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

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A little about you?

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

Agenda

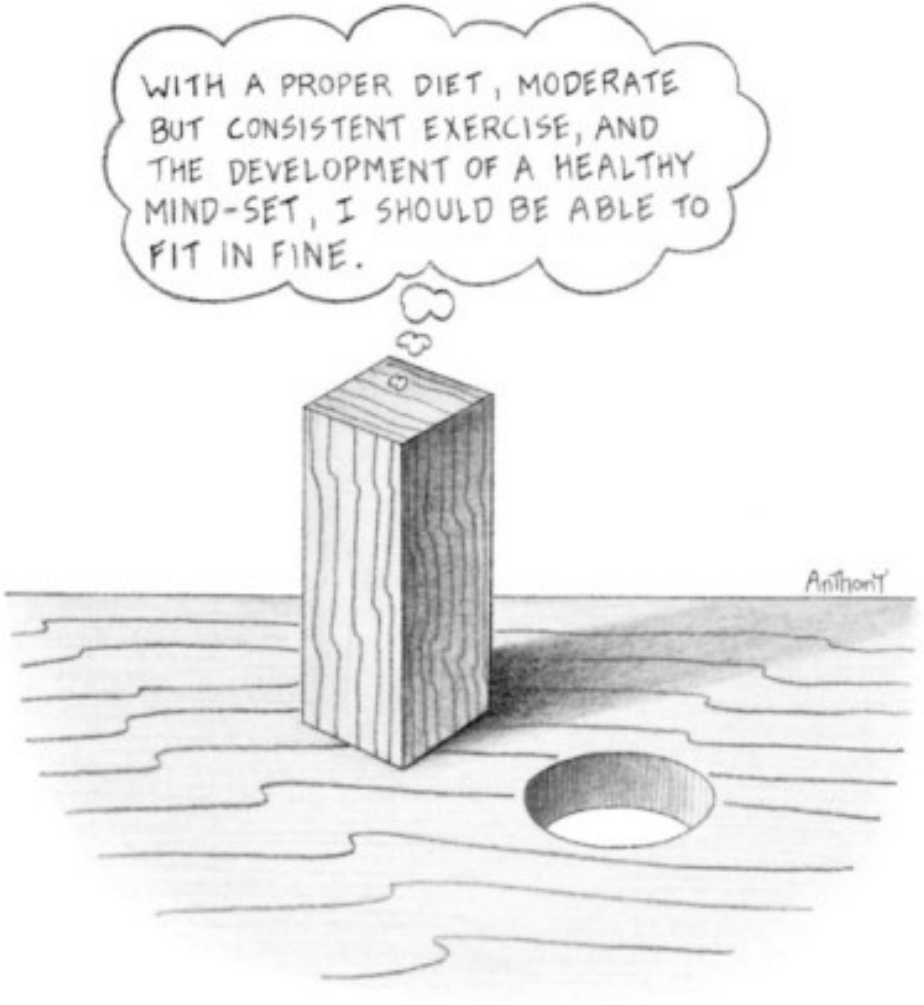
Define learner variability

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

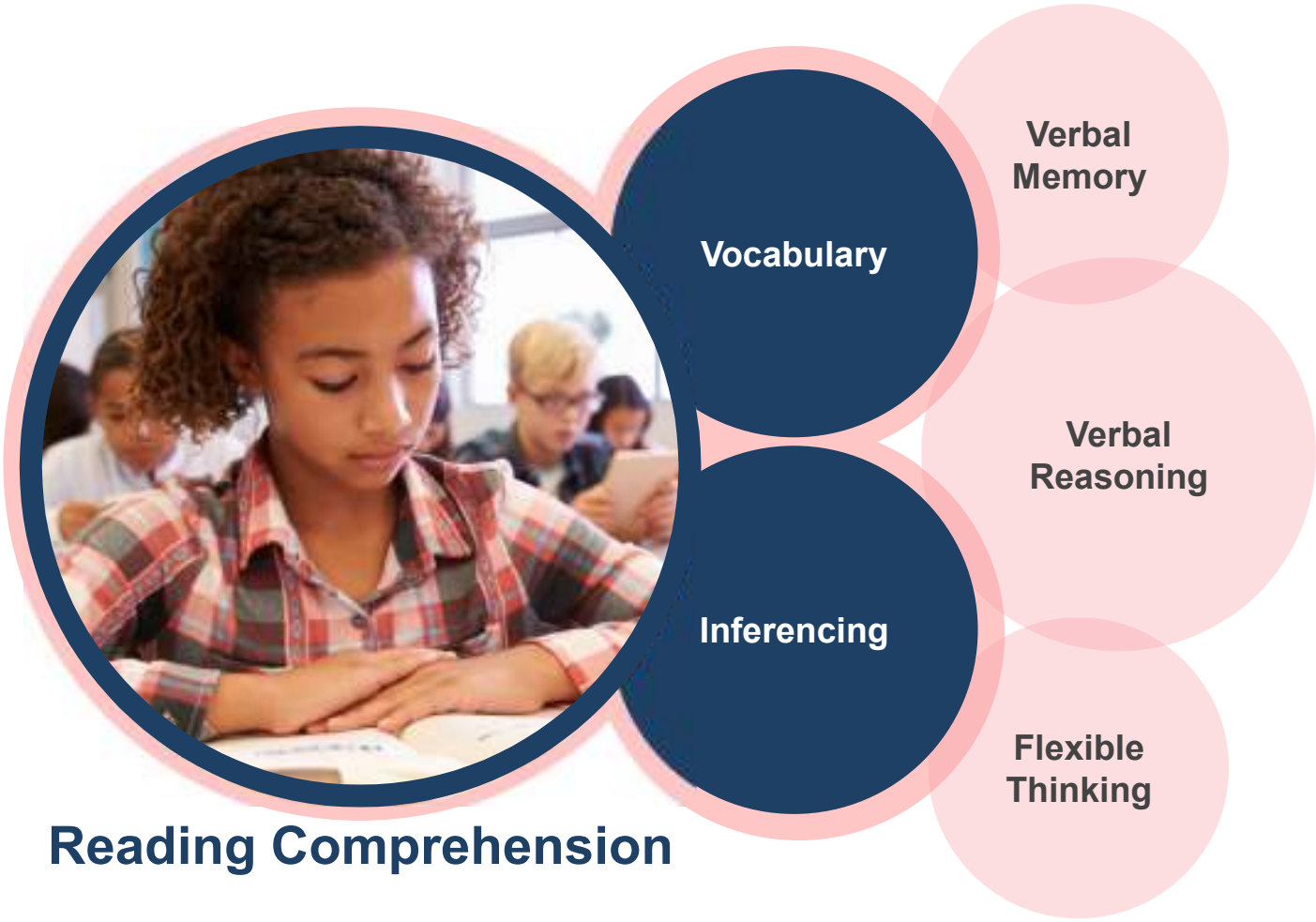
WHY?

