

Welcome to today's webinar. The webinar will start promptly at 11 a.m. Central time. Until then, you may hear periodic announcements of our start time, but don't worry if you hear silence for a while. We are here and look forward to sharing today's topic with you.

While you are waiting, you can download the slides at <https://mybrainware.com/a-practical-approach-to-personalized-learning>

A Practical Approach to Personalized Learning

Nancy Weinstein

Co-author, *The Empowered Student*

Founder of Mindprint Learning

<https://mindprintlearning.com>

Nancy@mindprintlearning.com

@MindprintLearn

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A little about you?

- Your primary role:
 - Educator
 - Clinician
 - Parent
 - Researcher
 - Other

Agenda

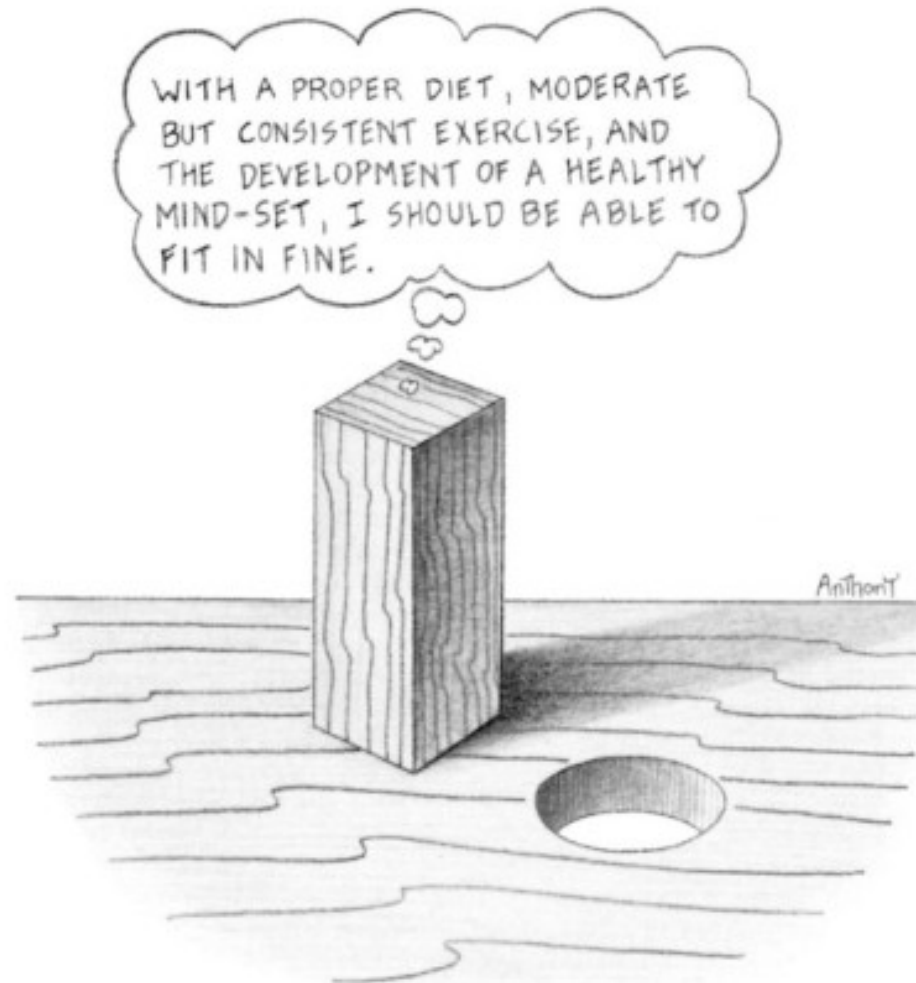
Define learner variability

Understand learner variability and how it affects

- Classroom management
- Individual performance
- Teaching decisions

Choose strategies to support learner variability and personalize instruction

Learner Variability



What Type of Variability

WHAT?

Achievement

Subject Knowledge
Standardized Tests
21st Century Skills

HOW?

