



Increasing Fairness Using the ***Naglieri General Ability Tests***

Spanish reports now available



The Challenge !

Educators working to identify students for gifted programs across the U.S. face the ongoing challenge of addressing unfairness. It can be challenging to ensure students from all backgrounds (linguistic, cultural, racial, ethnic, socioeconomic), as well as those with disabilities or different educational experiences, are evaluated fairly.

Educators must consider what kind of tools and practices will most effectively identify gifted students with the potential for high achievement even if they are not yet achieving at a high level yet. Intelligence tests that have verbal and quantitative content can pose an obstacle for overlooked students who may not have had the opportunity to acquire the knowledge required to answer the questions included in these tests and, therefore, they fail to earn high enough scores to be accepted into gifted programs (Hodges et al., 2018¹).



¹Hodges, J., Tay, J., Maeda, Y., & Gentry, M. (2018). A meta-analysis of gifted and talented identification practices. *Gifted Child Quarterly*, 62(2), 147-174. <https://journals.sagepub.com/doi/10.1177/0016986217752107>

Our Solution



Authors **Jack A. Naglieri, Ph.D.**, **Kimberly Lansdowne, Ph.D.**, and **Dina M. Brulles, Ph.D.**, in partnership with MHS, are thrilled to introduce the **Naglieri General Ability Tests**. These three separate tests measure general intellectual ability across verbal, nonverbal, and quantitative content areas, and were developed to help achieve fairness for all students. Test directions are provided using language-free, animated instructions. Test items were carefully designed to allow students to solve problems regardless of the language they speak, significantly reduce the demand for advanced academic knowledge, eliminate the need for verbal responses to the test questions, and greatly reduce cultural influences so the tests measure general ability as fairly as possible.

Spanish reports now available

“ The Naglieri General Ability Tests have allowed us to have meaningful conversations with our staff, helping them see that giftedness doesn’t mean a student has to be an Einstein or have perfect grades. The Naglieri has opened doors for so many of our students, allowing them to shine... We are truly grateful for the impact the [tests have] had on our program and, more importantly, our students’ lives.”

-GT Teacher, Texas



Measure General Intellectual Ability from Multiple Perspectives

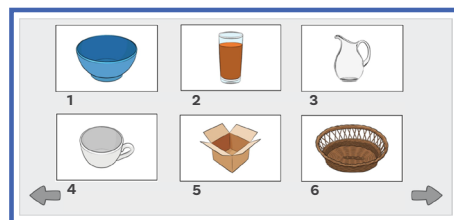
The **Naglieri General Ability Tests-Verbal (Naglieri-V)**, **Naglieri General Ability Tests-Nonverbal (Naglieri-NV)**, and **Naglieri General Ability Tests-Quantitative (Naglieri-Q)** were designed to be used independently or in combination, providing students the opportunity to demonstrate their ability to solve problems from three different types of content.



Authors: Jack A. Naglieri, PhD and Dina M. Brulles, PhD

In the **Naglieri General Ability Tests-Verbal (Naglieri-V)**, questions require students to understand the relationships among six pictures to determine which one does not represent the verbal concept shared by the other five.

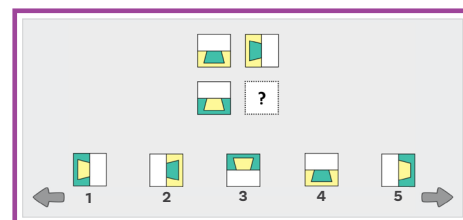
Grades: **K-9**
Format: **Online**
Administration Type: **Group**
Administration Time: **Approximately 30 minutes**



Author: Jack A. Naglieri, PhD

In the **Naglieri General Ability Tests-Nonverbal (Naglieri-NV)**, questions focus on visual relationships and patterns through color, sequence, and orientation, to determine which of the five multiple-choice options best answers each question.