Behavior/SEL

Self-Awareness
Self-Management
Social Awareness
Decision Making
Relationships

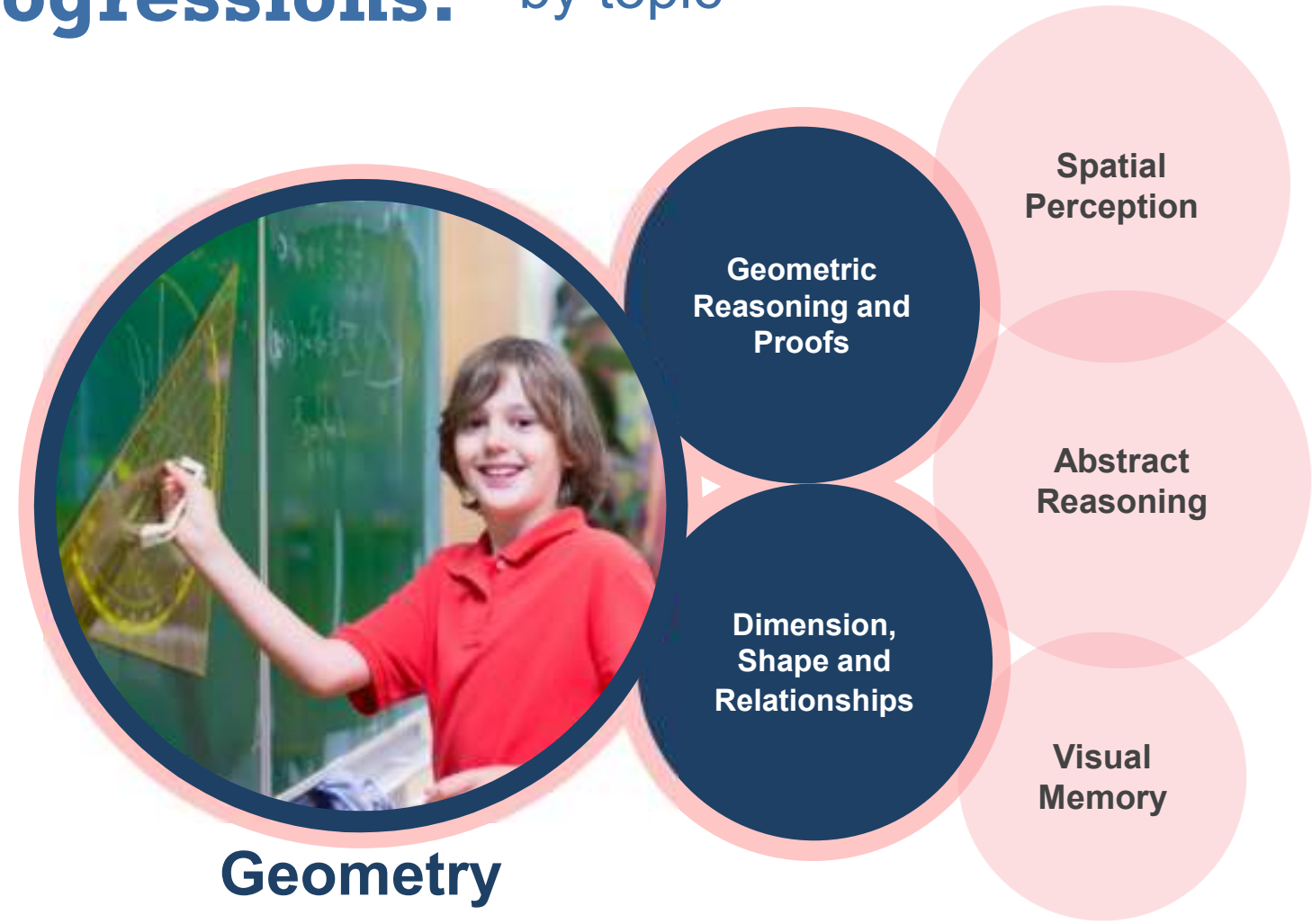
Foundational Skills:

