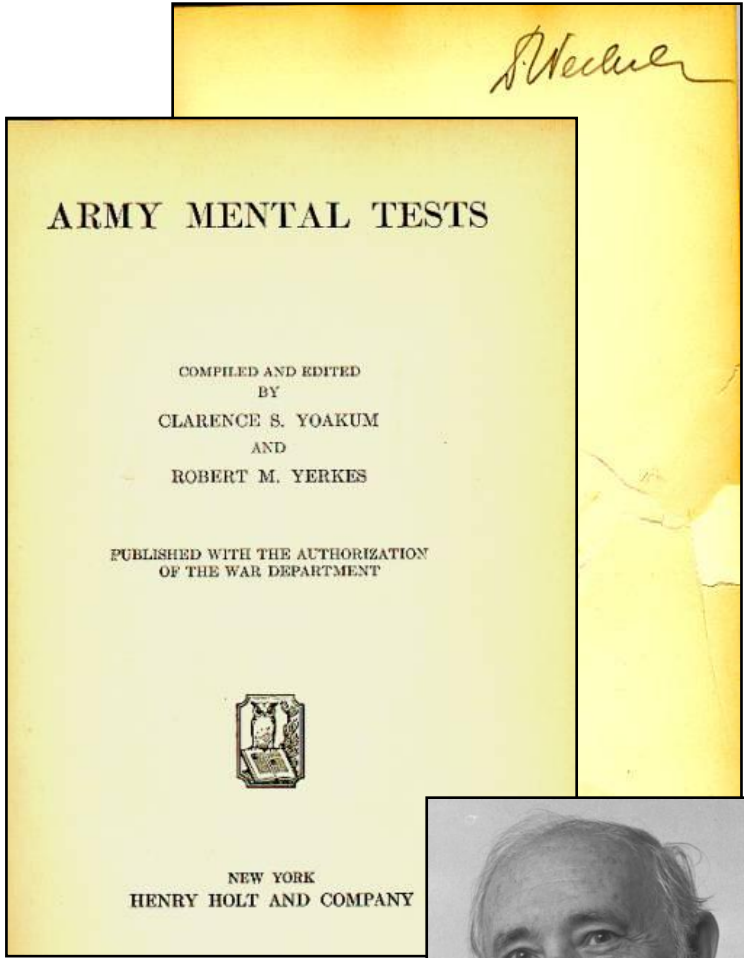
- **Army Alpha**
 - Synonym- Antonym
 - Disarranged Sentences
 - Number Series
 - Arithmetic Problems
 - Analogies
 - Information

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

Verbal &
Quant IQ
(Knowledge)

Nonverbal
IQ
(Thinking)

WISC,
WJ Cog
CogAT &
Otis-Len
non



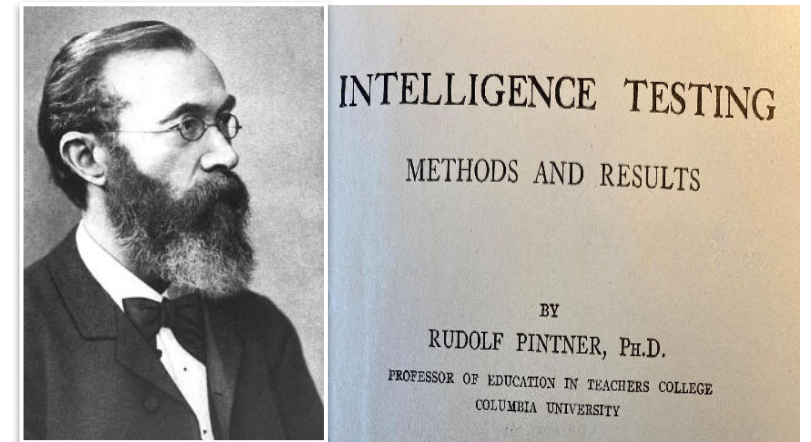
WHY BETA in the Army Tests ?

(Yoakum & Yerkes, 1920) & Pintner (1923)

METHODS AND RESULTS

19

Men who fail in alpha are sent to beta in order that injustice by reason of relative unfamiliarity with English may be avoided.
Men who fail in beta are referred for individual examination by means of what may appear to be the most suitable and altogether appropriate procedure among the varied methods available. This reference for careful individual examination is yet another attempt to avoid injustice either by reason of linguistic handicap or accidents incident to group examining.

