

The Importance of Identifying Diverse, Gifted Learners -- and how to do it!

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 Assessment Tools for Psychologists and Educators

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EF Comprehensive Executive Function Inventory
 CAS-2 Cognitive Assessment System
 DESSA DEVEREUX STUDENT SCALES OF MENTAL DISORDERS - 4-18th GRADE
 DESSA-MINI DEVEREUX STUDENT SCALES OF MENTAL DISORDERS - 4-18th GRADE
 ALTITUDE BAKING SCALES (ABS)
 Grans
 NAT-3 Manual
 Devereux Scales of Mental Disorders
 Devereux Early Childhood Assessment for Preschoolers

ABOUT jack A. Naglieri, Ph.D., is Research Professor at the Curry School of Education at the University of Virginia, Senior Research Scientist at the Devereux Center for Resilient Children and Emeritus Professor of Psychology at George Mason University. [Read More](#)

PUBLICATIONS The author of more than 300 publications, his recent efforts include cognitive assessment, cognitive intervention, SLD determination and measurement of psychopathology and resilience. [Read More](#)

TESTS A comprehensive list of jack A. Naglieri's tests such as the Naglieri Nonverbal (NNAT) and the Comprehensive Executive Function Inventory (CEFI). [Read More](#)

RESOURCES Download a PDF of hundreds of past presentations on various topics and research by jack A. Naglieri. [Read More](#)

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

Manual
 Naglieri Nonverbal Ability Test
 Product/Service

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Post
 What a Nonverbal Ability Test Is... And Isn't
 OCT
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20
 What a Nonverbal Ability Test Is... And Isn't
 OCT
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Presentation Summary

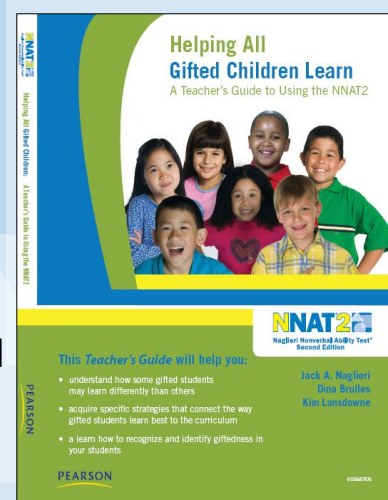
- ➔ Definitions
 - Representation by race and ethnicity
 - Nonverbal solution
 - NNAT3
 - Research evidence
 - Conclusions

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General ability (Naglieri, Brulles & Lansdowne, 2009)

- Gagné (1985) defined giftedness as natural abilities in at least one aspect – the top 10% of age peers
- Talent is the superior mastery of knowledge and skills – the 10% of age peers



Gifted and Talented

- How can GT students be identified?
 - Gifted –with ability measures (intelligence)
 - Talented – with measures of achievement
- Issues:
 - Universal screening is a solution that gives ALL students equal opportunity
 - This assumes that tests of these two types are different (IQ tests demand general knowledge as well as English)

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Representation by race and ethnicity

- Black and Hispanic students have been and remain considerably underrepresented in gifted education
 - (Baldwin, 2004; Castellano & Frasier, 2010; Ford, 2013; Ford, Grantham, & Whiting, 2008; Frasier et al., 1995; Office for Civil Rights (OCR), 2004, 2006, 2009, 2011, 2012).
- Naglieri & Otero (2017) documented the extent of this under-representation

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Representation by race and ethnicity

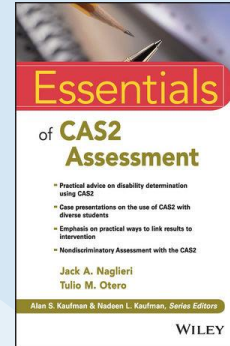
- Office for Civil Rights report with 2011–2012 show Black students represent 19% of U.S. public school students but only 10% in gifted; a 50% discrepancy.
- Hispanic students comprise 25% of public school students but only 16% in gifted; 40% discrepancy.
- How many students have been missed?

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Representation by race and ethnicity

- According to the National Center for Educational Statistics (<http://nces.ed.gov/fastfacts/display.asp?id=3>), there were approximately 50.1 million public school students entering pre-K through grade 12 in fall 2015



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Representation by race and ethnicity

- 727,200 gifted students not identified
(Naglieri & Otero, 2017, Essentials of CAS2 Assessment)

Number and Percentage of Students in US Public Schools Grades K–12 in 2015

Race/Ethnicity	% in US	N	8% G and T	N Missed
White	49	24,700,000	1,976,000	
Black	15	7,700,000	616,000	308,000
Hispanic	26	13,100,000	1,048,000	419,200
Other	9	4,600,000	368,000	
Total	100	50,100,000	4,008,000	727,200

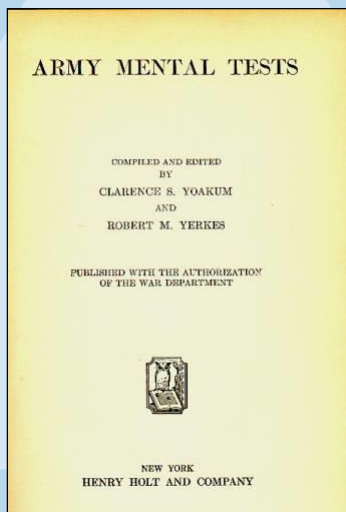
Note: N Missed is based on 50% of Black and 40% of Hispanics. G and T is *gifted and talented*.