Understand <u>how</u> to develop core skills for each learner



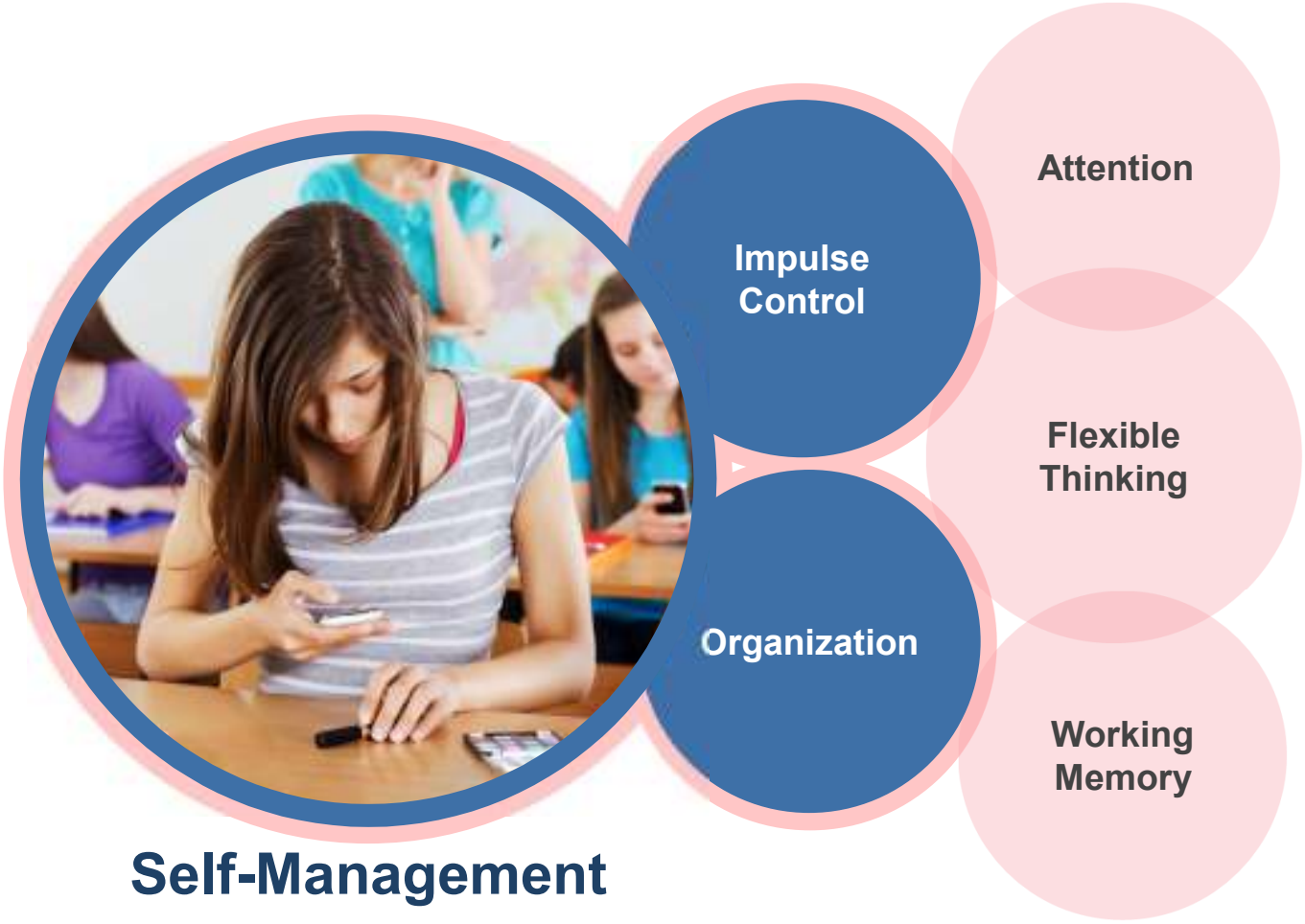
Learning Progressions:

Anticipate changing needs by topic



Social-Emotional Learning:

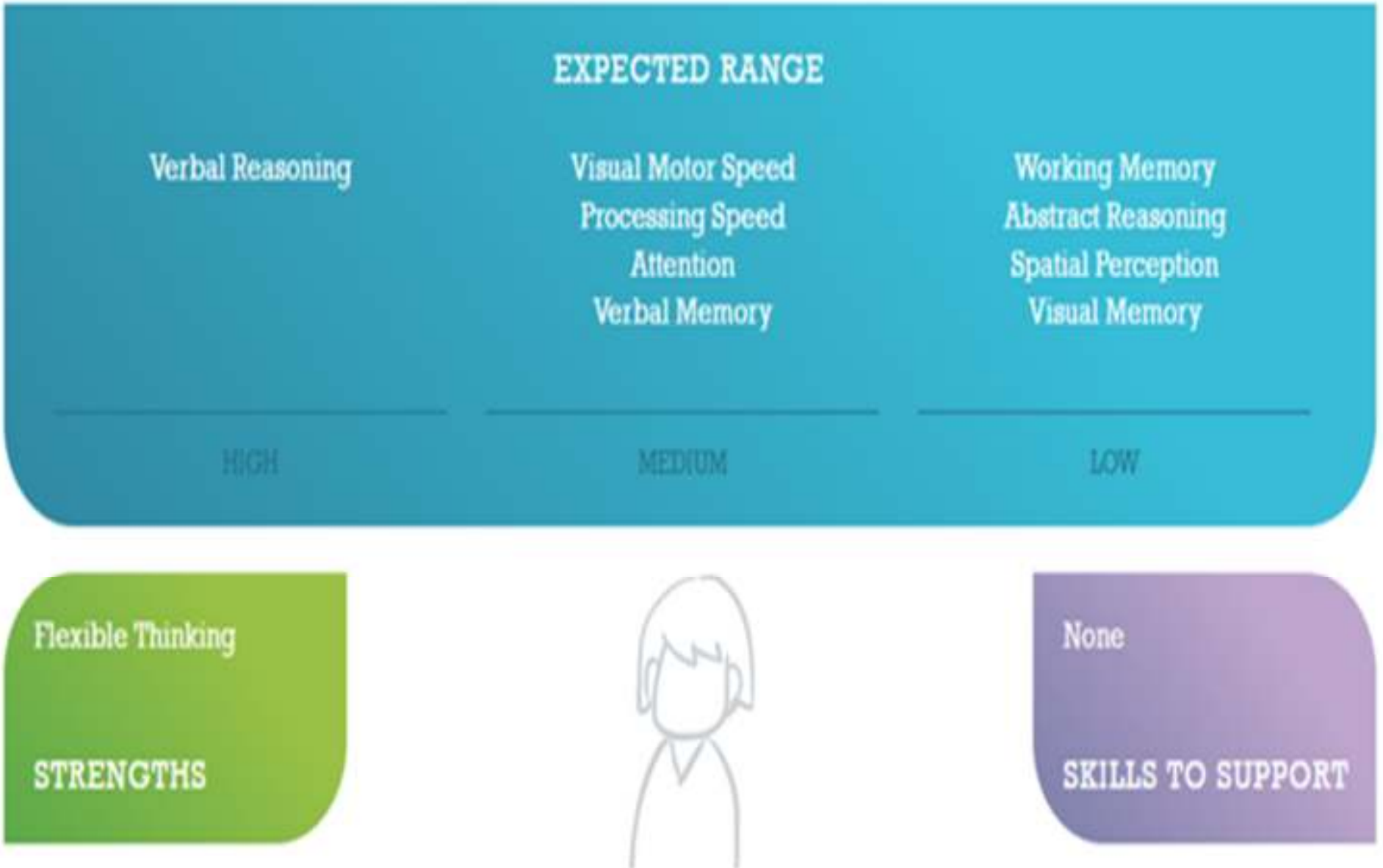
Understand and support root cause of behavior