Cognitive

Reasoning
Memory
Efficiency
Executive Functions



Behavior/SEL

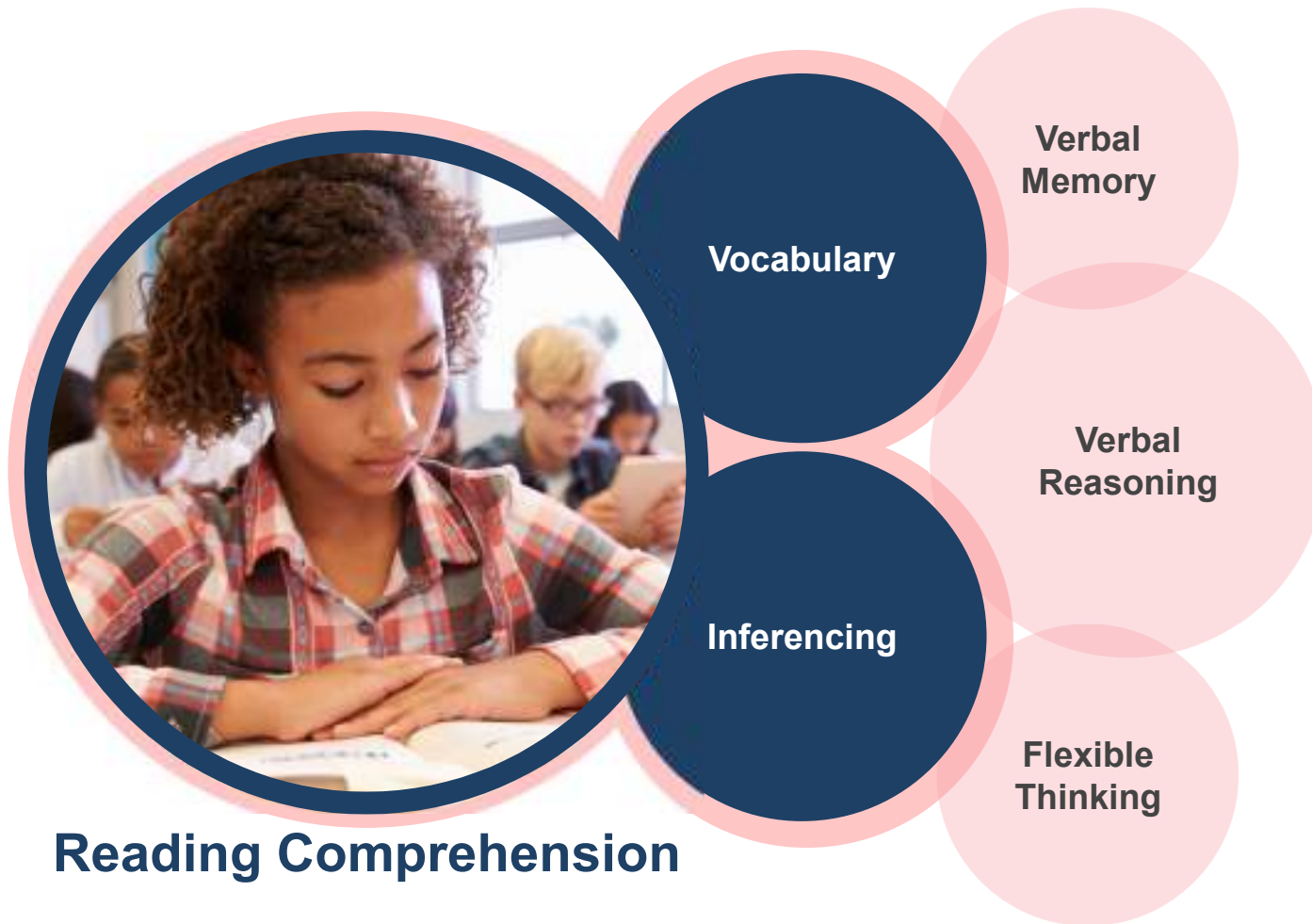
Self-Awareness
Self-Management
Social Awareness
Decision Making
Relationships

WHY?



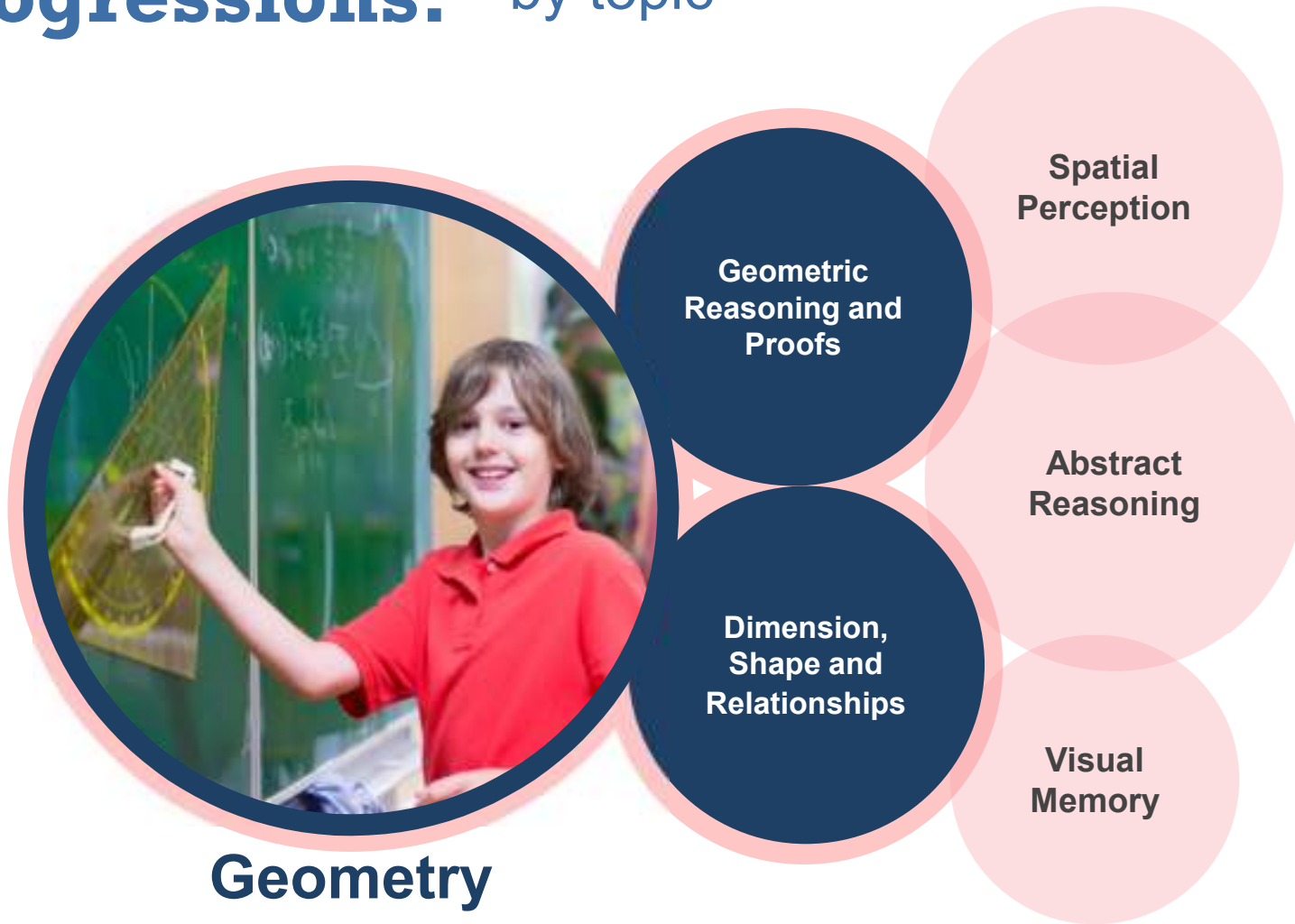
Foundational Skills:

Understand how to develop core skills for each learner



Learning Progressions:

Anticipate changing needs by topic



Social-Emotional Learning:

Understand and support root cause of behavior



FUNDAMENTALS OF HOW WE LEARN

DOMAINS	REASONING	SPEED	MEMORY	EXECUTIVE FUNCTIONS
SKILLS (DIMENSIONS)	<p>Verbal <i>Understanding and/or drawing inferences based on what you read or hear</i></p> <p>Abstract <i>Understanding and/or drawing inferences from objects, images, numbers or concepts (without language-based explanation)</i></p> <p>Spatial <i>Understanding visual and 3-D materials</i></p>	<p>Processing <i>Rate of seeing, processing and understanding</i></p> <p>Visual Motor <i>Efficiency in integrating visual and motor skills to complete a task. Often referred to as reaction time or response time</i></p>	<p>Verbal <i>Storing and recalling what you read or hear</i></p> <p>Visual <i>Storing and recalling concepts, numbers, objects, or other non-language information</i></p>	<p>Attention <i>Initiating work and then maintaining sustained focus and behavior</i></p> <p>Working Memory <i>Holding onto distinct bits of information in short-term memory and applying it during multi-step tasks</i></p> <p>Flexibility <i>Adjusting and changing your approach to solve problems</i></p>
INDICATORS & EXAMPLES	<p>Verbal</p> <ul style="list-style-type: none"> ○ Reading Comprehension ○ Written Content ○ Math word problems <p>Abstract</p> <ul style="list-style-type: none"> ○ Math Reasoning (Numeracy, Pattern recognition, Algebra, Calculus) ○ Scientific Reasoning ○ Non-Fiction Reading <p>Spatial</p> <ul style="list-style-type: none"> ○ Reading fluency (Visual tracking) ○ Multi-step math problems ○ Geometry/Graphs/Charts ○ Physics ○ Art/Design 	<p>Processing</p> <ul style="list-style-type: none"> ○ Reading fluency ○ Math fact fluency ○ Class participation (Efficiently listening and responding) ○ Efficiency on written work, tests <p>Visual Motor</p> <ul style="list-style-type: none"> ○ Handwriting, Typing ○ Note taking ○ Hands-on projects (Science experiments, sports) 	<p>Verbal</p> <ul style="list-style-type: none"> ○ Vocabulary ○ Spelling/grammar ○ Reading comprehension (key details) ○ Retention of class discussion <p>Visual</p> <ul style="list-style-type: none"> ○ Math facts ○ Math & science formulas ○ Geometry ○ Retention of objects, images, charts, numbers or concepts 	<p>Attention</p> <ul style="list-style-type: none"> ○ Class participation ○ Task completion (Getting started, staying focused) ○ Homework efficiency <p>Working Memory</p> <ul style="list-style-type: none"> ○ Mental math ○ Multi-step problems/following directions ○ Note taking <p>Flexibility</p> <ul style="list-style-type: none"> ○ Problem solving ○ Transferring concepts ○ Project-based work ○ Adapting to surprises or disappointments
PROCESS	Understanding & Applying	Efficiency	Remembering	Organizing & Adapting