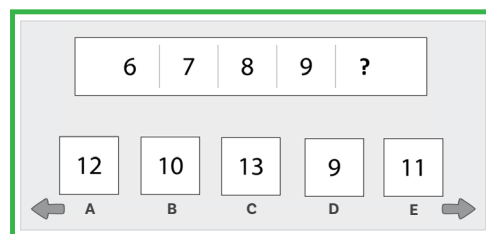
Grades: **K-9**
Format: **Online**
Administration Type: **Group**
Administration Time: **Approximately 30 minutes**



Authors: Jack A. Naglieri PhD and Kimberly Lansdowne, PhD

In the **Naglieri General Ability Tests-Quantitative (Naglieri-Q)**, questions require students to reason with mathematical relationships represented by numbers and shapes to determine which of the five multiple-choice options completes the pattern.

Grades: **K-9**
Format: **Online**
Administration Type: **Group**
Administration Time: **Approximately 30 minutes**



“Using the Naglieri General Ability Tests has been a game-changer for our G.A.T.E. program. It allows us to fairly identify students with high intellectual abilities without being [unduly influenced] by their language skills or background. The innovative questions, which include verbal, quantitative, and nonverbal tasks, help us see the true potential in every child.” -GT Teacher, Arizona

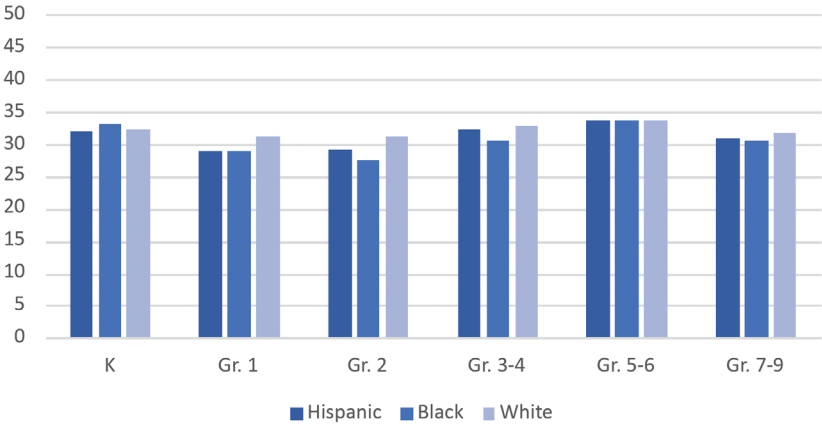
The Results

STUDY 1: Naglieri-V

Number of Students: **2,126**
Tests included 50 items distributed across different grade-forms.

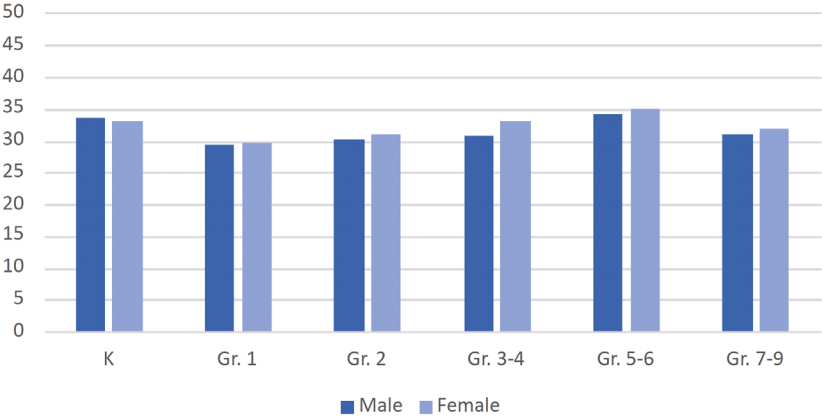
The average scores were very similar and there were no significant differences between Hispanic, Black, and White students on the **Naglieri-V** test.