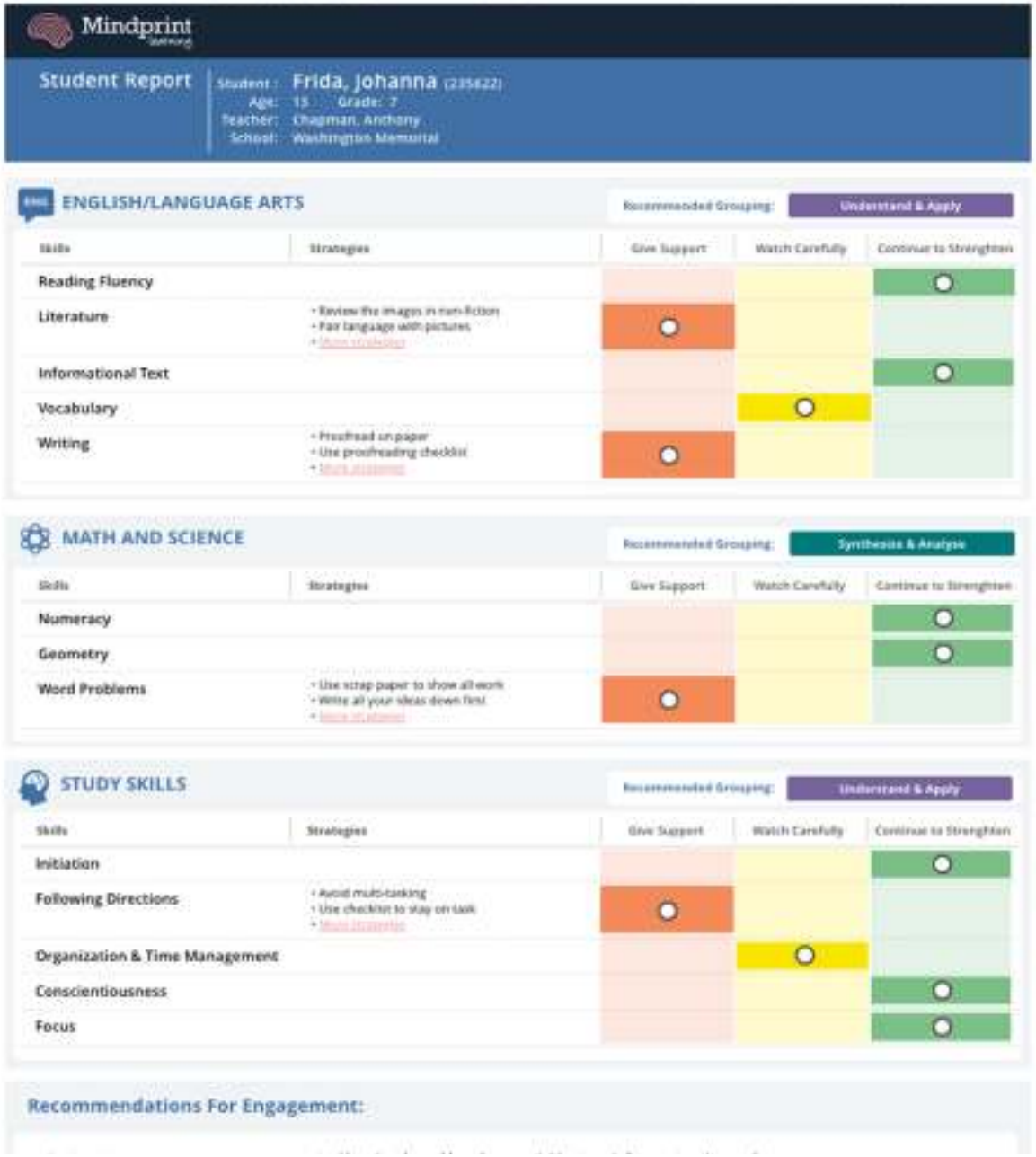
FUNDAMENTALS OF HOW WE LEARN

DOMAINS	REASONING	SPEED	MEMORY	EXECUTIVE FUNCTIONS
SKILLS *(DIMENSIONS)*	**Verbal** *Understanding and/or drawing inferences based on what you read or hear* **Abstract** *Understanding and/or drawing inferences from objects, images, numbers or concepts (without language-based explanation)* **Spatial** *Understanding visual and 3-D materials*	**Processing** *Rate of seeing, processing and understanding* **Visual Motor** *Efficiency in integrating visual and motor skills to complete a task. Often referred to as reaction time or response time*	**Verbal** *Storing and recalling what you read or hear* **Visual** *Storing and recalling concepts, numbers, objects, or other non-language information*	**Attention** *Initiating work and then maintaining sustained focus and behavior* **Working Memory** *Holding onto distinct bits of information in short-term memory and applying it during multi-step tasks* **Flexibility** *Adjusting and changing your approach to solve problems*
INDICATORS & EXAMPLES	***Verbal*** ○ *Reading Comprehension* ○ *Written Content* ○ *Math word problems* ***Abstract*** ○ *Math Reasoning (Numeracy, Pattern recognition, Algebra, Calculus)* ○ *Scientific Reasoning* ○ *Non-Fiction Reading* ***Spatial*** ○ *Reading fluency (Visual tracking)* ○ *Multi-step math problems* ○ *Geometry/Graphs/Charts* ○ *Physics* ○ *Art/Design*	***Processing*** ○ *Reading fluency* ○ *Math fact fluency* ○ *Class participation (Efficiently listening and responding)* ○ *Efficiency on written work, tests* ***Visual Motor*** ○ *Handwriting, Typing* ○ *Note taking* ○ *Hands-on projects (Science experiments, sports)*	***Verbal*** ○ *Vocabulary* ○ *Spelling/grammar* ○ *Reading comprehension (key details)* ○ *Retention of class discussion* ***Visual*** ○ *Math facts* ○ *Math & science formulas* ○ *Geometry* ○ *Retention of objects, images, charts, numbers or concepts*	***Attention*** ○ *Class participation* ○ *Task completion (Getting started,staying focused)* ○ *Homework efficiency* ***Working Memory*** ○ *Mental math* ○ *Multi-step problems/following directions* ○ *Note taking* ***Flexibility*** ○ *Problem solving* ○ *Transferring concepts* ○ *Project-based work* ○ *Adapting to surprises or disappointments*
PROCESS	***Understanding & Applying***	***Efficiency***	***Remembering***	***Organizing & Adapting***