Learner Profile: Visualizing individual variability



Flexible Thinking

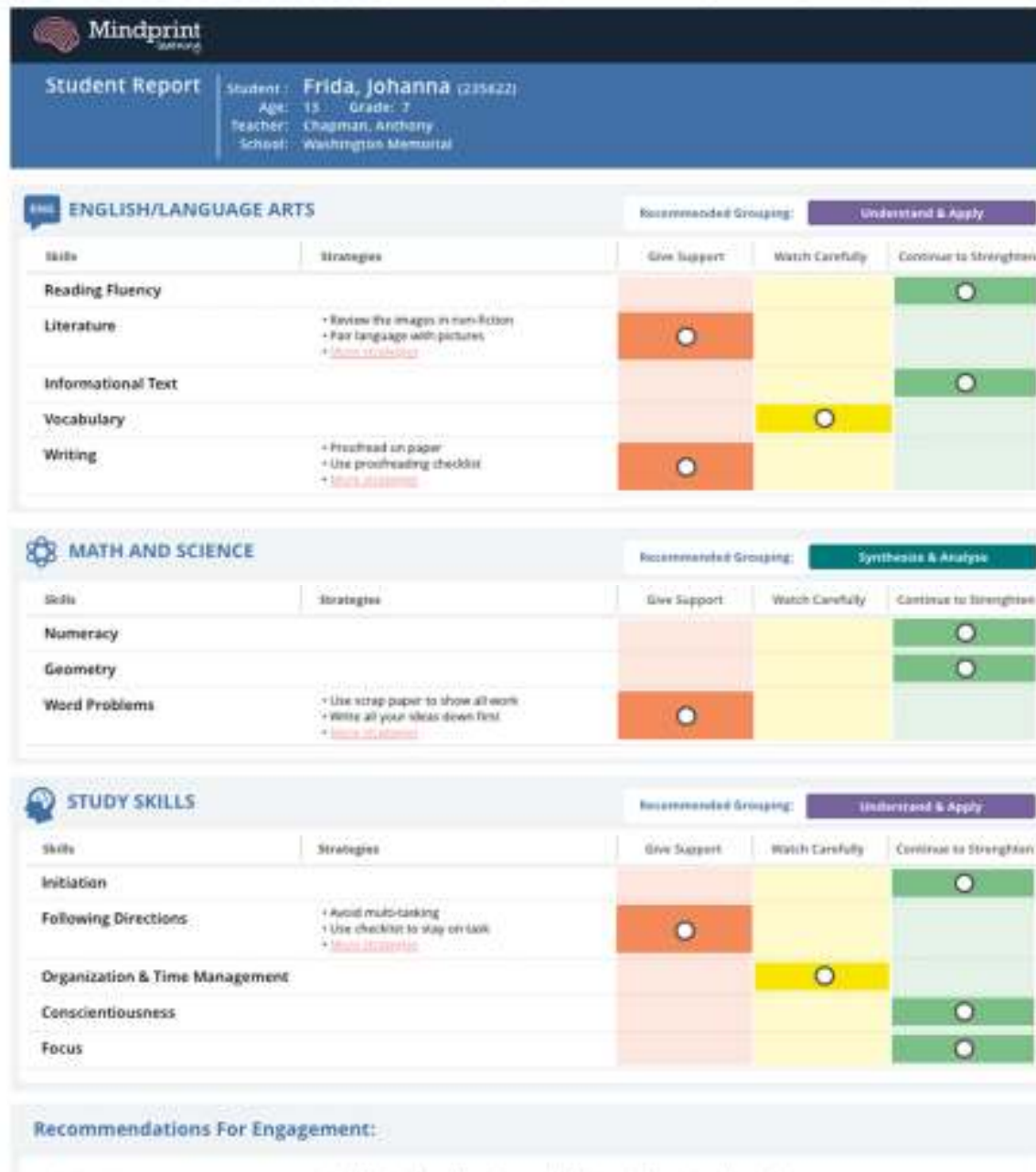
STRENGTHS



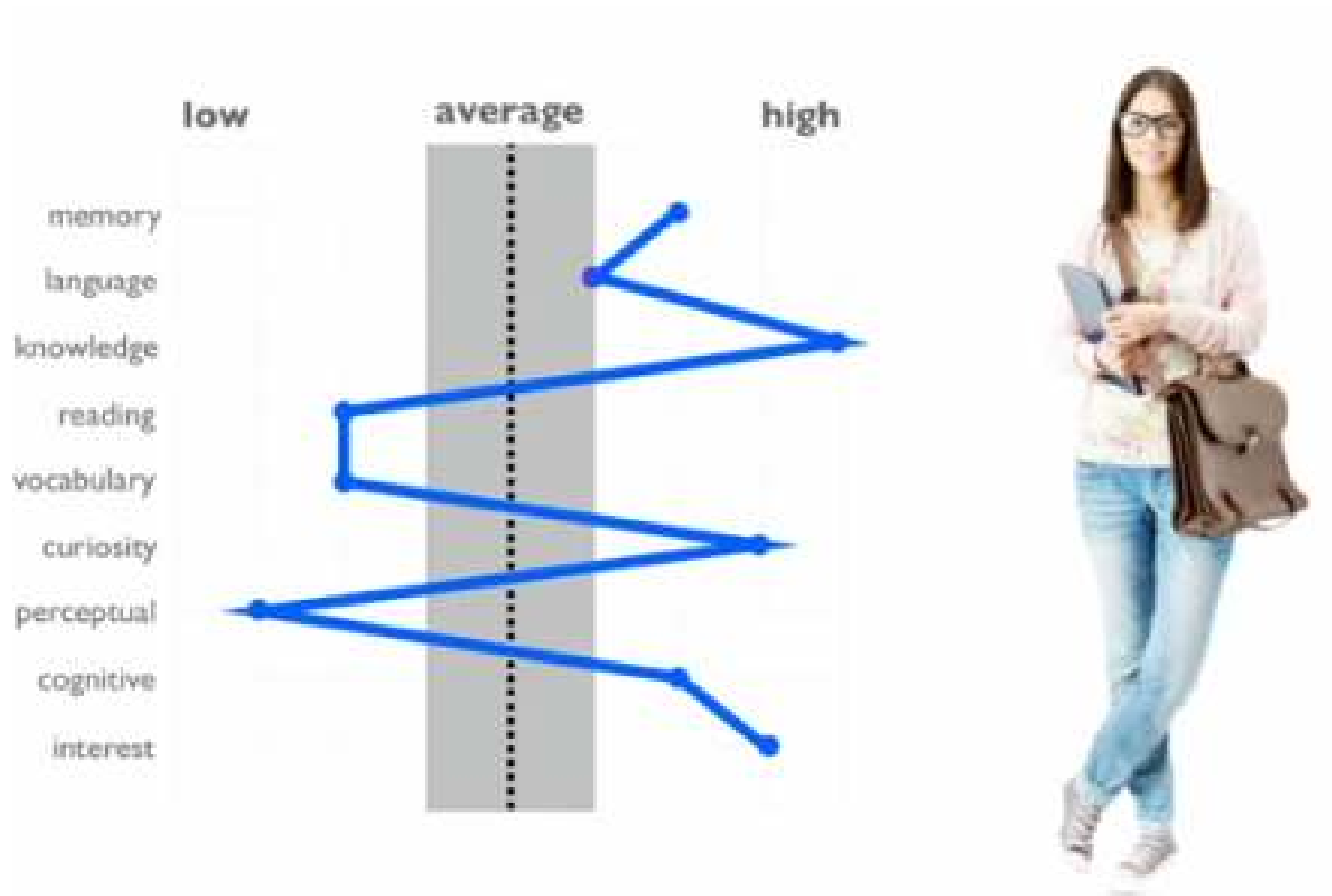
None

SKILLS TO SUPPORT

Learner Profile: Visualizing individual variability



Jagged Profile: The End of Average by Todd Rose



Options for Non-Academic Skills

