How to Keep Executive Function Functioning When Everything is Whacked!

How do I get kids to "think positive & act smart?" Day 3

Edward Hooper's painting Ground Swell (1939) "echoes the themes of loneliness, danger and escape".

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- Reslience
- Perservere
- Give back
- What part of life can you control. How and where can you give them control
- Less screen time more activity
- Model positive coping behaviors the lessons you teach now will last a lifetime.
- Relax some restraints within the science

2

2

WELCOME

Today

- Practices for Healing Stress and Anxiety
- Creating Healing Classrooms

3

Mindful Moment:
Loving Kindness Meditation

4

4


THE ONLY THING
GREATER THAN THE
POWER OF MIND
IS THE COURAGE
OF THE HEART.

5


STRESS EATING

6

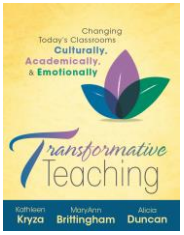
Routines & Procedures

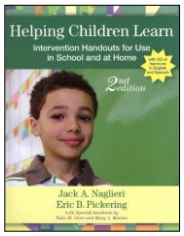
- Mindful Moments/
- Brain Breaks
- Chat
- Reactions

7

Blending Education and Psychology

- We hope these webinars provide school psychologists with a way to collaborate with teachers to help students think smart and learn in this unusual time
- The strategies we share will help ALL OF US cope better with the demands of our new world.
- And especially those who are struggling because of their executive function is not functioning





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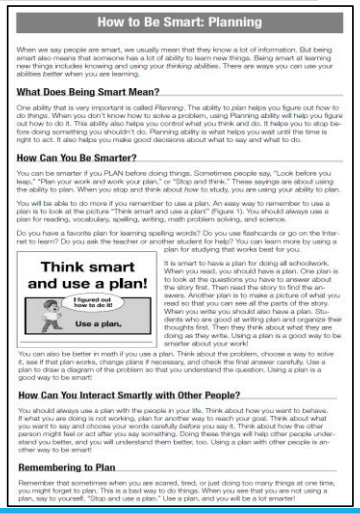
How to Think Smart: Planning (EF)

- The ability to plan (pre-frontal cortex) helps you figure out "*how to do things you choose to do*"
- *You can be smarter if you PLAN **before** doing things*
- *THINK SMART and use a PLAN when **doing** things!*
- ***After** your done, think about how to do it better next time*
- Use EF to engage Attention, Successive and Simultaneous basic psychological processes
- *Remember that when you are scared, tired or doing too many things you might forget to plan so say to yourself "Stop and use a plan".*



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.

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!

I figured out how to do it!

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!

You can also be better in math if you use a plan. Think about the problem, choose a way to solve it, see if that plan works, change plans if necessary, and check the final answer carefully. Use a plan to draw a diagram of the problem so that you understand the question. Using a plan is a good way to be smart!

How Can You Interact Smartly with Other People?

You should always use a plan with the people in your life. Think about how you want to behave. If what you are doing is not working, plan for another way to reach your goal. Think about what you want to say and choose your words carefully *before* you say it. Think about how the other person might feel or act after you say something. Doing these things will help other people understand you better, and you will understand them better, too. Using a plan with other people is another way to be smart!

Remembering to Plan

Remember that sometimes when you are scared, tired, or just doing too many things at one time, you might forget to plan. This is a bad way to do things. When you see that you are not using a plan, say to yourself, "Stop and use a plan." Use a plan, and you will be a lot smarter!

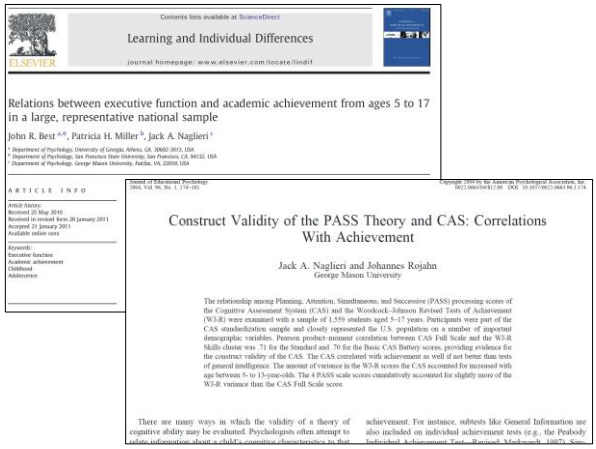
Expressions of EF

- A comprehensive approach to understanding and assessing EF should include the multiple ways the concept is expressed.