HOW WE MEASURE ABILITY CAUSED THIS PROBLEM

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IQ's Origins



- Yoakum & Yerkes (1920) summarized the methods used by the military to
 - classify people from many backgrounds by mental capacity

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1917 Army Testing Program

- 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 &
Quantitative

Nonverbal

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Test for Gifted Programing

- Today you will take a test to see if you are academically talented enough to be in gifted
- This is a real test used to measure verbal reasoning
- There are 10 questions ... write down your answers

The First IQ TEST: Alpha

- | | |
|---|-------------------|
| 1. Bull Durham is the name of | tobacco |
| 2. The Mackintosh Red is a kind of | fruit |
| 3. The Oliver is a | typewriter |
| 4. A passenger locomotive type is the | Mogul |
| 5. Stone & Webster are well know | engineers |
| 6. The Brooklyn Nationals are called | Superbas |
| 7. Pongee is a | fabric |
| 8. Country Gentleman is a kind of | corn |
| 9. The President during the Spanish War was | McKinley |
| 10. Fatima is a make of | cigarette |

From: Psychological Examining the United States Army (Yerkes, 1920, p. 213)

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Take Away Message

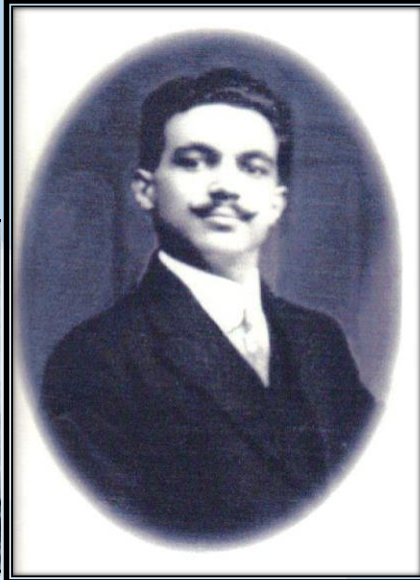
- Verbal and quantitative tests on traditional IQ tests are too confounded by achievement to be viable measures of general ability for students from poverty and all those with limited opportunity to learn as well as English language learners
- These tests under-estimate the actual ability of students who did not the exposure to English and math

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Why Nonverbal Tests (Beta)?

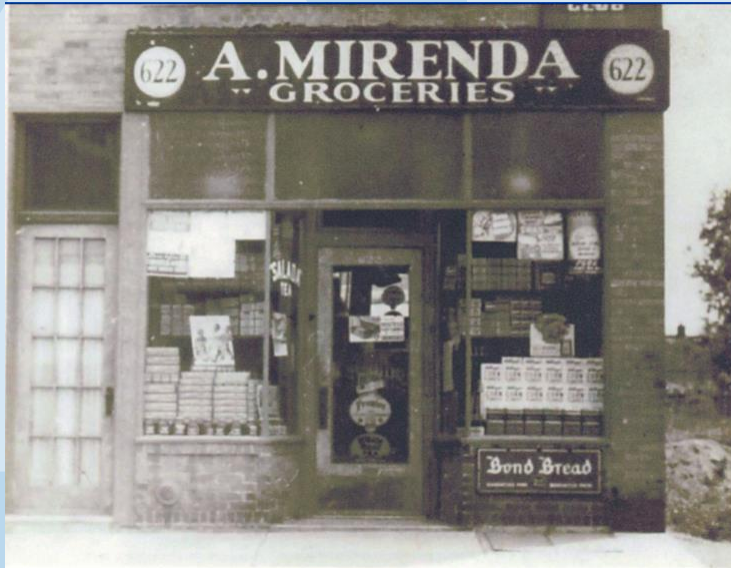
Antonino Mirenda - 1906



Antonino Mirenda - 1907



A. Mirenda Groceries 622 Ave X, Brooklyn, NY



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1927 Army Testing

METHODS AND RESULTS

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Why Beta?

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.

Note there is no mention of measuring verbal and nonverbal intelligences

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UNDER-REPRESENTATION AS A SOCIAL JUSTICE PROBLEM

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Illinois School District U-46

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

DANIEL, DINAH and DEANNA MCFADDEN,)
minors, by their parent and next friend, Tracy)
McFadden; KAREN, RODOLFO and KIARA)
TAPIA, minors, by their parent and next friend,)
Mariela Montoya; JOCELYN BURCIAGA, minor,)
by her parent and next friend, Griselda Burciaga;)
and KASHMIR IVY, minors, by their parent)
and next friend, Beverly Ivy; KRISTIANNE)
SIFUENTES, minors, by her parent and next)
friend, Irma Sifuentes,)

Plaintiffs,

v.

BOARD OF EDUCATION FOR ILLINOIS)
SCHOOL DISTRICT U-46,)

Defendant.)

)

No. 05 C 0760

Judge Robert W. Gettleman

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Illinois School District U-46

➤ Main question:

- Does the District's gifted program unlawfully discriminate against Hispanic Students?