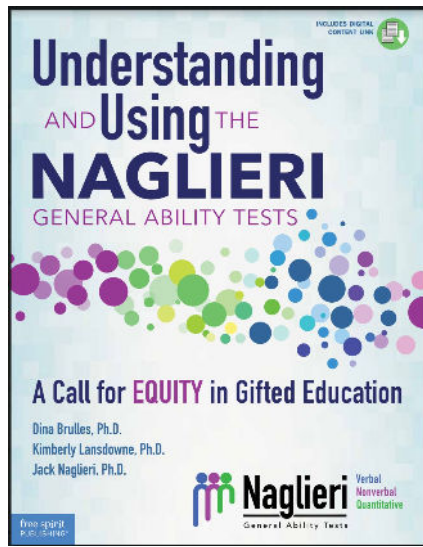


I. Tests must be relatively new. — A good intelligence test must avoid as much as possible anything that is commonly learned by the subjects tested. In a broad sense this rests upon a differentiation between knowledge and intelligence. To use as a test of intelligence

Knowledge is Included in “Ability” Tests

Stanford-Binet-5	WISC-V	WJ-IV	KABC-II	OLSAT	CogAT
<ul style="list-style-type: none">• Verbal• Knowledge• Quantitative Reasoning• Vocabulary• Verbal Analogies	<ul style="list-style-type: none">• Verbal Comprehension Vocabulary, Similarities, Information & Comprehension• Fluid Reasoning Figure Weights, Arithmetic	<ul style="list-style-type: none">• Comprehension Knowledge: Vocabulary & General Information• Fluid Reasoning: Number Series & Concept Formation• Auditory Processing: Phonological Processing	<ul style="list-style-type: none">• Knowledge / GC• Riddles,• Expressive Vocabulary,• Verbal Knowledge	<ul style="list-style-type: none">• Verbal• Following directions• Verbal Reasoning• Quantitative• Verbal Arithmetic Reasoning	<ul style="list-style-type: none">• Verbal Scale• Analogies• Sentence Completion• Verbal Classification• Quantitative• 45 pages of oral instructions

Race and Ethnic Differences for Ability Tests that Demand Knowledge and those that Require Minimal Knowledge



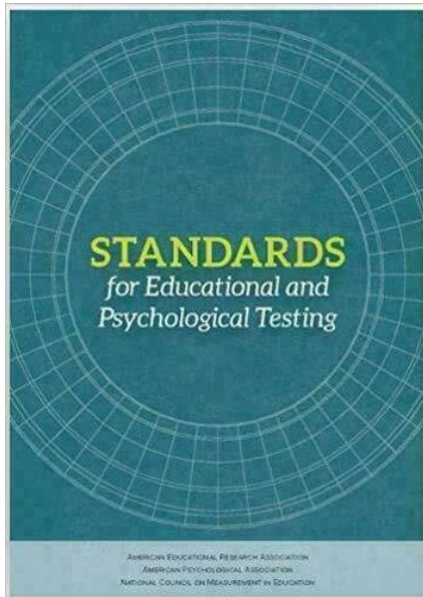
Notes: The results summarized here were reported for the Otis-Lennon School Ability Test by Avant and O'Neal (1986); Stanford-Binet IV by Wasserman (2000); Woodcock-Johnson III race differences by Edwards & Oakland (2006) and ethnic differences by Sotelo- Dynega, Ortiz, Flanagan & Chaplin (2013); CogAT7 by Carman, Walther and Bartsch (2018); WISC-V by Kaufman, Raiford & Coalson (2016); Kaufman Assessment Battery for Children-II by Lichenberger, Sotelo- Dynega and Kaufman (2009); CAS by Naglieri, Rojahn, Matto & Aquilino (2005); CAS-2 and CAS2: Brief by Naglieri, Das & Goldstein, 2014; Naglieri Nonverbal Ability Test by Naglieri and Ronning (2000), and Naglieri General Ability Tests by Naglieri, Brulles and Lansdowne (2021).

