

CogAT[®]



Riverside
Insights[®]

Leading from Strength to
Elevate Learning and
Achievement

Vickie Driver, MBA / M.Ed.





CogAT - Winner of the 2022 Excellence in Equity Award!



CogAT[®]

2023 Pennsylvania Association for Gifted Education Conference
Step Up, Speak Out, & Lead

November 2 & 3, 2023
Central Hotel & Conference Center
Harrisburg, PA



to Promote Mental Health
to Amplify Minority Voices
to Advocate for Individual Needs
to Ignite Interests in Gifted Learners
to Explore the Needs of Gifted Students



In this session, we will provide strategies for using testing data more efficiently for GT identification and program placement, while elevating learning and achievement for all students through strength-based differentiated instruction. Students typically prefer working in their areas of strength rather than addressing their weaker areas. Learn how to compare demonstrated achievement with the student's potential for learning and leverage this information to see student strengths and use them to boost growth in learning for all students – not just those identified for GT.



Learning Objectives

1. Understand how to view and use ability and achievement scores both singly and in combination for student placement.
2. Learn how to implement and support a strengths-based model to differentiate instruction to achieve academic gains for all students.
3. Hear strategies for partnering with other educators to gain buy-in and increase the scope and reach of programs for those with less opportunity to participate.

Why Measure Ability?

Achievement

Reading fluency/comprehension

Knowledge & Skills

Executive functions-Planning

Motivation

Short term/long term memory

Sequential Reasoning

Fluid reasoning

Deductive Reasoning

Working memory

Attention

Inductive Reasoning



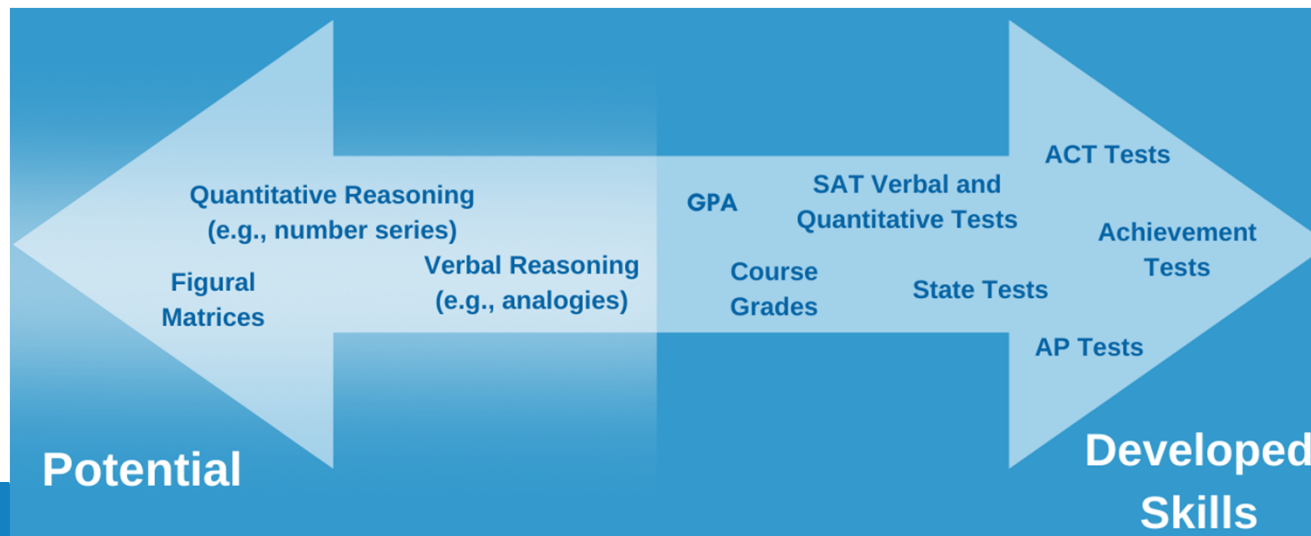
Ability vs. Achievement

Ability

- Influenced by *all* learning opportunities
- Requires novel problem solving and reasoning processes

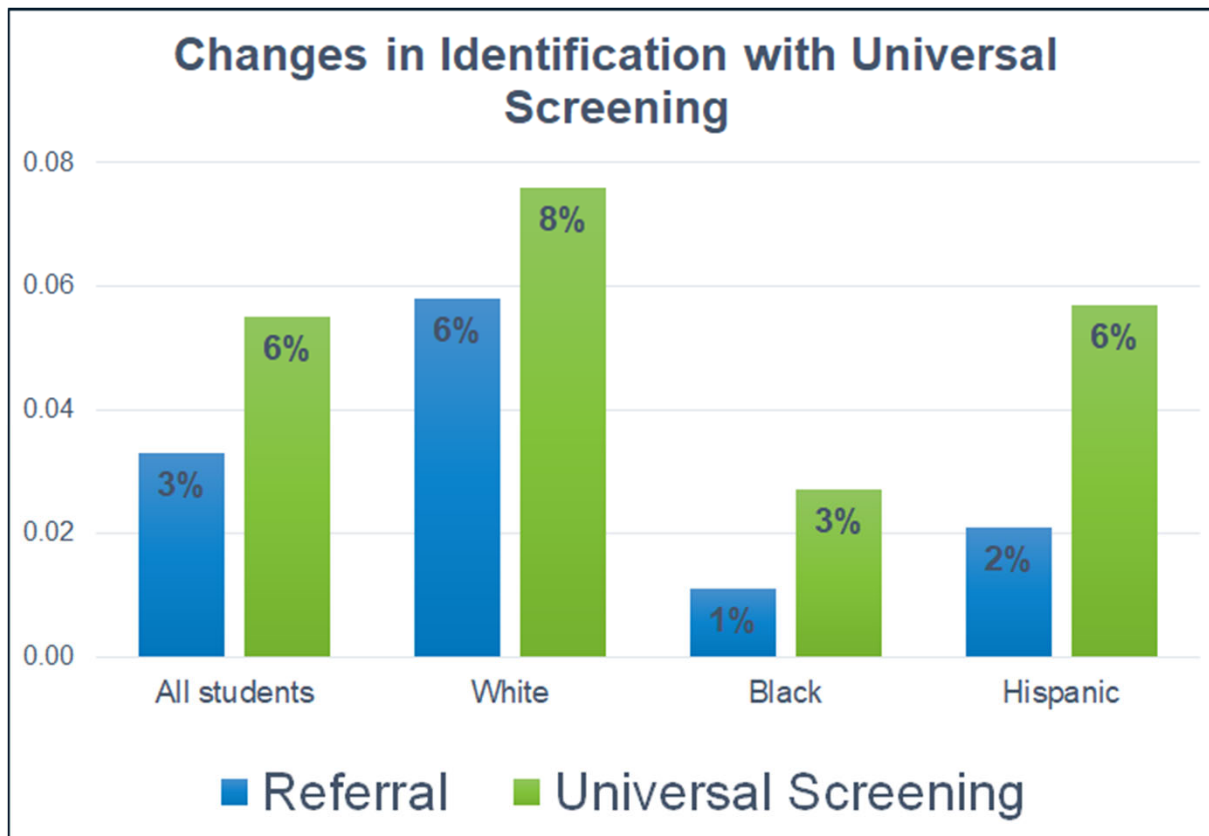
Achievement

- Influenced more by formal education
- Requires well-practiced skills and crystallized knowledge



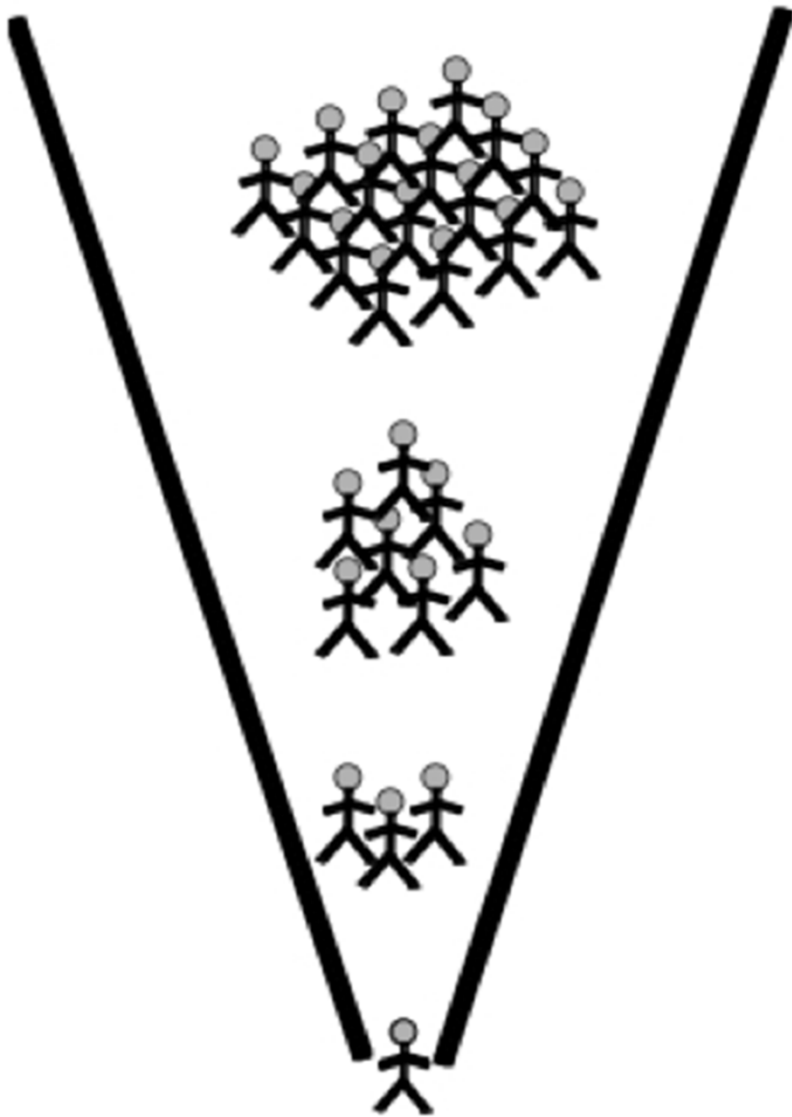


#1 Remove obstacles to identification with universal screening



Compared **diversity of identified students** in a large Florida school district that **moved from a referral-led process to a universal screening program.**

Card, D., & Giuliano, L. (2016). Universal screening increases the representation of low-income and minority students in gifted education. *Proceedings of the National Academy of Sciences*, 113(48), 13678-13683.



Chapter 16 - Universal Screening

§ 16.21. General.

(a) Each school district shall adopt and use a system to locate and identify all students within that district who are thought to be gifted and in need of specially designed instruction.