On July 11, 2013, Judge Robert Gettleman issued a decision holding that District U-46 *intentionally* discriminated against Hispanic students specific in their gifted programming (placement), and found problems with policies and instruments for

Judge Gettleman's Decision

The Court's decision renewed the *Brown v. Board of Education* (1954) principle that 'separate is inherently unequal'.

... The court finds the District's method of identifying gifted Minority Students was flawed and resulted in an obvious disparate impact on those students by separating them from their gifted White peers.... By singling out most[ly] all Hispanic students for the segregated SET/SWAS program, the District deprived these children of that educational opportunity based on their ethnicity (p. 27).

Judge Gettleman's Decision

Judge Gettleman found discrimination regarding (a) tests for screening and for identification, (b) designated cutoff scores for screening and identification, (c) use of both verbal and math scores at arbitrary designated levels for screening and for identification, (d) use of weighted matrix, as well as content and criteria in weighted matrices that favored achievement and traditional measures, (e) too little reliance on a nonverbal test (Naglieri Nonverbal Ability Test) for admission to SWAS, (f) re-testing Hispanic students for middle school gifted program, (g) timing of testing, (h) use of parental referrals, and (i) use of teacher referrals (see Table 2).

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Judge Gettleman's Decision

Table 2. Gatekeepers to SWAS: Policies, Procedures, and Instruments.

Policy, Procedures, and Instruments	Barriers to Under-Representation in SWAS
Tests selected for screening and identification	Traditional tests were gatekeepers to SWAS.
Too little reliance on a nonverbal test for admission to SWAS	Nonverbal test should have been used as it was effective for entry to SET/SWAS for Hispanic students who had exited ELL.
Re-testing Hispanic students for middle school gifted program	Re-testing Hispanic students and eliminating non-verbal test were gatekeepers to middle school SWAS.
Use of parental referrals	Parental referrals were gatekeepers to SWAS; they favored White parents.
Use of teacher referrals	Parental referrals were gatekeepers to SWAS; they favored White parents.

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Does Research Agree with the Judge?

Naglieri, Booth,
& Winsler
(2004).
Comparison of
Hispanic
Children with
and without
Limited English
Proficiency on
the NNAT.
*Psychological
Assessment.*

Psychological Assessment
2004, Vol. 16, No. 1, 81-84

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1040-3598/04/\$12.00 DOI: 10.1037/1040-3598.16.1.81

BRIEF REPORTS

Comparison of Hispanic Children With and Without Limited English Proficiency on the Naglieri Nonverbal Ability Test

Jack A. Naglieri
George Mason University

Ashley L. Booth
University of Virginia

Adam Winsler
George Mason University

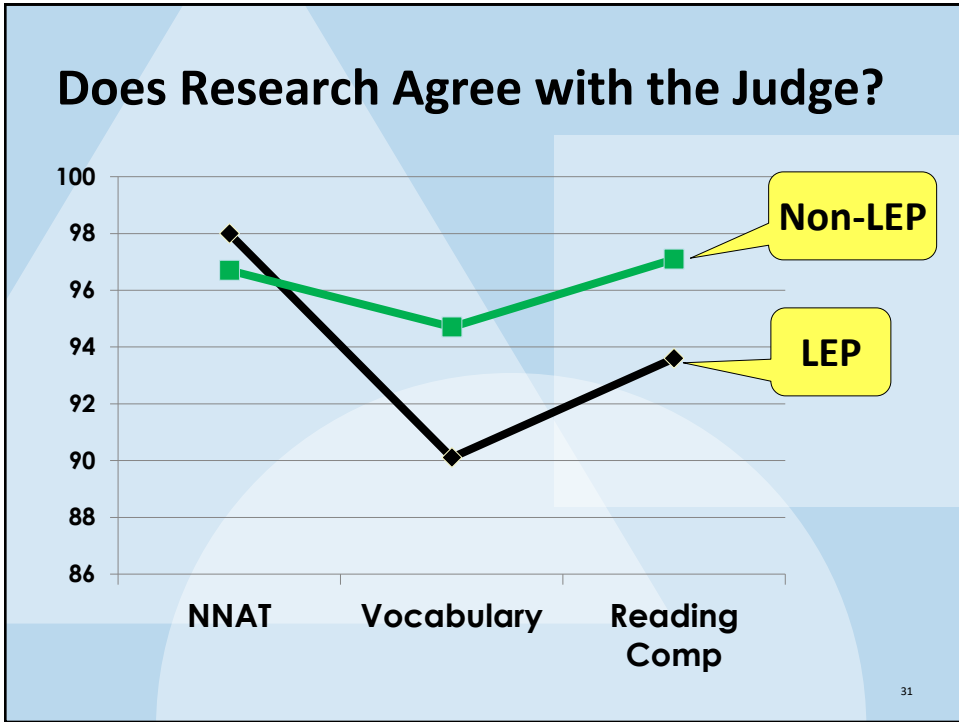
Hispanic children with ($n = 148$) and without ($n = 148$) limited English proficiency were given the Naglieri Nonverbal Ability Test (NNAT; J. A. Naglieri, 1997a) and the Stanford Achievement Test—9th edition (SAT-9, 1995). The groups were selected from the NNAT standardization sample ($N = 22,620$) and matched on geographic region, gender, socioeconomic status, urbanicity, and ethnicity. There was a very small difference (d ratio = 0.1) between the NNAT standard scores for the children with limited English proficiency ($M = 88.0$) and those without limited English proficiency ($M = 96.7$). The NNAT correlated moderately and similarly with achievement for the 2 groups. The sample of children with limited English proficiency earned considerably lower scores on SAT-9 Reading and Verbal subtests. Results suggest that the NNAT may be useful for the assessment of Hispanic children with and without limited English proficiency.