Behaviors related to Cognition	Behaviors related to Social-Emotional Skills	Academic and job skills
Frontal Lobes are the Neurocognitive Foundation (But don't forget the rest of the brain)		

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

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

John R. Best [a,*], Patricia H. Miller [b], Jack A. Naglieri [c]

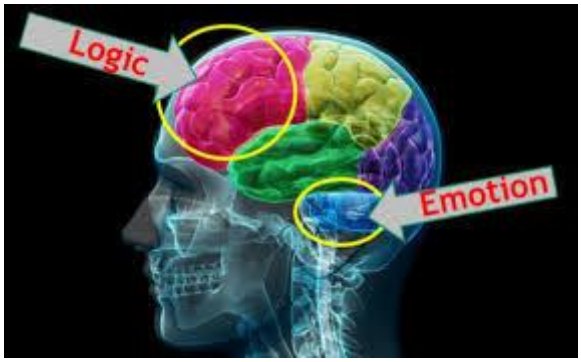
ARTICLE INFO

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 Revised 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 correlation between CAS Full Scale and the WJ-R Skills cluster was .71 for the Standard and .70 for the Basic CAS Battery scores, providing evidence for the construct validity of the CAS. The CAS correlated with achievement as well if not better than tests of general intelligence. The amount of variance in the WJ-R scores that CAS accounted for increased with age between 5- to 13-year-olds. The 4 PASS scale scores cumulatively accounted for slightly more of the WJ-R variance than the CAS Full Scale score.

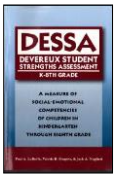
There are many ways in which the validity of a theory of cognitive ability may be evaluated. Psychologists often attempt to

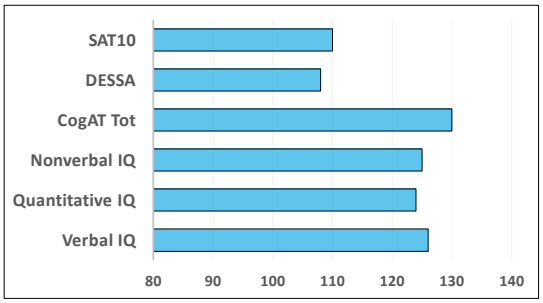


Executive Function Behaviors, Intelligence, and Achievement test scores

Kong (2013): IQ, SEL & Achievement

- For 245 students in gifted programs
- DESSA Social emotional rating scale (72 items) Total score correlated .44 with Achievement (reading, math, language), the CogAT Total .36
- Hierarchical regression analysis showed that CogAT did **not** add to the predication of achievement after DESSA scores were entered
- Considering DESSA social emotional scores as another way to assess the frontal lobes (i.e., Executive Function) these results make sense because CogAT (like traditional intelligence tests) does not measure EF





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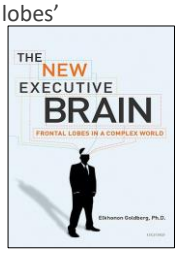
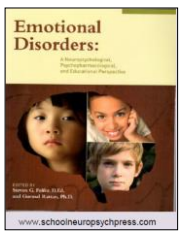
Phineas had Social Emotional Deficit

- 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

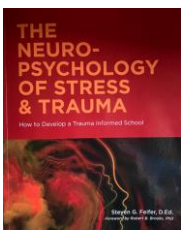
'very few researchers have merged cognitive [i.e. intelligence] and emotional aspects of frontal lobes'



