



# How Are You Feeling Today ?



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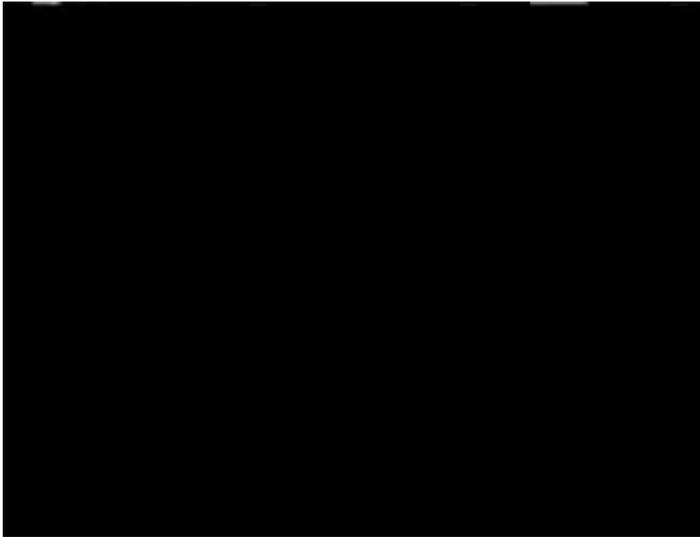
## Feeling Overwhelmed?

## Mindful Moment



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Do you  
know any  
kids (or  
adults!) who  
act like this?

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5

## Learning Objectives for Today

- Provide practical brain-based strategies to help students take charge of their learning.
- Analyze the difference between “thinking” and “knowing”
- Teach students to be metacognitive thinkers who can “Think Smart, Act Positive”
- Provide research-based interventions that are applicable for both the virtual and the traditional classroom.

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6



Good Educators  
don't say, "I already  
know this."  
They say, "How can I  
do this better?"

❖ Adjust

❖ Apply

❖ Adapt

## Routines & Procedures

- Mindful Moments/Brain Breaks
- Chat  LET'S CHAT
- Breakout Groups 
- Questions 
- EF Strategies 



## Multi-Tasking



~~READ  
CORRECT PAPERS  
EMAIL  
LESSON PLANS  
BALANCE CHECK BOOK  
WATCH TV~~

COLOR  
WASH DISHES  
FOLD LAUNDRY  
WALK ON TREADMILL  
KNIT  
STRETCH

Brittingham Professional Development Seminars



9



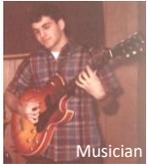
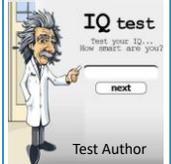
CHAT BOX: What's Your Role? Grade Level?

- Teacher
- School Psychologist
- Counselor
- University position
- Other?



10

# Who are We? What is our WHY?

 Secondary & Elementary Classroom Teacher	 Special Education	 <b>Kathleen's Intention:</b> To open the heart, nourish the mind, and inspire the spirits of learners and teachers.	 Musician	 How are you feeling today? School Psych
 Talent Development	 Multicultural Learners		 Professor of Psych	 IQ test Test your IQ... How smart are you? next Test Author
 Juvenile Delinquents	 Teacher of Teachers Teacher Researcher	 <b>Jack's Intention:</b> To help psychologists and educators know their students' cognitive and emotional strengths and needs to help them succeed in school and life.		

## Wedding the Art and Science of Teaching: Theory Into Reality



## Topics for Today's Workshop



What teachers and parents should know about EF

How to get students' EF to function

Instructional methods for EF

Use EF strengths

More instructional methods

SEL and EF

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13



**Core Groups:**  
 Coach = Lead the group  
 Organizer/Question Asker  
 Recorder = Keep notes as needed  
 Energizer = Growth Mindsets

EF Strategy: Giving specific responsibilities when working in groups puts the kids in charge, not us.

14



## In Your Breakout Groups...

- Choose your job. (Coach, Organizer, Time-Keeper, Energizer) **1 min.**
- The *Coach* reads the directions in the Chat Box.
- Starting with the *Organizer*, share your Name and Role. **(TK 3 min.)**
- TASK: What is the Number One job skill Forbes magazine says our students need succeed in today's workforce? **(TK: 2 min.)**
- After 6 minutes you get a pop-up notice that you'll be **returned to the whole group in 15 seconds**. *Energizers* will CHEER when your group returns.
- *Recorder* share #1 choice in Chat Box

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15

## The Four Cs of 21st Century Skills



### Communication

Sharing thoughts, questions, ideas, and solutions



### Collaboration

Working together to reach a goal — putting talent, expertise, and smarts to work



### Critical Thinking

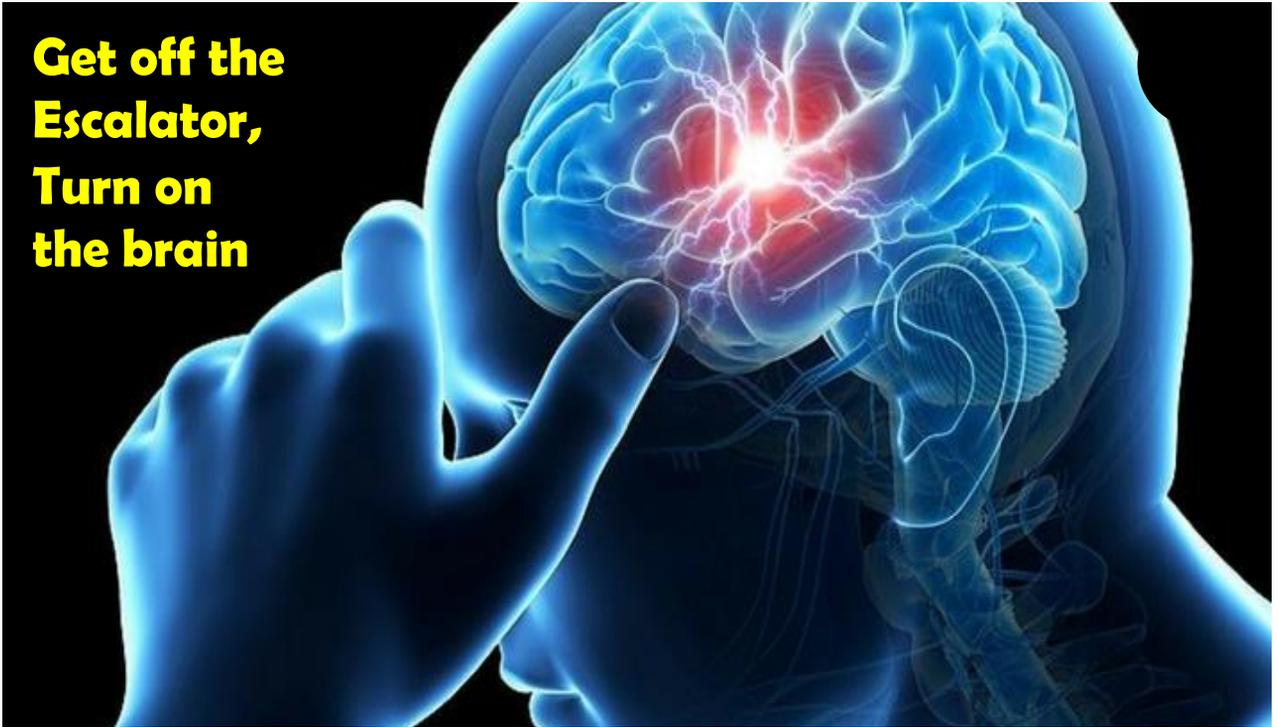
Looking at problems in a new way, linking learning across subjects & disciplines



### Creativity

Trying new approaches to get things done equals innovation & invention

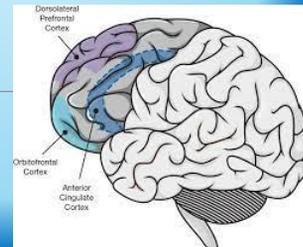
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17

# What Teachers and Parents should Know About EF

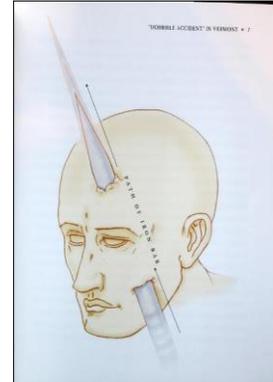
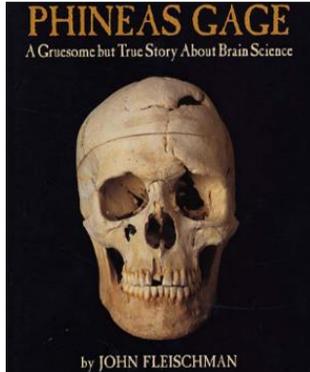
PSYCHOLOGIST TOO !



18

## The Curious Story of Phineas Gage

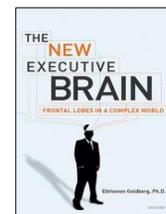
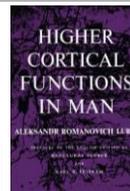
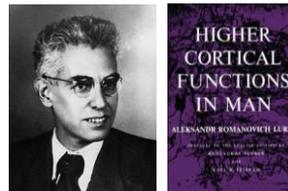
The story of Phineas Gage had a profound impact on our understanding of the Frontal Lobes



Fleishman (2002)

## Executive Function

- ▶ In 1966 Luria first wrote and defined the concept of Executive Function (EF) and described the frontal lobes as “the organ of civilization”
- ▶ Luria’s student, Nick Goldberg states that the frontal lobes are about ‘making decisions, leadership, motivation, drive, vision, self-awareness, and awareness of others, success, creativity, sex differences, social maturity...’



# Executive Function(s)

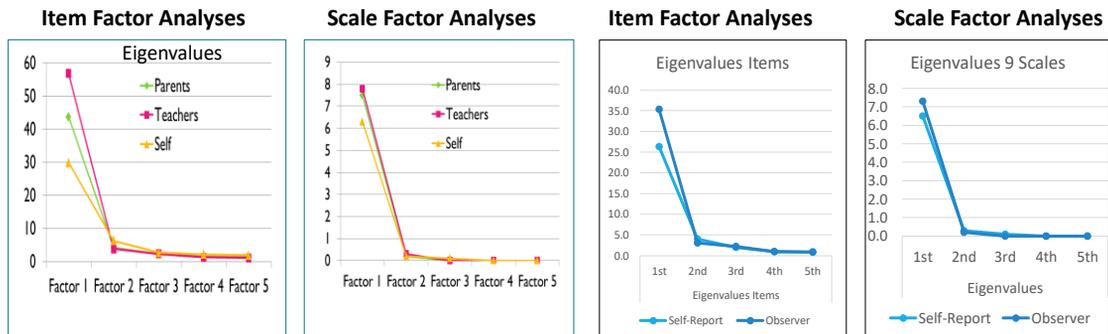
- There is no formal excepted definition of EF
- Goldstein, Naglieri, Princiotta, & Otero (2013) found more than 30 definitions of EF !
  - EF is a **unitary** construct
  - EF is a **unitary** construct with **many parts**
  - EF has **three components**: inhibitory control, set shifting (flexibility), and working memory
  - EF is a multidimensional model with many independent abilities
- **Critical Question: Is EF a unitary or multidimensional concept when measured by observable behaviors?**



**CEFI** Parent (N=1,400),  
Teacher (N=1,400) and Self (N=700)

**CEFI Adult** Self (N = 1,600)  
& Observer (N = 1,600)

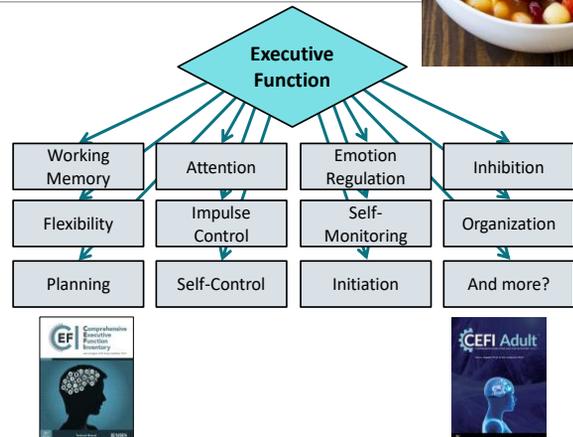
- Factor analytic studies using the CEFI and CEFI-Adult nationally representative standardization samples (N = 6,700)



# Executive Function or Functions



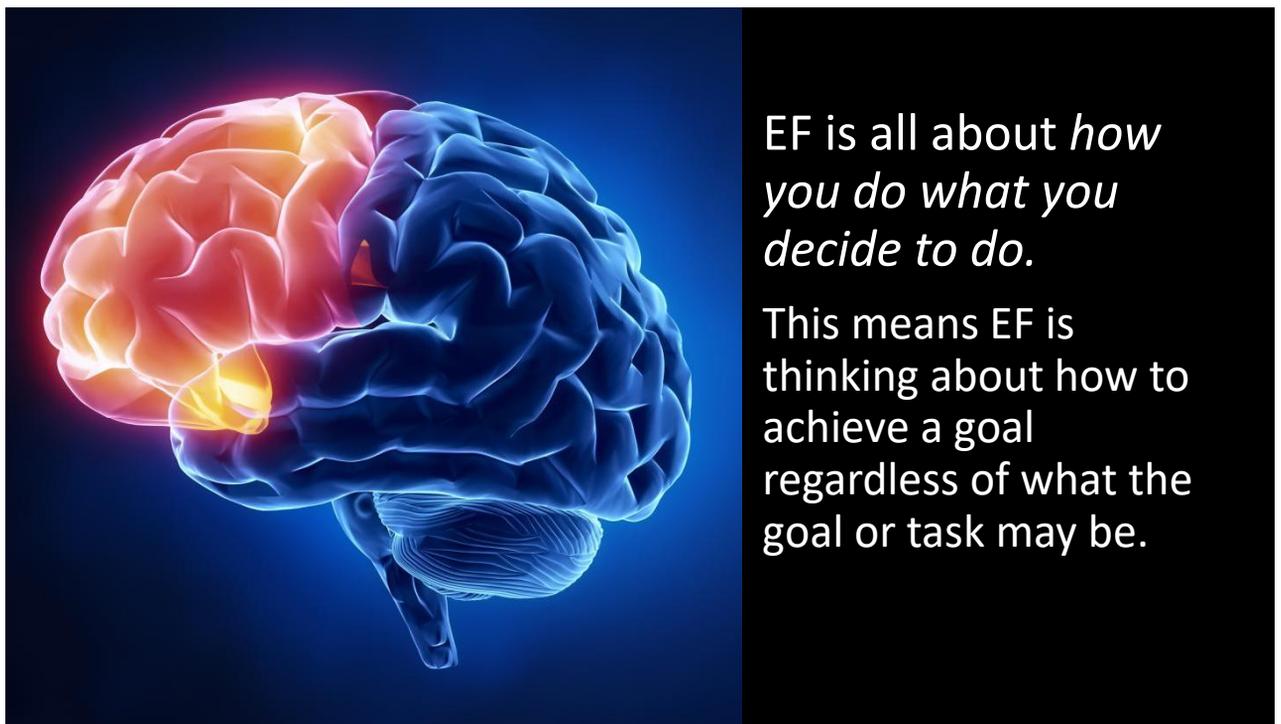
- Factor analyses also conducted by gender, race, ethnicity, clinical vs nonclinical status – same findings
- This means EF behaviors are best seen as **one construct**
- “How you do what you decide to do”**



CEFI (Naglieri & Goldstein, 2012)



CEFI Adult (Naglieri & Goldstein, 2017)



EF is all about *how you do what you decide to do.*

This means EF is thinking about how to achieve a goal regardless of what the goal or task may be.