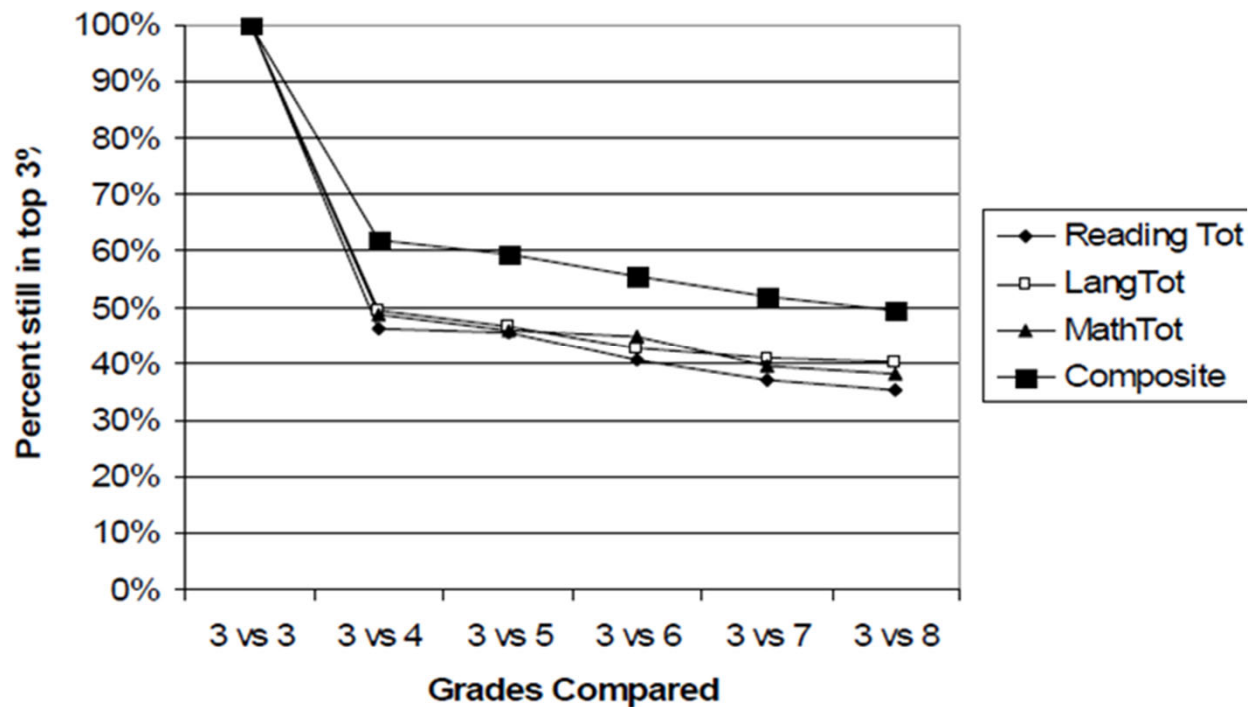
#2 Multiple screening points

- Provide students more opportunities to be identified, demonstrate growth in response to effective teaching
- Early identification is useful, but some students may excel in later grades
- Test scores are less diagnostic over time





Changes over time and the value of re-screening



Lohman, D. F., & Korb, K. (2006). *Gifted today but not tomorrow? Longitudinal changes in ITBS and CogAT scores during elementary school. Journal for the Education of the Gifted*, 29, 451-484.



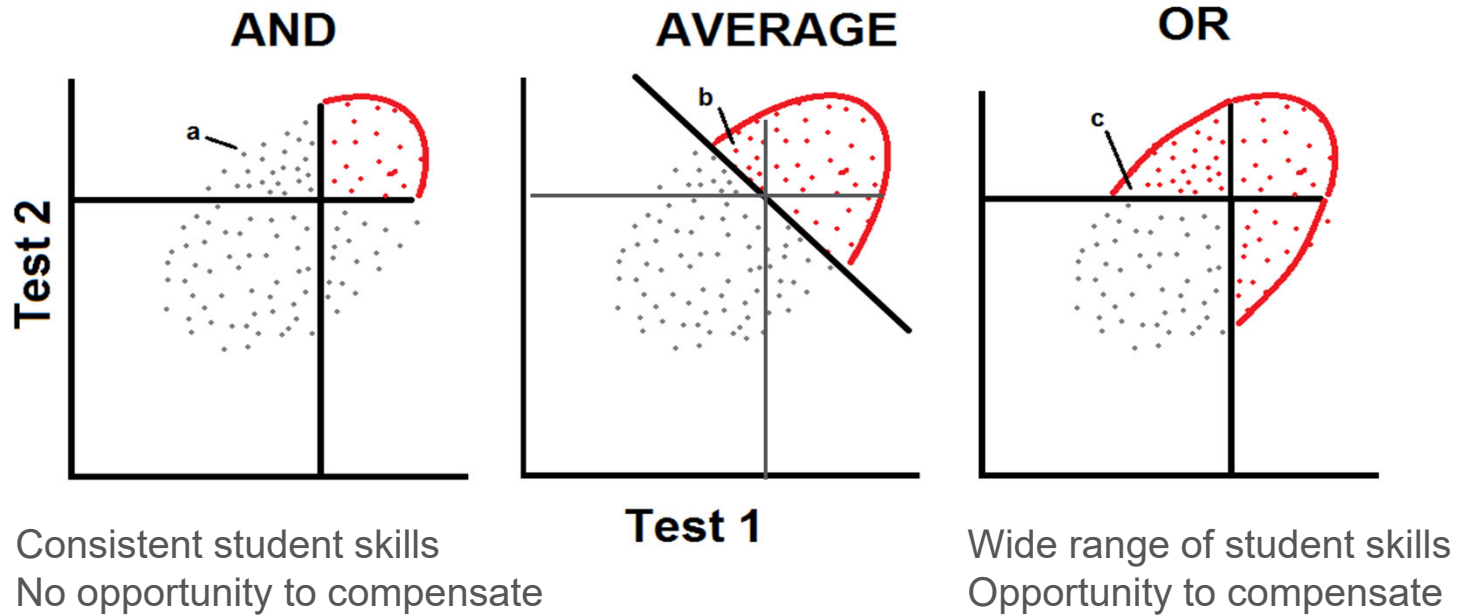
#3 Equity requires “making more pie”



- Gifted services often more exclusive/restrictive than necessary
- OR rule greatly increases number of students identified for services
- Results in more diverse students when program is larger



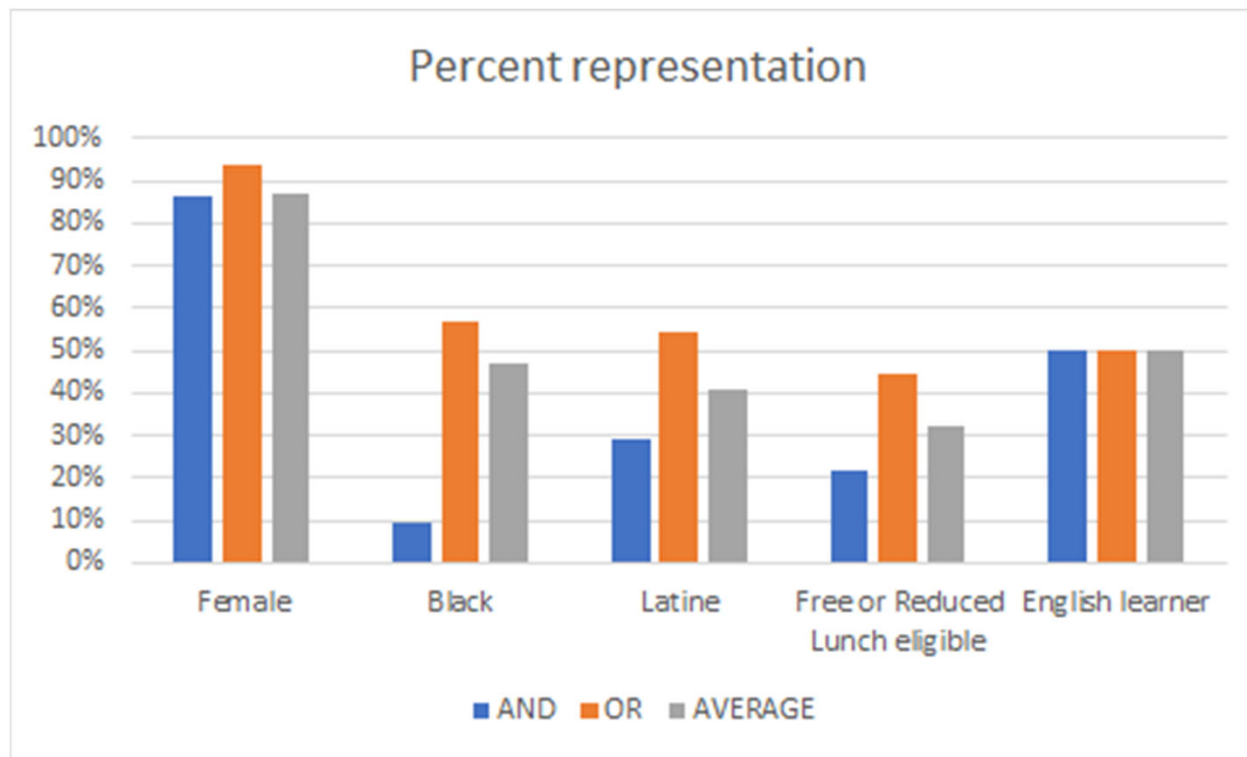
Can a student *compensate* for low scores (or lower skill level) in one area with higher scores (stronger skills) in another area?



Lakin, J.M. (2018). Making the cut in gifted selection: Selection decisions and their impact on program diversity. *Gifted Child Quarterly*, 62(2), 210-219. doi: 10.1177/0016986217752099



OR rule suggests students can be served in one or more area of strength



#4 Inclusive talent development

- “Frontloading”, early enrichment to mitigate opportunity to learn gaps
- Serving **talent pool**
 - **Serving alongside those identified as gifted**
 - **Watch list:** when their scores are on the cusp
 - Gather more data on student, provide additional opportunities to qualify, wait and hope
 - **Bridging:** when academic skills are holding them back
 - After-school, summer, or weekend classes





Flexible data use in making identification decisions (see Johnsen, 2018)

- Use multiple measures as they allow students to “compensate” for lower scores in one area with higher scores in another
- Consider the standard error of measurement (SEM) in comparing scores
- Err on the side of including students who may be successful
- Consider anecdotal and other descriptive information systematically



Call it Aptitude, call it Ability...



Ability, also called *aptitude* or student *potential for learning*, provides insight into students' readiness to **demonstrate creative problem-solving skills** and **learn in different situations and learning environments**.





How Can We Use Data From Ability Assessments?