AVERAGE SCORE BY RACE/ETHNIC GROUPS



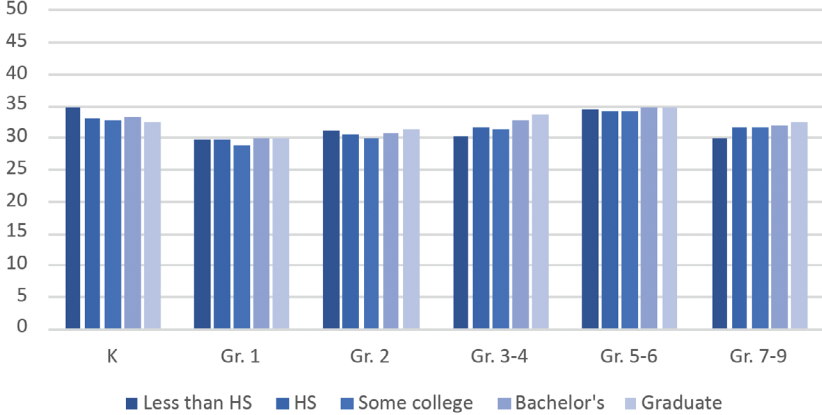
The average scores were remarkably similar across grades with only one significant, but small, difference for the Grade 3-4 group between male and female students on the **Naglieri-V** test.

AVERAGE SCORE BY GENDER



The average scores were remarkably similar and there were no significant differences found between any of the parental education levels on the **Naglieri-V** test.

AVERAGE SCORE BY PARENTAL EDUCATION LEVELS



Parental Education Levels defined as: Less than high school diploma (Less than HS), high school graduate (HS), some college or associate's degree (Some college), bachelor's degree (Bachelor's), and graduate or professional degree (Graduate).

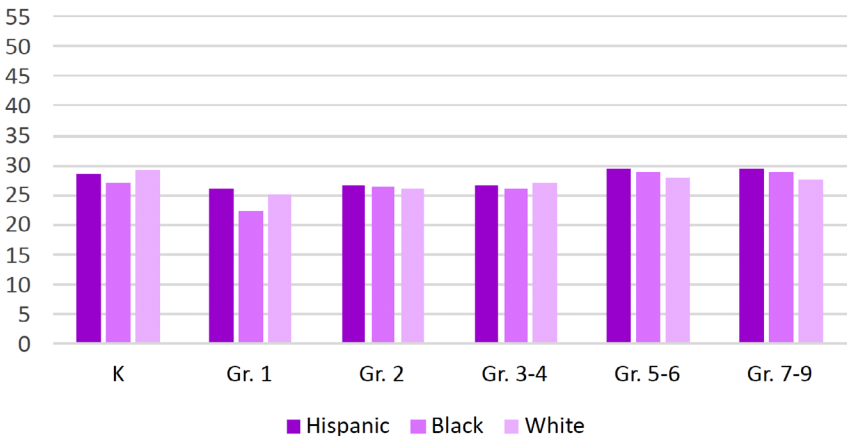
The Results

STUDY 2: Naglieri–NV

Number of Students: **2,356**
Tests included 55 items distributed across different grade-forms.

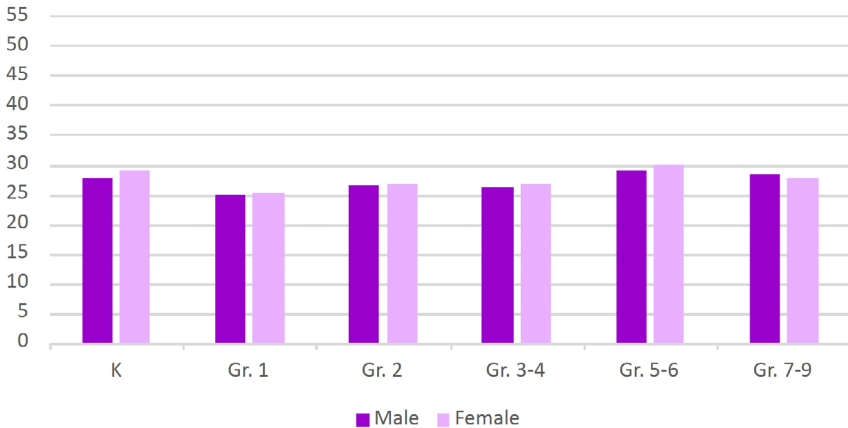
The average scores were very similar and there were no significant differences between Hispanic, Black, and White students on the **Naglieri–NV** test.