- EF in Academics
  - How to write a story, solve a math problem, evaluate the demands of any task.
- EF in SEL
  - How to decide when to say something given what you think others want.
- EF in Life
  - How to conceive and manage your short- and longer-term goals.

25

## Knowing vs Thinking

- What does the student have to **know** to complete a task?
  - ***This is dependent on knowing the information related to the content***



How does the student have to **think** to complete a task?

***This is dependent on Executive Function***



26

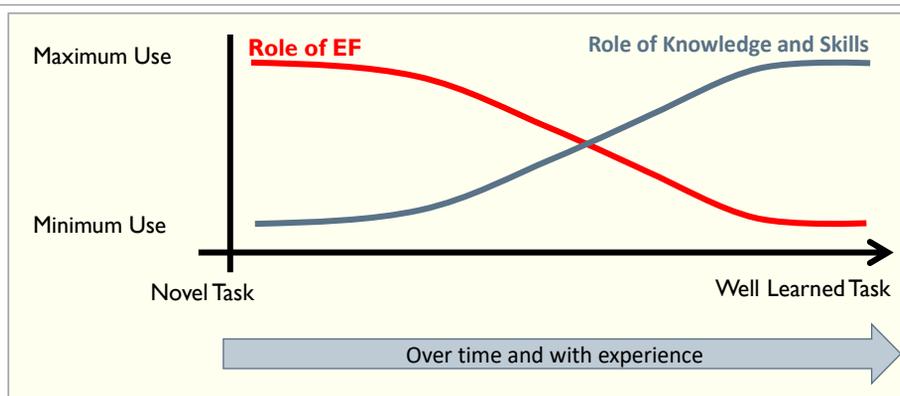


## EF's Learning Curves

(Goldberg, 2009; Naglieri & Otero, 2017)

- Because MAKING DECISIONS about how to do what you decide to do is particularly demanded in novel situations, we need to fully engage our frontal lobes (EF) to be successful in our world today.

## EF's Learning Curves (Goldberg, 2009; Naglieri & Otero, 2017)



- EF plays a major role in learning anything new (Goldberg, 2009, p. 90) but after the task has been well learned it becomes a skill and execution requires less EF (Naglieri & Otero, 2017, p. 117)

# Executive Function & Skills



- What is a SKILL?
  - “the ability to use one's knowledge effectively and readily” Merriam-Webster
  - Things you have learned that can be executed automatically (fluently) with ease and with little thinking
- What is Executive Function?
  - THINKING ABOUT HOW YOU DO WHAT YOU DECIDE TO DO
- EF is NOT a skill because EF demands THINKING

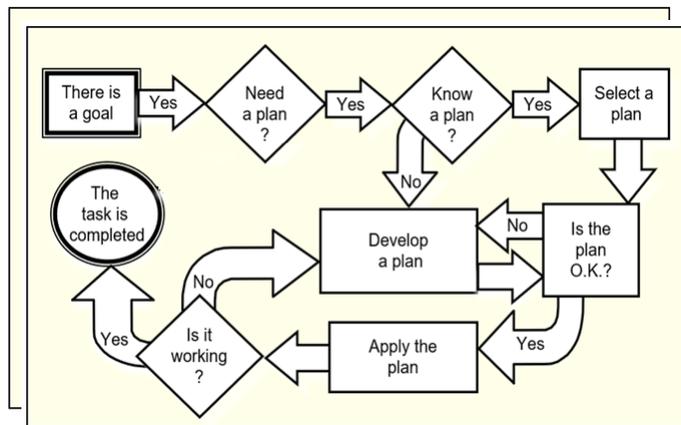
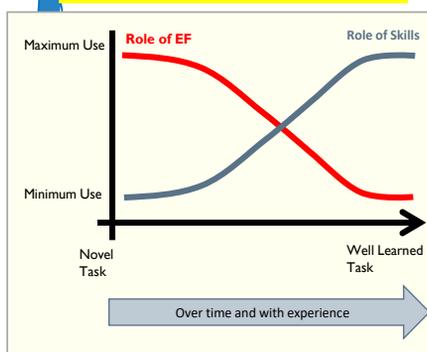
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29

## A Deeper View of Executive Function

**EF STRATEGY:** Graphic Organizers help us make sense of big ideas.

**How you do what you decide to do** which demands...Especially in NOVEL situations



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30

30

## Comprehensive *Assessment* of EF

- A comprehensive approach to understanding and assessing EF should include the multiple ways the concept is expressed.
- A rating scale alone is **not** sufficient.

Behaviors related to Cognition (CEFI, BRIEF)	Behaviors related to Social-Emotional Skills (DESSA)	Academic and job skills
Frontal Lobes are the Neurocognitive Foundation Cognitive Assessment System-2 <sup>nd</sup> Ed)		

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31

31

## Neuropsychological *Conceptualization* of EF



- If a person's frontal lobes are impaired that person would likely get low scores on:
  1. Behaviors related to Executive Function
  2. Performance measures Executive Function
  3. Rating scales of social emotional behaviors
  4. Academic tasks that require HOW to do things
- If a person has problems in all of the above except cognitive processes related to EF, the cause is likely an environmental issue

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32

32

# CEFI Full Scale and Treatment Scores

- First CEFI case we obtained from Goldstein's clinic
- Overall results: EF is OK - Average range
- Weakness in Emotion Regulation

Chapter 4: Interpretation

Figure 4.1. Illustration of Executive Function Weakness and Strengths on the CEFI (5-18 Years) Teacher Form

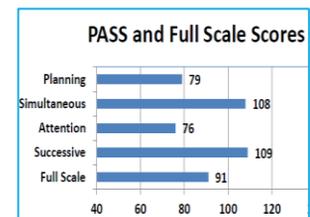
CEFI Scales	Standard Score	Difference From Youth's Average	Statistically Significant? (Yes/No)	Executive Function Strength/Weakness	90%/95% (circle one) Confidence Interval	Percentile Rank	Classification
Attention (AT)	95	- 6.7	Yes	-	90 to 100	37	Average
Emotion Regulation (ER)	82	- 19.7	Yes	Weakness	77 to 90	12	Low Average
Flexibility (FX)	112	10.3	Yes	Strength	103 to 118	79	High Average
Inhibitory Control (IC)	99	- 2.7	No	-	93 to 105	47	Average
Initiation (IT)	120	18.3	Yes	Strength	112 to 125	91	Superior
Organization (OG)	99	- 2.7	No	-	93 to 105	47	Average
Planning (PL)	101	- 0.7	No	-	96 to 106	53	Average
Self-Monitoring (SM)	102	0.3	No	-	95 to 109	55	Average
Working Memory (WM)	105	3.3	No	-	99 to 111	63	Average
Sum of Standard Scores	915	= 101.7	Youth's Average				

Note. Differences from the Child's/Youth's Average are significant at  $p < .10$ .

- Should we say there IS an EF problem because of Emotion Regulation score?
  - No, because the Total CEFI score is Average
- Further evaluation showed that the student had an Anxiety Disorder

## Case of Anthony Aged 8 Years (Dr. Tulio Otero)

- During Testing: Off-task behaviors (looking around the room) and agitation
- Comprehensive Inventory of Executive Function (CEFI) score = 83
- Executive Function Score from the Cognitive Assessment System (CAS2) = 77
- Social-emotional weaknesses (DESSA = 78)
- Academic weaknesses: Decoding Fluency, Listening Comprehension, Math Computation Written Expression (all below Average)





35



## LET'S TAKE A BRAIN BREAK!

The brain needs time **to process!**

- ❖ Stretch
- ❖ **Cross Laterals**
- ❖ Walk and Talk
- ❖ Energizers
- ❖ Relaxers

EF Strategy: The brain needs time to process

36



## Why Brain Breaks?

**SYN-NAPS:** Neurotransmitters needed for memory construction and attention are depleted after as little as ten minutes of doing the same activity. "Syn-naps" are brain-breaks You change the learning activity to let the brain chemicals replenish.

∅ The Syn-naps can be stretching, singing, or acting out vocabulary words. After just a few minutes, refreshed brains will be ready for new memory storage. Dr. Judy Willis

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37

**YOU CAN DO IT!**

So, how do we get students' Executive Function functioning?

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38

38

## Students can do MORE than we think...

- When children are constantly regulated by adults, they may appear to be self-regulated, but they are actually “teacher regulated.”
- If our goal is to...

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### EMPOWER



### NOT



39



## Don't Become Kid's Pre-Frontal Cortex!

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40

40



## Kids need to learn to use EF to Self Regulate

- Self Regulation is a deep, internal mechanism that enables children to engage in mindful, intentional and thoughtful behaviors.
  - Elena Bodrova and Deborah J. Leong
- *Self-Regulation includes skills that can be taught, it does not emerge naturally.*

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41

## Intentional and Transparent

Intentional: **YOU** Know why you're doing what you're doing.

Transparent - **THEY** know why you're doing what you're doing.



42

42



Brain Rule #4 – John Medina  
 “We need to repeat to remember”

**Talking** about an event immediately after it has occurred **enhances memory** for that event.

EF Strategy: Repetition helps us know what to focus on and locks in learning

43

43



## Why Intentional and Transparent?

- The human brain responds to knowing **WHY**.
- Teach **WITH** your students, not **at** them.
- Teaching kids **HOW** to learn is as important as teaching them **what** to learn.

44



## Latesha, Samantha and the Prefrontal Cortex

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45

### Winning Formula for Success in Your Classroom

Mindsets + Skill Sets = RESULTS!



Infinite Horizons  
Kathleen Kryza

# Developing Resilience

46

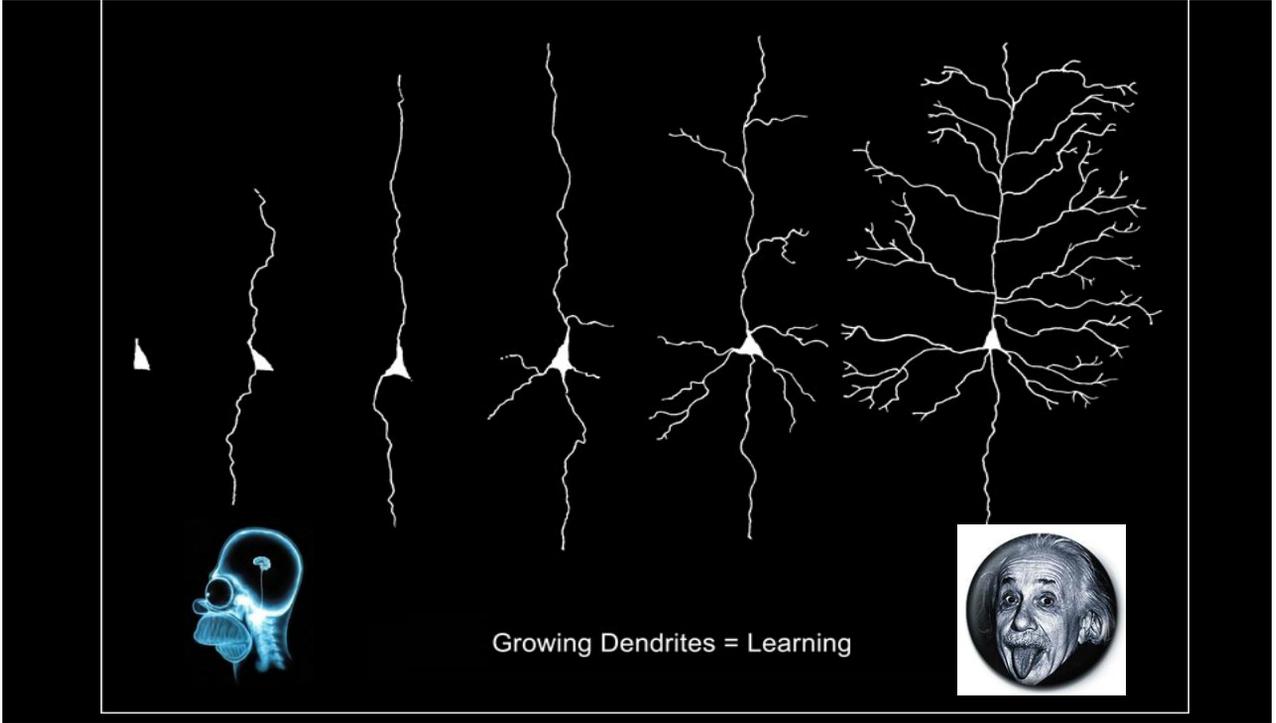
## Mindsets + Skillsets = Results

- Mindsets & Skillsets include
  - Brain-based concepts such as
    - Executive Function
    - Metacognition
    - Self-Regulation
    - Planning
  - These concepts are all closely related to the **FRONTAL LOBES** of the brain.