Assessment of intelligence for persons with limited English language skills has been an important issue since the familiar verbal-nonverbal organization of tests was initially made popular in the Army Alpha and Beta tests (Yookum & Yerkes, 1920). The value of a nonverbal test for evaluation of diverse populations was noted by Yookum and Yerkes more than 80 years ago: "Men who fail in alpha [the verbal tests] are sent to beta [the nonverbal tests] in order that injustice by reason of relative unfamiliarity with English may be avoided" (p. 19). The Beta tests and other similar nonverbal tests have, therefore, served an important role in effective assessment of diverse populations because their content is

Recent research on the nonverbal approach to measuring general ability has shown that the Naglieri Nonverbal Ability Test (NNAT; Naglieri, 1997a) can be an effective way to assess general ability, yields small race and ethnic group differences, and shows good prediction of achievement. Naglieri and Ronning (2000a) provided a detailed study of mean score differences between matched samples of White ($n = 2,306$) and Black ($n = 2,306$), White ($n = 1,176$) and Hispanic ($n = 1,176$), and White ($n = 466$) and Asian ($n = 466$) children on the NNAT. Only small differences were found between the NNAT scores for the White and Black samples (Cohen's d

Does Research Agree with the Judge?

- 148 Hispanic children with limited English language proficiency
 - 98 % from West and South
 - 53 % males
 - 82% Low and Low Middle SES
 - 41% Urban settings
- 148 Hispanic children without limited English language proficiency
 - 98 % from West and South
 - 53 % males
 - 82% Low and Low Middle SES
 - 41% Urban settings



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Does Research Agree with the Judge? ID Rates for NNAT and COGAT

2013-2015 Screening pool					
NNAT			COGAT VQN		
Ethnic Group	Frequency	Percent	Ethnic Group	Frequency	Percent
White	1492	80.6%	White	1333	89.0%
Black	87	4.7%	Black	40	2.7%
Hispanic	272	14.7%	Hispanic	125	8.3%
Total	1851		Total	1498	
% Increase for Blacks -->			54.0%		
% Increase for Hispanics -->			54.0%		

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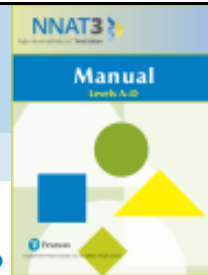
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What the NNAT measures

CHAPTER 1

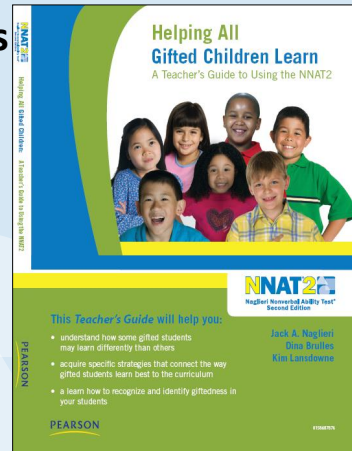
PURPOSE AND DESIGN OF NNAT3



The *Naglieri Nonverbal Ability Test*[®]—Third Edition (NNAT3) is a brief, nonverbal measure of general ability that can be group administered in online or paper format in about 30 minutes to students aged 5 to 11.^a The purpose of the NNAT3 is to measure general ability using abstract designs which are accessible to a wide variety of students including those with limited educational experiences, those who come from diverse cultural, socioeconomic, or linguistic backgrounds, and those who have language disabilities, autism spectrum disorder, or are deaf or hard of hearing. Because the NNAT3 items consist of geometric shapes that are universal and have no verbal content, and the directions are pictorial with minimal verbal instructions, NNAT3 has great utility as part of the process of identifying students for gifted/talented educational programs, especially for members of groups that have been underrepresented.

General ability (Naglieri, Brulles & Lansdowne, 2009)

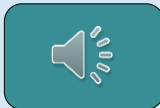
- General ability is what allows us to solve many different kinds of problems
- The problems may involve
 - reasoning, memory, sequencing, verbal and math skills, patterning, connecting ideas across content areas, insights, making connections, drawing inferences, analyzing simple and complex ideas.



Three Tests of General Ability?

Solve this analogy:
Girl is woman as boy is to _____?

Solve this problem:
6 is to 12 as 15 is to _____?



Solve this analogy:
D⁷ is to G as F⁷ is to **B**?
_____?

This question requires the same kind of thinking, but with little knowledge!

1	2	3	4	5

Item based on form C #23 Answer=2

1	2	3	4	5

Ability or Knowledge?