CogAT[®]

Guide efforts to **adapt instruction (goals, methods, and materials)** to the needs and abilities of students



Provide a measure of cognitive development for **program placement**



Identify students whose predicted level of achievement are **markedly discrepant** from their observed levels of achievement



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Using data together to unlock the strengths of each student

- Measuring Ability and using this information as to unlock insights about student potential
 - Universally screen wherever possible and USE this data!
 - Critical for all placements this year
 - Informing placement for Programs or Pods
- Balance what ability tells you with the achievement measures you have
- Leverage strengths to guide instruction in varied settings
 - Which students can learn more independently?
 - Which students need skill building versus conceptual guidance?

ACHIEVEMENT & ABILITY SUMMARY

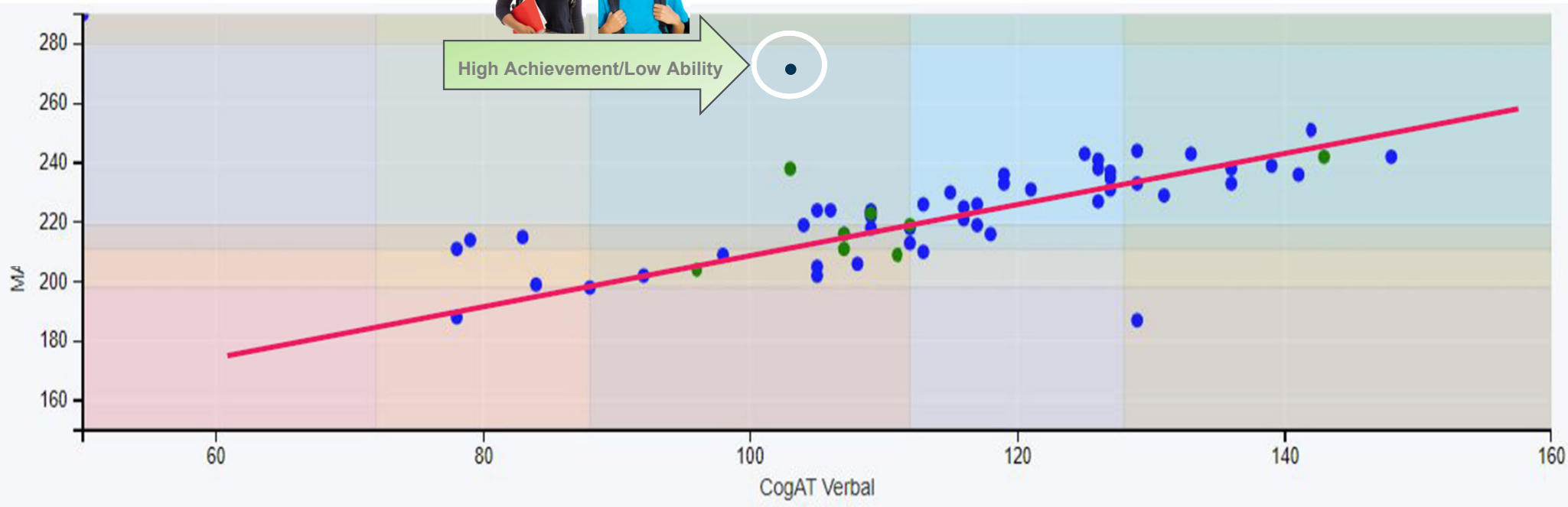
GPR

Number of Students in each Achievement/Ability Quintile

High			2		1
High Avg				2	1
Avg		3	6	3	
Low Avg		2	4		
Low	1				
	Low	Low Avg	Avg	High Avg	High

ABILITY

Achievement x Ability: *Matching a student's performance with their potential*



High Achievement/Low Ability

Very Low

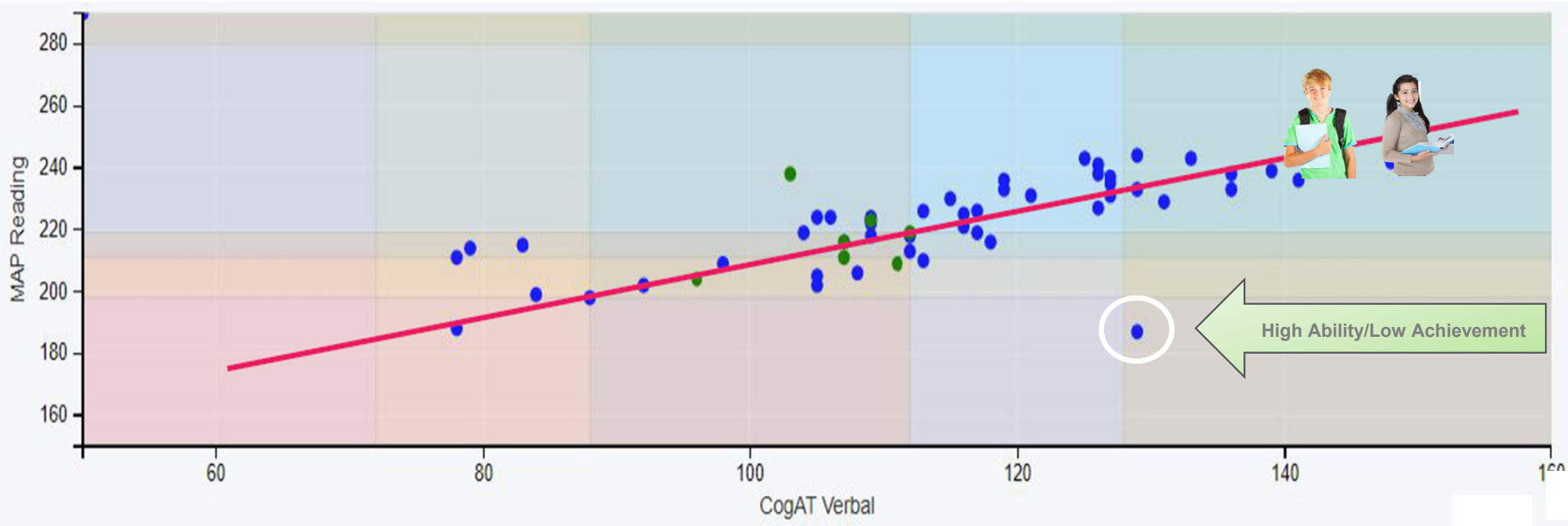
Below Avg

Average

Above Avg

Very High

Achievement x Ability: *Matching a student's performance with their potential*



Very Low

Below Avg

Average

Above Avg

Very High

Below expected achievement given their ability



Low achievement,
high ability

Characteristics

- Excel at solving unfamiliar problems
- High reasoning students
- Prefer to work alone
- Guided discovery
- Want to be challenged with new information & projects
- Many identified gifted students

Next Steps: Identify the “why” of low performance

- Engagement in the classroom
- Twice exceptionalities
- Lack of opportunities to develop knowledge & skills needed for classroom instruction & achievement



A simple model for discrepancy

- Looking at Achievement – Ability discrepancy helps to illuminate areas of strength and opportunities for growth
- Lower achievement performance indicates students who may not be well served by the curriculum
 - Learning disabilities
 - Behavior issues
 - Language issues
 - Opportunity to learn
- Higher achievement performance may indicate
 - Students who need help extending knowledge

ACHIEVEMENT & ABILITY SUMMARY

GPR

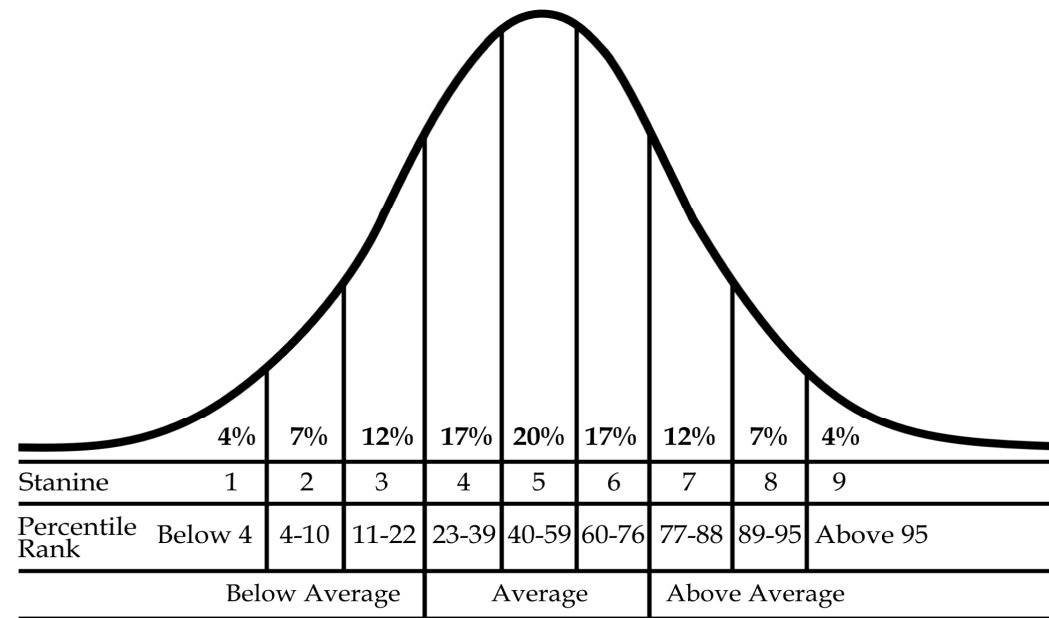
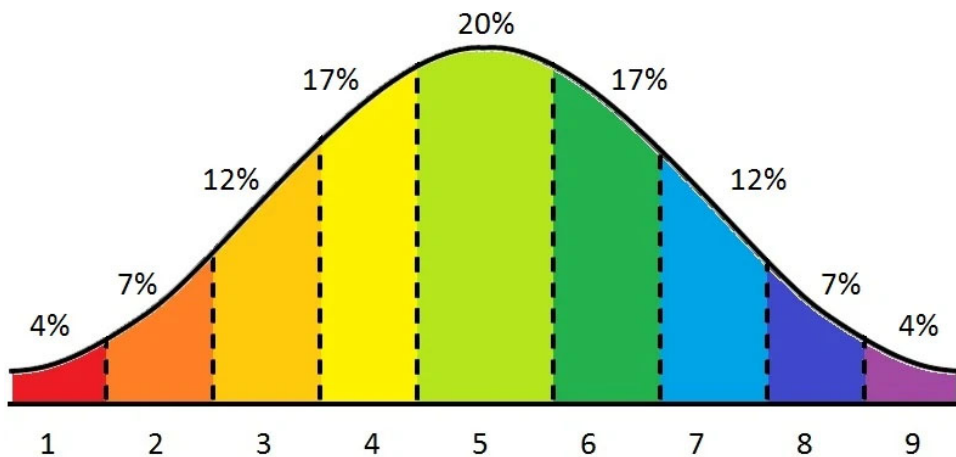
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High			2		1
High Avg				2	1
Avg		3	6	3	
Low Avg		2	4		
Low	1				
	Low	Low Avg	Avg	High Avg	High