### Intentionally and Transparently Teach About Neuroplasticity

Neuroplasticity is the brain's ability to change and grow throughout a person's life. Research has shown that the **brain continues to change** even into old age.



49



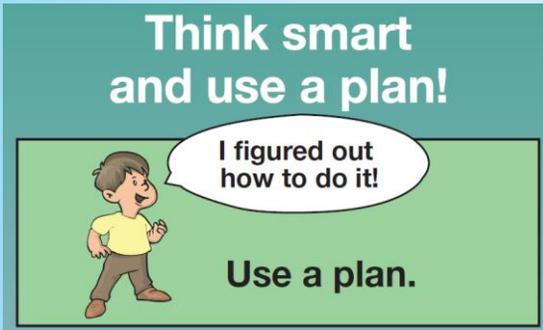
From neuroscience we know that...

NEURONS THAT FIRE TOGETHER WIRE TOGETHER!

50

50

## Think Smart: Use a PLAN!



## Instructional Methods for EF

From: Naglieri, J. A., & Pickering, E. B. (2010). *Helping Children Learn: Intervention Handouts for Use at School and Home (Second Edition)*. Baltimore, MD: Brookes Publishing.

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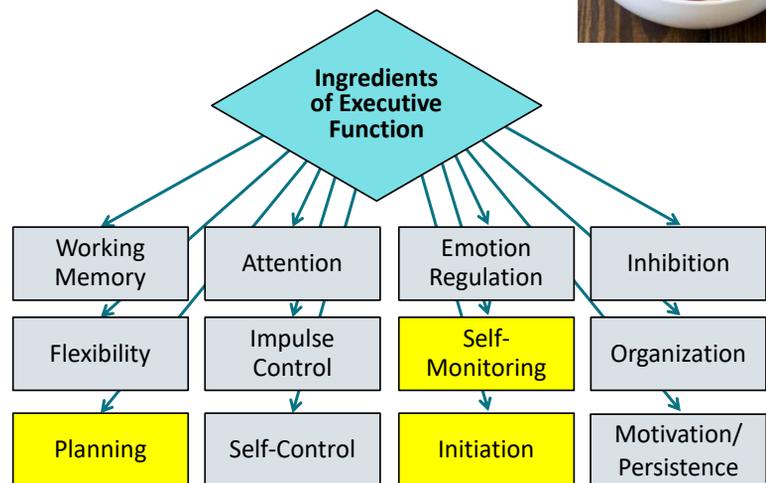
51

51

### Be Intentional and Transparent with students...

- Is their mindset getting in the way?
- What strategies (skills sets) do they need to develop for...
  - Initiation
  - Planning
  - Emotional Regulation
  - Etc.

### Focus: Strategies and Interventions



52



### A Cognitive Strategy Instruction to Improve Math Calculation for Children With ADHD and LD: A Randomized Controlled Study

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ON DISABILITIES  
Journal of Learning Disabilities  
44(2) 184-195  
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DOI: 10.1177/0022219410391190  
http://jld.sagepub.com  
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SAGE

Jackie S. Iseman<sup>1</sup> and Jack A. Naglieri<sup>1</sup>

#### Abstract

The authors examined the effectiveness of cognitive strategy instruction based on PASS (Planning, Attention, Simultaneous, Successive) given by special education teachers to students with ADHD randomly assigned by classroom. Students in the experimental group were exposed to a brief cognitive strategy instruction for 10 days, which was designed to encourage development and application of effective planning for mathematical computation, whereas the comparison group received standard math instruction. Standardized tests of cognitive processes and math achievement were given at pretest. All students completed math worksheets throughout the experimental phase. Standardized achievement tests (Woodcock-Johnson Tests of Achievement, Third Edition, Math Fluency and Wechsler Individualized Achievement Test, Second Edition, Numerical Operations) were administered pre- and postintervention, and Math Fluency was also administered at 1 year follow-up. Large pre-post effect sizes were found for students in the experimental group but not the comparison group on math worksheets (0.85 and 0.26), Math Fluency (1.17 and 0.09), and Numerical Operations (0.40 and -0.14, respectively). At 1 year follow-up, the experimental group continued to outperform the comparison group. These findings suggest that students with ADHD evidenced greater improvement in math worksheets, far transfer to standardized tests of math (which measured the skill of generalizing learned strategies to other similar tasks), and continued advantage 1 year later when provided the PASS-based cognitive strategy instruction.

## Self-Regulation, EF and Planning Intervention

A COGNITIVE STRATEGY INSTRUCTION OF MATHEMATICS, JOURNAL OF LEARNING DISABILITIES (2011)

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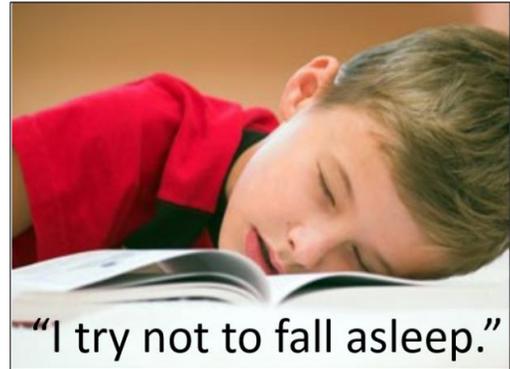
## Planning Facilitation: Asking vs. Telling

- Teachers facilitated discussions to help students become more self-reflective about use of strategies
- Teachers asked questions like:
  - What was your goal?
  - Where did you start the worksheet?
  - What strategies did you use?
  - How did the strategy help you reach your goal?
  - What will you do again next time?
  - What other strategies will you use next time?

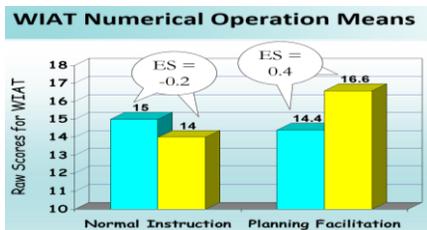
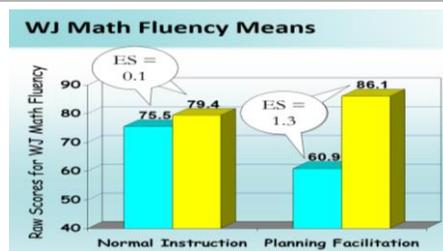
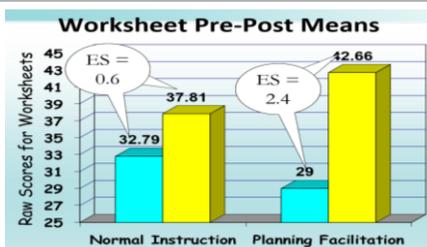
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## Student Comments During Planning Facilitation

- My goal was to do all of the easy problems on every page first, then do the others.
- I do the problems I know, then I check my work.
- The problems that have more steps take more time, so I skip them
- I did all the problems in the brain-dead zone first.



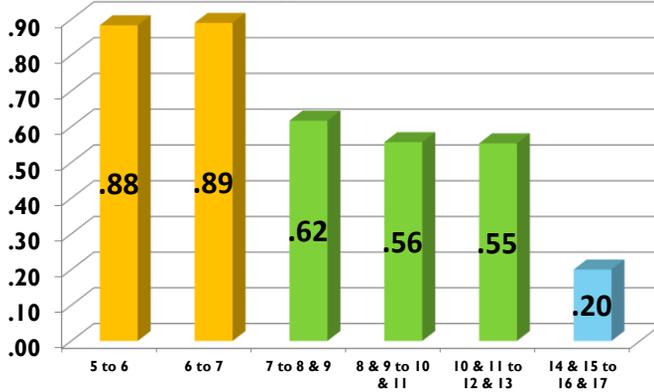
## Pre-Post Means and Effect Sizes for the Students with LD and ADHD



**One year after the intervention, the experimental group still had significantly higher WJ-III Achievement test scores than the control group.**

# Implications of Iseman & Naglieri (2005)

**Encourage EF !**



Best, et al (2011) reported means score differences between adjacent age groups (N = 2, 036) nationally representative sample (CAS normative group)  
 Effect Sizes: **small**; **medium**; **large**

Contents lists available at ScienceDirect  
**Learning and Individual Differences**  
 journal homepage: www.elsevier.com/locate/lindif

Relations between executive function and academic achievement from ages 5 to 17 in a large, representative national sample

John R. Best <sup>a,b</sup>, Patricia H. Miller <sup>b</sup>, Jack A. Naglieri <sup>c</sup>

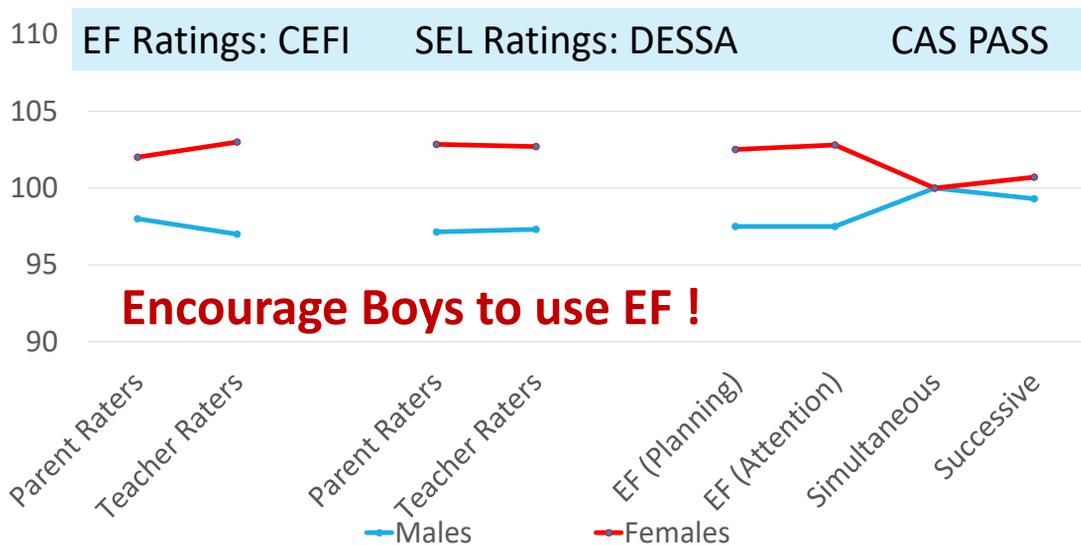
<sup>a</sup> Department of Psychology, University of Georgia, Athens, GA, 30602-3013, USA  
<sup>b</sup> Department of Psychology, San Francisco State University, San Francisco, CA, 94132, USA  
<sup>c</sup> Department of Psychology, George Mason University, Fairfax, VA, 22030, USA

**ARTICLE INFO**      **ABSTRACT**

**Keywords:**  
 Executive function  
 Academic achievement  
 Childhood  
 Adolescence

**ABSTRACT**  
 This study examined age-related changes in multiple executive functions (EF) in a large representative sample (N = 2036) aged 5 to 17 using the Cognitive Assessment System (CAS; Naglieri & Das, 1997). Relations between composite EF and academic achievement were examined in a 20-year range (5-17), given the Woodcock-Johnson Tests of Achievement-Revised (Woodcock & Johnson, 1989). Performance on the three composites of EF (inferred EF) at least age 10, although improved (linked) with increasing age and varied some across tasks. Moreover, the different developmental patterns in the correlations between composite EF and academic achievement were related to composite EF. Finally, the correlation between composite EF and academic achievement varied across ages, but the developmental pattern of the strength of these correlations was remarkably similar for overall math and reading achievement, suggesting a domain-general relation between composite EF and academic achievement. © 2011 Elsevier Inc. All rights reserved.

# Implications of Iseman & Naglieri (2005)



**Encourage Boys to use EF !**

## Sex Differences

Yes girls and boys are different in Executive Function

This means we have to be particularly aware of the need to help boys to Think Smart and use a Plan !



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59 59

59

## Planning Facilitation = Metacognition (Read "How People Learn" for more...)

- **METACOGNITION** consists of three basic elements:
- **BEFORE:**
  - *Developing a plan of action*
- **DURING**
  - *Maintaining / monitoring the plan*
- **AFTER**
  - *Evaluating the plan*

The more students are aware of their thinking processes as they learn, the more they can control such matters as goals, dispositions, and attention.