- What does the student have to **know** to complete a task?
 - This is dependent on knowledge and opportunity to learn
- How does the student have to **think** to complete a task?
 - This is dependent on the *brain* – ***cognitive processing abilities***
- We must assess ability and achievement separately



NNAT3 (2016)

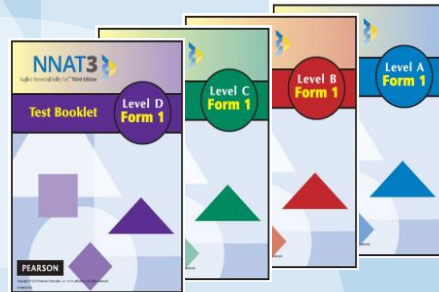
NNAT3 

Naglieri Nonverbal Ability Test® **Third Edition**



NNAT3 Description

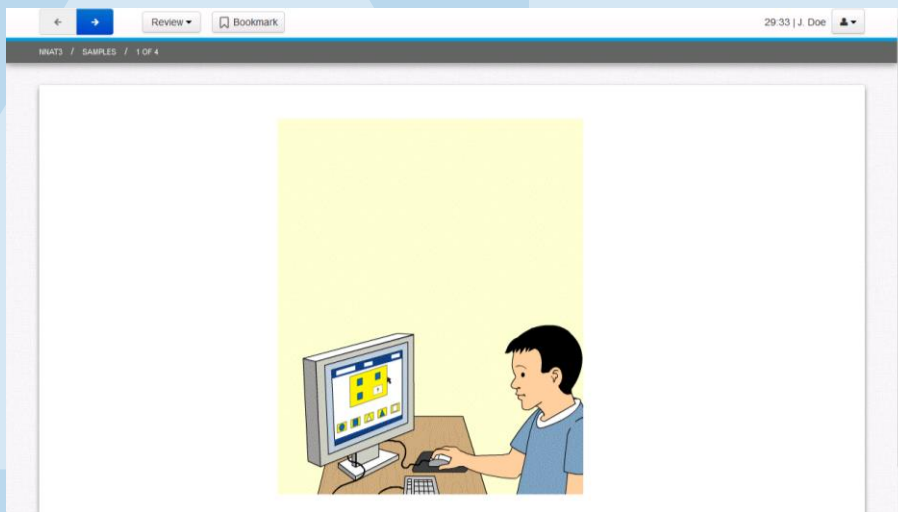
- NNAT3 has all new items
- New normative data
- Increased security by having two unique forms per level
- New and user-friendly online interface
- Can be administered online or on any kind of tablet ages 5-11 years



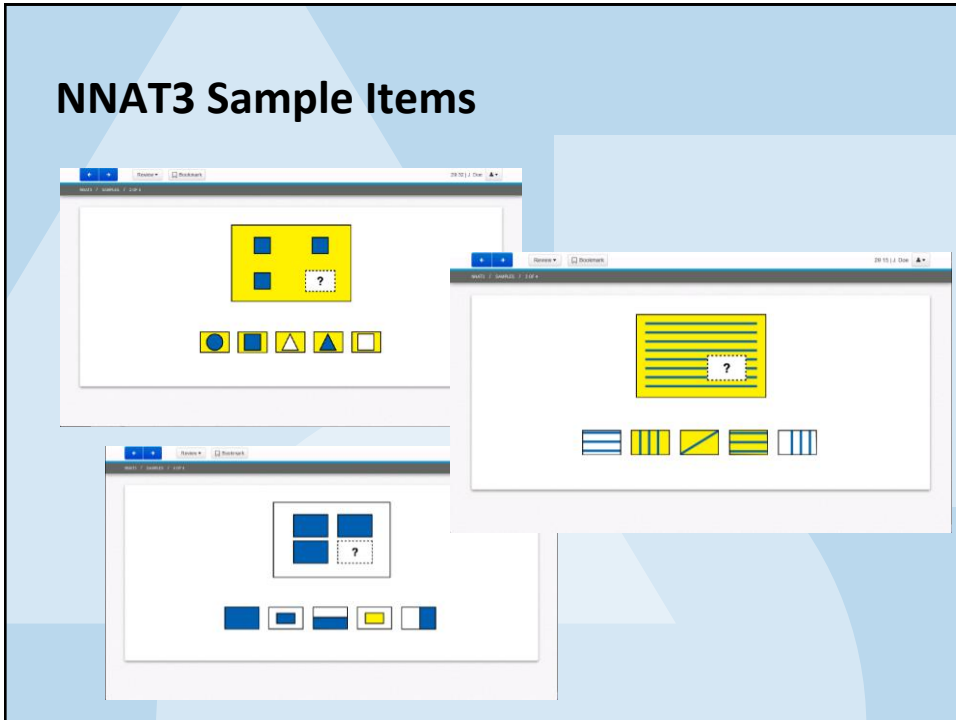
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NNAT3 Animated Pictorial Directions



NNAT3 Sample Items



NNAT3

➤ Grade by Level assignment for NNAT3

Grade	NNAT3 Level
K	A
1	B
2	C
3-4	D

➤ Levels E-G will be available using NNAT2 items that have been re-normed

➤ New administration options:

- Tablet administration, iPad, Android, Chromebook

NNAT3

- Scores: Naglieri Ability Index (NAI; Mn 100, SD = 16), Percentile Ranks, Stanines, and Normal Curve Equivalents
- Results available immediately
- English and Spanish version of home reports are available
- Data export on demand
- Hand scoring, manual score entry, and Pearson scoring services still available for paper customers

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Does the NNAT work?