ABILITY



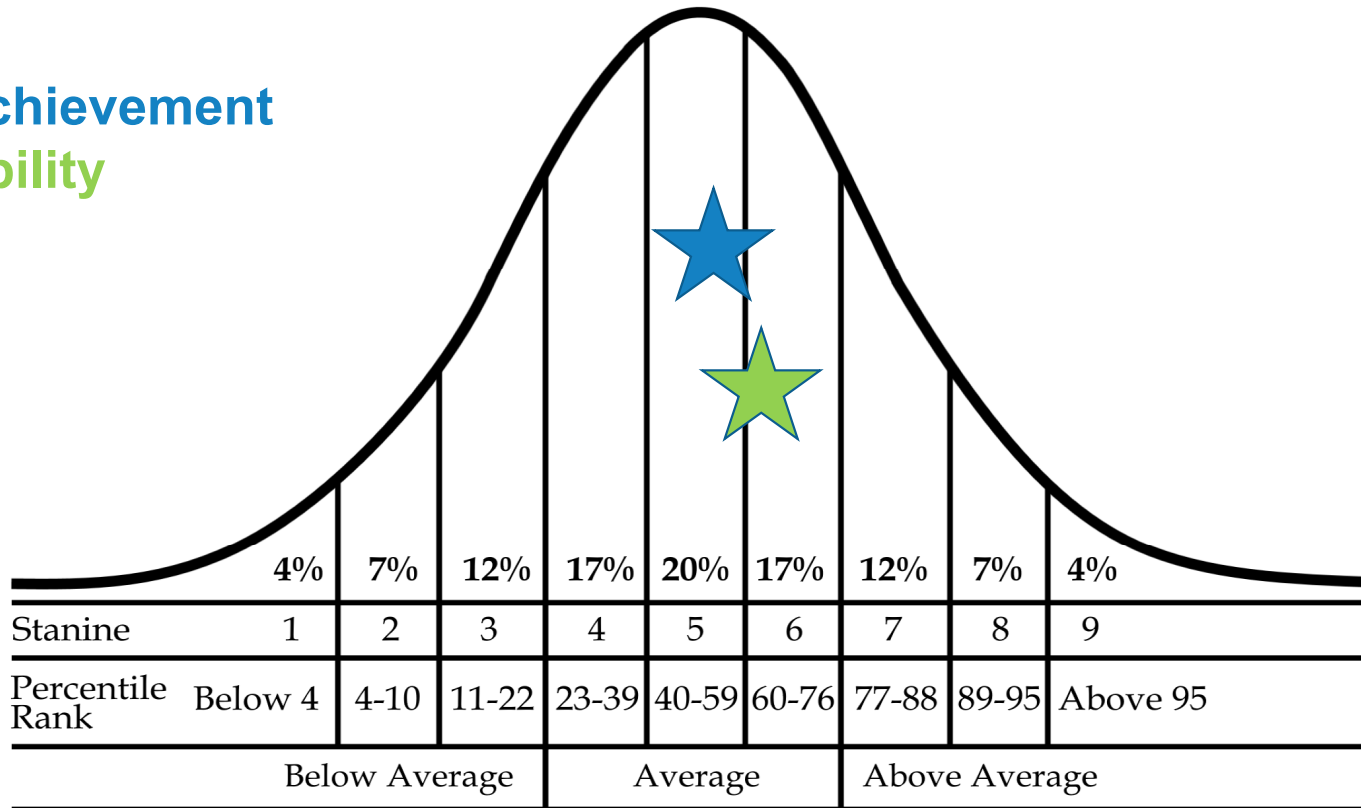
Using Stanines to Understand Achievement – Ability Discrepancies





Look for performance more than 2 stanines apart

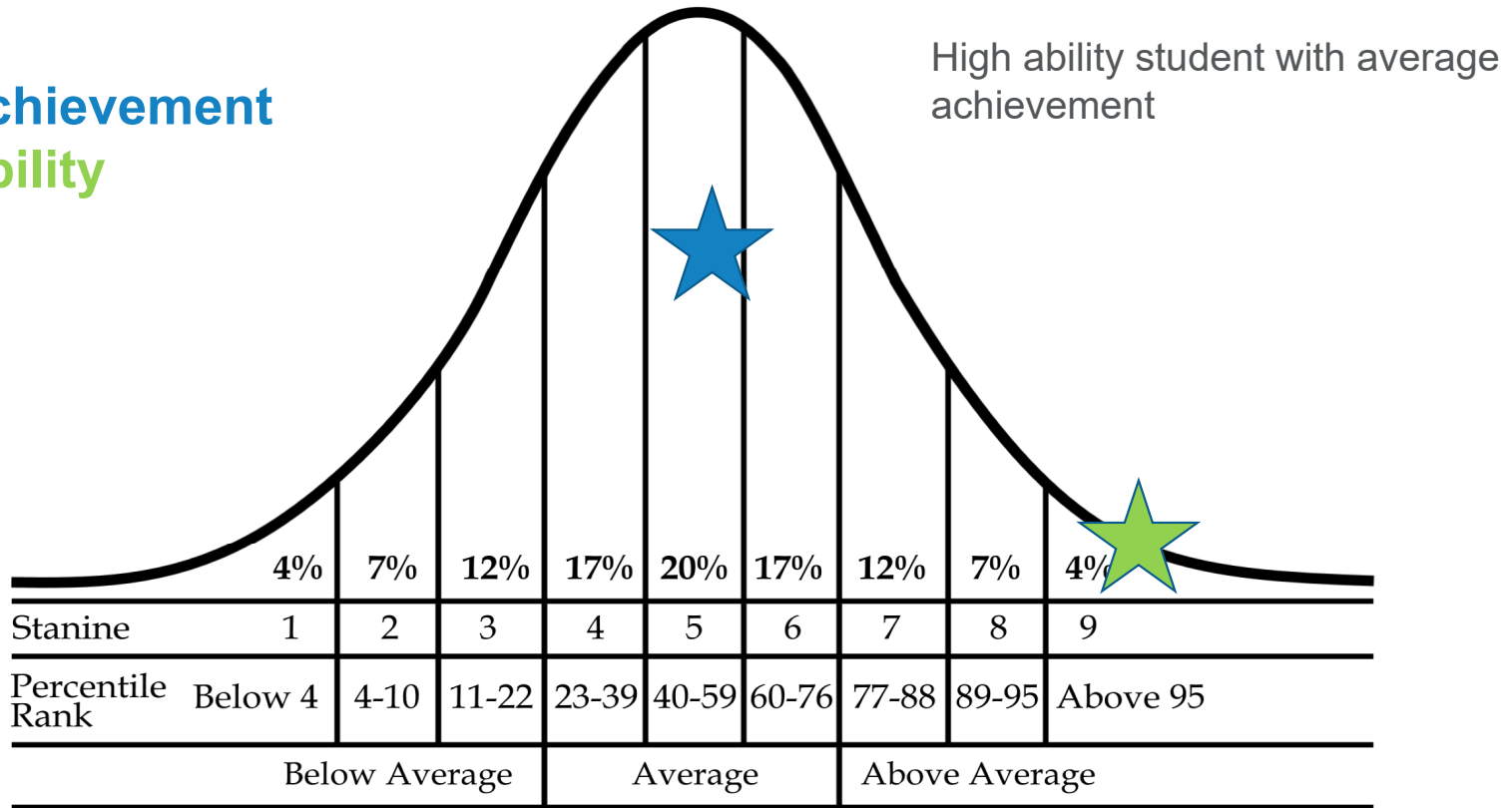
Achievement
Ability





Look for performance more than 2 stanines apart

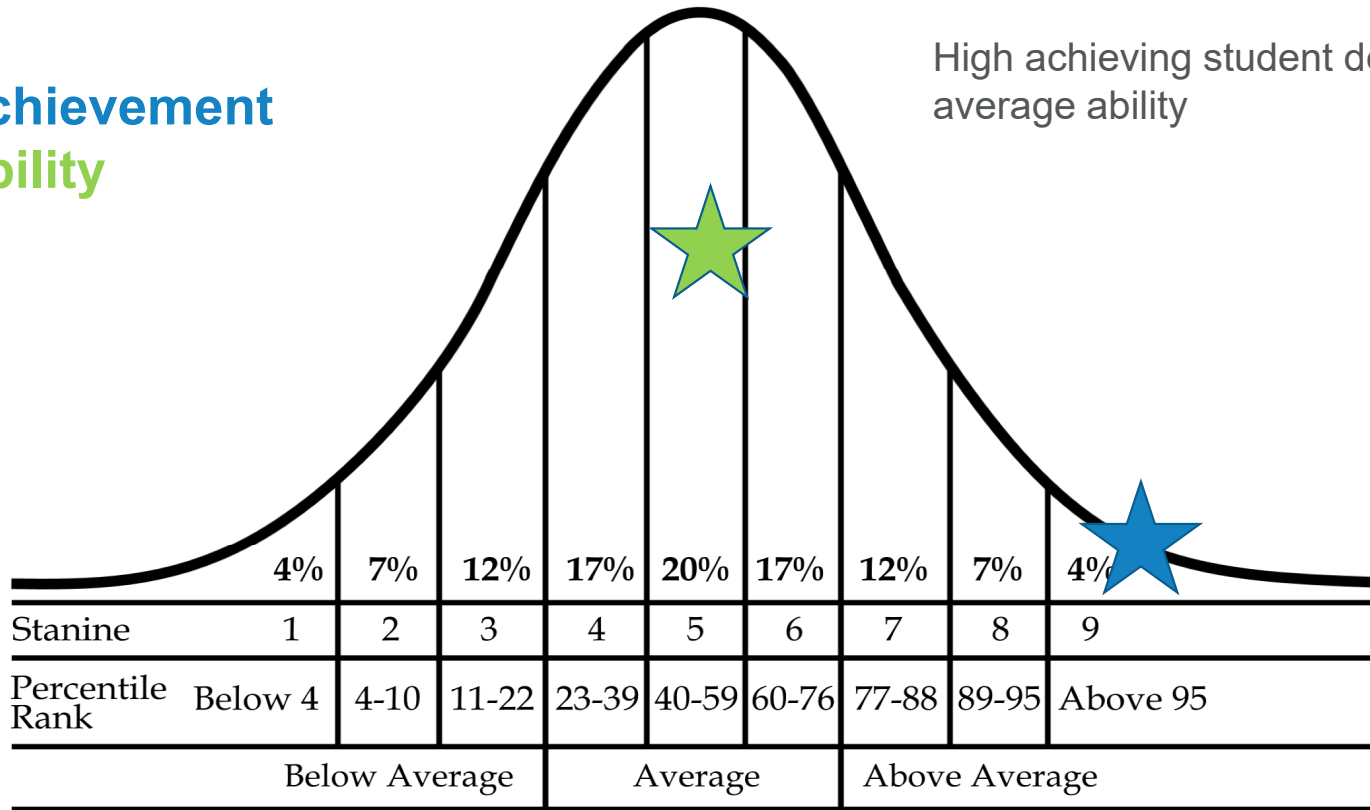
Achievement Ability





Look for performance more than 2 stanines apart

Achievement Ability



Which students show a discrepant score pattern?