*Self-awareness promotes self-regulation*



**EF Strategy: Teach students that EF thinking happens Before, During and After learning.**

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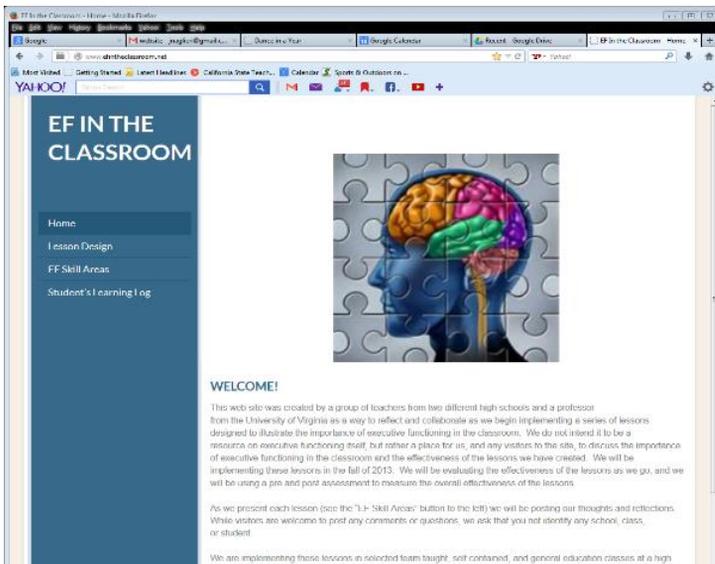
An Introduction to METACOGNITION- Lesson		
Length	30 minutes	
CU KAN	<p><b>Concept:</b> METACOGNITION</p> <p><b>Understand:</b> that metacognition is essential in becoming an effective learner</p> <p><b>Know:</b> Metacognition</p> <p><b>Able To Do:</b> Define metacognition through a song, rap, poem or chant that will help them to remember to be metacognitive.</p> <p><b>Now You Get It:</b> Students will reflect on how using metacognition will help them become better learners.</p>	
Evidence	Metacognition journal/chart entries (follow up lessons) & memorization of the song/chant	
Min	materials	Lesson details
2	worksheet	<p><b>Do Now:</b> Students should silently write down their own descriptions of what's happening in the cartoon. (It's a frog thinking about his own thinking = metacognition)</p> <p><b>Opening:</b> Choose a student to share her description with the class. Tell the students that this picture will make more sense by the end of the lesson if it hasn't quite clicked for them yet.</p>
1		
3	Worksheet Pencils Timer	<p><b>Brain warm up/game time:</b> Tell the students that they will have a chance to play Tic Tac Toe with a partner. They can play as many games as possible within the 2-minute time limit. Tell them to <u>pay attention to what's going on in their minds</u> as they make their choices throughout the games.</p>
4		<p><b>Discussion:</b> Have students raise their hands if they won at least one match. Ask some students to share their secrets. What were they thinking in their minds before they made their moves? Do you have a favorite place to start? Why do you start there?</p> <p>Most likely the students will say they like to start in the corner because they can win that way.</p> <p>Teacher says: "Right! You have a plan, and that helps you win! If your opponent does something you hadn't expected, you're able to think of ways to adjust your plan so that you still win. Now I'm going to teach you a new important word and show you how to create a plan for winning the learning game. I'll help you see how this same type of thinking will translate to better results with your school work."</p> <p><b>Lesson:</b> Define metacognition: Thinking about one's thinking. Developing, monitoring and adjusting your plans to help you learn effectively.</p> <p>(Depending on the age group of students with whom you're working, this video could be a good resource to use describe metacognition to the class - <a href="http://www.youtube.com/watch?v=mVEZ1QbY-JI">http://www.youtube.com/watch?v=mVEZ1QbY-JI</a>)</p> <p>Have you ever turned to the next page in your book and only to realize that you hadn't really been paying attention to the words you were "reading"?</p> <p>Have you ever spent time "studying" flash cards only to realize that you can't remember any of the words or concepts?</p> <p>Being metacognitive will help you be aware of your own learning and adjust your strategies to make learning easier.</p> <p><b>TEACHER'S CHOICE:</b> You can now teach the class a rap, chant, or song that you've invented to help them remember the definition for metacognition and when to use it or allow the students to come up with their own song/rap/poem/chant/etc.</p> <p>Here are some examples of songs from other teachers' classrooms:</p> <p>Elementary school: <a href="http://www.youtube.com/watch?v=3FyZASQ3uIs">http://www.youtube.com/watch?v=3FyZASQ3uIs</a> Middle school: <a href="http://www.youtube.com/watch?v=ed_NeO8KA_1Bk">http://www.youtube.com/watch?v=ed_NeO8KA_1Bk</a></p>
15	White board & marker or a chart paper  Smartboard or projector and computer to show the clip	

## Intentionally and Transparently Teach Students about Metacognition or Thinking About Thinking.



[www.kathleenkryza.com](http://www.kathleenkryza.com)

The Newsletter on Metacognition has lessons plans.



## Executive Function Lessons

EF lessons that can be used in group or individual sessions can be found at this FREE website:

[www.efintheclassroom.net](http://www.efintheclassroom.net)

## Planning Lesson: Teacher Probes & Student Responses



### What would you have to plan?

- They had to learn the dance steps (knowledge)
- Someone had to start dancing (initiation)

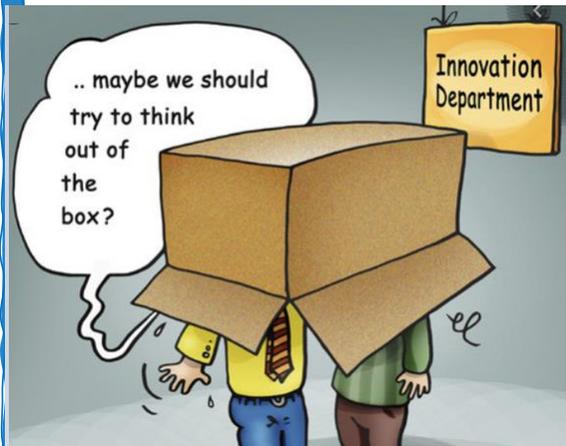
### What are the parts of a good plan?

- Think of possible problems (strategy generation)
- Organize the dance (organization)

### What should you do if a plan isn't working?

- Fix it. (self-correction)
- Go home! (a bad plan)

## Planning Lesson: Teacher Probes & Student Responses



### How do you use planning in this class?

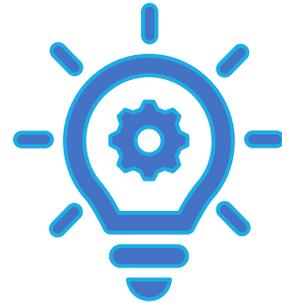
1. We don't plan in this class
2. Mrs. X does all the planning in this class so you don't have to think about planning

To encourage EF we have to stress thinking about *how to do what you decide to do ... That is THINK out of the box*

# Planning Facilitation builds EF

## Reframe your Telling to Asking...

- *This is what you need to do...*
  - **How could you do/approach this task?**
- *You're stuck. Let me help you.*
  - **What options do you have for getting unstuck?**
- *Here's your grade for the test.*
  - **Look over your test. What did you do to study that worked? What you would do differently next time?**
- *You're frustrated and want to quit...but if you try I will give you some chocolate.*
  - **What are some strategies you can use to calm yourself and get back on track.**



**EF Strategy: Ask questions that shift the locus of control to the student.**



## BREAKOUT GROUPS: TK 6 min.

### Reframe Telling to Asking: You Try It!

- Organizer reads the directions in Chat Box
- Energizer welcome your group back.
- **A student, Allie, has challenges getting her school assignments in her backpack and back to school.**
- **Instead of either doing it for her, or saying "Allie, this is how I get my materials organized for the day," reframe that doing or telling. What would you ask her instead? Coach leads the group**
- Recorder types one of your responses in the Chat Box.

**EF Strategy: Have students come up with solutions to problems on their own or in groups**

EF Strategy:  
Mnemonics give students a tool to help them recall steps. For this one, we've added repetition and movement to make it stick when we're not around!

Think **SMART!**

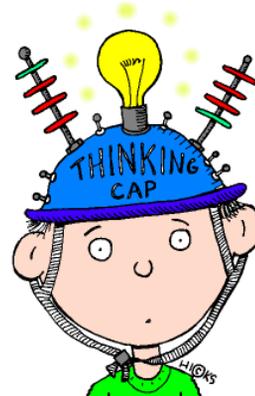
**S**top and THINK

**M**ake a PLAN

Take **A**ction!

**R**eview/Reflect/Revise

**T**ry again (or) Ta Da!



Developed by Naglieri and Kryza, 2014

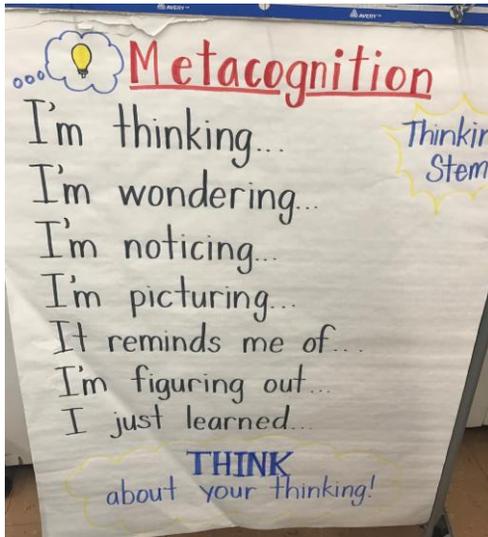
67

## Let's Try: Academic Metacognition

- I'll give you some examples and you tell me if this person is THINKING **SMART** or NOT.
- Scott tried once, but couldn't do his math homework, so he watched T.V.
- Was he THINKING **SMART**?
- Let's help Scott THINK **SMART**



68



EF Strategy: Talk Stems build the language skills for metacognitive thinking

### Secondary Task Initiation Strategies

**Task Initiation Defined:** The ability to begin a task without undue procrastination, in a timely fashion.

\_\_\_ Write a plan for when I will begin and complete my task. Assign a date and time for the beginning and ending of each step in the plan.

\_\_\_ Cue myself to begin the task. Choose a cuing system below that you think will work for you or create your own system.

\_\_\_ Set an alarm clock for the starting time.

\_\_\_ Leave a post-it note on my desk or computer.

\_\_\_ Self-talk by saying something like "The first step I need to take is to open my notebook and create a web or other graphic organizer for my ideas before I write the first sentence of my paper."

\_\_\_ Decide on an appropriate reward if I start and finish the task, like taking a 30 minute break, listen to music, take a walk outside, exercise, etc.

Practice, Practice, Practice!

EF Strategy: Choice and student decision making.

## Interventions for Students who Struggle with Task Initiation

Clipart by Kate Redfield & Sarah Pecarino  
www.thepathway2success.com

 Teach task initiation skills explicitly	 Use a countdown timer	 Incorporate areas of student interest	 Provide directions orally & visually
 Practice the "rocket ship countdown"	 Reduce most challenging work	 Train peer mentors to provide support	 Use brain breaks between tasks
 Make it a race to get started on work	 Take turns writing to get started	 Develop a work contract with rewards	 Give more student choice

**EF Strategy: Choice and student decision making.**

From "Pathways to Success"

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71

71



# Use EF Strength

Think Smart: Use a PLAN!

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72

72

# CASE STUDY: Ben's School Behaviors

- A 3<sup>rd</sup> grade student who is
  - fits in well socially at school
  - good at turning in his work on time
  - liked by his teachers
  - popular with his peers
  - Worked hard (but got poor grades)
- Ben has trouble
  - following verbal directions
  - expressing his ideas in a logical order
  - remembering the order of events provided in a paragraph
  - with basic math facts
  - remembering phone numbers and the combination for the lock on his bike
  - finding words in a dictionary

## Ben: A Student with Dyslexia and Good EF

32 Helping Children Learn

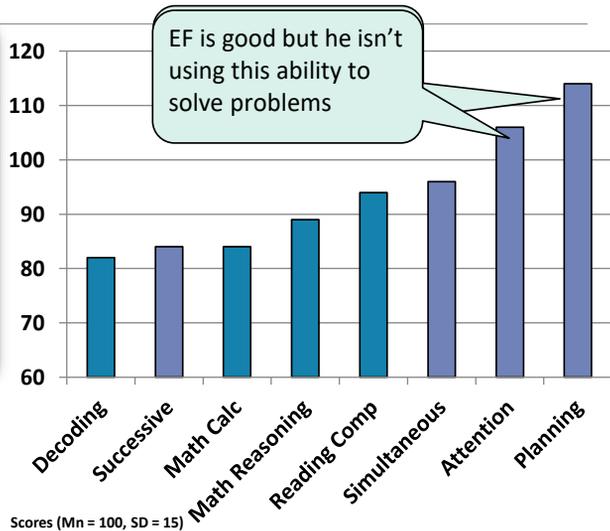
### Ben's Problem with Successive Processing



Ben was an energetic but frustrated third-grade student who liked his teachers, was popular with his peers, and fit in well socially at school. However, Ben said he did not like school at all, particularly schoolwork. Ben was good at turning in all of his work on time, and he worked hard, but he earned poor grades. He appeared to be getting more and more frustrated at school.

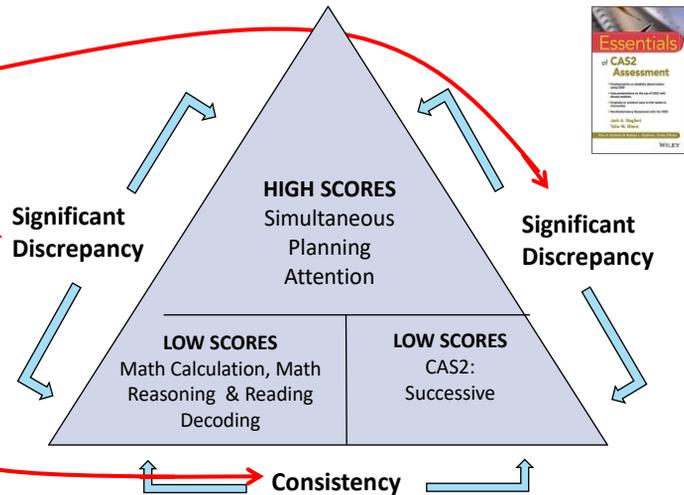
In general, Ben struggled to perform well because he had a lot of trouble following directions that were not written down, his writing often did not make sense, and he did not appear to comprehend what he read. Ben's teachers noticed that when directions for assignments and projects were given orally in class, he often only finished part of the task. Ben's teacher described an assignment in which students had to collect insects, label them, organize them into a collection, and then give a brief presentation about each insect. Unlike any other student, Ben chose to make the labels for the insects first and then go look for the insects. He found only a few of the insects he had made labels for, and when he put them in the collection, they were not in the order that had been specified. He also had trouble with the spelling of the scientific names of the insects and made many errors in the sequence of letters in the words.