Race and Ethnic Standard Score Differences Across Intelligence Tests	By Race	By Ethnicity
Tests that require knowledge	Mn = 11.5	Mn = 9.2
Otis-Lennon School Ability Test (distric wide)	13.6	
Stanford-Binet IV (normative sample)	12.6	
WISC-V (normative sample)	11.6	
WJ- III (normative sample)	10.9	10.7
CogAT7 (Nonverbal scale)	11.8	7.6
WISC-V (statistical controls normative sample)	8.7	
Tests that require minimal knowledge	Mn = 4.1	Mn = 2.6
K-ABC (normative sample)	7.0	
K-ABC (matched samples)	6.1	
CAS-2 (normative sample)	6.3	4.5
CAS (statistical controls normative sample)	4.8	4.8
CAS-2 (statistical controls normative sample)	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

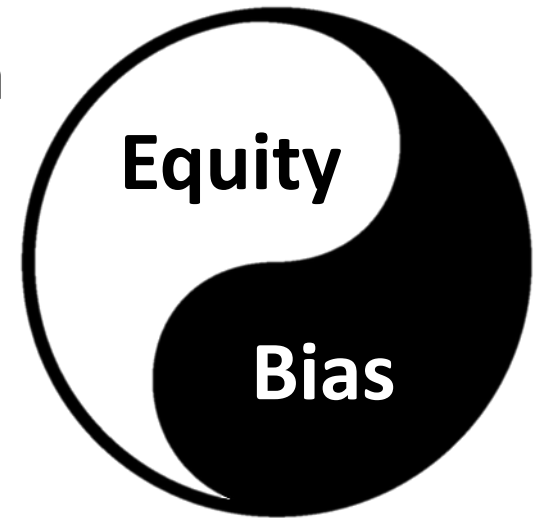
Note: Even though a test may not show psychometric bias (Worrell, 2019) those tests with academic content that show large mean score differences are not equitable and are unfair.

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* (because it penalizes students for not knowing the answers) even if the norming data do not demonstrate test bias.
- Evidence of EQUITY is examined by test content and mean score differences





@InspiringT

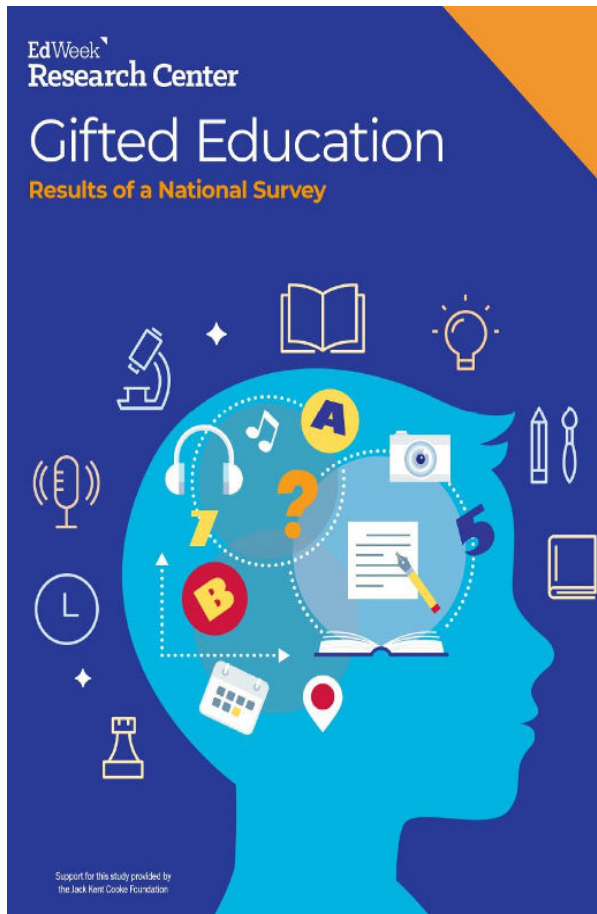
We do the best we can with what we know, and when we know better, we do better.