AVERAGE SCORE BY RACE/ETHNIC GROUPS



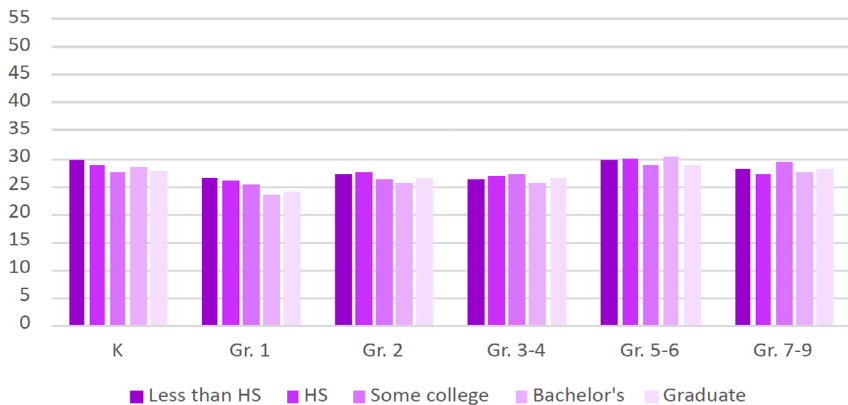
The average scores were remarkably similar across grades between male and female students on the **Naglieri–NV** test.

AVERAGE SCORE BY GENDER



The average scores were remarkably similar and there were no significant differences found between any of the parental education levels on the **Naglieri–NV** test.

AVERAGE SCORE BY PARENTAL EDUCATION LEVELS



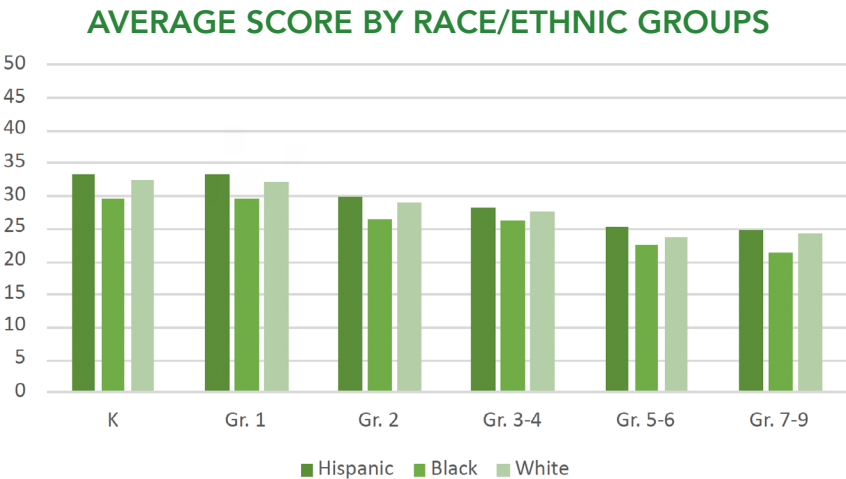
Parental Education Levels defined as: Less than high school diploma (Less than HS), high school graduate (HS), some college or associate's degree (Some college), bachelor's degree (Bachelor's), and graduate or professional degree (Graduate).

The Results

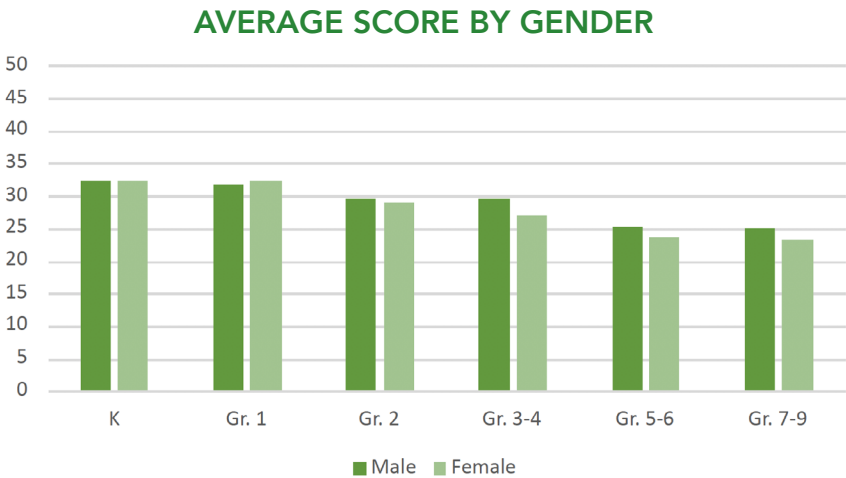
STUDY 3: *Naglieri-Q*

Number of Students: **2,036**
Tests included 50 items distributed across different grade-forms.