Student	Composite Ability	Reading Stanine	Math Stanine	DIFF Reading	DIFF Math
Ann Anderson	5	6	5	+1	-
Bob Black	6	6	3	-	-3
Cathy Coolidge	6	7	7	+1	+1
Dave Davis	9	3	8	-6	-1
Ellen Engle	3	4	5	+1	+2
Fred Farma	5	5	5	-	-
Gina Gibbons	7	9	8	+2	+1
Hal Harold	4	6	5	+2	+1
Ina Innes	8	7	8	-1	-



Pick one student to describe their constellation of characteristics, what kinds of support do they need?

Student	Ability Stanine	Reading Stanine	Math Stanine	DIFF Reading	DIFF Math	Other data
Bob Black	6	6	3	-	-3	Below average motivation Strong interest in art
Cathy Coolidge	6	7	7	-	1	Below average motivation Above average curiosity
Dave Davis	9	3	8	-6	-1	Above average creativity English learner
Fred Farma	5	5	5	-	-	Average motivation Diagnosed with ADHD
Gina Gibbons	7	9	8	+2	+1	Above average motivation
Hal Harold	4	6	5	+2	+1	Average motivation Above average curiosity
Ina Innes	8	7	8	-1	-	Above average curiosity Above average motivation



How Can We Use Data From Ability Assessments?

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Guide efforts to **adapt instruction (goals, methods, and materials)** to the needs and abilities of students.

Provide a measure of cognitive development for **program placement**.

Identify students whose predicted level of achievement are **markedly discrepant** from their observed levels of achievement.

Instructional Differentiation: General Principles

Build on Strengths

- Provide instructional tasks to challenge their strength
- Emphasize task aspects that avoid their weakness until they feel comfortable
- **Example**: strong verbal reasoning, challenging to learn computation
- **Strategy**: talk through math problems & strategies

Focus on Working Memory

- Strong reasoning abilities = provide instructional flexibility
- Weaker reasoning abilities = provide greater instructional support (scaffold, sequence, reduce information processing)
- **Example**: calculating multiplication facts makes long division difficult
- **Strategy**: scaffold & sequence (write things down, draw, practice for automaticity)

Scaffold Wisely

- Reduce memory requirements & processes not the focus of the instructional activity
- **Example**: spelling & grammar for a beginning writer
- **Strategy**: write a rough draft, correct errors later

Instructional Differentiation: General Principles

Encourage Strategic Thinking

- Encourage students to use & monitor the effectiveness of different strategies to leverage their strengths and avoid, or scaffold, their weaknesses.
- **Example** : skilled reader can quickly retrieve word meanings & build mental images, moving between sentences.
- **Strategy** : write a rough draft, correct errors later



When Grouping, Aim for Diversity

- Group students of varying abilities (flexible groupings)
- Group students with similar relative strengths
- **Example** : high-ability grouped with lower ability; higher-ability provides explanations & assistance while growing their skills
- Average & above-average become the leaders at times

Example tiered Reading/ELA Activities

Ability	Verbal +	Quantitative +	Nonverbal +
Stanine 1-3	Write a 1-page summary of a specified chapter book or novel. Be sure to include details about the characters, setting, & theme.	Create a spreadsheet showing details of the plot, elements of character, setting, and theme for your selected book	Draw a scene from the selected book that is significant. Include 1 sentence about each of the following: A summary sentence on the plot, a sentence about the main character, a sentence about a minor character, a sentence about the setting, and a sentence about the theme.
Stanine 4-6	Write a news article about an important event from a specified book.	Create a live news broadcast about a current issue related to a selected book. Include statistics about the issue.	Draw or create a map for a place or space from your book.
Stanine 7-9	Write the next chapter or rewrite the ending to a selected book.	Create a social media page about the main character(s) in the selected book.	Create a One-Act play over a significant scene in your book and prepare to perform the play for the class.

Focus on Working Memory & Encourage Strategic Thinking *Choice Board*



	TIC	TAC	TOE
Reading Stn 4-6	Write a news article about an important event from a selected book.	Create a live news broadcast about a current issue related to a selected book.	Draw or create a floor plan for a place or space from a story/chapter book.
Math Stn 7-9	Write a detailed explanation about how to successfully solve a problem.	Develop a real-world scenario that illustrates a math concept and a specific math problem.	Create a storyboard reflecting a math problem solved.
Social Studies Stn 4-6	Prepare a debate or case against a current issue that violates a provision of the United States Constitution.	Create a website featuring current issues directly related to provisions of the Bill of Rights.	Create a work of art honoring a hero of the American Revolution which highlights significant events.
Science Stn 4-6	Create a podcast or video explaining a process and key terms, such as the water cycle.	Design a sequence of steps for a demonstration of the water cycle in times of drought vs. plenty of precipitation.	Create a visual or model representation of a process such as the water cycle.

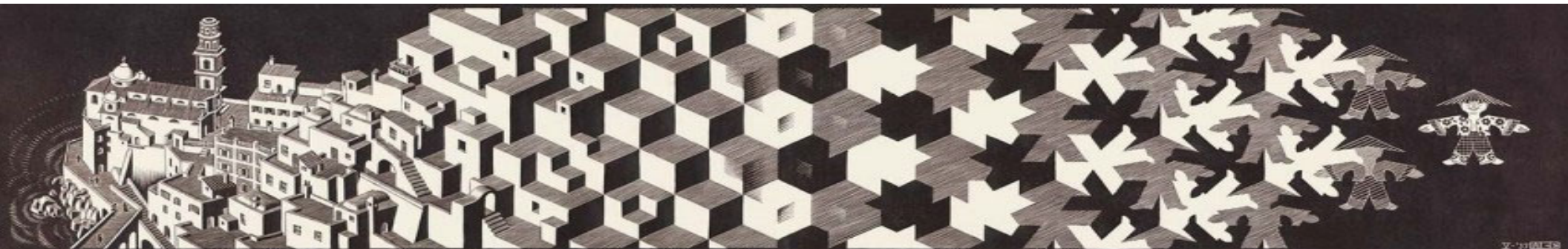


CogAT Measures Key Reasoning Skills

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CogAT measures a cluster of general and abstract reasoning abilities tied to successful learning and problem solving

- Comprehending problem situations
- Detecting similarities and differences
- Making inferences
- Making deductions
- Classifying and categorizing objects, events, and other stimuli
- Creating and adapting problem-solving strategies
- Using familiar concepts and skills in new contexts



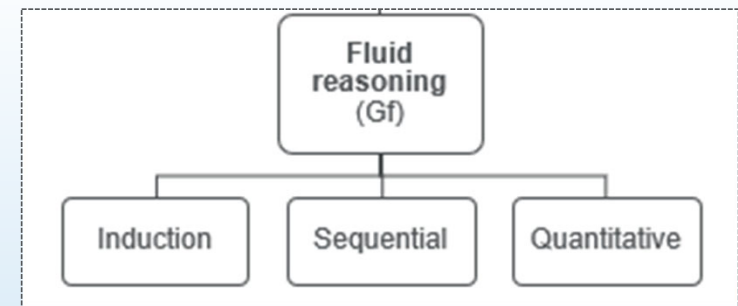


Value of multidimensional test

Better measure of general reasoning
(composite)

Can compare and contrast scores to
gain more information through *Ability
Profile Scores*

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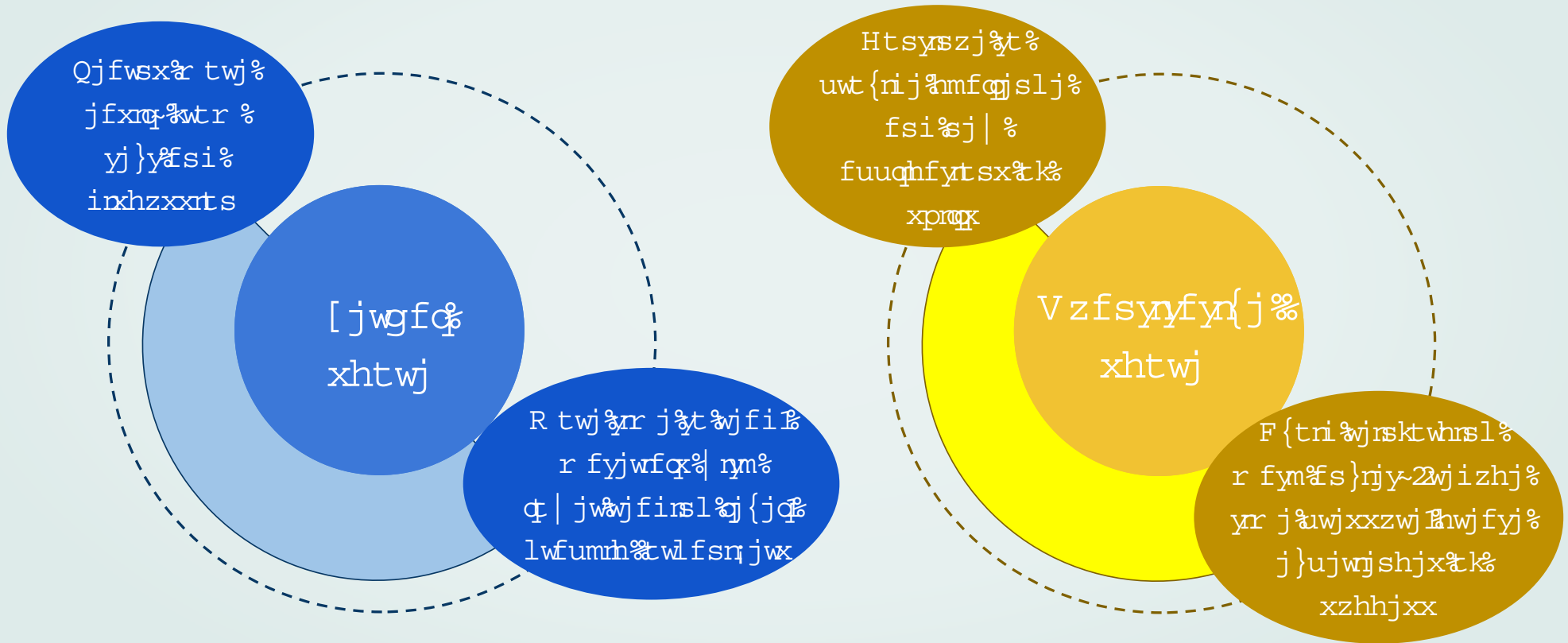


V

N

Q

Relevance to classroom instruction



The New CogAT.com

Cognitive Abilities Test™ (CogAT®)

Videos

- [Getting to Know CogAT](#)
- [CogAT and Equity](#)
- [Getting to Know CogAT for Differentiation](#)
- [Getting to Know CogAT Profiles](#)
- [Getting to Know CogAT for Parents](#)
- [Take your CogAT Scores out of the Drawer - CogAT Dashboard](#)
- [3 Things You Can Do Right Now with CogAT Data](#)

How does a student learn? Riverside Insights®

Use *Ability Profiles™* to differentiate instruction based on how a student learns best. Leverage personalized instructional strategies to guide student growth.