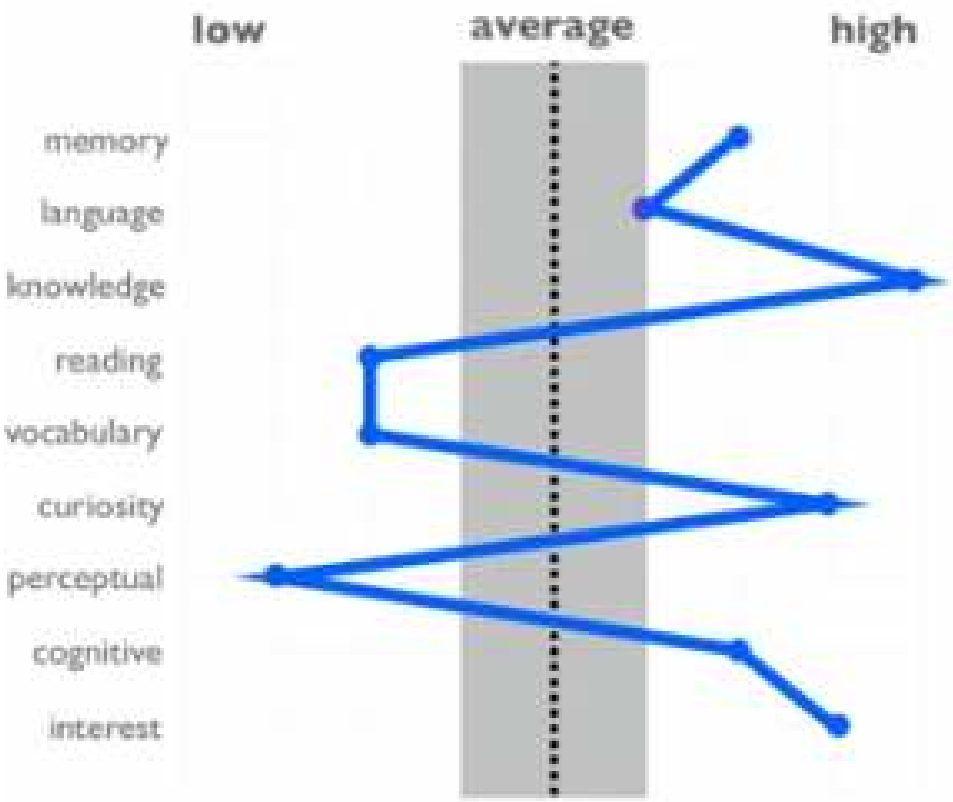
Learner Profile: Visualizing individual variability



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

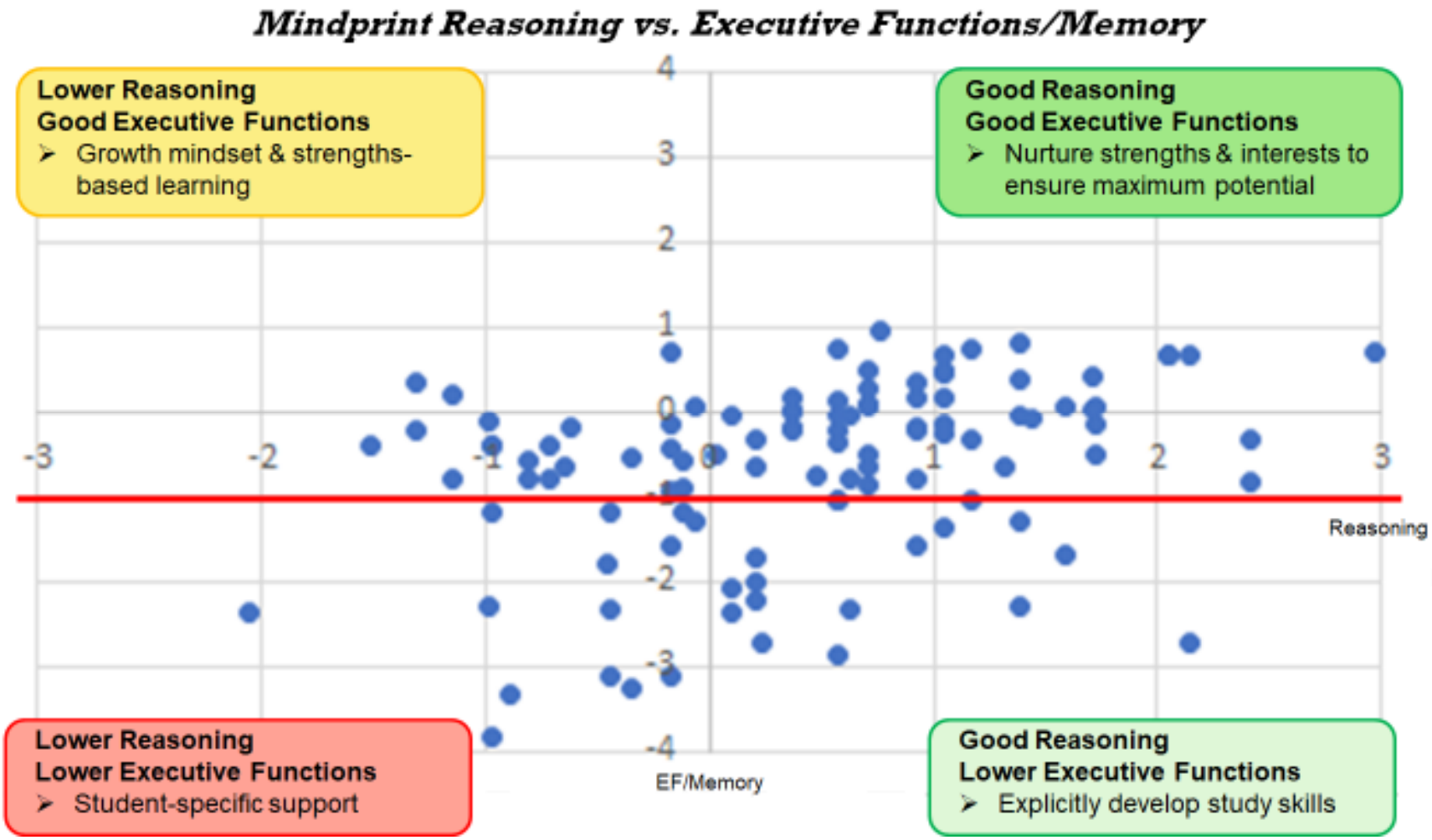
- **Platforms and Products**
  - Aperture
  - ACT/Tessera/Big 5
  - Character Lab
  - The Empowered Student (Mindprint/CAST)
  - Sanford Harmony
  - BrainWare