— *Maya Angelou* —

Change
Demands
Courage to
Think
Differently

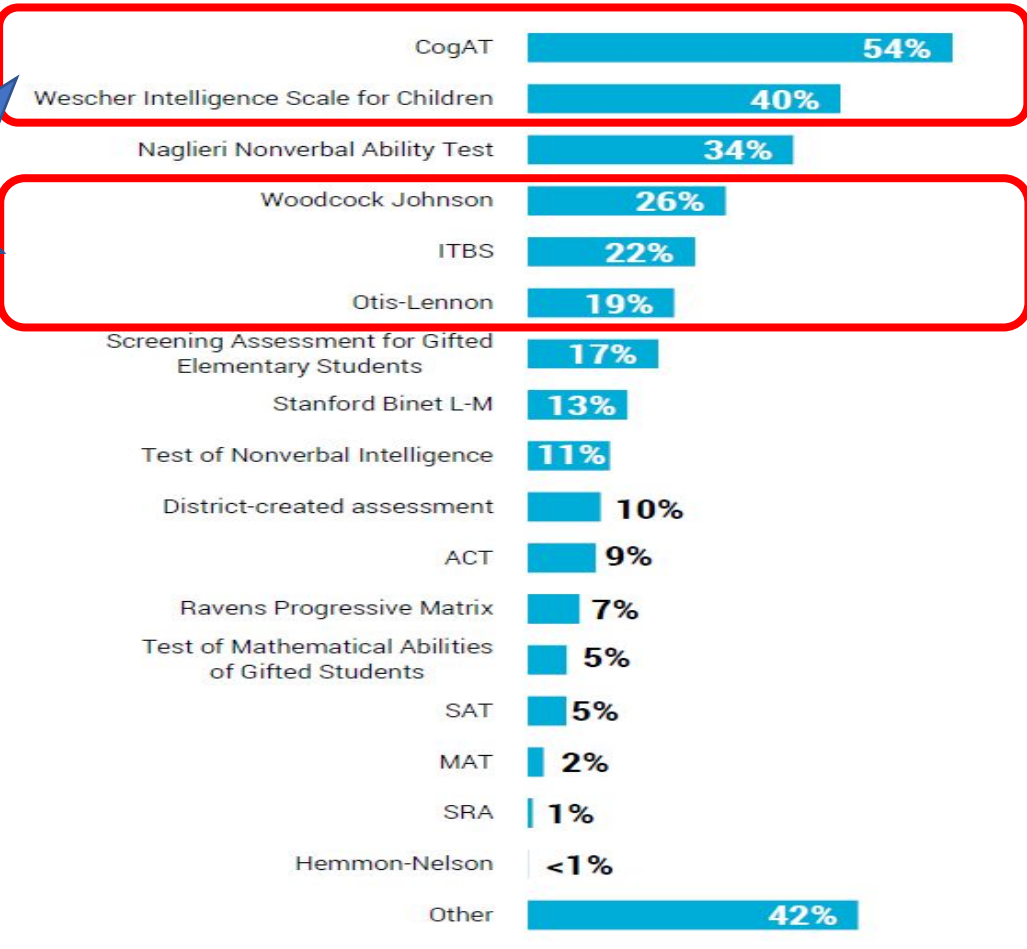
Socially just assessment requires self-reflection and self-correction in response to the research

National Survey of Gifted Education



These tests have verbal and quantitative questions and lengthy verbal directions

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



Numbers of Students Missed

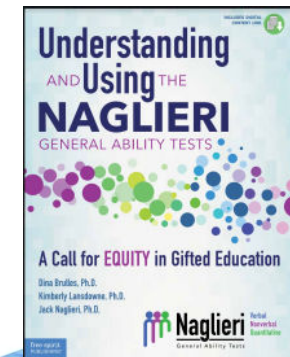
873,129 non-white and 247,562 ELL gifted students in grades K-12 are MISSED by the identification process

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

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

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

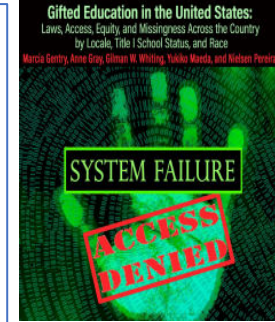


TOTAL Number of Gifted Students Missed

Total Enrollments by Race and Ethnicity as of 2020.				
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Total Non-Whites	24,218,556	1,937,484	1,064,355	-873,129