Reading decoding failure and related problems working with information in order. CAS2 reveals low Successive processing with good scores on Planning and Attention (EF)



## Ben's SLD: Discrepancy Consistency Method

- **Discrepancy** between high and low processing scores
- **Discrepancy** between high processing and low achievement
- **Consistency** between low processing and low achievement



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75

75

## EF Intervention Protocol (Naglieri & Kryza, 2019)

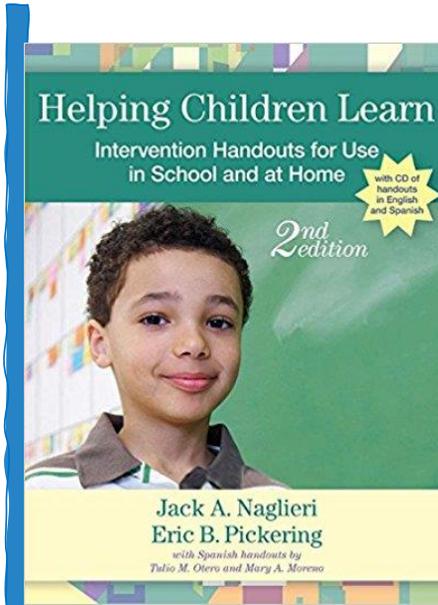
1. Help child understand their strengths and challenges (be intentional & transparent)
2. Encourage Motivation & Persistence (student's mindset)
3. Encourage strategy use (build skill sets)
4. Encourage independence and self efficacy (metacognition, self assessment & self correction)

You can find this protocol at [www.jacknaglieri.com](http://www.jacknaglieri.com)

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76 76

76

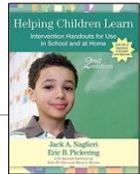


## Teach Children about their Abilities

- Helping Children Learn Intervention Handouts for Use in School and at Home, *Second Edition* (Naglieri, & Pickering, 2011)
- Spanish handouts by Tulio Otero & Mary Moreno

## How to Use Ben's EF Strength

Explicitly teach him about his strength in EF (Planning) and why it is so important



### How Can You Be Smarter?

You can be smarter if you PLAN before doing things. Sometimes people say, "Look before you leap," "Plan your work and work your plan," or "Stop and think." These sayings are about using the ability to plan. When you stop and think about *how* to study, you are using your ability to plan.

You will be able to do more if you remember to use a plan. An easy way to remember to use a plan is to look at the picture "Think smart and use a plan!" (Figure 1). You should always use a plan for reading, vocabulary, spelling, writing, math problem solving, and science.

Do you have a favorite plan for learning spelling words? Do you use flashcards or go on the Internet to learn? Do you ask the teacher or another student for help? You can learn more by using a plan for studying that works best for you.

### Think smart and use a plan!



It is smart to have a plan for doing all schoolwork. When you read, you should have a plan. One plan is to look at the questions you have to answer about the story first. Then read the story to find the answers. Another plan is to make a picture of what you read so that you can see all the parts of the story. When you write you should also have a plan. Students who are good at writing plan and organize their thoughts first. Then they think about what they are doing as they write. Using a plan is a good way to be smarter about your work!

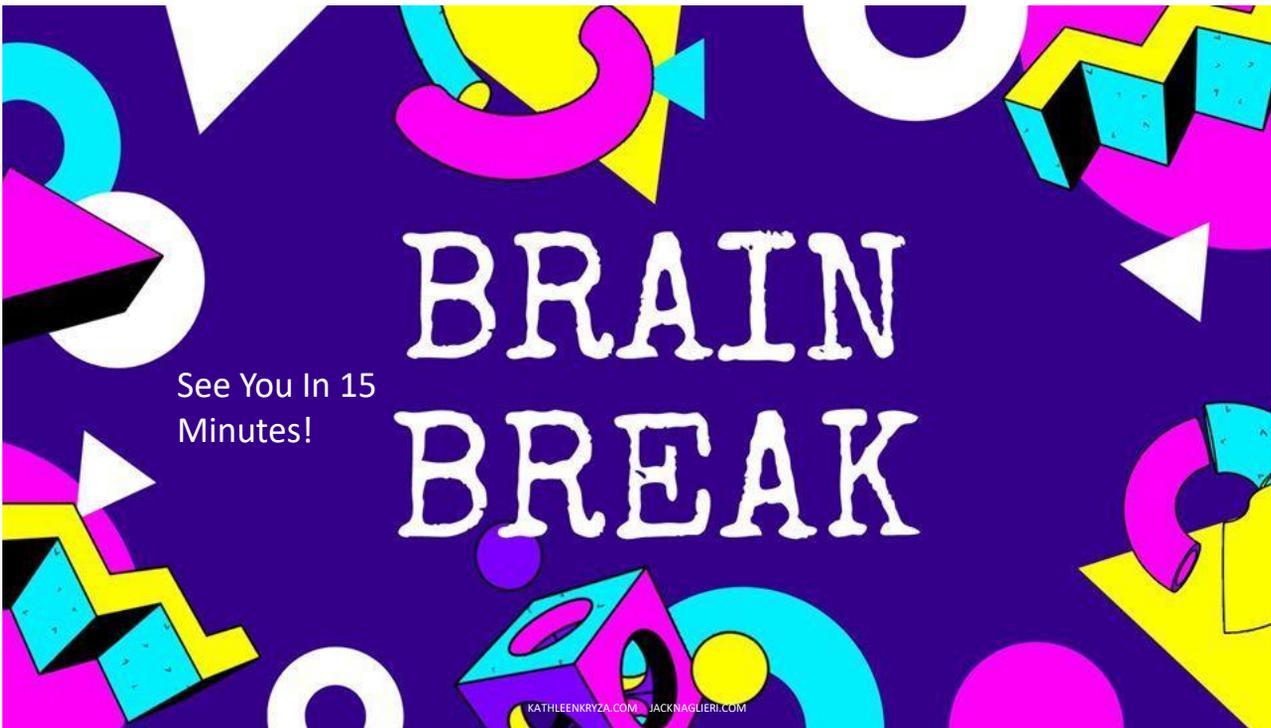
### How to Be Smart: Planning

When we say people are smart, we usually mean that they know a lot of information. But being smart also means that someone has a lot of ability to learn new things. Being smart at learning new things includes knowing and using your *thinking abilities*. There are ways you can use your abilities *better* when you are learning.

### What Does Being Smart Mean?

One ability that is very important is called *Planning*. The ability to *plan* helps you figure out *how to do things*. When you don't know how to solve a problem, using Planning ability will help you figure out how to do it. This ability also helps you control what you think and do. It helps you to stop before doing something you shouldn't do. Planning ability is what helps you wait until the time is right to act. It also helps you make good decisions about what to say and what to do.





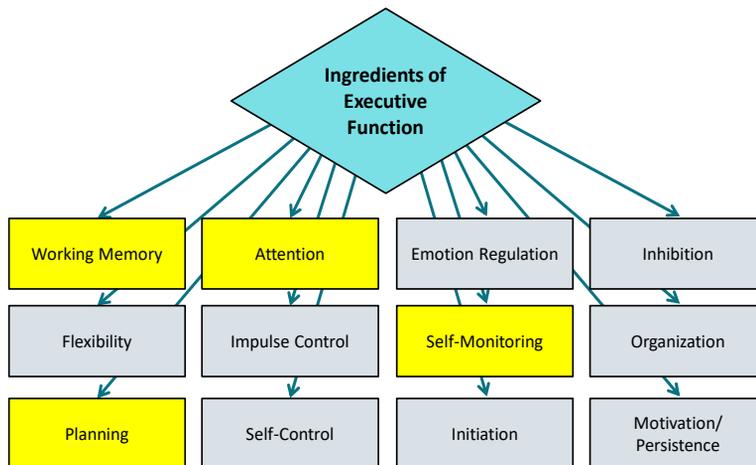
# Think Smart: Use a PLAN!

MORE  
Instructional  
Methods for EF

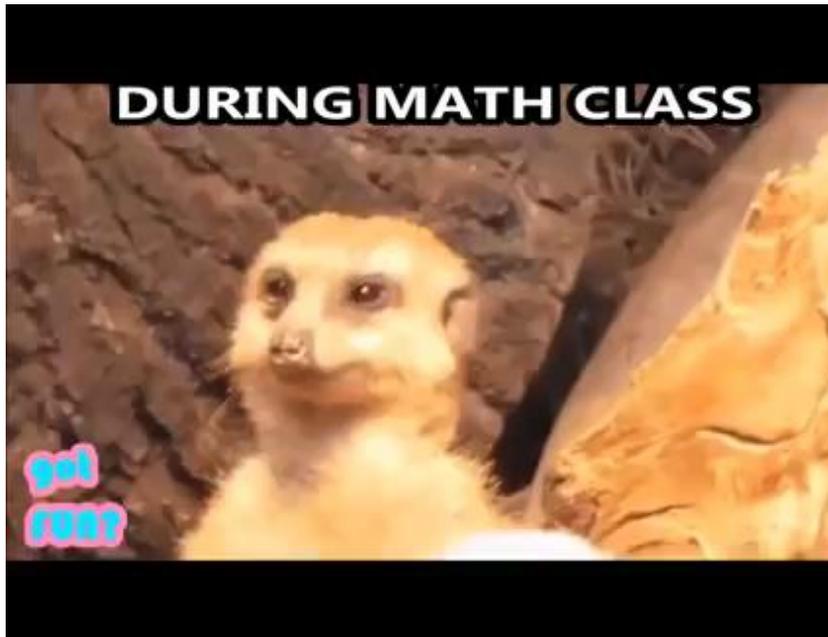


83

## Strategies and Interventions



84



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85

85

If you are alert, on the ball, engaged, motivated, ready for action, the brain releases the neurochemicals necessary to enable brain change.

When disengaged, inattentive, distracted, or doing something without thinking that requires no real effort, your neuroplastic switches are "off."



**We Must Engage Kids PFC's!**

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86

86

## Engage the PFC: Metacognitive Lesson Planning

- **CHUNK:** Teach 10-15 minutes of new content.
- **CHEW:** Students process the new content
  - Multi-modal
  - High Level Thinking/Planning
- **CHECK:** Show what you know...
  - Formative Assessment – Student/Teacher
  - Summative Assessment – Test or Project



**ATTENTION!**  
Chunk, Chew and  
Check - that's how the  
brain learns best!

*For every 10 minutes you  
teach something new, the  
brain needs one or two  
minutes to chew!  
(approximately)*

## Think Series of Chunks and Chew Before Checks (Formative or Summative)

**Chunk 1** Teacher gives students circle graph cut-outs to explore.

**Chew 1** Students discuss what they notice with turn and talk partners: *How would a mathematician use these circles?*

**Chunk 2** Teacher explains how the graphs represent fractions.

**Chew 2** Students do a problem from the book with table partners.

**Formative Check:** *Teacher walks around to observe if students are able to do the work.*

**Chunk 3** Teacher explains how % is represented as a circle graph.

**Chew 3** Students try a problem on their own and check with partners for inconsistencies or errors.

**Check** Homework from the book.

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89

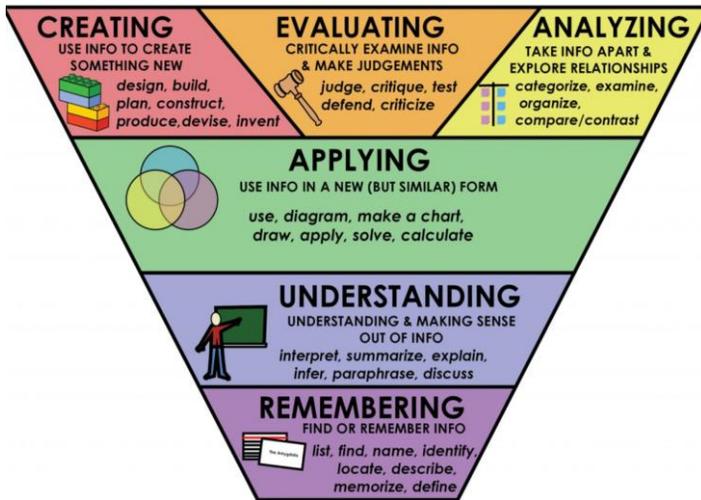
## Hazy-Gazey Eyes Mean It's Time To Chew!

Chewing is where EF  
Is at work!



90

BLOOM'S TAXONOMY



Stimulate Curiosity:  
Ask Good Questions

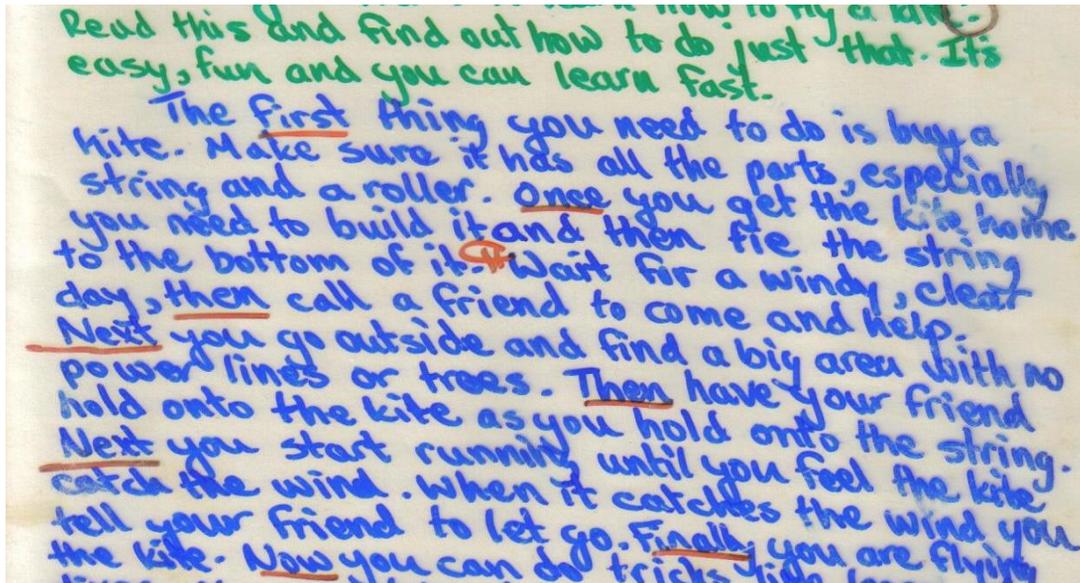
What did the Three Little Pigs make their house out of?