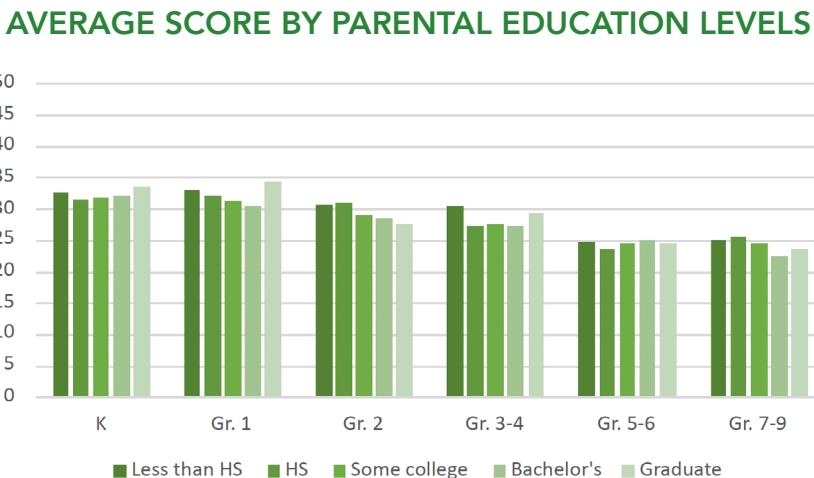
The average scores were very similar and there were no significant differences between Hispanic, Black, and White students on the *Naglieri-Q* test.



The average scores were remarkably similar across grades between male and female students on the *Naglieri-Q* test.



The average scores were remarkably similar and there were no significant differences found between any of the parental education levels on the *Naglieri-Q* test.



Parental Education Levels defined as: Less than high school diploma (Less than HS), high school graduate (HS), some college or associate's degree (Some college), bachelor's degree (Bachelor's), and graduate or professional degree (Graduate).

Our Research Studies

The main goal of the three research studies detailed here was to address the question: “Will students from different demographic groups (i.e., race/ethnicity, gender, or parental education level) score differently on these tests?” To answer this question, three studies were conducted in which a total 6,518 students across the U.S. completed one of the **Naglieri General Ability Tests** on a computer. Each student’s score was calculated by taking the sum of the questions answered correctly on each test.

Comparisons across the student groups were conducted using a statistical method that controls for other demographics that may change or affect the scores. For example, to look at whether students from different racial and ethnic groups scored differently, other factors need to be controlled for that may affect their performance, such as the student’s region, household income, parental education level, and gender.

Conclusion

The three studies of the **Naglieri General Ability Tests** aimed to answer a critical question: “Will students from different demographic groups (i.e., race/ethnicity, gender, or parental education level) score differently on these tests?”

The research studies revealed little to no differences in student scores across race, ethnicity, gender, and parental education level on all three tests: **Naglieri–V**, **Naglieri–NV**, and **Naglieri–Q**. That is, students from different racial and ethnic backgrounds, both males and females, and students with different parental education levels, performed similarly to each other.

The results demonstrate that when direct attempts are made to minimize the confounding impact of prior knowledge and language, particularly in the instructions, test content, and response format of ability tests, a method of fairly assessing all populations for gifted programs can be achieved.

“Identification at Title 1 schools is challenging. We know the learners are there, but our usual testing tools struggle to identify these students. It is heartbreaking for a teacher to know in their heart that a learner is gifted but not be able to find a way to identify them. [The Naglieri General Ability Tests have] given us the opportunity to “see” the abilities more clearly.

Andy (not his real name) was unmotivated and did the bare minimum. He found little excitement in the classroom activities and was seen as a difficult child by many. Gifted identification was key for this child as it empowered him. He moved into content replacement reading and math classes, working above grade, and never missed a beat. “Finally, something interesting, something new, something I don’t know how to do!” doesn’t every child deserve that?”

