



CogAT[®] in the ClassrOom

Ability Profiles: Understanding student cognitive strengths

Tuesday 7/25 | 9am PST • 11am CT • 12pm ET

Learning Objectives

- Dive into the *CogAT Ability Profiles* and identify instructional implications from **each student's unique ability code**.



Adam Laningham,
President Elect of SENG
and Former District
Gifted Services Manager

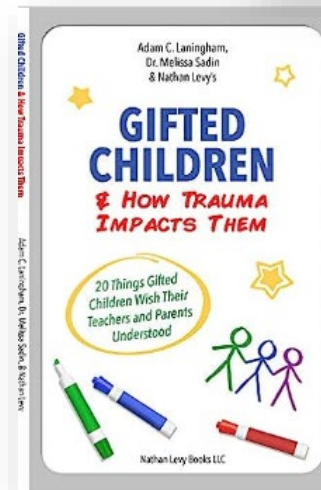


Anna Houseman,
Former District Assessment
Director and Elementary
School Teacher



Adam Laningham

- President Elect of SENG (Supporting the Emotional Needs of the Gifted)
- Founder of Bright Child AZ
- International speaker consultant and gifted advocate
- 20+ years in education and recognized as the Arizona Gifted Teacher of the Year
- Author of recently published books, including:
 - *Gifted Children and How Trauma Impacts Them*
 - *Gifted & Struggling – Twice-Exceptional Children: What Our Parents Need to Know*
 - *Gifted & Struggling – Twice-Exceptional Children: What Our Teachers & Schools Need to Know*





How can we use data from Ability assessments?

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.





Ability Profile™

CogAT®

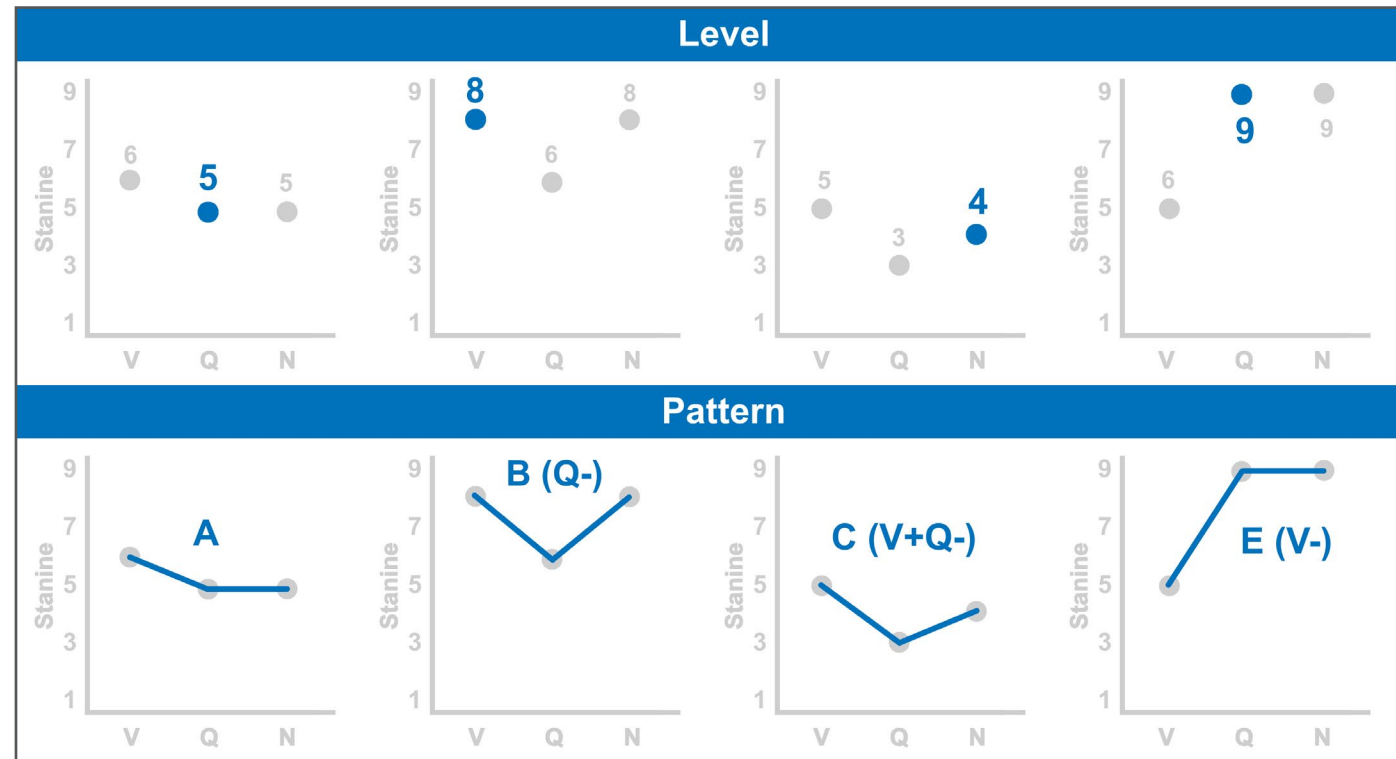
Each student receives an *Ability Profile*, which:

- Succinctly summarizes overall level of ability
- Identifies areas of cognitive strength and opportunities for growth

Level
↓
8

Pattern
↙
B (Q-)

- **Level** – the typical magnitude of scores on the three batteries
- **Pattern** – whether some scores are significantly higher or lower than other scores (relative strength or weakness)