Psychological Assessment
2000, Vol. 12, No. 3, 328–334

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1040-3590/00/\$5.00 DOI: 10.1037/1040-3590.12.3.328

Comparison of White, African American, Hispanic, and Asian Children on the Naglieri Nonverbal Ability Test

Jack A. Naglieri and Margaret E. Ronning
Ohio State University

This study examined differences between 3 matched samples of White ($n = 2,306$) and African American ($n = 2,306$), White ($n = 1,176$) and Hispanic ($n = 1,176$), and White ($n = 466$) and Asian ($n = 466$) children on the Naglieri Nonverbal Ability Test (NNAT; J. A. Naglieri, 1997a). The groups were selected from 22,620 children included in the NNAT standardization sample and matched on geographic region, socioeconomic status, ethnicity, and type of school setting (public or private). There was only a small difference between the NNAT scores for the White and African American samples (d ratio = .25) and minimal differences between the White and Hispanic (d ratio = .17) and between the White and Asian (d ratio = .02) groups. The NNAT was moderately correlated with achievement for the total sample and correlated similarly with achievement for the White and ethnic minority groups. The median correlation of NNAT with reading was .52 and NNAT with math was .63 across the samples. Results suggest that the NNAT scores have use for fair assessment of White and minority children.

Accurate assessment of intelligence for people from diverse cultural and linguistic backgrounds has been a topic of great debate and interest for some time (Sattler, 1988). To effectively evaluate diverse populations, researchers have widely used tests that comprise nonverbal, geometric designs arranged in a progressive matrix because they are considered culturally reduced in their content (Jensen, 1980; Naglieri & Prewett, 1990; Sattler, 1988). For ex-

as psychometric issues such as internal and test-retest reliability (Jensen, 1980; Naglieri, 1985a, 1985b; Naglieri & Prewett, 1990; Nicholson, 1989). In response to these needs, other progressive matrix tests have become available. This includes the Test of Nonverbal Intelligence (Brown, Sherbenou, & Johnsen, 1990), the Matrix Analogies Test—Short Form (MAT-SF; Naglieri, 1985b) and Expanded Form (MAT-EF; Naglieri, 1985a), the Naglieri

Does the NNAT work?

➤ Samples of White and Minority groups selected from total group of 89,600 matched on:

- Gender
- Region
- SES
- Urbanicity
- Ethnicity
- Public/private school setting

Does the NNAT work for minorities?

	N	Mean	Diff
White	2,306	99.3	
Black	2,306	95.1	4.2
White	1,176	101.4	
Hispanic	1,176	98.6	2.8
White	466	103.6	
Asian	446	103.9	0.3

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Race Differences by Test (Naglieri 2015)

Naglieri, J. A. (2015). 100 Years of intelligence testing: Moving from traditional IQ to second-generation intelligence tests. In Goldstein, Princiotta & Naglieri, *Handbook of Intelligence*. New York: Springer.

NNAT difference of 4.2

Table 20.1 Mean score differences in standard scores by race on traditional IQ and second-generation intelligence tests

Test	Difference
<i>Traditional</i>	
SB-IV (matched)	12.6
WISC-IV (normative sample)	11.5
WJ-III (normative sample)	10.9
WISC-IV (matched)	10.0
<i>Second generation</i>	
KABC (normative sample)	7.0
KABC (matched)	6.1
KABC-2 (matched)	5.0
CAS2 (normative sample)	6.3
CAS (demographic controls)	4.8
CAS2 (demographic controls)	4.3

Notes: Stanford-Binet-IV (SB-IV) from Wechsler

CAS2 (Ages 5-18 yrs.)



CAS2 in English & Spanish

- Same 8 (40 minutes) or 12 (60 minutes) subtest versions
- PASS and Full Scales provided (100 & 15) subtests (10 and 3)

Cognitive Assessment System 2
Español

Hoja de registro del evaluador
Jack A. Naglieri Mary A. Moreno Tulio M. Otter

Sección 1. Información de identificación

Nombre del estudiante _____

Sexo: Femenino Masculino Otro

Educación _____

Evaluador _____

Fecha evaluación: Año ____ Mes ____ Día ____

Fecha nacimiento: Año ____ Mes ____ Día ____

Edad _____

Sección 2. Puntuaciones de subpruebas y puntuaciones compuestas

Subprueba	Puntuación por ítem	Puntuación escala	PLAN	SIM	ATEN	SIC
Códigos planificados (CPN)						
Conexiones planificadas (CPN)						
Planificación de números parados (PNP)						
Matrices (MAT)						
Relaciones verbales-espaciales (RVE)						
Memoria de figuras (MF)						
Atención ejecutiva (AE)						

Sección 3. Perfiles de subpruebas y puntuaciones compuestas

Perfil de puntuación por ítem

PLAN	SIM	ATEN	SIC	ET
150				
145				
140				
135				
130				
125				
120				
115				

Perfil de puntuaciones por escala

PLAN	SIM	ATEN	SIC
150			
145			
140			
135			
130			
125			
120			
115			

Section 1. Identifying Information

Student Name: William
Sex: Male Grade: 3rd
School: Santa Fe Elementary
Teacher: Janet Wilson, Ph.D.