TABLE 1
Percentage of Schools With Identification and Percentage of Students Identified in 2015-2016

Access = Attending a school that identifies youth with gifts and talent		Percentage of Schools That Identify Students	Percentage of Students Identified
	Non-Title I Schools	55.65%	13.46%
	Title I Schools	61.35%	7.86%



Percent of Schools that Identify	58.5%
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

Combining the numbers of Black, Hispanic, Native American, and Multi-racial students who were not identified by the process used in local school district AND those students not identified because the district does not identify gifted/talented students the **Total number is 1,235,434.**

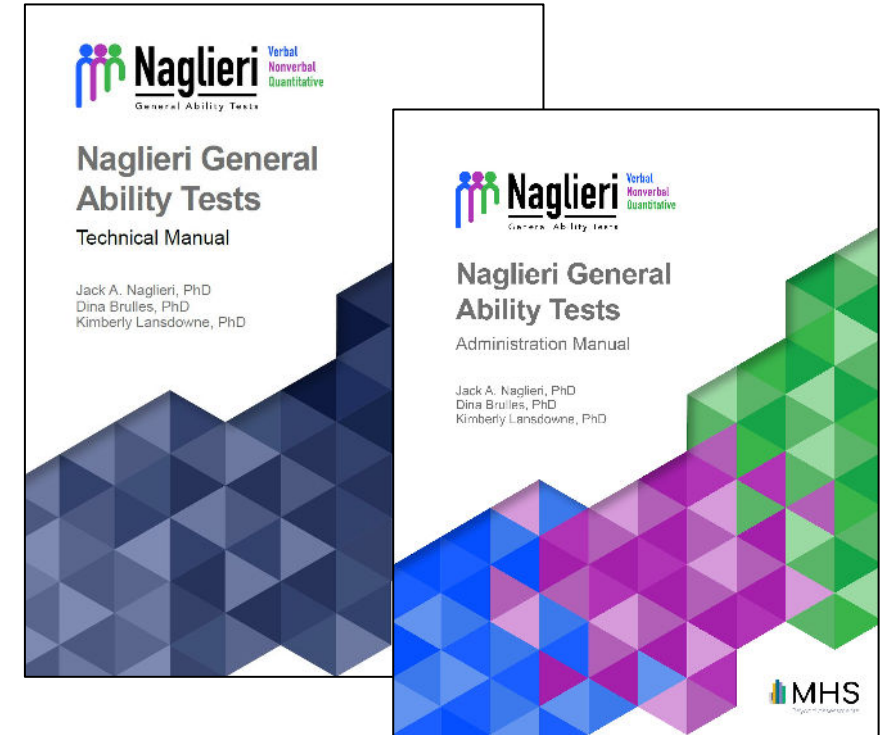
Measuring General Ability Equitably Using the Naglieri General Ability Tests: Verbal, Nonverbal and Quantitative

Jack A. Naglieri, Ph.D. jnaglieri@gmail.com

Dina Brulles, Ph.D. dbrulles@gmail.com

Kim Lansdowne, Ph.D.

Kimberly.Lansdowne@asu.edu



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.
 - Online (and paper) administration for group or individual assessment
 - Universal assessment using local and national (in progress) norms