Ability Profile: 7B (Q-)

Learner characteristics:

- Difficulty creating, relating, and manipulating symbolic representations
- Prefers concrete models of thinking

Examples of Instructional Implications:

- Draw number lines and use mental models to solve number sentences
- Create drawings that represent essential aspects of the problem

Ability Profile: 4A

Learner characteristics:

- Does well when encouraged to talk
- Strong memory for sounds, letters, and events

Examples of Instructional Implications:

- Encourage writing and one-on-one conversations
- Rotate math expressions verbally
- Have student explain misconceptions / mistakes using words

Ability Profile: 8E (N+)

Learner characteristics:

- Strong at reasoning with spatial representations
- Comfortable with solving new problems


Examples of Instructional Implications:

- Use metaphors, analogies, and real-world examples to help students connect unfamiliar, abstract concepts
- Encourage students to create drawings when solving problems

Visit riversideinsights.com/cogat to find out how the country's top abilities test can help elevate all your students to their full potential!

COGAT GROUP: K-12 K12 ABILITY ASSESSMENTS

Ability Data: Bridging the Gap Between Student Potential & Achievement



Ability Data: Bridging the Gap Between Student Potential and Student Achievement

Share

Written By [Riverside Insights](#)
On May 9, 2022 • 5 minute read

Ability Data: Bridging the Gap Between Student Potential and Student Achievement


Chances are, you already have an idea of **what** your students have learned. You've got benchmark tests, chapter quizzes, portfolios of student work – any number of data points that demonstrate what your students have **achieved**. But do you know **how** your students learn? Between COVID disruptions, growing opportunity gaps, and constantly shifting standards, individualized differentiation is more important than ever even as teacher bandwidth is at an all-time low. **Ability data** provides educators a fresh and meaningful way to understand each student's potential for learning and to easily differentiate instruction based on individual needs.

Case Study

Smart Tools for Modern Ability Data

SUMMER 2022

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Using a Strengths-Based Approach to Understanding Students' Aptitude

ABILITY DATA OFFERS UNTAPPED OPPORTUNITY TO ENHANCE UNDERSTANDING AND PERSONALIZE LEARNING FOR ACADEMIC SUCCESS

DATA MANAGER Help: Allison Bourn Resources | Help | Sign out

Overview Assessments Proctoring/Scanning Reports Administration

LATEST NEWS

Welcome to DataManager

Getting Assistance

If you have any questions or need assistance, please contact the **DataManager Support Center**

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Phone Hours: 7:00 AM-6:00 PM (CST)
Chat Hours: 7:00 AM-4:00 PM (CST)
Monday through Friday
Email Contact: help@riversidedatamanager.com

Digital Resources

Access Resources for your testing program. [Open Resources](#)

Background Reports

The **Run Report in Background** feature in the Reports application allows you to send a report request to a queue so that you are able to perform other tasks in DataManager while your report is generating. Background reports frequently run in just a few minutes; however, the process can take longer due to the volume of data, or the number of buildings or students. Please allow up to 24 hours for background reports to complete.

Riverside Platform Status Page

Bookmark the **Riverside Insights Platform Status Page** at riversideinsights.com/platform-status to get the latest information on system outage alerts and maintenance windows. You can also reach the page by visiting riversideinsights.com/support.

Ability Profile Finder

Profile 6C (Q+ V-)

About This Type of Learner

Students who obtain these profiles have generally average scores with a relatively higher score in quantitative reasoning and a relatively lower score in verbal reasoning. They have a median age stanine for the three CogAT batteries in the high-average (stanine 4) range. The majority of these students have a composite score between the 50th and 75th percentiles of their age group.

Typical Areas of Strength

These students:

- Demonstrate relatively strong quantitative reasoning abilities
- Tend to score higher than expected on achievement tests with math computation

How These Learners Learn Best

These learners learn best with:

- Language curriculum that combines reading, writing, and speaking and provides opportunities to practice and receive feedback on each
- Emphasis in quantitative reasoning
- Moderately paced instruction with frequent monitoring and feedback on progress
- Using visual or graphic models to represent problems

Potential Areas of Challenge

These learners might have increased difficulty:

- Scoring as expected on achievement tests with visually all verbal subjects, especially in vocabulary
- Learning in highly structured school environments - tend to succeed in the short run but leave less able to reason well overall

Strategies to Support These Learners

Caution: If a student is a non-native English speaker, consider other data points before employing the strategies below.

- Begin language reasoning orally and externally (after practice, move to subvocal & internal)
- Encourage use of graphic models for representing problems, especially to understand verbally represented problems
- Provide additional time to build an understanding of a problem and help map statements onto visual models
- Monitor working in groups (have them listen while someone reads aloud each statement in the problem, then have the reader stop after each sentence so that the listeners can paraphrase the statement, and if necessary, add something that corresponds)
- Make each step meaningful during group work
- Remember thinking reflectively, and precisely, takes time
- Recognize high levels of knowledge in particular areas
- Look for excellence in other areas, such as in leading discussions, presenting reports, science projects, essays, or assisting other students in learning
- Make the goal of instruction to provide support in the form of strategies, memory prompts, and task structure to enable to infer, deduce, connect, and elaborate in order to understand for themselves
- Use Bloom's Taxonomy to integrate both mid-level and high-level activities
- Use question stems such as:
 - What approach would you use to...?
 - What is the relationship between...?
 - How would you rate or evaluate the...?

New *Ability Profile*
guidance on
CogAT.com to
succinctly address
learner profiles

Profile 06 (QT V-)

About This Type of Learner

Students who obtain these profiles have generally average scores with a relatively higher score in quantitative reasoning and a relatively lower score in verbal reasoning. They have a median age stanine for the three CogAT batteries in the high-average (stanine 6) range. The majority of these students have a composite score between the 25th and 75th percentiles of their age group.

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These students:

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- Tend to score higher than expected on achievement tests with math computation

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- Use question stems such as:
 - What approach would you use to...?
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 - How would you rate or evaluate the...?



Overall Ability: Example Characteristics

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Stanine	Reasoning Ability	Example characteristics
1-3	Below-average	<ul style="list-style-type: none">• difficulty learning abstract concepts• minimal or ineffective strategies for learning and remembering (Tend to rely on trial-and-error)
4-6	Average	<ul style="list-style-type: none">• likely to use only previously learned methods when faced with new tasks• difficulty transferring knowledge/skills
7-8	Above-average	<ul style="list-style-type: none">• ability to learn relatively quickly• good memory, effective learning strategies
9	Very high	<ul style="list-style-type: none">• preference for discovery learning rather than highly structured learning environments (not necessarily solitary environments)

Excerpted from *CogAT Score Interpretation Guide* and *Teachers' Guide to Adapting Instruction*



Overall Ability: Building on Strengths

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Stanine	Example adaptations
1-3	Look for strengths in terms of specific interests and achievements. Even more than other students, those who are behind their peers in reasoning abilities often learn more and sustain their efforts longer if the teacher discovers and builds on their interests.
4-6	Help them develop the habit of analyzing new tasks to detect relationships with previously learned tasks. Do this by modeling the process for them.
7-8	Recognize that these students generally profit most when allowed to discover relationships themselves. Guided discovery methods work better than more structured teaching methods.
9	Carefully select challenging instructional materials, special projects, or other enrichment activities.



Adapt Instruction Using Relative Strengths

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Strength	Example adaptations
V +	Avoid pitfalls in math: Students with relatively strong verbal abilities often find it easier to memorize formulas than to build more abstract conceptual systems . These abstract systems lead to the ability to transfer mathematical knowledge to unfamiliar domains.
Q +	Provide opportunities for these students to contribute at high levels to group projects that require math skills. Group projects provide an avenue for building better verbal and spatial reasoning abilities.
N +	Encourage students to create drawings when solving problems in mathematics , concept maps when taking notes, or mental models of a scene when reading a text.

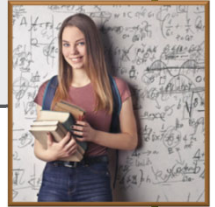
Relative Strength in Verbal Reasoning (V+)

Principle	Characteristics	Reluctance to Write...
Learner Characteristics	<ul style="list-style-type: none"> Performs higher in all areas but math computation Observed vs. expected achievement differences are small 	Provide student with meaningful writing assignments with low stakes.
Relative Strength	<ul style="list-style-type: none"> Performs well when encouraged to write & talk about ideas (1-on-1 & class discussions) Good memories for arbitrary sequences (sounds, letters, words, & events) Excels in spelling, knowledge of syntax & grammar, learning other languages, & remembering dialogue, prose, & poetry 	<ul style="list-style-type: none"> Creative writing journal Caption cartoons Create comic books online
Building on Strength	<ul style="list-style-type: none"> Challenge with special “higher demand” reading/writing assignments Use verbal reasoning in math Restate & explain math expressions Explain errors in incorrect answers Easier to memorize formulas than build more abstract conceptual systems (abstract leads to transferring math knowledge to unfamiliar domains) <p>Strategies:</p> <ul style="list-style-type: none"> Graph data, encourage mental model & verbal description, sketch models & concept maps, students make explicit connections between text & illustrations Include visual representations (lab plans, map directions, historical timelines, or diagrams) Think-pair-share (esp. ELL students) 	<ul style="list-style-type: none"> Funny writing prompts to write for audience on topic of interest Writing prompt that asks to use creativity (writing in dialect or poetry formats) Participate in web-based writing communities




Relative Strength in Quantitative Reasoning (Q+)

Principle	Characteristics
<p>Learner Characteristics</p>	<ul style="list-style-type: none"> • Exhibit abstract thinking at an early age • Score higher than expected on math & language (skilled at pattern recognition)
<p>Relative Strength</p>	<ul style="list-style-type: none"> • Computation • Identify patterns, & reason with abstraction • Computer skills (organizing data, creating graphs, using computational logic in robotics) • Strong grammar knowledge • Enjoy math puzzles & challenges
<p>Building on Strength</p>	<ul style="list-style-type: none"> • AP/honors classes • Math clubs • Present math solutions or data interpretations verbally • Collaborative projects (using statistics, exploring evidence & claims) • Provide opportunities for these students to contribute at high levels to group projects that require math skills. Group projects provide an avenue for building better verbal and spatial reasoning abilities.