The relationship between Executive Function and Emotional Disorders is explained



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



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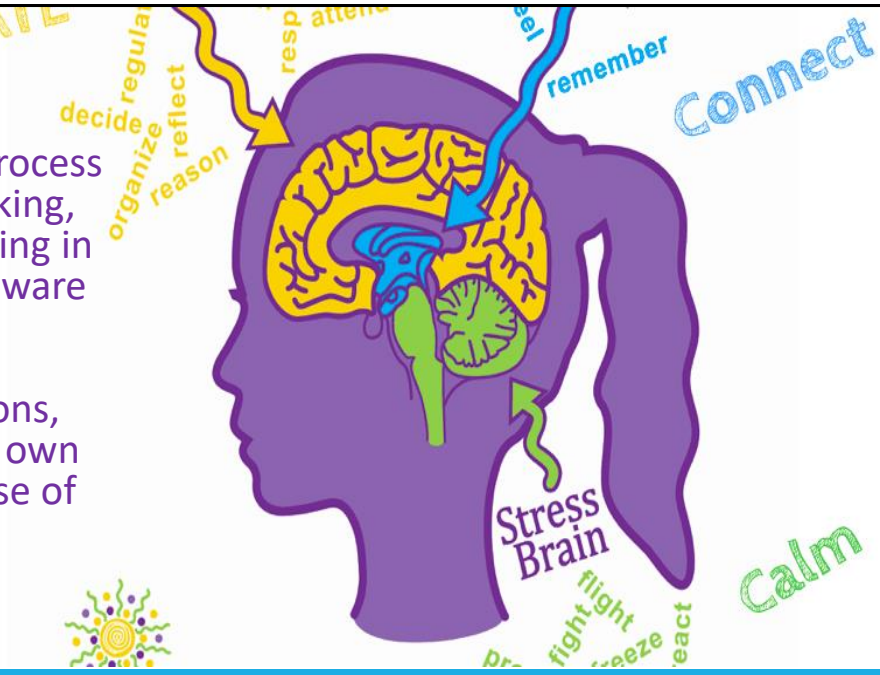
SEL refers to the process of integrating thinking, feeling, and behaving in order to become aware of the self and of others, make responsible decisions, and manage one's own behaviors and those of others (Elias et al., 1997)



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What are some of the social-emotional challenges you are seeing in students?

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Winning Formula for Success*!*

Mindsets

\+

Skill Sets*

= RESULTS!

*** Times Relevance!**

(MS + SS)R = Results

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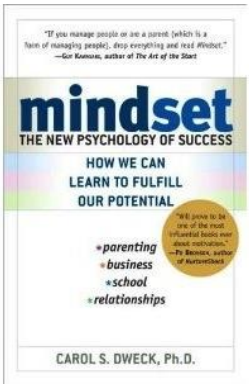
Carol Dweck,
Stanford University



Not the New Self Esteem Movement!
The quality of the effort matters.

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Dweck's findings: Two Mindsets

Fixed mindset:

- **Intelligence and talent - fixed**
- Innate talent creates success
- Effort will not make a difference
- You either get it or you don't
- **LOOK GOOD AT ALL COSTS**

Growth mindset:

- Intelligence can be developed
- Brains and talent are just the starting point
- Enjoy effort and process of learning
- You can <u>always</u> grow and learn
- **LEARN AT ALL COSTS**

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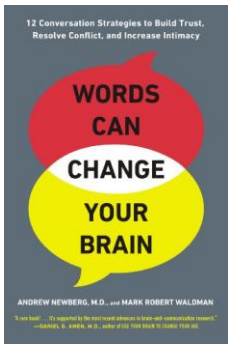
Our Words Matter

- A single word has the power to influence the expression of genes that regulate physical and emotional stress."
- Positive words, such as "peace" and "love," can alter the expression of genes, strengthening areas in our frontal lobes



- Hostile language can disrupt specific genes that that protect us from stress.
- A single negative word can increase the activity in the amygdala, releasing stress-producing hormones and neurotransmitters, which interrupts brain function.