Date Tested	Year	Month	Day	Age
1/10/16	2016	1	10	10
Time of Test	3:00P	10	10	10
Time	1	10	10	10

Section 2. Subtest and Composite Scores

Subtest	Raw Score	Scale Score
Figure Memory (FM)	34	7
Figure Memory (FM)	7	8
Figure Memory (FM)	10	9
Figure Memory (FM)	13	10
Figure Memory (FM)	16	11
Figure Memory (FM)	19	12
Figure Memory (FM)	22	13
Figure Memory (FM)	25	14
Figure Memory (FM)	28	15
Figure Memory (FM)	31	16
Figure Memory (FM)	34	17
Figure Memory (FM)	37	18
Figure Memory (FM)	40	19
Figure Memory (FM)	43	20
Figure Memory (FM)	46	21
Figure Memory (FM)	49	22
Figure Memory (FM)	52	23
Figure Memory (FM)	55	24
Figure Memory (FM)	58	25
Figure Memory (FM)	61	26
Figure Memory (FM)	64	27
Figure Memory (FM)	67	28
Figure Memory (FM)	70	29
Figure Memory (FM)	73	30
Figure Memory (FM)	76	31
Figure Memory (FM)	79	32
Figure Memory (FM)	82	33
Figure Memory (FM)	85	34
Figure Memory (FM)	88	35
Figure Memory (FM)	91	36
Figure Memory (FM)	94	37
Figure Memory (FM)	97	38
Figure Memory (FM)	100	39
Figure Memory (FM)	103	40
Figure Memory (FM)	106	41
Figure Memory (FM)	109	42
Figure Memory (FM)	112	43
Figure Memory (FM)	115	44
Figure Memory (FM)	118	45
Figure Memory (FM)	121	46
Figure Memory (FM)	124	47
Figure Memory (FM)	127	48
Figure Memory (FM)	130	49
Figure Memory (FM)	133	50
Figure Memory (FM)	136	51
Figure Memory (FM)	139	52
Figure Memory (FM)	142	53
Figure Memory (FM)	145	54
Figure Memory (FM)	148	55
Figure Memory (FM)	151	56
Figure Memory (FM)	154	57
Figure Memory (FM)	157	58
Figure Memory (FM)	160	59
Figure Memory (FM)	163	60
Figure Memory (FM)	166	61
Figure Memory (FM)	169	62
Figure Memory (FM)	172	63
Figure Memory (FM)	175	64
Figure Memory (FM)	178	65
Figure Memory (FM)	181	66
Figure Memory (FM)	184	67
Figure Memory (FM)	187	68
Figure Memory (FM)	190	69
Figure Memory (FM)	193	70
Figure Memory (FM)	196	71
Figure Memory (FM)	199	72
Figure Memory (FM)	202	73
Figure Memory (FM)	205	74
Figure Memory (FM)	208	75
Figure Memory (FM)	211	76
Figure Memory (FM)	214	77
Figure Memory (FM)	217	78
Figure Memory (FM)	220	79
Figure Memory (FM)	223	80
Figure Memory (FM)	226	81
Figure Memory (FM)	229	82
Figure Memory (FM)	232	83
Figure Memory (FM)	235	84
Figure Memory (FM)	238	85
Figure Memory (FM)	241	86
Figure Memory (FM)	244	87
Figure Memory (FM)	247	88
Figure Memory (FM)	250	89
Figure Memory (FM)	253	90
Figure Memory (FM)	256	91
Figure Memory (FM)	259	92
Figure Memory (FM)	262	93
Figure Memory (FM)	265	94
Figure Memory (FM)	268	95
Figure Memory (FM)	271	96
Figure Memory (FM)	274	97
Figure Memory (FM)	277	98
Figure Memory (FM)	280	99
Figure Memory (FM)	283	100

Section 3. Subtest and Composite Profiles

Index Score Profile: High, Avg, Below Avg, Low

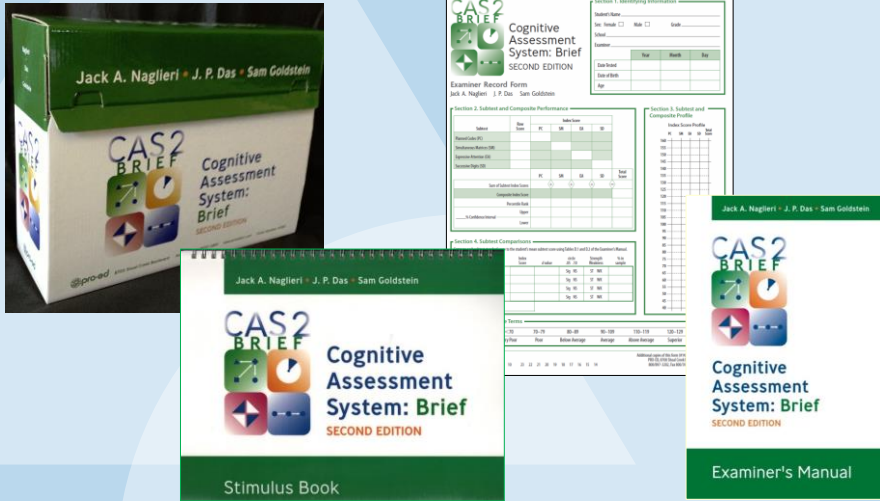
Scaled Score Profile: High, Avg, Below Avg, Low

Section 4. Descriptive Terms

Scaled Scores	5-3	6-5	6-7	8-12	13-14	15-16	17-20
Very Poor							
Poor							
Below Average							
Average							
Above Average							
Superior							
Very Superior							
Index Scores	<70	70-79	80-89	90-99	100-109	110-119	>120

Figure 2.1. Completed pages of the Examiner Record Form for William.