Relative Strength in Nonverbal Reasoning (N+)

Principle	Characteristics	
<p>Learner Characteristics</p>	<ul style="list-style-type: none"> • Good at reasoning w/spatial representations • Effectively solve new problems • Spelling & verbal fluency are challenging • Excel at drawing, sculpting (visual arts) 	
<p>Relative Strength</p>	<ul style="list-style-type: none"> • Prefer visual mental models (w/connecting concepts) • Graphics & maps • Concrete application 	
<p>Building on Strength</p>	<ul style="list-style-type: none"> • Prefer detailed illustrations for unfamiliar content • Metaphors, analogies, & real-world examples to connect unfamiliar, abstract concepts to familiar objects & experiences • Allow for pausing verbal information (videos) • Create drawings when solving math problems • Concept maps for note-taking • Create mental models during reading • Hands-on learning, physical application for problem-solving • Descriptive (rather than narrative prose) for teaching writing, illustrate scene • Skilled in visual arts 	

Relative Weakness in Verbal Reasoning (V-)

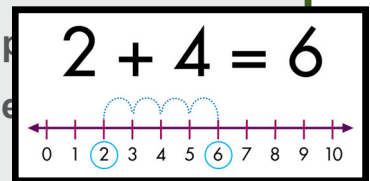


Principle	Characteristics
<p>Learner Characteristics</p>	<ul style="list-style-type: none"> • Prefer nonverbal (visual) or quantitative reasoning • Lower than expected achievement scores (writing) • Low motivation to read (need exposure to reading/multimedia)
<p>Relative Weakness</p>	<ul style="list-style-type: none"> • Following wordy directions/excess reading demands • Minimize verbal information sources (taking notes during a fast-paced video presentation)
<p>Shoring Up the Weakness</p>	<ul style="list-style-type: none"> • Allow for prompts (written statement of a concept) needed for current assignment • Practice concept in various contexts • Use videos & preview worksheets to introduce vocabulary • Provide reading/writing/speaking opportunities in the curriculum • Provide reading assignments & activities designed to build verbal comprehension • Emphasize learning vocabulary in context

Relative Weakness in Quantitative Reasoning (Q-)



Principle	Characteristics
<p>Learner Characteristics</p>	<ul style="list-style-type: none"> • Score lower on achievement assessments (math/computation/language) • Abstract concepts & number sense are challenges
<p>Relative Weakness</p>	<ul style="list-style-type: none"> • Think more concretely (understand \$, but not in word problems) • Basic computation mentally is challenging • Lack experience thinking/talking quantitative concepts (leads to math anxiety)
<p>Shoring Up the Weakness</p>	<ul style="list-style-type: none"> • Focus on the numbers in the word problem • Practice drawing/using a number line to solve simplistic problems • Encourage restatement of math expressions in words (rely on verbal strength) • Have students talk about mathematical concepts/explain strategies • Rely on computers/tools for low-level computation • Draw main parts of math question, create visual models, use manipulatives • Engage student in math projects relevant & interesting to the student



Relative Weakness in Nonverbal Reasoning (N-)

Principle	Characteristics
Learner Characteristics	<ul style="list-style-type: none"> • Lower reading & math scores (HS – science) • Complete practice activities, especially for nonverbal battery
Relative Weakness	<ul style="list-style-type: none"> • Difficulty reasoning with figural-spatial stimuli or solving unfamiliar problems (affects math & science) • Anxiety with situations lacking clear expectations guidelines or how they are evaluated
Shoring Up the Weakness	<ul style="list-style-type: none"> • Provide practice on spatial thinking the curriculum requires (interpreting diagrams & reading graphs) • Provide printed/digital formats for students to mark • Hands-on learning • Provide simple drawings that encapsulate the essential features of the visual mental model the problem requires. Then give students time to examine the drawing, label it or coordinate it with the text. • Have students repeat statements aloud as they perform each step • Encourage/reward engaging I tasks less familiar & structured






Adapt Instruction to Develop Relative Weaknesses


Weakness	Example adaptations
V -	Acquaint students with unfamiliar ways of conversing and writing by providing opportunities to imitate the speaking and writing styles of individuals they admire. Drama, poetry, and storytelling are particularly useful in this regard.
Q -	If the difficulty is a lack of experience or the presence of anxiety , provide greater structure, reduce or eliminate competition, reduce time pressures, and allow students greater choice in the problems they solve. Experiencing success will gradually reduce anxiety; experiencing failure will cause it to spike.
N -	Provide simple drawings that encapsulate the essential features of the visual mental model required by the problem. Then give students time to examine the drawing and to label it or coordinate it with the text.

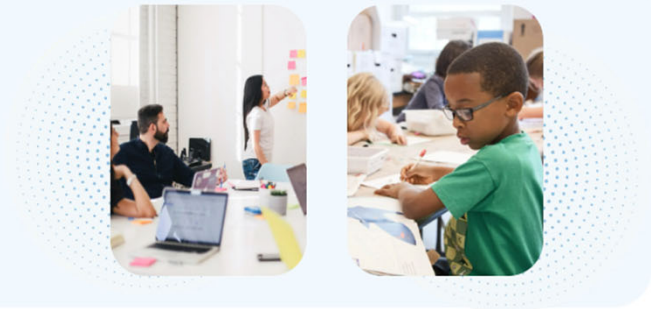
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For parents, teachers, counselors, and administrators



I am a District Administrator



Resources for District Administrators

Use CogAT beyond Identification



Gifted Coordinator Toolkit

Actionable resources to develop processes and programs to best support gifted learners

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Combine multiple measures to identify gaps in student potential and performance

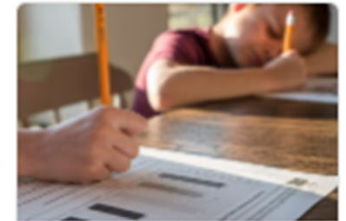
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Local Norms Dashboard

Quickly and easily calculate local norms

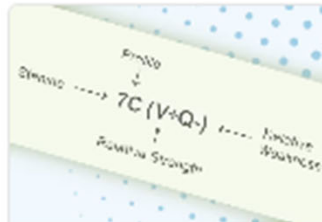
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Glean best practices from districts and CogAT Power Users via blogs, webinars, and case studies

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Discover the instructional recommendations and strategies for each unique Ability Profile

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Hear from the CogAT Author

Discover research-based practices in a series of articles written by CogAT's author, Dr. Jorri Lakin

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Resources for Teachers

Use CogAT In the classroom



Identifying Main Idea and Supporting Details

Checklist & Reading
• This resource provides a checklist for students to use when reading.
• The checklist includes a section for identifying the main idea and supporting details.
• The checklist is available in both English and Spanish.
• The checklist is available in both print and digital formats.
• The checklist is available in both English and Spanish.

Sample Lesson Plans

Explore opportunities to infuse CogAT data into differentiated instruction

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The CogAT Differentiated Instruction Report

This report provides a comprehensive overview of the CogAT data and offers actionable strategies for differentiated instruction. It includes a detailed analysis of the data and a list of recommended strategies for each student.

CogAT Report Guides

Unlock the data in each CogAT report with these step-by-step report guides

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Grouping Resources

Discover proven strategies for using CogAT data to easily group students

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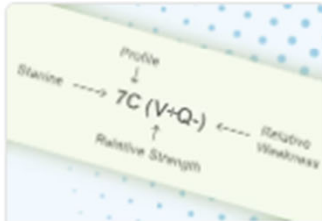
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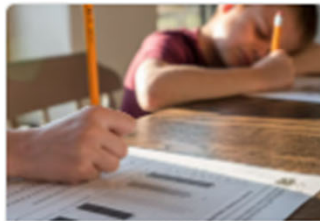
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Discover the instructional recommendations and strategies for each unique Ability Profile

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Best Practices

Gain best practices from districts and CogAT Power Users via blogs, webinars, and case studies.

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Standards Alignment Guides

Identify standards that support the development of verbal, quantitative, and nonverbal critical reasoning

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I am a Teacher

Ability x Achievement Tool

Compare potential and performance with the Ability x Achievement Tool.

The Ability x Achievement Tool enables educators to combine the power of *CogAT* insights with any set of achievement data. Use this tool to answer questions like:

- What is the general trend in my students' *CogAT* and achievement performance? Are there sub-populations of students falling above or below the general trend line?
- Which students demonstrate high potential in their cognitive abilities but may not be performing at or above their potential in reading and/or math?
- What can we estimate about students' future achievement performance using their *CogAT* data?

Ready to level-up with *CogAT* insights?

Learn how to use the tool with our video and written instructions, plus practice with a sample data set!

The Ability x Achievement Tool is compatible with Excel 365 and Excel 2021 or newer.

Step 1

Watch the Video Demos



Step 2

View the Visual Guides



Step 3

Download the Tool & Practice with Sample Data Sets



CogAT vs Achievement

Subject	Mathematics	Student CogAT Score	115
Language Arts	Mathematics	Student Achievement Score	104
Term	Fall 2023-2024	Min X Axis	90
		Max X Axis	130