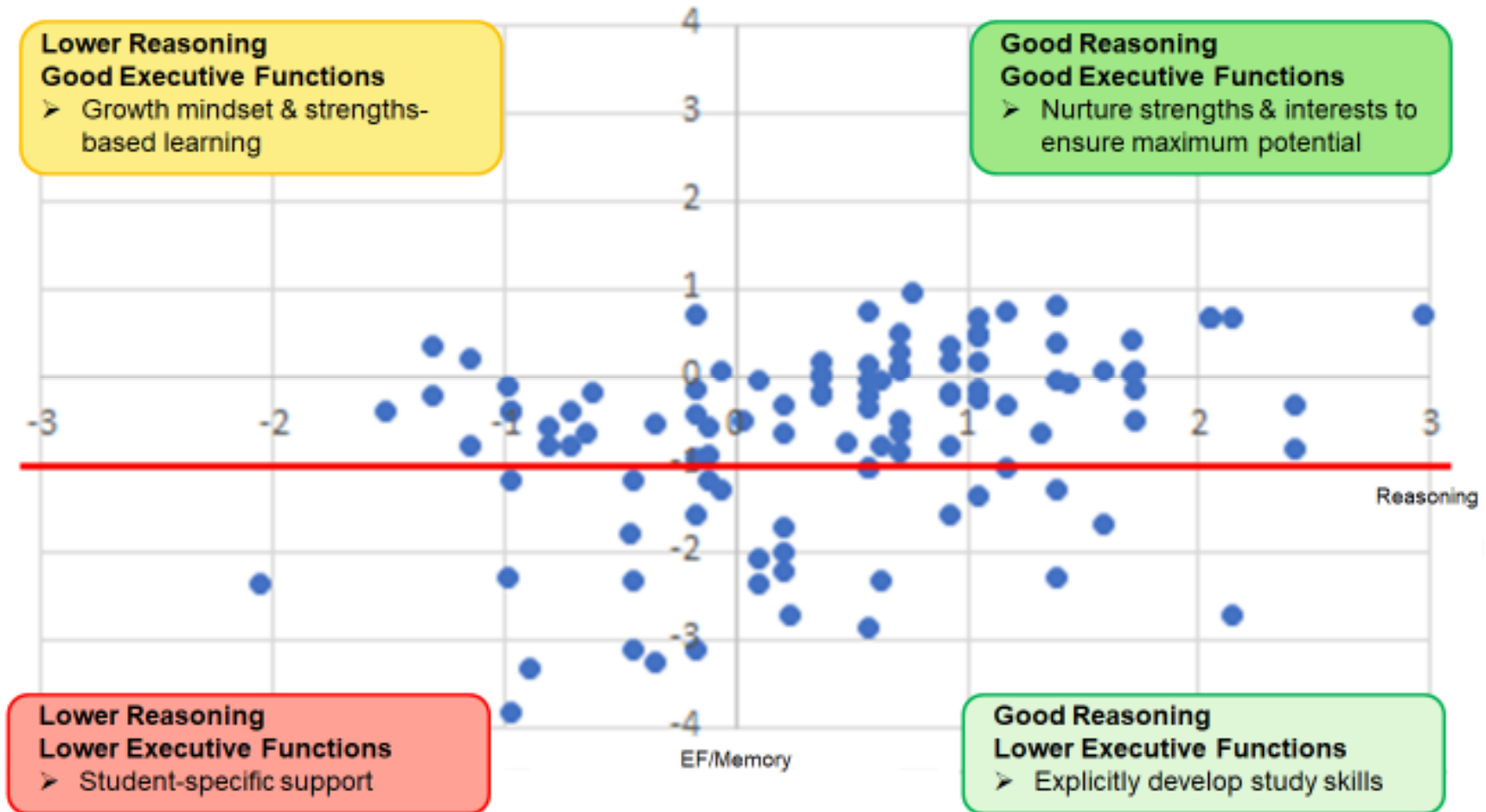
- **References and Non-Profit Resources**
 - [CASEL](#)
 - [Understood](#)
 - [Eye to Eye](#)
 - [Child Mind Institute](#)
 - [MSLQ](#)
- **Platforms and Products**
 - [Aperture](#)
 - [ACT/Tessera/Big 5](#)
 - [Character Lab](#)
 - [The Empowered Student](#) (Mindprint/CAST)
 - [Sanford Harmony](#)
 - [BrainWare](#)