**QAR – What kind of question is it?**

<p><b>Right there</b> The answer can be found right there <b>in the text</b>.</p>	<p><b>Think and search</b> The answer is <b>in the text</b> but it may not use the same language that is used in the question and you may have to look in different places to find it.</p>
<p><b>Author and me</b> The answer is <b>not in the text</b>. You need to use your own background knowledge and what the author has told you to come up with the answer.</p>	<p><b>On my own</b> The answer is <b>not in the text</b>. You need to use your own background knowledge. You could even answer the question without reading the text. The question must 'stand alone'.</p>

© 2009 Pearson Education, Inc. All rights reserved. Reproduction for classroom use. — adapted from Raphael (1982)





## Chase: Final Draft

How to Make Mashed Potatoes by Chase

Eating mushy mashed Potatoes is is my favorite thing to do. The best thing is that they are easy to make.



First you get out the potatoes. Then you peel the skin off the potatoes and put them in a pan with water. After you are done boiling the potatoes, then drain the potatoes and put them back in the pan. Now put butter and milk on them. Then you mash the potatoes. When you are done, you serve the potatoes. Then you eat them.

So go home and make your self some mashed potatoes. Follow the instructions I told you and they'll turn out just fine.

## CHEW websites (Process)



Zoom: Interactive White Boards, Chat and Breakout Groups for thinking together.



EdPuzzle: Post videos (yours or others), check to see if kids are watching and if they're understanding the content.



StoryBird: Digital student created writing. PreSchool – 12.



Voicethread: student presentations, conversational practice

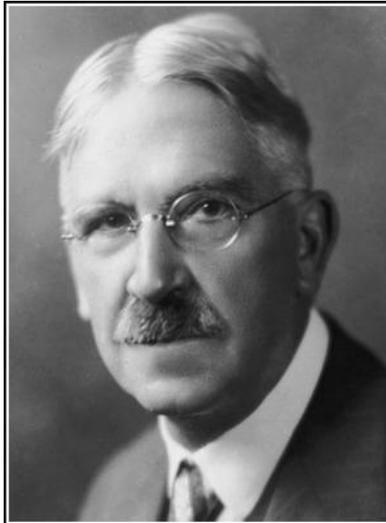


## Check: Three Finger Self- Assessment

How much do you have students involved in self-assessing in your classroom?



EF Strategy: Students need lots of opportunities to self assess



We do not learn from  
experience...we learn from reflecting  
on experience.

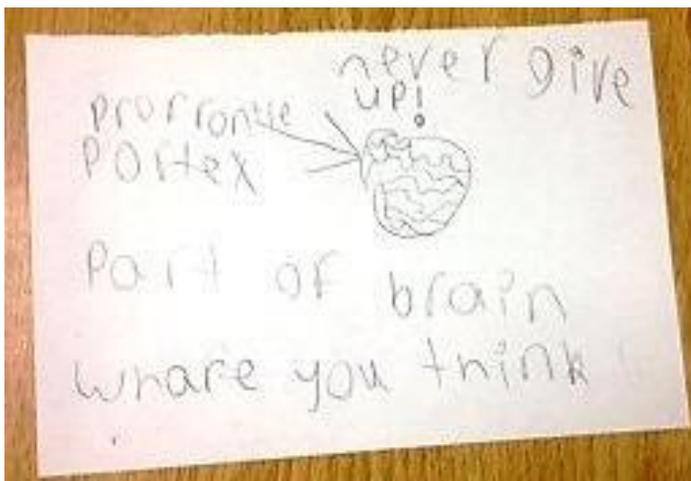
— John Dewey —

AZ QUOTES

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99

## Self Assessment



### Self Assessment



#### Thumbs Up

I can do it all by myself!



#### Thumbs Side-ways

I can do it with a little help.



#### Thumbs Down

I can do it, but I still need a lot of help!

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100

100

## Student Reflection Exit Cards

- What was your mindset today?
  - *Was it helpful or harmful?*
- What strategies did you use during learning?
  - *Did they work for you?*
  - *What would you need to do differently next time?*

### Independence Check In

- Did you know your assignment and all the directions?
  - If not, did you use your group mates for help?
- Did you use your tools and resources if needed?
- Did you transition from “must do” to “can do?”
- Did you NOT interrupt a conference?

## CHECK Websites (Output)

Zoom or Polls Everywhere: Insert assessment polls into your lessons

EdPuzzle: Check to see if students are understanding the content.

Kahoot: Fun quizzing, productive formative assessment and student reflection if implemented effectively.

## Teaching for Transfer

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If we want learning to stick, we have to make it sticky.

Chunk, Chew and Check makes learning stick!



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103

How do you know that students are developing their EF thinking

- Student self -assessment and self-efficacy
- Self-correction or strategizing
- Observing new skills being used in appropriate contexts
- Students using the language of learners
- Willingness to persevere/Have a growth mindset
- Grades/Test Scores



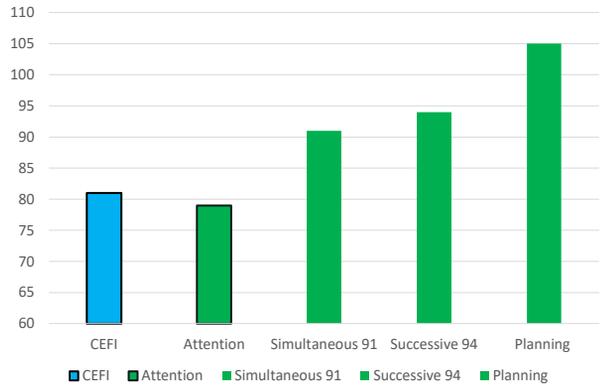
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104

# Case of Jose by Dr. Tulio Otero

- Jose reading skills way below average
- Problems with phonemic awareness, reading fluency, reading comprehension, math problem-solving, spelling and written expression
- WISC-IV Spanish: VCI= 55; PRI=92; WM=86; PS=91

## Behavioral & Cognitive Results

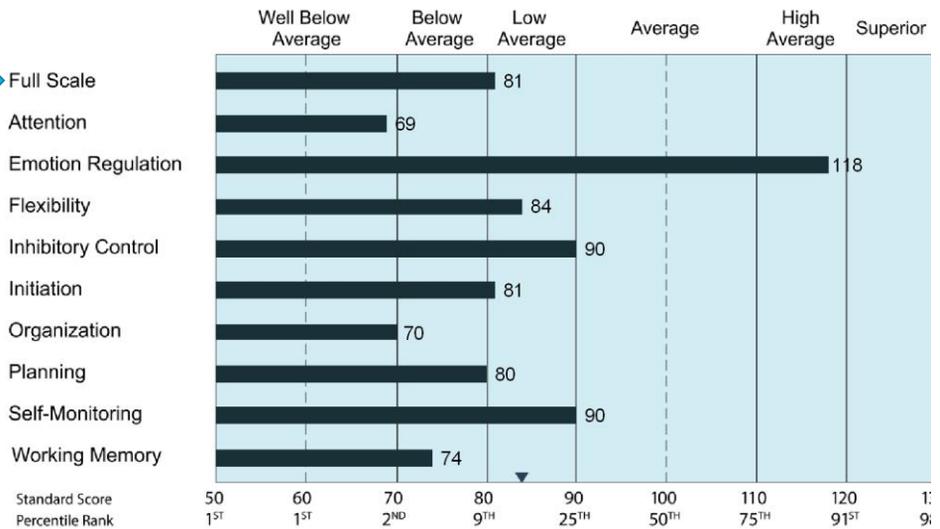


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Use this score →

Comprehensive Executive Function Inventory – CEFI (Naglieri & Goldstein, 2016) Full Scale score of 81 (10<sup>th</sup> percentile rank)

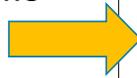


106

106

## Jose was given this simple intervention

Remember to check how well you are attending. If you are having a problem, use a plan and look at this (taped to his desk).



**Think smart  
and look  
at the details!**



From: Naglieri, J. A., & Pickering, E. B. (2010). *Helping Children Learn: Intervention Handouts for Use at School and Home (Second Edition)*. Baltimore, MD: Brookes Publishing.

**Figure 1.** A graphic that reminds students to focus on information being discussed.

107

107

## Two weeks later!

- Teacher reported that José has increased his reading accuracy by at least 80%.
- He read 16 words correctly out of a list of 20.
- He has done this over the last 3. sessions.



108

Small changes can make  
the biggest difference

Teach less strategies  
more deeply.



109



110



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111

## Tree Pose: Grounding Balance Pose



## EF, Academic and Life Tasks

The kind of thinking needed to solve a math question can be the same kind of thinking needed to solve a reading comprehension question and the same kind of thinking that is needed to manage social situations.

ANY task that demands that the person figure out "**HOW to do what you decide to do**" requires **Executive Function**

112

112

# EF and Achievement (Naglieri & Rojahn, 2004)

- Correlation between Executive Function (Planning + Attention) with achievement = **.51** (N = 1,559) is stable across 5-17 year range
- EF scores added significantly to the prediction of achievement after Simultaneous and Successive scores from CAS

Contents lists available at ScienceDirect  
**Journal of Experimental Psychology: Applied**  
 journal homepage: www.elsevier.com/locate/jepa

Relations between executive function and academic achievement from ages 5 to 17 in a large, representative national sample  
 John R. Best<sup>a,b</sup>, Patricia H. Miller<sup>b</sup>, Jack A. Naglieri<sup>c</sup>  
<sup>a</sup> Department of Psychology, University of Georgia, Athens, GA, 30602-3013, USA  
<sup>b</sup> Department of Psychology, Old Dominion University, Norfolk, VA, 23529, USA  
<sup>c</sup> Department of Psychology, George Mason University, Fairfax, VA, 22030, USA

**ARTICLE INFO**  
 Article History  
 Received 25 May 2010  
 Revised version from 20 January 2011  
 Accepted 21 January 2011  
 Available online 2011

**KEYWORDS**  
 Executive function  
 Academic achievement  
 Childhood  
 Adolescence

**Construct Validity of the PASS Theory and CAS: Correlations With Achievement**  
 Jack A. Naglieri and Johannes Rojahn  
 George Mason University

The relationship among Planning, Attention, Simultaneous, and Successive (PASS) processing scores of the Cognitive Assessment System (CAS) and the Woodcock-Johnson Tests of Achievement (WJ-R) were examined with a sample of 1,559 students aged 5–17 years. Participants were part of the CAS standardization sample and closely represented the U.S. population on a number of important demographic variables. Pearson product-moment correlations between CAS Full Scale and the WJ-R Skills cluster was .71 for the Standard and .76 for the Basic CAS Battery scores, providing evidence for the construct validity of the CAS. The CAS correlated with achievement as well as not better than tests of general intelligence. The amount of variance in the WJ-R scores the CAS accounted for increased with age between 5- to 12-year-olds. The PASS scale scores consistently accounted for slightly more of the WJ-R variance than the CAS Full Scale score.

There are many ways in which the validity of a theory of achievement. For instance, subsets like General Information are also included on individual achievement tests (e.g., the Peabody Individual Achievement Test-Revised, MacKenzie, 1987).

## Case of Julia

- Referred because of significant behavioral problems and non-compliance
- It's essential to know the root cause of the problems
- If there is an EF issue use cognitive interventions; if not use behavioral / environmental interventions



# Think Smart: Use a PLAN!



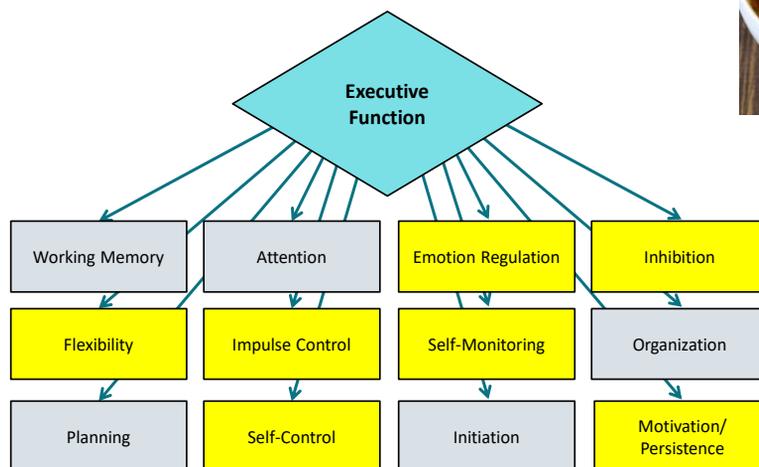
## EF and Social-Emotional Thinking

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115

115

## Strategies and Interventions



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116

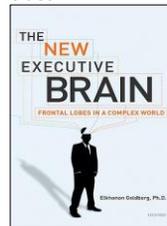
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# Phineas had Social Emotional Deficit

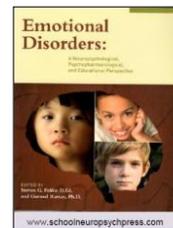
## ➤ Phineas had profound social emotional problems after his injury to his frontal lobes and he...

- was insulting to others
- impulsively said things
- used vulgar language
- could not manage his emotions
- lost control in social interactions
- was inconsistent in social situations
- did not recognize he was offensive

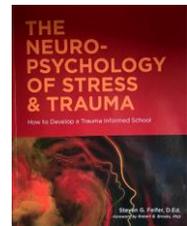
'very few researchers have merged cognitive [i.e. intelligence] and emotional aspects of frontal lobes'



The relationship between Executive Function and Emotional Disorders is explained



'The frontal lobes...play a key role in helping to self-regulate the amygdala'



## EF AND SEL:

SEL is the process of integrating thinking, feeling, and behaving in order to become aware of the self and of others, make responsible decisions, and manage one's own behaviors and those of others (Elias et al., 1997)





### Winning Formula for Success in Your Classroom

Mindsets + Skill Sets = RESULTS!