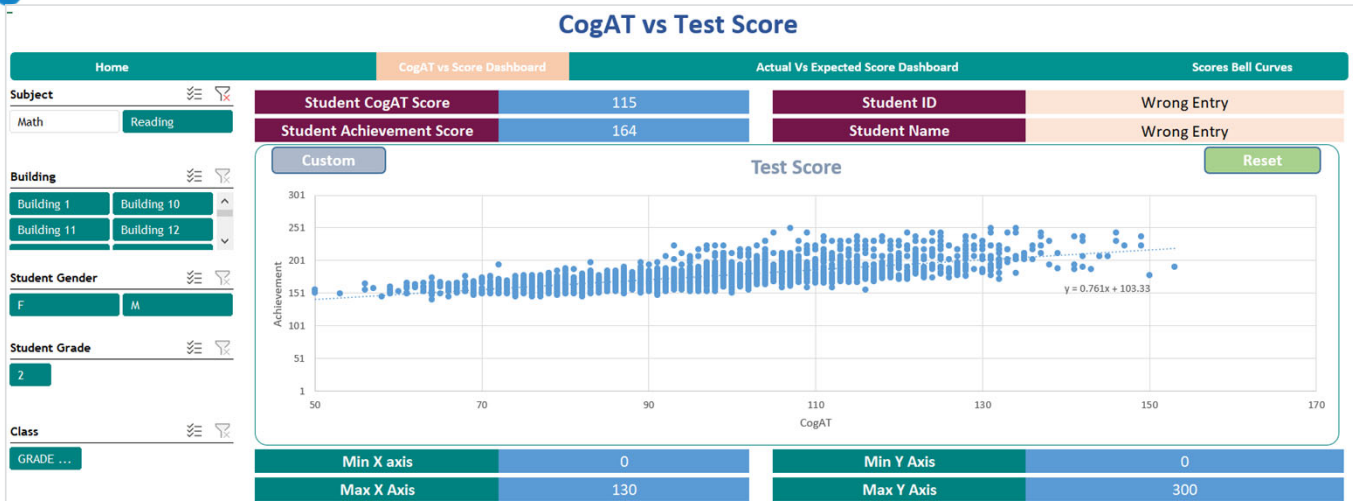
Ability and Achievement Tool

Combine multiple measures to identify gaps in student potential and performance

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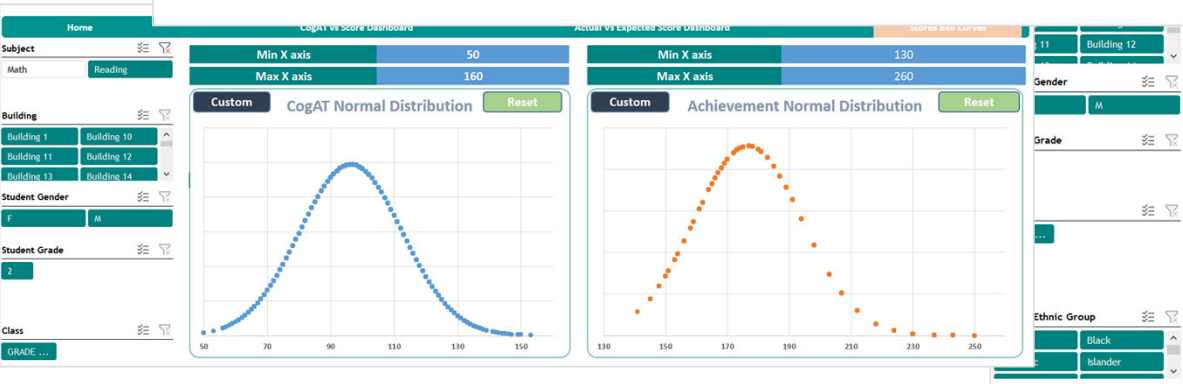
Ability X Achievement Tool



Actual Vs Expected Score Dashboard
Scores Bell Curves

% expected score by target %	-12.0%
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List of Students			
CogAT Score	Actual Score	Expected Score	% Diff
91	151	173	-13%
91	151	173	-13%
91	151	173	-13%
115	167	191	-12%
95	154	176	-12%
126	174	199	-13%
131	178	203	-12%
117	169	192	-12%
91	148	173	-14%
106	159	184	-14%
150	178	217	-18%
102	156	181	-14%
98	154	178	-13%
100	156	179	-13%
153	191	220	-13%
132	172	204	-16%
112	159	189	-16%
114	167	190	-12%
116	156	192	-19%
109	159	186	-15%
107	162	185	-12%
97	154	177	-13%
96	154	176	-13%
82	145	166	-13%
100	151	179	-16%



FName227 LName227	100227
FName289 LName289	100289
FName550 LName550	100550
FName642 LName642	100642
FName699 LName699	100699
FName729 LName729	100729
FName770 LName770	100770
FName806 LName806	100806
FName829 LName829	100829
FName911 LName911	100911
FName930 LName930	100930
FName998 LName998	100998
FName1170 LName1170	101170
FName1251 LName1251	101251
FName1295 LName1295	101295
FName1914 LName1914	101914
FName1995 LName1995	101995
FName2076 LName2076	102076
FName2111 LName2111	102111
FName2351 LName2351	102351
FName2480 LName2480	102480
FName2574 LName2574	102574
FName2652 LName2652	102652



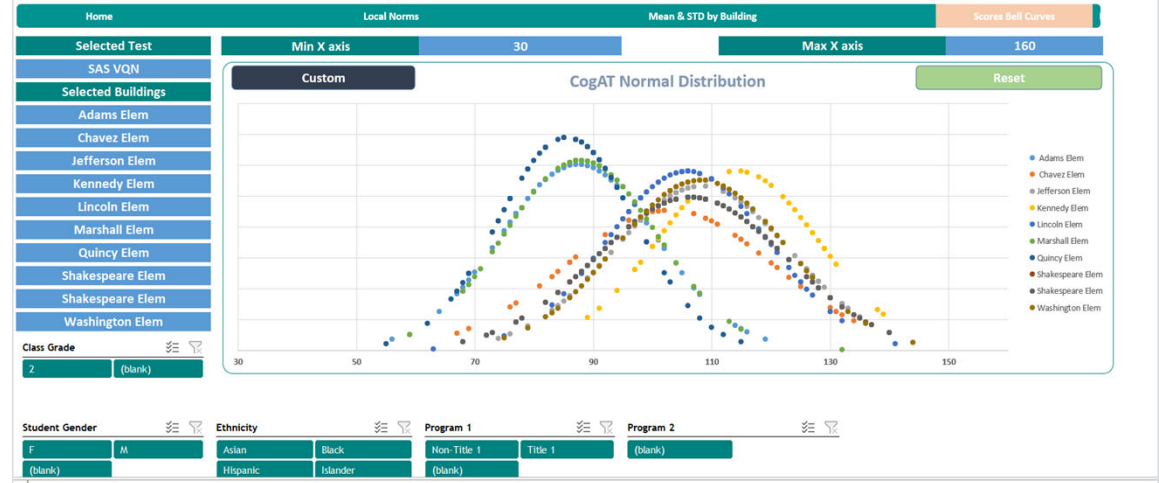
Local Norms Dashboard

Quickly and easily calculate local norms

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Home		Local Norms									
Building Name	Student ID	Student First Name	Student Last Name	Building Name	Local Norm (SAS V)	Standard Age Score (SAS) Q	Age Percentile Rank (APR) Q	Local Norm (SAS N)	Standard Age Score (SAS) N	Age Percentile Rank (APR) N	
Adams Elem	100001	AKASHA	ADJIAN	Quincy Elem	22%	97	43	30%	102	55	
Chavez Elem	100002	KYLIE	ADERKINE	Quincy Elem	60%	101	52	69%	111	75	
Jefferson Elem	100009	MACI	ADENWUMI	Montgomery Elem	94%	119	88	87%	109	71	
Lincoln Elem	100015	SANTHAN	ADIBOSINDOU	Jefferson Elem	47%	114	81	79%	102	55	
	100026	VICTOR	KUTEYI	Shakespeare Elem	84%	120	97	96%	134	98	
	100028	RIDWAN	KWARTENG	Quincy Elem	83%	107	67	64%	111	75	
	100029	ABDULRAHMAN	LAMENS	Quincy Elem	18%	91	29	26%	95	38	
	100030	DEVAH	AGUILA	Quincy Elem	1%	89	25	22%	70	3	
	100031	ITANYA	AGUILAR MARTINEZ	Shakespeare Elem	81%	134	98	98%	132	98	
	100039	JULEIA	AGUILERA	Shakespeare Elem	55%	105	62	59%	105	62	
	100042	KATLYN	AGUNBIADE	Marshall Elem	9%	99	48	44%	92	31	
	100043	JACE	LASLEY	Shakespeare Elem	47%	99	48	46%	76	7	
	100048	HANNA	AGUSTIN VENANCIO	Shakespeare Elem	27%	90	27	26%	90	27	
	100050	ALANNAH	AGYEI	Adams Elem	13%	92	31	28%	87	21	
	100056	ESSENCE	ARIBE	Lincoln Elem	55%	114	81	79%	126	95	
	100059	RYLA	ANDRON	Marshall Elem	25%	92	43	39%	91	29	
	100064	AYOMIDE	LATEEF	Quincy Elem	4%	82	13	11%	79	9	
	100065	JAMES	LAY	Quincy Elem	13%	78	8	7%	90	27	
	100066	HEBA	AIAMGO	Quincy Elem	31%	89	3	2%	73	5	
	100071	GABRIELLE	AIBABO	Adams Elem	5%	63	14	12%	82	13	
	100087	ABEL	LADO PICHADO	Quincy Elem	38%	106	65	61%	99	48	
	100088	ANDREW	LEE	Marshall Elem	6%	88	23	20%	74	5	
	100090	JOSEPH	LEMUS HERNANDEZ	Montgomery Elem	60%	112	77	75%	110	73	
	100092	WALTER	LEVI	Quincy Elem	4%	68	2	2%	77	8	
	100102	MOFOLUWA	AKANNI	Lincoln Elem	88%	120	89	88%	116	84	

Bell Curves



Mean & STD by Building

Local Norms		Mean & STD by Building						Scores Bell Curves						
Building Name	Mean of SAS V	StdDev of SAS V	Mean of SAS Q	StdDev of SAS Q	Mean of SAS N	StdDev of SAS N	Mean of SAS VQ	StdDev of SAS VQ	Mean of SAS VN	StdDev of SAS VN	Mean of SAS QN	StdDev of SAS QN	Mean of SAS VQN	StdDev of SAS VQN
Adams Elem	86.5	13.1	90.8	11.7	88.8	14.4	87.7	12.0	87.0	13.8	88.2	13.3	87.4	13.2
Chavez Elem	101.0	17.3	102.7	15.3	104.3	17.5	101.5	16.8	103.2	17.9	103.3	17.0	102.9	17.6
Jefferson Elem	106.6	14.4	107.1	12.9	108.6	16.1	107.0	13.5	108.4	15.9	107.8	15.0	108.2	15.0
Kennedy Elem	113.2	14.1	113.4	13.5	111.5	14.2	114.3	12.7	113.9	14.4	113.0	13.9	114.4	13.7
Lincoln Elem	105.5	13.9	105.5	13.0	105.1	15.2	105.6	13.0	105.9	14.2	105.1	14.2	105.9	13.8
Marshall Elem	87.8	12.7	91.0	13.4	89.0	13.6	88.3	12.6	87.5	12.7	88.6	13.5	87.9	13.0
Montgomery Elem	100.9	14.3	101.5	15.4	100.6	15.3	100.9	14.8	100.7	14.6	100.5	15.8	100.9	15.1
Quincy Elem	84.0	11.3	89.7	12.0	87.3	12.2	85.3	10.8	84.6	11.6	86.9	12.0	85.5	11.6
Shakespeare Elem	105.7	13.8	107.6	15.8	104.4	16.5	106.9	15.1	105.5	15.5	106.1	16.8	106.5	16.1
Washington Elem	107.1	13.6	108.0	13.9	107.1	15.2	107.9	13.7	107.9	14.8	107.7	14.7	108.2	14.5



Check out the books below to learn more!

Dr. Joni Lakin's website:
Jonilakin.net

See website for two chapters on
using assessments in identification



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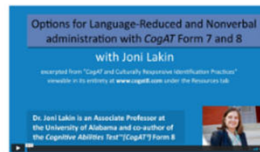
Differentiation & Instruction

- Use score profiles to help differentiate instruction
 - Take your data beyond the cut score
 - Useful data for every classroom
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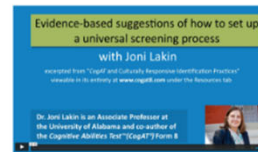
Resources for Administration



The Myth of Culture-Fair Tests



Options for Language-Reduced and Nonverbal Administration of CogAT



Evidence-Based Suggestions for How to Set Up Universal Screening

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