Solution: Measure Thinking not Knowledge

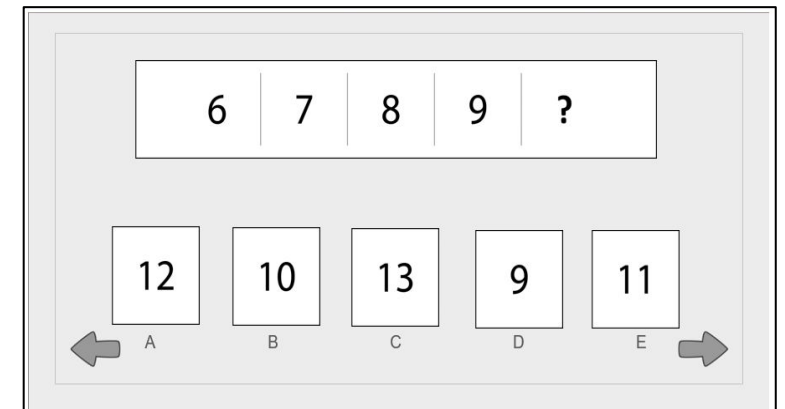
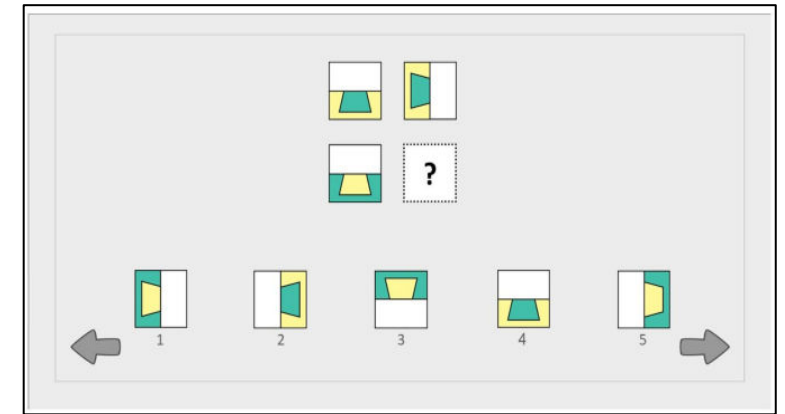
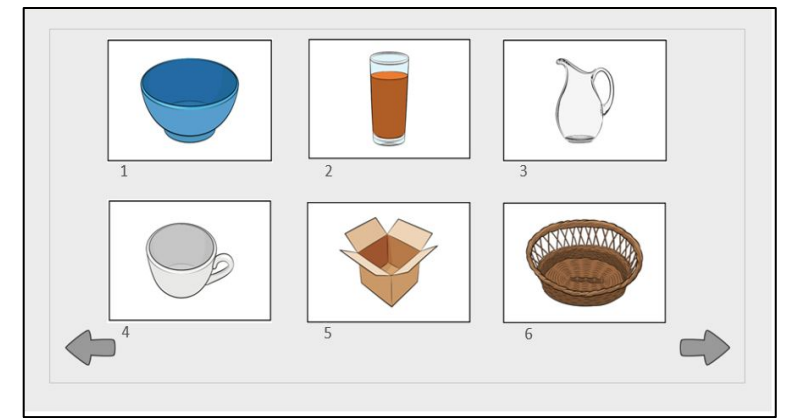
- What does the student have to know to complete a task?
 - This is dependent upon educational opportunity



- How does the student have to think to complete a task?
 - This is dependent on the brain



Naglieri General Ability Tests (Naglieri & Brulles & Lansdowne, 2022)



Initial Research Results (2022)

Selvamenan, M., Paolozza, A., Solomon, J., Naglieri, J. A., & Schmidt, M. T. (submitted for publication, Feb. 2022). 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