-GT District Coordinator, Arizona

Comparing students to the right group



National Norms



Local Norms

Sample

Kindergarten - Grade 6

Computed using a large sample of students who match the demographic makeup of the country by grade, gender, geographic region, and race/ethnicity.

Kindergarten - Grade 9

Computed using a sample of students tested in a grade within a school, subdistrict (group of schools), or district.

Testing Design

Flexible: Universal assessment or individual testing (e.g., nomination, referral)

Ideally, students should be universally tested within a grade.

Outcomes

Scores are a comparison of any student's test performance to the test performance of grade-level peers in the national norm sample.

Scores directly compare any student's test performance to the test performance of all grade-level peers in the local norm sample.

“ In the first year of implementation of the Naglieri General Ability Tests and local norms at a select group of campuses, we maintained an identification percentage equal to the district identification. One campus that traditionally identified only 0-3% of students each year was able to identify a population that more accurately reflects the district as well. The ease of using local norms allowed us to truly compare peers with similar environments, including those with differing socioeconomic status and emergent bilingualism.”

- District GT Coordinator, Texas

MHS' Commitment to Integration, Security, and Accessibility



Integration Features

Data Integration: MHS provides rostering options for staff, students, and classes through OneRoster and other integration methods to meet diverse client needs. MHS is a ClassLink certified OneRoster partner and has several other SIS integration possibilities. MHS is able to securely process OneRoster REST and CSV files provided by SIS systems. In addition to these integration measures, MHS has created specific measures around the unique use case faced by test administrators in providing tests to only specific students in a grade-level. These measures significantly reduce the time and effort required to administer and distribute the tests.

Single Sign-On (SSO): MHS supports all major SSO options within the education sector through MHS Identity, powered by Microsoft Entra ID. This provides robust identity and access, including SSO, Multi-Factor Authentication (MFA), and Federated Identity.

Learning Management Systems (LMS) Integration: Our easy-to-implement integration ensures a secure, one-click, and seamless experience for users accessing MHS assessments. Students access MHS assessments directly through the LMS they use every day.

Security and Compliance

- **MHS is committed to protecting student information** and ensuring the continuous availability of applications for various users, adhering to numerous laws and acts such as FERPA, COPPA, PPRA, CIPA, and GDPR, among others.
- **MHS has implemented certified technical measures** that rank among the highest in the education sector, including external and internal vulnerability detection, disaster recovery, scalability, source code vulnerability, and access control measures.
- **MHS undergoes annual third-party audits and holds certifications**, including external and internal vulnerability detection, disaster recovery, scalability, source code vulnerability, and access control measures.

For detailed information on MHS' Privacy documentation, please visit:

<https://MHS.com/Privacy-Policy/>

For detailed information on MHS' Compliance certifications and documentation, please visit:

<https://MHS.com/Compliance/>

Accessibility Compliance

- **MHS is committed to addressing fairness, accessibility, and flexibility** for all customers and participants throughout product development and delivery. We have completed an accessibility audit of the MHS Group Insights (MGI) platform and have received a Voluntary Product Accessibility Template (VPAT) report based on our most recent updates for accessibility WCAG 2.1 level AA compliance. The MGI is currently on a "Partially Supports" WCAG 2.1 level AA status, and we are working to improve any remaining "Not Supported" items.
- **The Naglieri General Ability Tests are designed in a way that is not suitable for individuals with certain visual impairments**, including blindness. While we have made accommodations for various types of color blindness, it's important to note that the ability to perceive the test items visually is essential. The use of assistive devices for those who are blind is not feasible, as the test measures reasoning ability without giving any student an undue advantage. Consequently, the tests' interface does not meet the WCAG level AA compliance standards.

For more information on our commitment to accessibility, please visit:

<https://MHS.com/Accessibility/>



Dr. Jack Naglieri, Dr. Dina Brulles,
and Dr. Kimberly Lansdowne

Winner - Author, Speaker, or Consultant of the Year



Naglieri General Ability Tests

Winner - Diversity and Inclusion Solution

**Interested in learning more
about the authors?
Scan QR code to visit their website**



**Interested in a demo or speaking
with our solution consultants?
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Naglieri General Ability Tests**



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