What we know about learner variability

- Most students have the innate reasoning capability of mastering K12 subject content
- But other skills can interfere...
 - Focus/Executive Functions
 - Efficiency
 - Memory/Retention
 - Motivation/Mindset
 - Social-Emotional (anxiety, depression, stress)

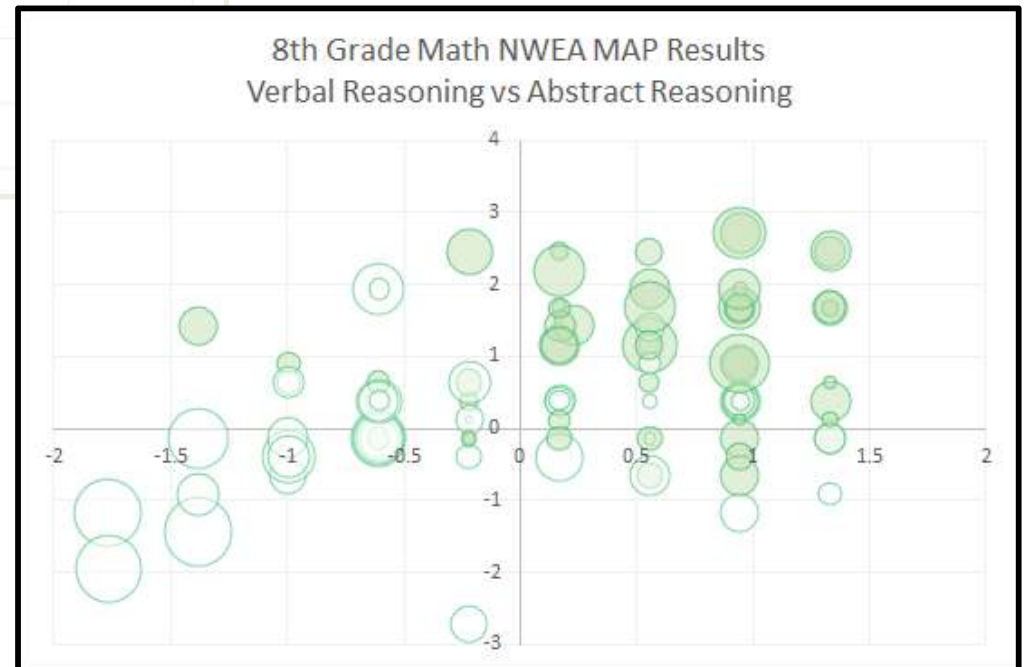
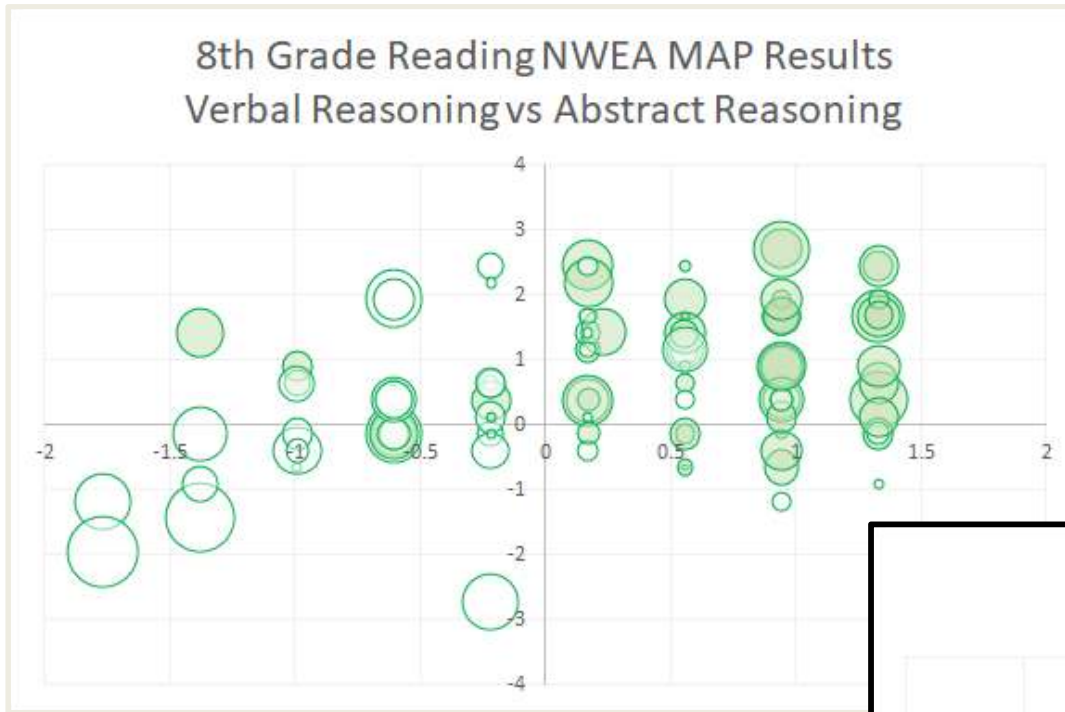
Students are Capable: But MOST need strategies