What we know about learner variability

- Most students have the innate reasoning capability of mastering K12 subject content

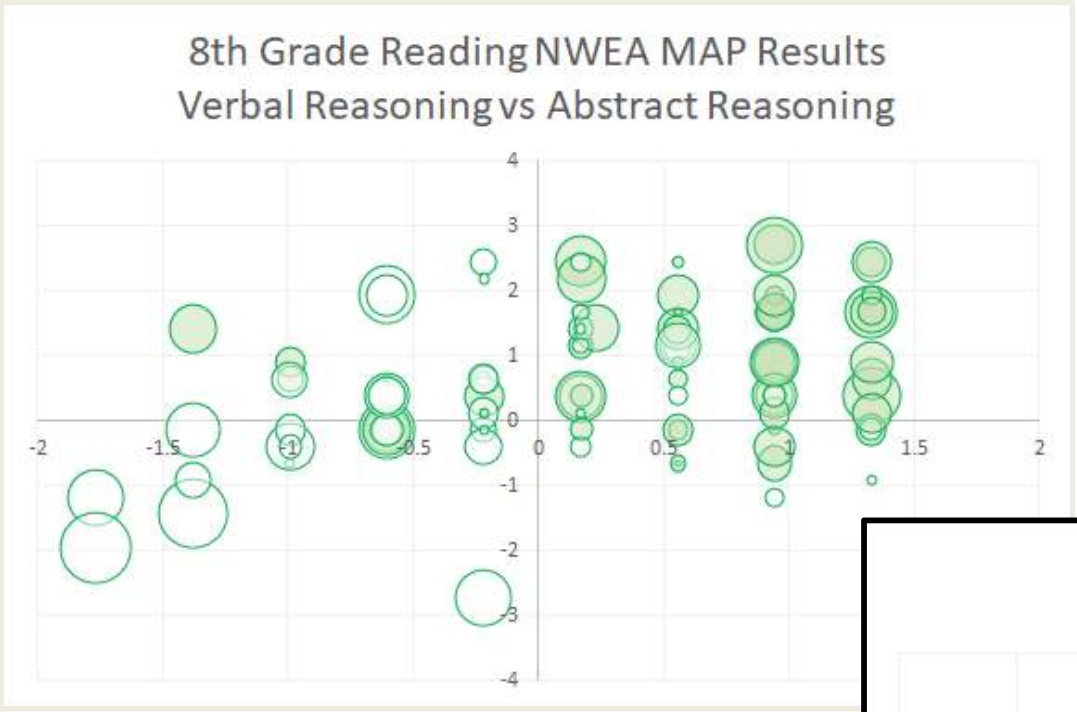
- But other skills can interfere…
  - Focus/Executive Functions
  - Efficiency
  - Memory/Retention
  - Motivation/Mindset
  - Social-Emotional (anxiety, depression, stress)

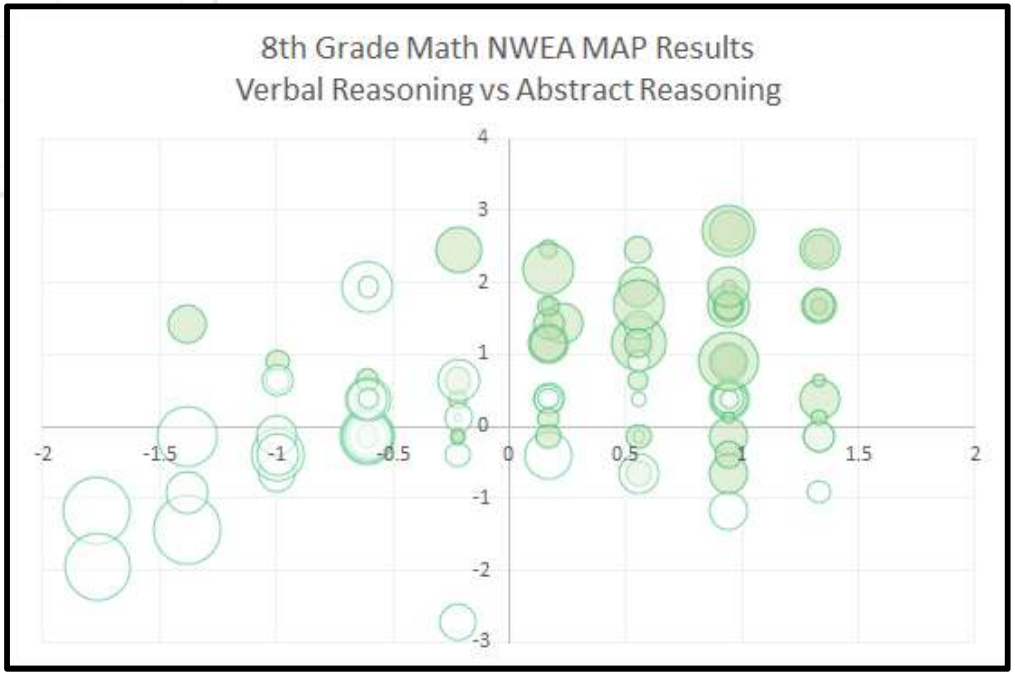
Students are Capable: But **MOST** need strategies



Cognitive Explains Achievement:

Why and how to move students to “green”