CAS2: Brief for ages 4-18 years



Does the NNAT work?

- Jack A. Naglieri & Donna Ford (2003).
- Increasing Identification of Gifted Minority Children Using the Naglieri Nonverbal Ability Test (NNAT).
- *Gifted Child Quarterly*.

GIFTED IDENTIFICATION

Addressing Underrepresentation of Gifted Minority Children Using the Naglieri Nonverbal Ability Test (NNAT)

Jack A. Naglieri
George Mason University

Donna Y. Ford
The Ohio State University

ABSTRACT

A persistent problem in education is the underrepresentation of diverse students in gifted education programs. Many educators attribute the poor participation of diverse students in gifted programs to the ineffectiveness of standardized tests in capturing the ability of these students. Thus, a primary agenda of school selection committees is to find more culturally sensitive measures. This study examined the effectiveness of the Naglieri Nonverbal Ability Test (NNAT) in identifying gifted Black and Hispanic students in comparison to White students. The sample was comprised of

attribute the problem to standardized tests, contending that these tests fail to assess the strengths and abilities of culturally, ethnically, and linguistically diverse populations (e.g., Frazier et al., 1995). Support for this assertion comes from reports showing that Black, Hispanic, and Native American students consistently score lower than White students on traditional standardized tests (Brody, 1992; Sattler, 1988).

Despite the fact that intelligence tests such as the Wechsler Intelligence Scale for Children—Third Edition

PUTTING THE RESEARCH TO USE

Does the NNAT work?

➤ Sample:

- 19,210 children (fall 1995 NNAT sample)
- Grades K to 12
- Representative of US according to:
 - geographic region, socioeconomic status, ethnicity, school setting (public or private)
- We examined identification rates for groups of White (n = 14, 316) , Black (n = 2,880), and Hispanic (n = 2, 014) students 5 – 18 years of age

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Does the NNAT work?

GIFTED IDENTIFICATION

Table 2
NNAT Scores

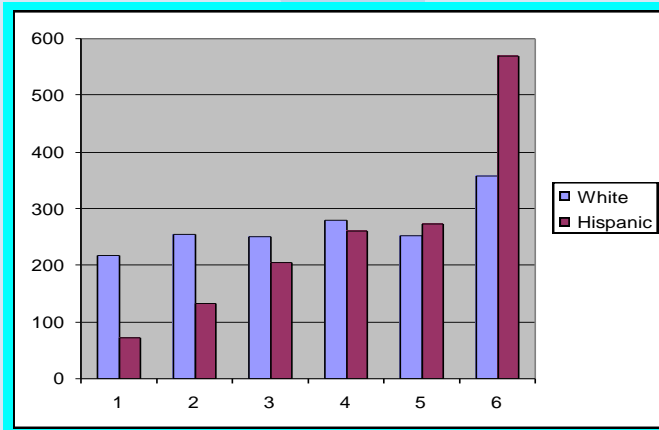
95th %tile

	White		Black		Hispanic		Expected %
	n	%	n	%	n	%	
140 & above	1,571	10.3	269	9.4	190	9.5	9.0
125 & above	906	5.6	145	5.1	88	4.4	5.0
130 & above	467	2.5	75	2.6	46	2.3	2.0
135 & above	190	1.1	42	1.5	18	0.9	1.0
140 & above	90	0.6	19	0.6	9	0.4	0.4
Total Sample n	14,141		2,863		1,991		

Note. Expected percentage values are those associated with normal curve probabilities.

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Dr. Dina Brulles Glendale, AZ Gifted using NNAT in Years 2000-2006



Numbers of gifted population depicted by ethnic representation of White and Hispanic gifted student populations between 2000-2006

Presentation Summary

- Definitions
- Representation by race and ethnicity
- Nonverbal solution
- NNAT3
- Research evidence
- ➔ Conclusions

Moving Forward

- Black students represent 19% our nation's public schools but only 10% of gifted education
- Hispanic students represent 25% but only 16% of gifted education
- 727,00 gifted students are not receiving the education they need to reach their potential
- We can solve this social justice problem by identifying smart children using tests that measure **Thinking** not KNOWLEDGE of ENGLISH

Slides by Jack A. Naglieri, Ph.D. (jnaglieri@gmail.com)

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Moving Forward

- Test ALL students to find out who is gifted (smart) as well as those who are talented (knowledgeable)
- Modify the curriculum to meet the needs of ALL gifted students
- This will have a substantial impact of the students we have missed and our society in general

Slides by Jack A. Naglieri, Ph.D. (jnaglieri@gmail.com)

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Dr. Martin Luther King Make a career of humanity...