Mindprint Reasoning vs. Executive Functions/Memory



Cognitive Explains Achievement:

Why and how to move students to “green”



Green bubbles \geq Median performance
White bubbles $<$ Median performance
Bubble size represents differential from the median

Self-Reflection

Strengths/High

- How did they help you succeed?
- Do you wish you could have used them MORE in school?
How?
- What would school have been like if you didn't have your strengths?

Skills to Support/Low

- How did they create challenges for you?
- How did you overcome those challenges?

Implications

Strengths/High

- Are there students who might have strengths that you aren't seeing?
- Do students with certain types of strengths have more opportunities than other strengths?
- What could you do in your classroom to nurture different types of strengths

Skills to Support/Low

- Are there students' whose skills are masking their strengths
- How could you support students who struggle with specific skills if you knew them?



How to

Choose Strategies?

<https://my.mindprintlearning.com/search>

https://my.mindprintlearning.com/search?name=&academic_topics=228&cognitive_skills=&interests=&product_types=10.3.11.12.13&a...

Toolbar Help

I want to search for...



Search By:



Academic Subjects



Cognitive Skills



Interests

Vocabulary

Clear

Filters

Product Types

Activities

Games

Video Lessons

Websites

Worksheets

Apps

iOS

Android

Learning Strategies

Parenting Strategies

Teaching Strategies

Mindprint Skills

Study Strategies

Show Products for Ages

Slide to choose range

3 21+

update filters

Search Results

Showing 1 - 1 of 11 results

Sort results by

Most Added



Extra Vocabulary Reinforcement

For: Parents, Teachers

Given the direct correlation between vocabulary and comprehension, it is important that students receive formal and ongoing vocabulary development if their vocabulary or comprehension is not at grade level. How to Apply (1) It is estimated that students... [View More](#)

Tags

Reading

All Ages

Strategy

Flexible Thinking

Skills

Expressive Language

Verbal Reasoning

Verbal Memory

Abstract Reasoning



Vocabulary Pre-Instruction

For: Teachers

Provide students with key vocabulary words prior to reading a complex text to help them improve their comprehension while reading. How to Apply (1) While this strategy can work for any text, it might be most useful in subjects like science or social stu... [View More](#)

Tags

Reading

All Ages

Strategy

Flexible Thinking

Skills

Working Memory

Attention

Verbal Reasoning

Verbal Memory

Abstract Reasoning

Memorization

Multi-modal Vocabulary Strategies

500+ Evidenced Based Strategies: Targeted and actionable

The screenshot shows a digital strategy card for 'Pause before Answering'. At the top left is a 'Math' icon with a calculator. The title 'Pause before Answering' is in blue, with 'For: Students, Teachers' below it. A red 'Add to Plan' button is in the top right. Below the title are 'Tags' (Mathematics, Science, Social-Emotional Learning/Growth Mindset, All Ages, Strategy) and 'Skills' (Anxiety, Flexible Thinking, Self-regulation, Processing Speed). The main content is under the heading 'HOW TO Apply It!' and contains four bullet points, each with a checkbox. A vertical scrollbar is on the right. At the bottom right, there is a 'Strategy' tag and another 'Add to Plan' button.

Math

Pause before Answering

For: Students, Teachers

Tags Mathematics Science Social-Emotional Learning/Growth Mindset All Ages Strategy

Skills Anxiety Flexible Thinking Self-regulation Processing Speed

HOW TO Apply It!