Green bubbles >= 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

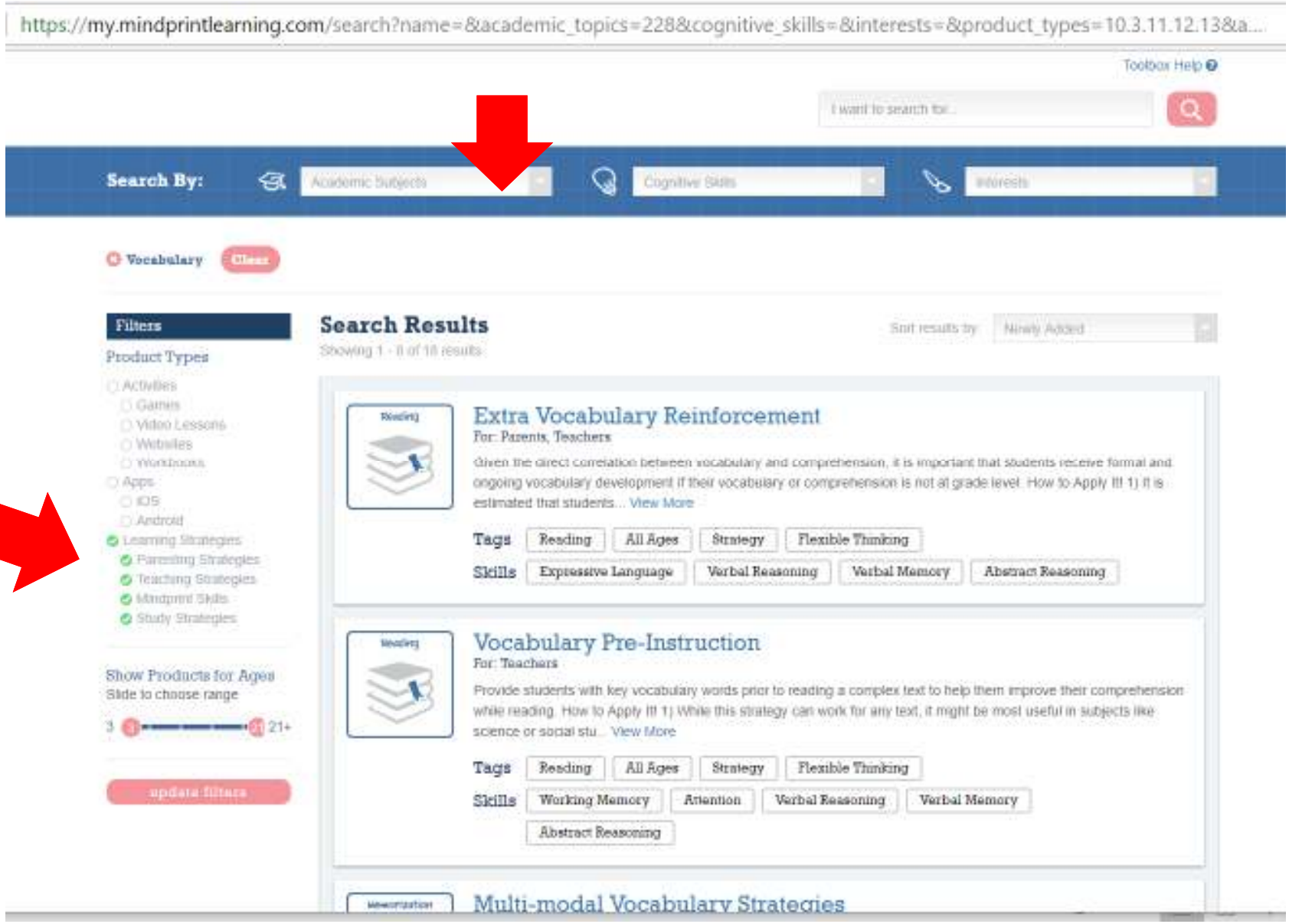
- Are there students who might have strengths that you aren't seeing?
- Do students with certain types of strengths have more opportunities than other strengths?
- What could you do in your classroom to nurture different types of strengths

Skills to Support/Low

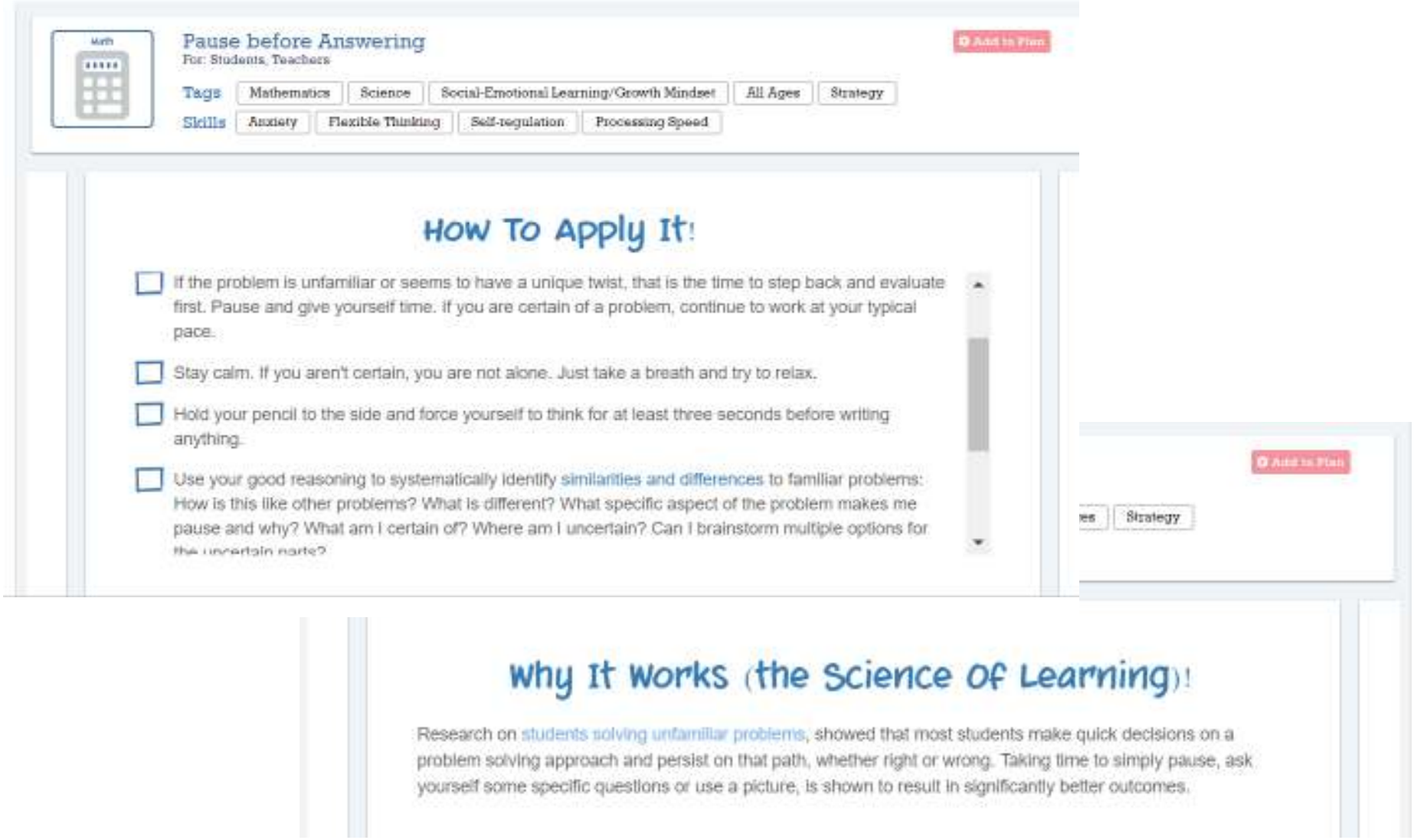
- Are there students' whose skills are masking their strengths
- How could you support students who struggle with specific skills if you knew them?