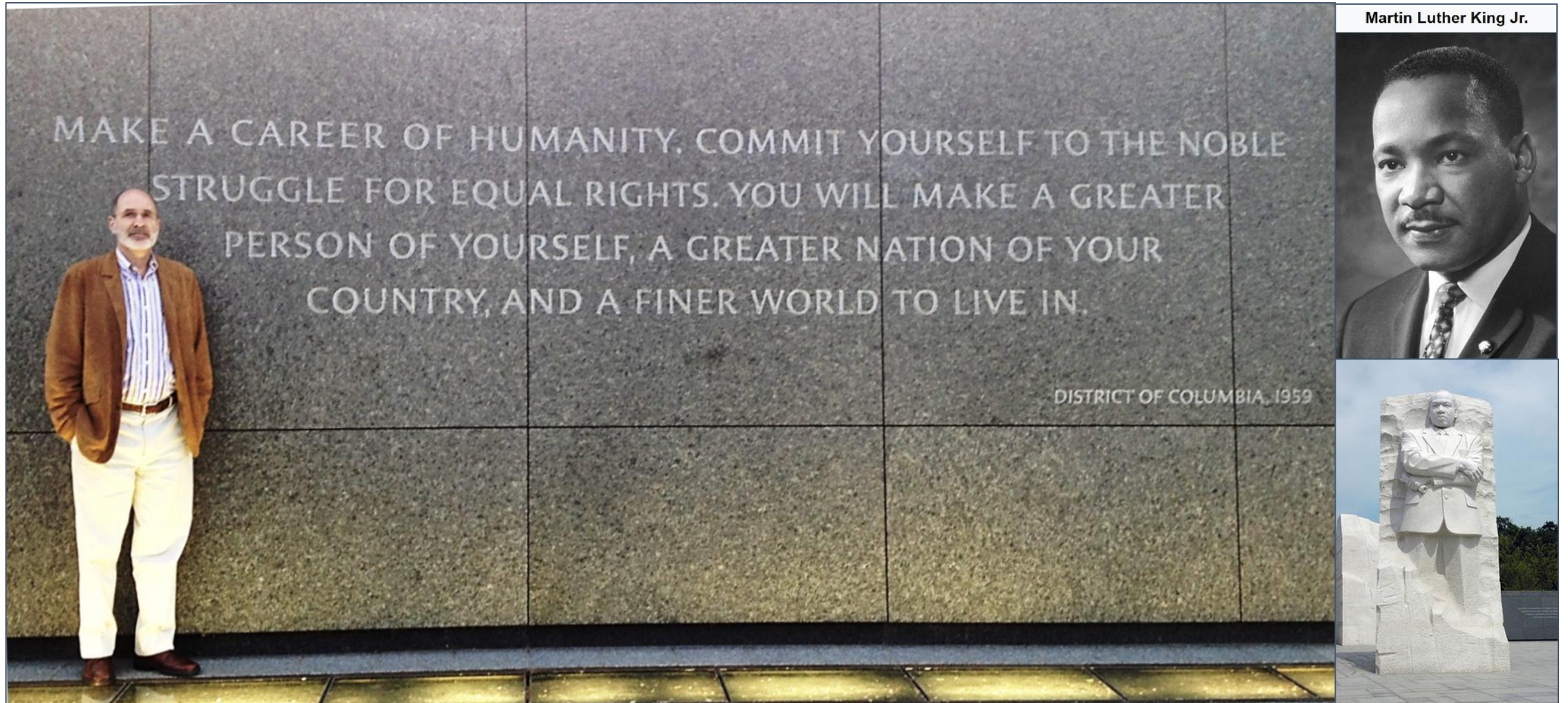
We do the best we can with what we know, and when we know better, we do better.

— *Maya Angelou* —

Change Demands Courage to Think Differently

Socially just assessment requires self-reflection (What am I doing?) and self-correction (I will choose something new) in response to current research (There is a better way!).

Equitable Identification of Gifted Students



A group of diverse children of various ethnicities and ages are smiling and looking towards the camera. The image is overlaid with a green and yellow gradient. The text "Q&A" is centered in white.

Q&A

Upcoming Webinars



**Dr. Kelly
Vaillancourt**

Strategies to Support Student and Educator Wellness

Wednesday, March 30, 2022 at 5 pm EST

The COVID-19 pandemic brought to the forefront the importance of prioritizing students' social emotional learning and mental and behavioral health. It has also raised the importance of supporting educator wellness. This session will highlight key components of a comprehensive mental and behavioral health service delivery system; describe the elements of an effective school community partnership, and highlight key practices schools can implement on day one that promote student and staff wellness.

*This is part of our Webinar Series, "Office Hours with Dr. John Kelly." You will receive an email with the watch link as the webinar gets closer.

Upcoming Webinars



Dr. Kathleen Kryza

Developing Hope & Empathy in Schools and Classrooms

Wednesday, April 27, 2022 at 5 pm EST

“If we are to reach real peace in the world, we shall have to begin with the children.” Ghandi. In these tumultuous times, it is more essential than ever to teach the skills of peace building in our classroom. Learn the neuroscience behind empathy and hope, along with ideas for developing empathy and hope in your classrooms and with your students. Teaching students peaceful ways of being within themselves and with their peers not only impacts student success, but also sends them out of our schools as agents in creating a more peaceful world.

*This is part of our Webinar Series, “Office Hours with Dr. John Kelly.” You will receive an email with the watch link as the webinar gets closer.

Thank You

For more information contact:

www.eluma.com



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