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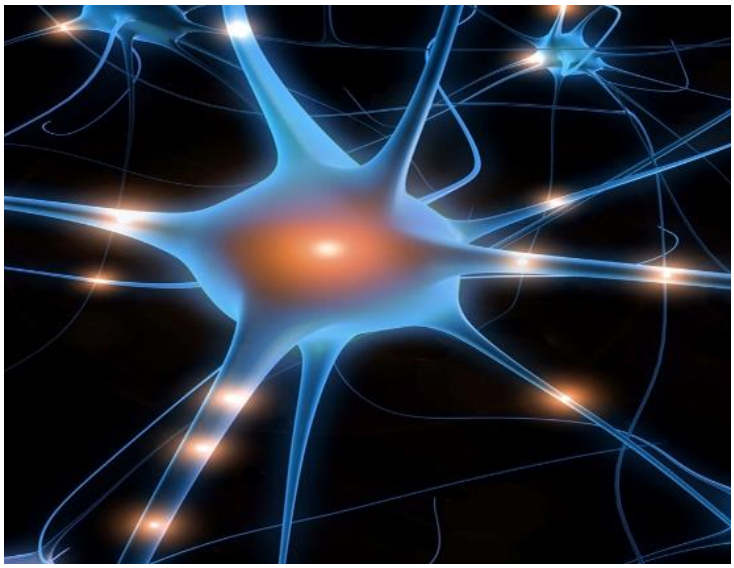

Neuroplasticity

- **Neuroplasticity** is the change in neural pathways and synapses that occurs due to certain factors, like behavior, environment, or neural processes.
- During such changes, the brain engages in synaptic pruning, deleting the neural connections that are no longer necessary or useful, and strengthening the necessary ones

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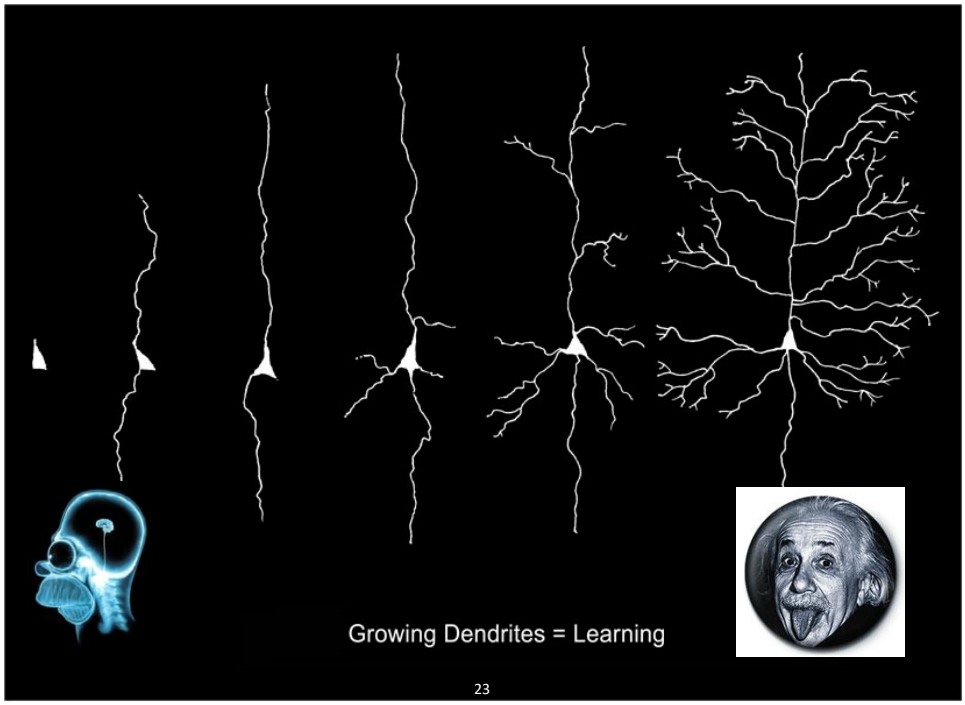