Choose Strategies?

https://my.mindprintlearning.com/search



500+ Evidenced Based Strategies: Targeted and actionable

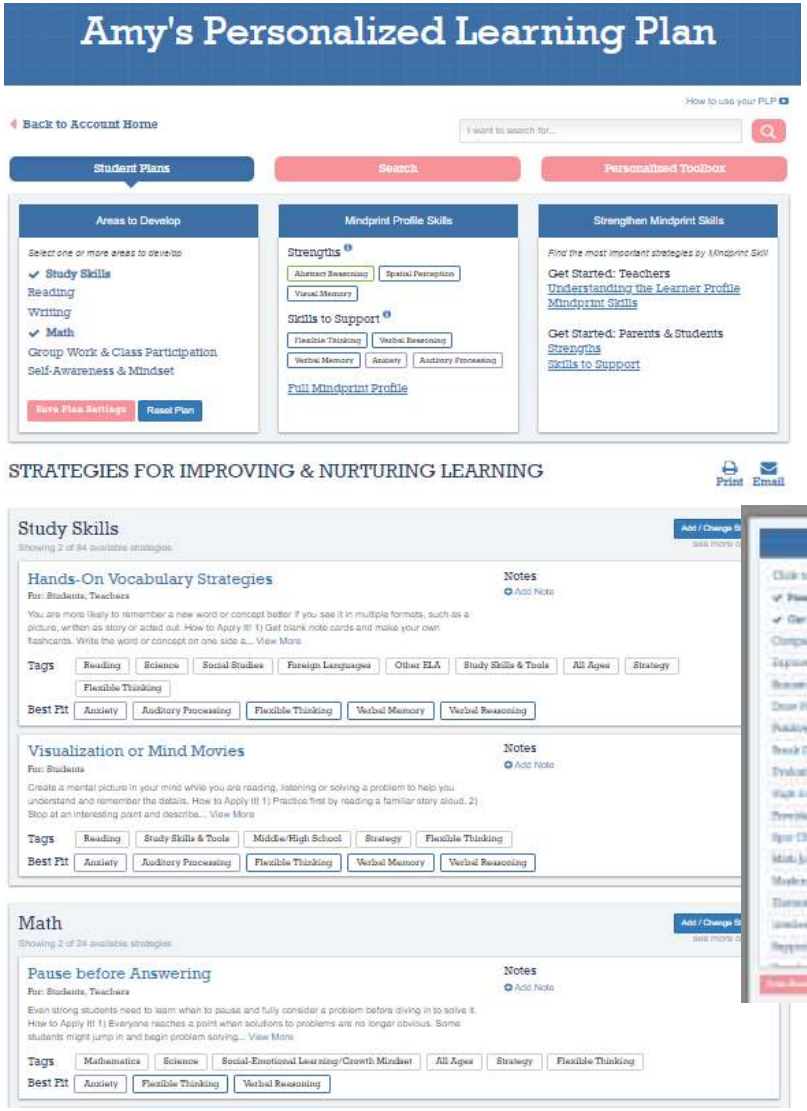


Whole Class Instruction:

Efficiently differentiate based on how students learn best

Personalized Instruction:

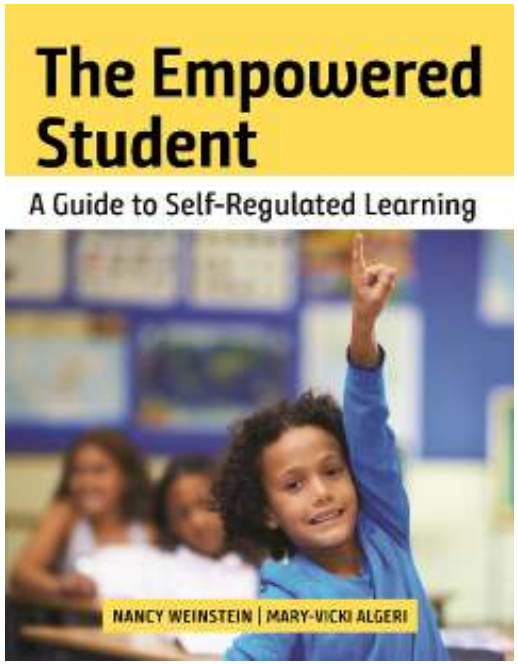
Focus, plan and support



Add/change subjects and best fit strategies based on preferences

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

Perelman School of Medicine
University of Pennsylvania

NIH
NIMH

THANK YOU!

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