Infinite Horizons  
Kathleen Kryza



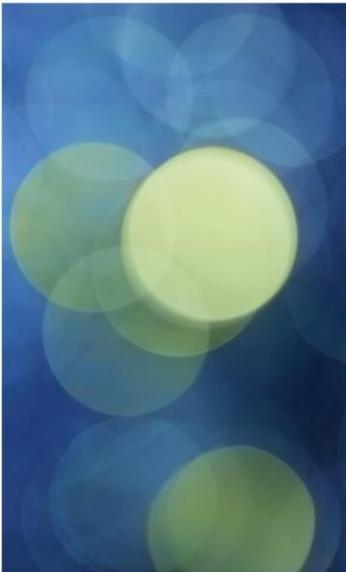
# BE INTENTIONAL AND TRANSPARENT

With Students' Mindsets

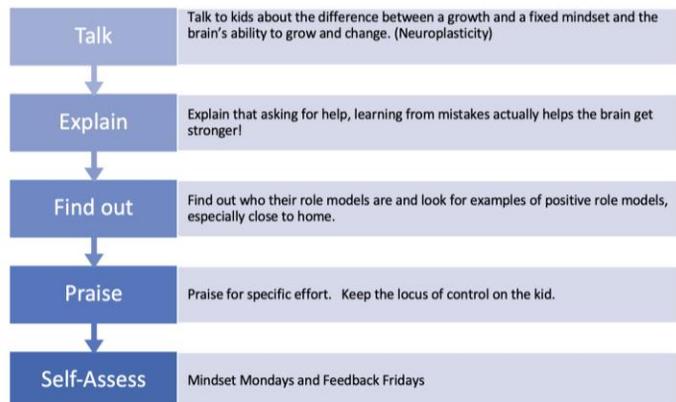


121

121



## Making a Difference with Mindsets



122

122

<b>Fixed Mindset: Intelligence is static.</b>
Leads to a desire to look smart and therefore a tendency to..
<b>Avoid CHALLENGES</b>
When faced with OBSTACLES get defensive or give up easily
<b>See EFFORT as fruitless or worse</b>
Ignore constructive CRITICISM or useful negative feedback
<b>Feel threatened by the SUCCESS of others</b>
As a RESULT, they may plateau early and achieve less than their full potential

123

<b>Growth Mindset: Intelligence is dynamic.</b>
Leads to a desire to learn and therefore a tendency to..
<b>Embrace CHALLENGES</b>
Persist in the face of OBSTACLES
<b>See EFFORT as the path to mastery</b>
Learn from CRITICISM
<b>Find lessons in inspiration in the SUCCESS of others</b>
As a RESULT, reach ever higher levels of achievement

123

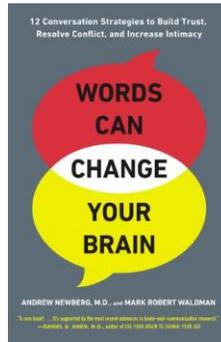


124

124

# Our Words Matter

- A single word has the power to influence the expression of genes that regulate physical and emotional stress. Positive words can strengthen areas in our frontal lobes



- A single negative word can increase the activity in the amygdala, releasing stress-producing hormones and neurotransmitters, which interrupts brain function.

Not “I can’t”, but ‘How can I?’”

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125 125

125



Encourage Risk-Taking and Mistake Making.  
(including asking for help.)

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126

126



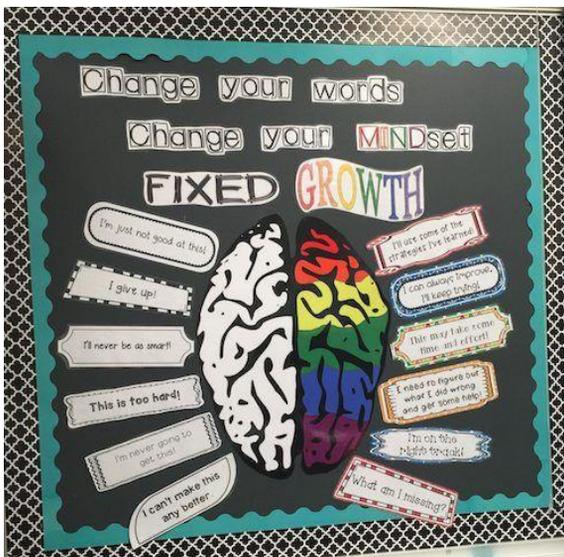
## How to ask for help...

- I don't get this \_\_\_\_\_. Could we talk about it later? (Can I message you?)
  - I'm working hard, but I'm still not understanding \_\_\_\_\_. Can you help me?
  - I'm don't even know what I need. Can you please talk with me?
  - Can you give me advice about \_\_\_\_\_?
- (Edutopia, July 2019)

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18

127



## Mindset Monday Keep Mindsets Alive

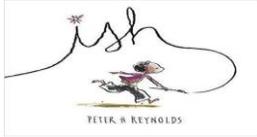
START MONDAYS WITH A GROWTH MINDSET MESSAGE...

- VIDEO
- QUOTE
- STORY
- NEWS
- SONG
- LOCAL, NATIONAL, WORLD HERO

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128

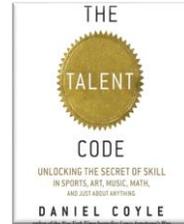
**Books that Celebrate the Power of Mindsets, Risk-taking and Practice**



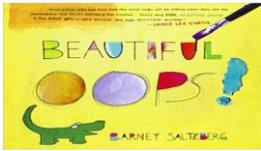
**Ish** by Peter H. Reynolds



**The Dot** by Peter H. Reynolds



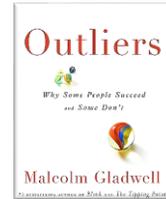
**The Talent Code** by Daniel Coyle



**Beautiful Oops!** by Barney Saltzberg



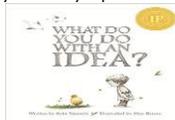
**The Most Magnificent Thing** by Ashley Spires



**Outliers** by Malcolm Gladwell



**The Girl Who Never Made Mistakes** by Mark Pett and Gary Rubinstein



**What Do You Do With an Idea?** by Kobi Yamada

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Page  
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## The Power of Role Models

- Positive role models are shown to decrease a youth's potential for risky behaviors such as drug and alcohol abuse, sexual intercourse, and violence.
- Adolescents who can identify a positive role model in their lives have higher grades and self-esteem than those who can't, particularly when the youth knows their role model on a personal level.
- **Who do they admire/look up to?  
Who are their role models and why?**

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Name: \_\_\_\_\_ Date: \_\_\_\_\_

### Feedback Friday

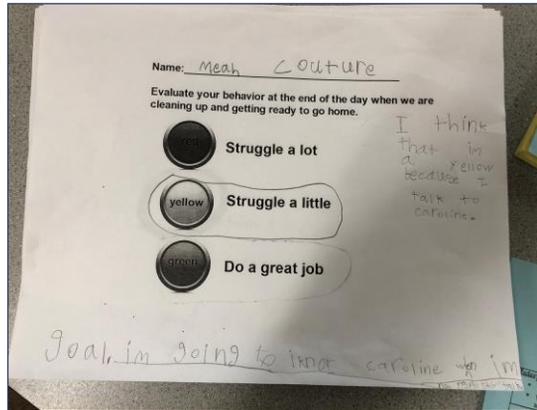
**Did I try when tasks were challenging?**   

**Did I encourage others?**   

**Did I succeed?**   

**Did I have a growth mindset?**   

Created by Evika Thal

## Feedback Fridays

### Measure of Mindset – Child/Adolescent & Teacher/Parent

<b>Measure of Mindset (Child &amp; Adolescent)</b>					
Jack A. Naglieri & Kathleen M. Kryza - Copyright © 2015					
Name _____		Date _____			
Instructions: These 10 questions ask about how you think and feel. The answers you give can help us know your thoughts about how you learn. Please read every question carefully and circle the number under the word that tells what you do.					
		Never	Sometimes	Most times	Always
1	I give up easily.	0	1	2	3
2	When things get hard I say, "I can do it!"	0	1	2	3
3	When I fail I try harder until I get it done.	0	1	2	3
4	I believe that I can learn from my mistakes.	0	1	2	3
5	I think I can do almost anything if I try hard enough.	0	1	2	3
6	When I don't understand something I give up.	0	1	2	3
7	I do not like to be challenged.	0	1	2	3
8	When work is hard I think, "I can not do it."	0	1	2	3
9	When things get hard I do something else.	0	1	2	3
10	When I fail I do something else that is more fun.	0	1	2	3

(Naglieri & Kryza, © 2015 May be duplicated for educational use only.)

### Student Self Awareness (Reality!)

I, \_\_\_\_\_, have chosen not to participate in the following classroom **CHEW** activity:

Due Date: \_\_\_\_\_

I understand that by making a **fixed mindset** choice, I will not be engaged in the learning process and thereby will not be building neural connections that can improve my learning. I understand that by making this choice I may be less prepared to handle the rigors of our competitive society. I understand that by choosing not to do this **CHEW** activity I may be less likely to succeed in this course and in life.

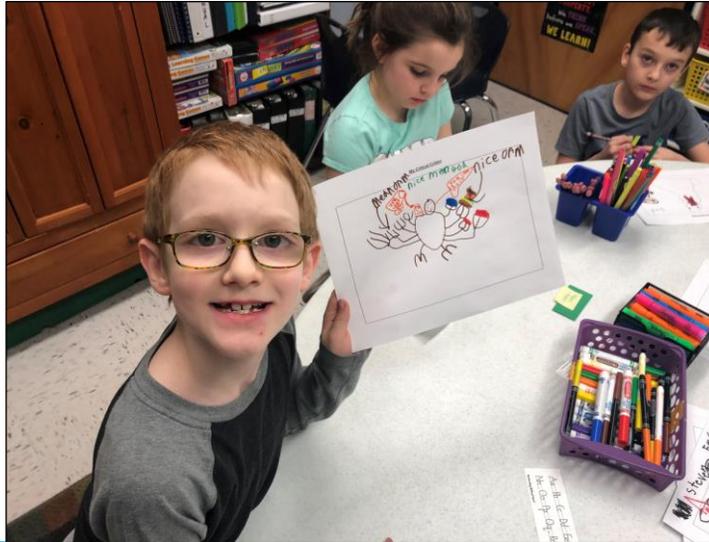
In signing this document, I acknowledge that I understand the consequences of choosing not to participate.

Student Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# Building Growth Mindsets

**EF Strategy:**  
Create  
visuals to  
represent  
thinking,  
feelings or  
ideas.



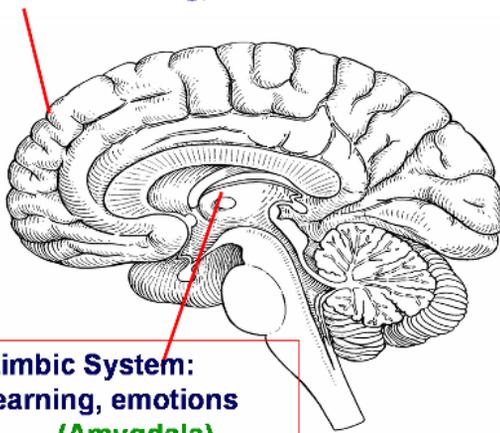
**CHAT:** What  
will you name  
your inner  
"monster" and  
what will you  
say to tame  
him/her?

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133 133

133

**Frontal Cortex:**  
decision-making, self-control



**Limbic System:**  
learning, emotions  
(Amygdala)

## Understanding Emotions and the Brain

- The limbic system controls functions necessary for self preservation - *flight, fight, freeze*.
- The *limbic system* is the "feeling and reacting brain."
- The *frontal lobe* is the "thinking brain."

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134 134

134



What is something you do when your amygdala is flipped?



135



136

# Emotional Regulation Has Two Sides



The ability to control one's impulses and **STOP** doing something, if needed – for example, not blurt out an answer when another child is asked.



**EF Strategy:**  
Using concrete tools like the paddles helps students "get it"



The capacity to **DO** something (even if one doesn't want to) because it's needed, such as raising your hand or waiting for your turn.

137



→ Prefrontal cortex  
P.F.C.  
"THE WISE LEADER"

© Sharon Selby 2016



← "Flipped Your Lid"

← The big emotions, anger, fear, anxiety etc...  
The AMYGDALA - The alarm center  
Acts on instinct  
fight, flight or freeze

Build a Toolkit of Strategies to Calm the Amygdala.

Adapted from Dr. Daniel J. Siegel's Hand Model of the Brain found in *Mindsight: The New Science of Personal Transformation* (Bantam Books, 2010)

138

# Think **SMART!** (Naglieri & Kryza, 2014)

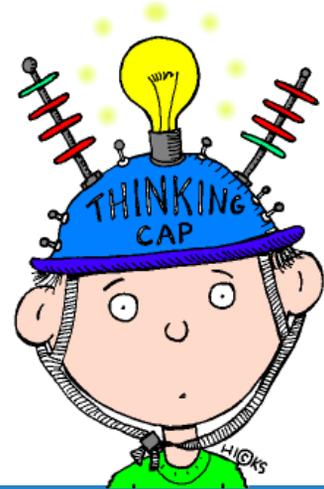
**S**top and THINK

**M**ake a PLAN

Take **A**ction!