- If the problem is unfamiliar or seems to have a unique twist, that is the time to step back and evaluate first. Pause and give yourself time. If you are certain of a problem, continue to work at your typical pace.
- Stay calm. If you aren't certain, you are not alone. Just take a breath and try to relax.
- Hold your pencil to the side and force yourself to think for at least three seconds before writing anything.
- Use your good reasoning to systematically identify similarities and differences to familiar problems: How is this like other problems? What is different? What specific aspect of the problem makes me pause and why? What am I certain of? Where am I uncertain? Can I brainstorm multiple options for the uncertain parts?

Strategy

Why It Works (the Science of Learning)!

Research on students solving unfamiliar problems, showed that most students make quick decisions on a problem solving approach and persist on that path, whether right or wrong. Taking time to simply pause, ask yourself some specific questions or use a picture, is shown to result in significantly better outcomes.

Whole Class Instruction:

Efficiently differentiate based on how students learn best



Personalized Instruction:

Focus, plan and support

The dashboard is titled "Amy's Personalized Learning Plan" and features a navigation bar with "Back to Account Home", a search bar, and buttons for "Student Plans", "Search", and "Personalized Toolbox". The main content area is divided into three columns: "Areas to Develop" (with checkboxes for Study Skills, Reading, Writing, Math, and Group Work & Class Participation), "Mindprint Profile Skills" (listing Strengths like Abstract Reasoning and Spatial Perception, and Skills to Support like Flexible Thinking and Verbal Reasoning), and "Strengthen Mindprint Skills" (providing links for teachers and parents to understand the learner's profile and skills to support).

Add/change subjects and best fit strategies based on preferences

STRATEGIES FOR IMPROVING & NURTURING LEARNING

This section displays two strategy cards. The first is "Hands-On Vocabulary Strategies" for students and teachers, which includes tags for Reading, Science, Social Studies, Foreign Languages, Other ELA, Study Skills & Tools, All Ages, and Strategy, and a "Best Fit" of Anxiety, Auditory Processing, Flexible Thinking, Verbal Memory, and Verbal Reasoning. The second is "Visualization or Mind Movies" for students, with tags for Reading, Study Skills & Tools, Middle/High School, Strategy, and Flexible Thinking, and a "Best Fit" of Anxiety, Auditory Processing, Flexible Thinking, Verbal Memory, and Verbal Reasoning. Below these is a "Math" section with a strategy card for "Pause before Answering" for students and teachers, with tags for Mathematics, Science, Social-Emotional Learning/Growth Mindset, All Ages, Strategy, and Flexible Thinking, and a "Best Fit" of Anxiety, Flexible Thinking, and Verbal Reasoning.

A vertical list titled "Strategies by Math" showing various strategies with green checkmarks and "Best Fit" indicators. The strategies include: "Pause before Answering", "Get Comfortable with Ambiguity", "Comparing Characters in EYOF", "Diagram Reasoning for Textual Understanding", "Secondary Middle-Range Strategic Instruction", "Over Process of Word Problems", "Positive Mindset to Avoid Math Anxiety", "Break Down or Reverse Word Problems", "Dyscalculia Math Skills", "High Anxious and Cautious Word Problems", "Strategy 'Get Right' Level of Support", "Open Check", "Math Journals", "Working on Fewer Problems per Page", "Elementary Math Strategies with Strategic Visual Skills", "Invisible Word Problems", and "Applying Executive Functions in English Language Learners".

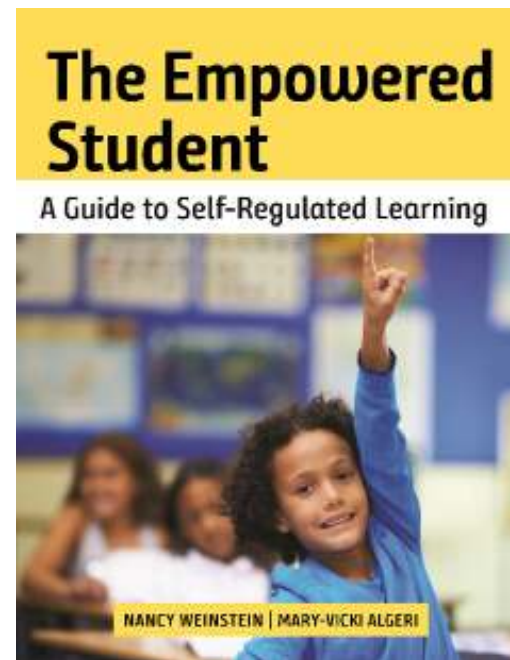
Other Options for Strategies

[Digital Promise](#)

[Understood.org](#)

[Visible Learning](#)

[CAST/Universal Design for Learning](#)



<http://castpublishing.org/books-media/empowered-student/>

Mindprint's Proprietary Assessment



Broad: Ages 8-21

Easy: Cloud-based, Self-Paced,
Group Optional

Efficient: 45 min - 1 Hour
Administrable over multiple
sessions

**Effective and
Evidence
Based:**

- Normed with 10,000 children
- Cited in 250+ academic papers
- Translated in 50+ languages
- Used by **NASA**



THANK YOU!

Nancy Weinstein

Nancy@mindprintlearning.com

<https://mindprintlearning.com>

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