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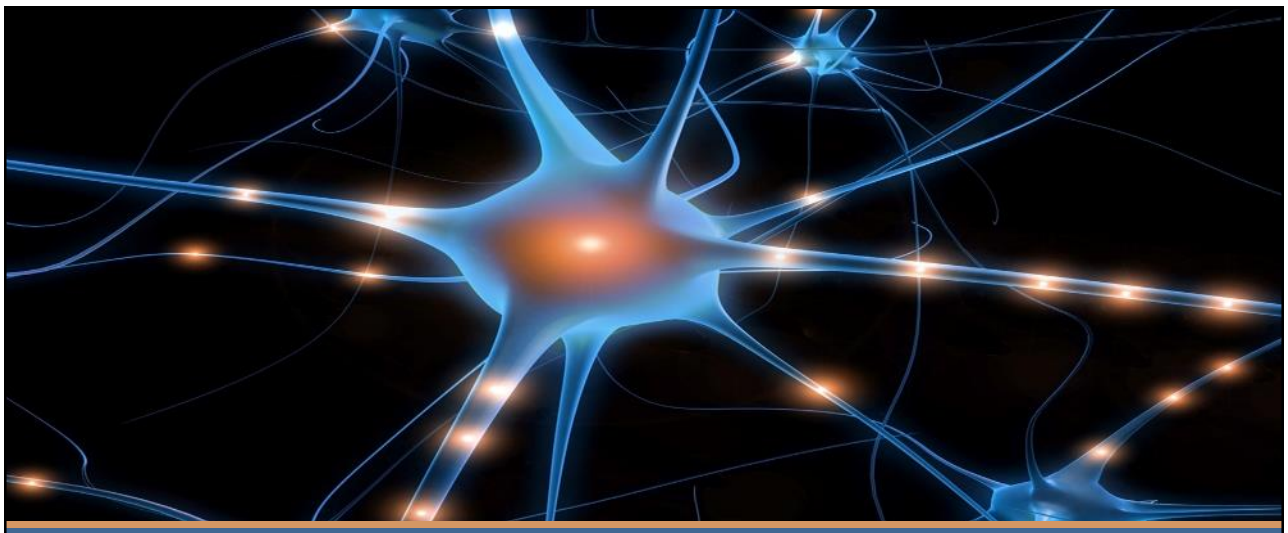

From neuroscience we know that…

NEURONS THAT FIRE TOGETHER WIRE TOGETHER!

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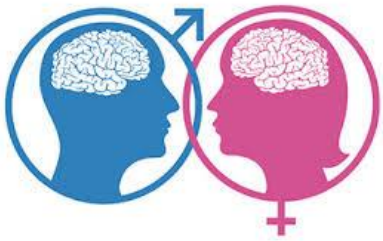

Gender and Developmental Differences in Executive Function

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Use it or Lose It!

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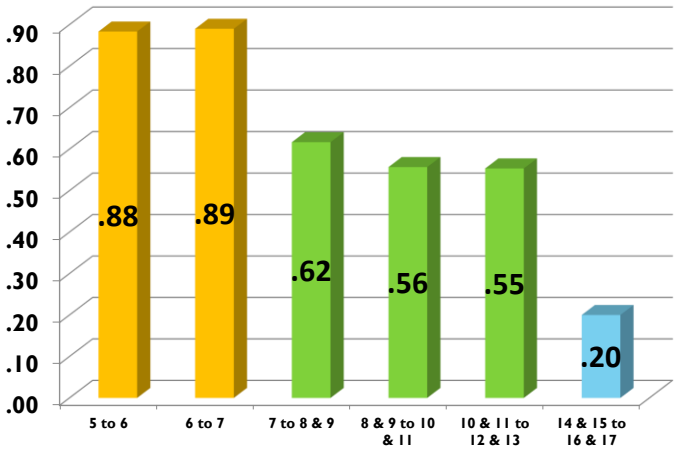
Developmental Changes in EF



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**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ARTICLE INFO

ABSTRACT

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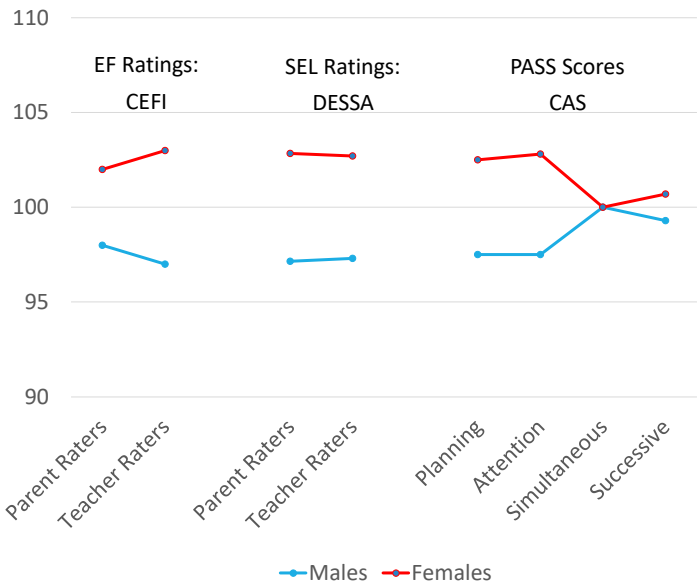
Sex Differences