Classroom Instructional Use: Incorporating Strengths

	V+	Q+	N+
Learner Characteristics	<ul style="list-style-type: none"> Obtain high achievement scores in all subjects but math 	<ul style="list-style-type: none"> Capable of strong abstract thinking 	<ul style="list-style-type: none"> Good at reasoning with spatial representations or strong at solving new problems
Relative Strength	<ul style="list-style-type: none"> Do well when encouraged to talk Strong memory for sounds, letters, events 	<ul style="list-style-type: none"> Excel in identifying patterns and reasoning by using abstractions (i.e. learning base number systems) Learn computer skills more readily Enjoy math puzzles 	<ul style="list-style-type: none"> Prefers visual mental models when solving a problem Rely on physical or visual models for comprehension
Building on Strength	<ul style="list-style-type: none"> Encourage writing and one-on-one conversations with teacher Restate math expressions verbally Encourage student to explain misconceptions / mistakes verbally Create a mental model and couple with verbal description 	<ul style="list-style-type: none"> Will benefit from enrichment activities like math clubs May benefit from presenting math solutions or data interpretations verbally Select cooperative math activities like investigative math projects 	<ul style="list-style-type: none"> Use metaphors, analogies, and real-world examples to help students connect unfamiliar, abstract concepts Encourage students to create drawings when solving problems In writing, encourage students to try descriptive rather than narrative prose



Classroom Instructional Use: Areas of Opportunity

	V-	Q-	N-
Learner Characteristics	<ul style="list-style-type: none"> Find it difficult to translate their thoughts into words 	<ul style="list-style-type: none"> Have difficulty creating, retaining, and manipulating symbolic representations 	<ul style="list-style-type: none"> Tend to have lower achievement scores in reading and mathematics
Relative Weakness	<ul style="list-style-type: none"> Activities that involve verbal demands may reduce students' performance even in areas in which they excel Minimize competing sources of verbal information 	<ul style="list-style-type: none"> Prefer concrete models of thinking and struggle to think abstractly Difficulty in developing internal mental model 	<ul style="list-style-type: none"> Difficulty reasoning with figural-spatial stimuli or difficulty solving unfamiliar problems
Shoring Up Area of Opportunity	<ul style="list-style-type: none"> Reduce the demands placed on verbal working memory Offer broad language curriculum that combines reading, writing, and speaking Ask students to imitate the speaking and writing styles of individuals they admire 	<ul style="list-style-type: none"> Focus on the quantitative aspect of the problem Draw number lines and then use a mental model to solve number sentences Use verbal and spatial reasoning abilities to solve mathematical problems Create drawings that represent essential aspects of problem 	<ul style="list-style-type: none"> Incorporate instruction about spatial thinking into the curriculum (i.e. interpreting diagrams and reading graphs) Have students create descriptions or inferences from visual information

About This Type of Learner

Students who obtain these profiles generally have above-average scores with a relatively higher score in nonverbal (spatial) reasoning and a relatively lower score in quantitative reasoning. They have a median age stanine for the three *CogAT* batteries in the high (stanine 8) range. Most of these students have a composite score in the top 25 percent of their age group.

- Encourage to draw or otherwise create visual representations of concepts
- Work around instruction that emphasizes computational and algebraic modes of understanding and provide good mathematics instruction when the curricular materials emphasize computation and symbol manipulation

Strategies to Support These Learners

- Encourage to draw or otherwise create visual representations of concepts
- Work around instruction that emphasizes computational and algebraic modes of understanding and provide good mathematics instruction when the curricular materials emphasize computation and symbol manipulation
- Allow computers and calculators to perform routine computational and procedural skills
- Support discovering relationships with guided discovery methods
- Watch for opportunities to allow greater choice for those who would enjoy more freedom to explore
- Challenge with materials, projects, and problems that

These learners learn best with:

- Making tasks meaningful, especially if they can summarize the task in a verbal statement (i.e. learn verbal rule, "I before E except after C or when sounded as in *neighbor* and *weigh*")
- Practicing spelling or math computation skills (target spellings or computations produced or not simply chosen from a set of options)

Potential Areas of Challenge

These learners might have increased difficulty:

- Scoring as expected on mathematics subtests (deficits in computation)
- Achieving as expected on spelling and language usage subtests (deficits stem either from a lack of emphasis on skills in the curriculum or from difficulty creating and retaining memory codes that preserve ordered information)
- Working with structured teaching methods

- Use question stems such as:
 - *How would you classify...?*
 - *What details would you use to support the view...?*
 - *How can you invent...?*

work at higher levels

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 - *How would you classify...?*
 - *What details would you use to support the view...?*
 - *How can you invent...?*



Coming in September 2023!

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Riverside Insights

Home Ability Profile Finder District Leader Resources Teacher Resources Parent Resources CogAT

Cognitive Abilities Test™ (CogAT®)

The #1 Measure of How Students Learn



Profile Finder

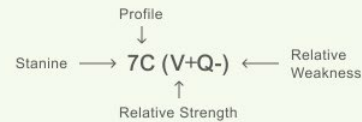
Cognitive Abilities Test™ (CogAT®) Form 7 and Form 8

INPUT TABLE

I am a District Administrator

I am a Teacher

CogAT Riverside Insights ELEVATE POTENTIAL



Directions

Enter a student's Ability Profile in the appropriate drop down boxes from left to right (see sample for clarification). If the student's profile does not contain Relative Strength, select None under Relative Strength.

STANINE:

PROFILE:

RELATIVE STRENGTH AND WEAKNESS:

No profiles to show

SUBMIT