**R**eview/Reflect/Revise

**T**a da! (or) Try Again



EF Strategy: Mnemonics help us store information in long term memory

## Mindfulness and EF

### How Mindfulness Helps

Without Mindfulness



With Mindfulness



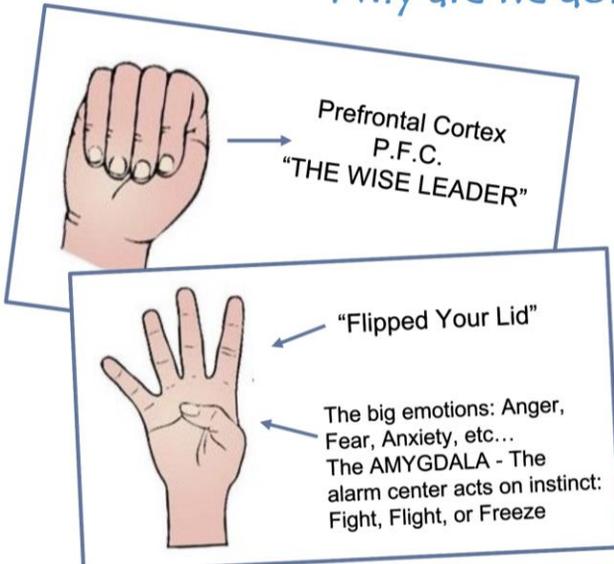
EF Strategy: Mindfulness decreases anxiety, increases learning.

Mindfulness creates space...

...replacing **impulsive reactions** with **thoughtful responses**.

# MINDFUL MOVEMENT

Why are we doing this?



My **PREFRONTAL CORTEX**  
is the **WISE LEADER**  
but when I **FLIP MY LID**  
my **AMYGDALA** does the talking  
and then I **CAN'T**  
make my **BEST RESPONSE**

141



## Mini-Mindfulness Practices

- Quiet Place – Real or Envisioned
- Mindful Movement
  - Calm, Energize, Release
- Grounding on the Floor, Earth, Tree
- Peace Corner for healing time
- Breath In Peace, Breath Out Love

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142



## Hand on Heart

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## Sooth Your Nervous System

TOUCH ACTIVATES  
THE CARE SYSTEM,  
AND CALMS THE  
NERVOUS SYSTEM.

143

143

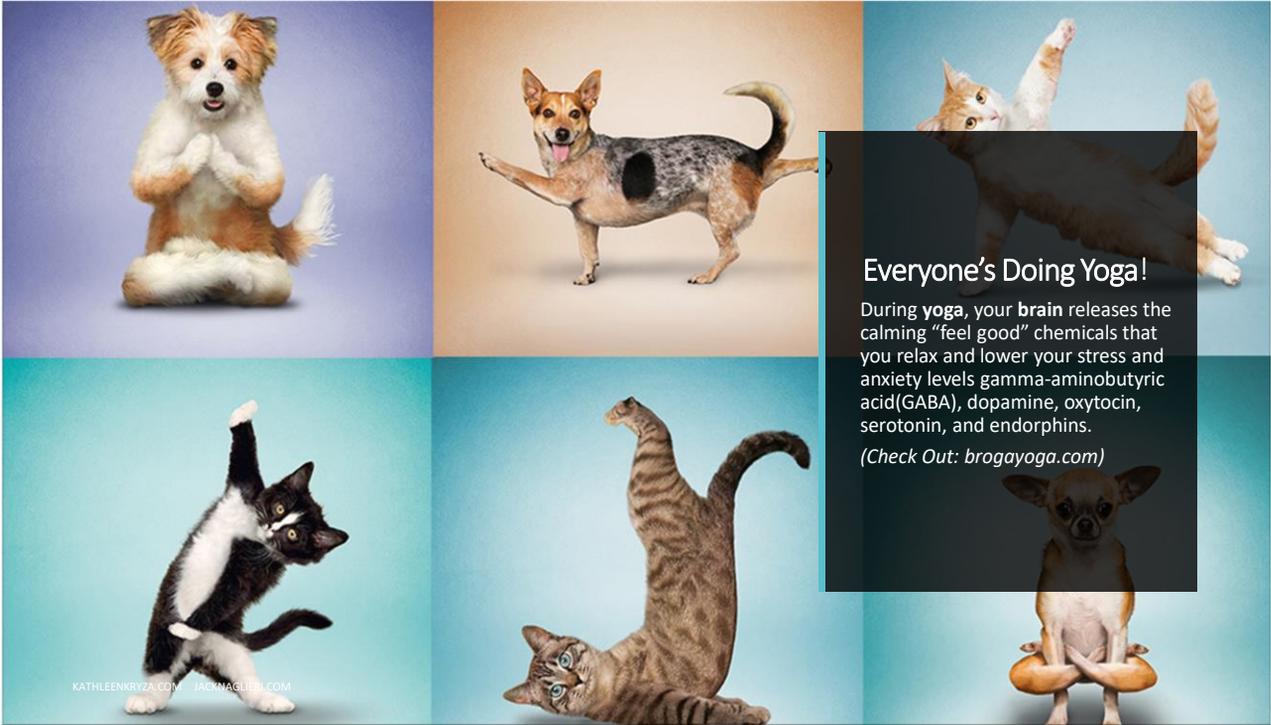
## Mindful Moment and Self- Regulation How's Your Engine Revving?

- ∅ Too High? Too Low? Just right?
- ∅ Do you need to energize yourself or calm yourself?
- § Energize: Do an energizing movement or activity
- § Calm: Deep breathing and deep muscle stretches

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144



### Everyone's Doing Yoga!

During **yoga**, your **brain** releases the calming "feel good" chemicals that you relax and lower your stress and anxiety levels gamma-aminobutyric acid(GABA), dopamine, oxytocin, serotonin, and endorphins.

(Check Out: [brogayoga.com](http://brogayoga.com))

145



# Mindfulness and Yoga Apps for Kids

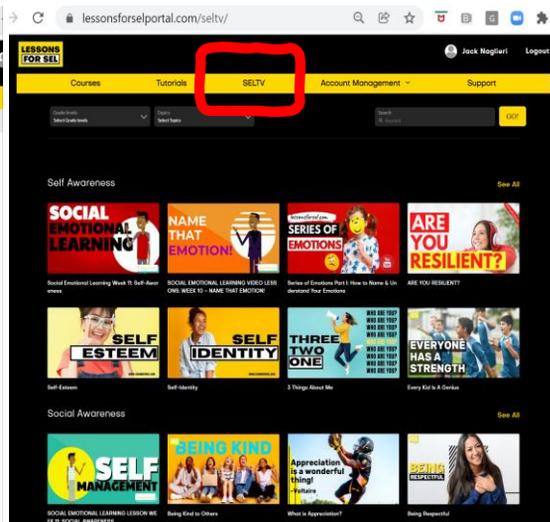
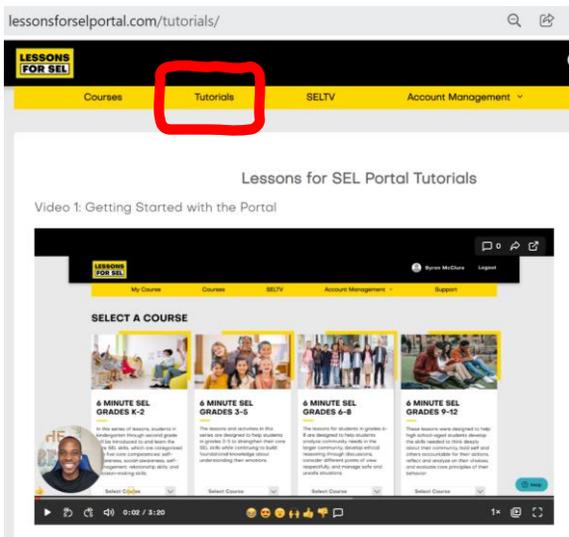
146

The Brain Benefits of Exercise:  
Better thinking, attention and learning, better sleep, less anxiety



147

# Lessons for SEL



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148



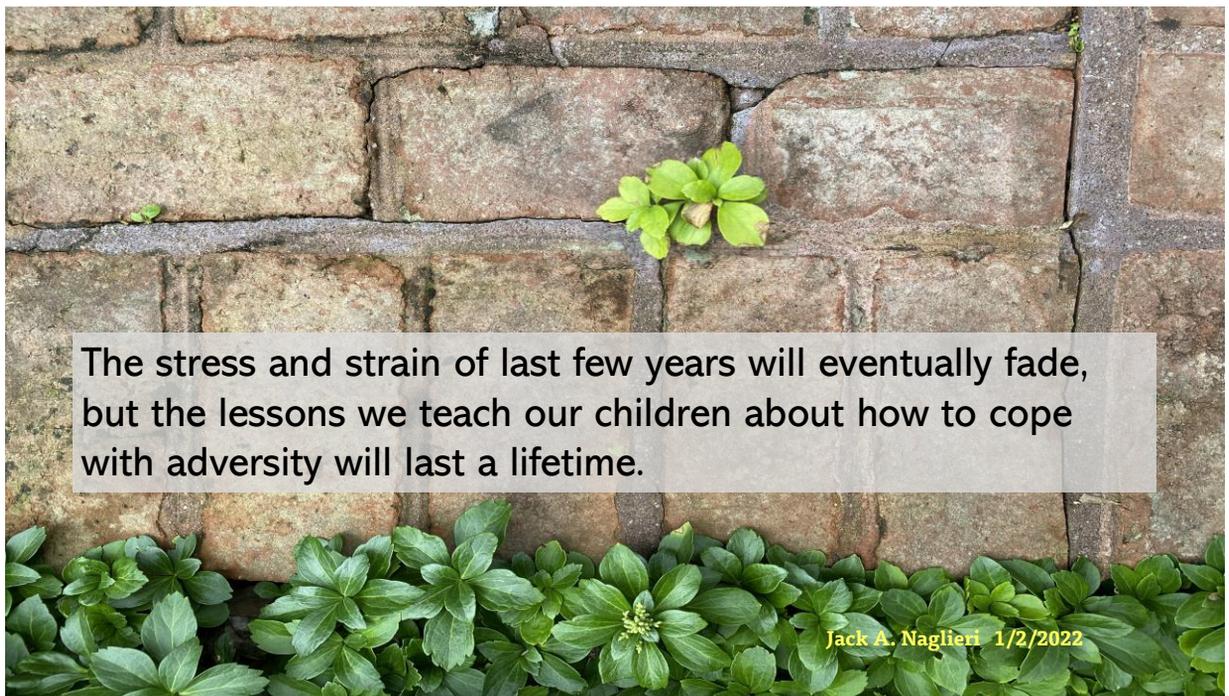


## Wrapping it up...

- **Executive Function (The PFC) is the control center of our brain.** Intentionally and transparently help students understand how their PFC works.
- **Mindsets Matter:** What we say to ourselves changes the chemistry of our brains.
- **Skills Sets Can be Developed:** We build new academic and social emotional skills if we Practice, Practice, Practice! Neurons that Fire Together, Wire Together.
- **Mindsets Plus Skill Sets = Results:** We can all become more resilient during and beyond challenging times.

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151



The stress and strain of last few years will eventually fade, but the lessons we teach our children about how to cope with adversity will last a lifetime.

Jack A. Naglieri 1/2/2022

152



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Assessment Tools for Psychologists and Educators

WELCOME TO JACKNAGLIERI.COM



This site was created to provide tools and resources for both psychologists and educators alike.

Jack A. Naglieri, PhD, is a Research Professor at the University of Virginia, Senior Research Scientist at the Derrisius Center for Resilient Children, and Emeritus Professor of Psychology at George Mason University. With J.P. Das, he is well known for the PASS theory of Intelligence and its application using the Cognitive Assessment System and Cognitive Assessment System-Second Edition.

**WHAT'S NEW?**

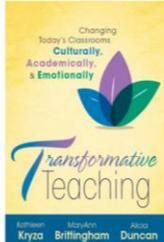
<p><b>Today's Handout</b></p>  <p>Download today's handout from recent presentations.</p>	<p><b>PASS Case Studies</b></p>  <p>Case studies that illustrate ways to identify different processing disorders and interventions that can make a difference.</p>	<p><b>10-Minute Solutions</b></p>  <p>Short published papers that describe applications of PASS theory to identify disabilities such as Dyslexia.</p>
<p><b>CAS2 Speed/Fluency Scale</b></p>  <p>New FREE Speed/Fluency Scale for the CAS2</p>	<p><b>Article Library</b></p> 	<p><b>Videos</b></p>  <p>Video library of interviews and webinars on</p>

**Kathleen Kryza's**  
**Infinite Horizons**  
www.kathleenkryza.com

**Passionately Committed to Transforming Classrooms Culturally, Emotionally and Academically**

**"(Mindsets + Skillsets) Relevance = Results!"**

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**Books**  
Be sure to check out Kathleen's newest book, *Transformative Teaching: Changing Classrooms Culturally, Academically and Emotionally*.  
Kryza, Birmingham, Duncan

**Workshops/Coaching**  
Top reasons to bring Kathleen to your school, district or conference:  
- Participate in high quality, dynamic workshops that blend current, brain-targeted research with practical and doable

**“So much to learn, so little time – motivated to refocus.”**  
- Anita, Philadelphia, NY

**About Kathleen**  
For over 30 years, Kathleen Kryza has inspired thousands of children and educators around the globe through her dynamic presentations and writing. Kathleen is passionately dedicated to helping classrooms, schools, and the world, be a better place for children.



**To learn more about Kathleen, CLICK HERE.**

# THANK YOU

Please be in touch with us directly for information about additional presentations and consultations

**Jack A. Naglieri, Ph.D.**  
[www.jacknaglieri.com](http://www.jacknaglieri.com)  
[jnaglieri@gmail.com](mailto:jnaglieri@gmail.com)

**Kathleen Kryza, MA**  
[www.kathleenkryza.com](http://www.kathleenkryza.com)  
[kkryza@me.com](mailto:kkryza@me.com)

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155

155



**Interacting voice:** The voice inside the reader's head that pays attention.

**Distracting voice:** The voice inside the reader's head that pulls him away from the meaning of the text.

156