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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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RISK TAKING AND RESILIENCE

ROLE MODELS

PRAISE and LOCUS OF CONTROL

Developing Your Mindset

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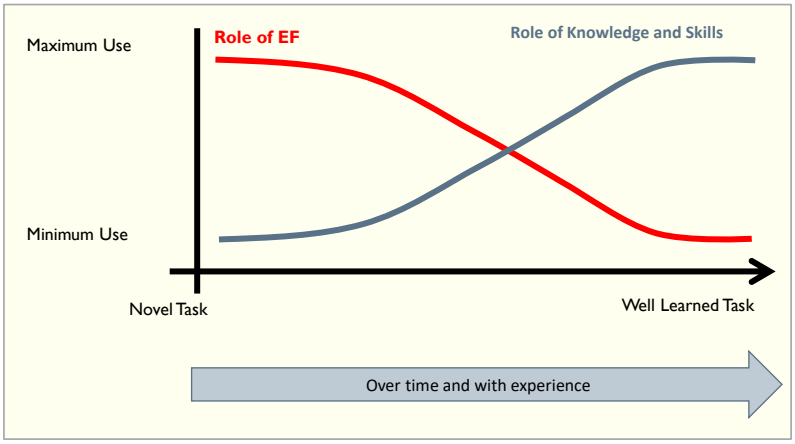
Learning Curves: Practice, Practice, Practice

(Goldberg, 2009; Naglieri & Otero, 2017)



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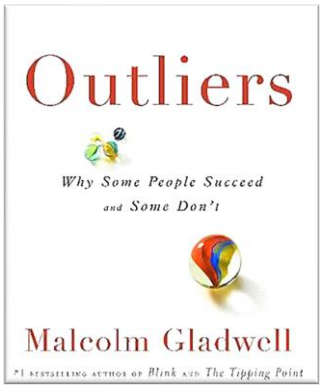

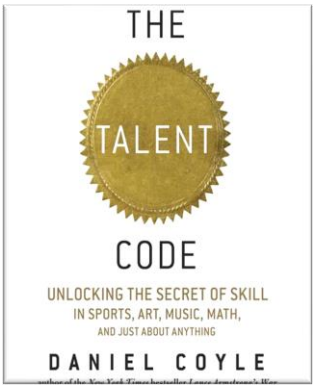

Practice, Practice, Practice!

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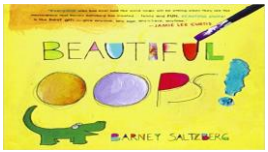
Growth Mindset Books

Ish by Peter H. Reynolds

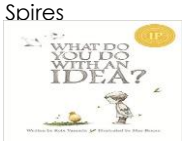
The Dot by Peter H. Reynolds



Beautiful Oops! by Barney Saltzberg

The Most Magnificent Thing by Ashley Spires

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



What Do You Do With an Idea? by Kobi Yamada

Kathleen Kryza's Infinite Horizons www.kathleenkryza.com

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STUDENT CHOICE VERIFICATION FORM
Non-Completion of Assignment

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: _____

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Positive **role models** influence our actions and motivate us to strive to uncover our true potentials and overcome our weaknesses.

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ROLE MODELS

For More Examples of Growth Mindsets
See Kathleen Kryza's Infinite Horizons You Tube Channel

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Growth Mindsets

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What are some things children and teens DO have some control over right now?
or
What are some things you can you give kids some control over?

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Name: _____ Date: _____

Feedback Friday

Did I try when tasks were challenging?

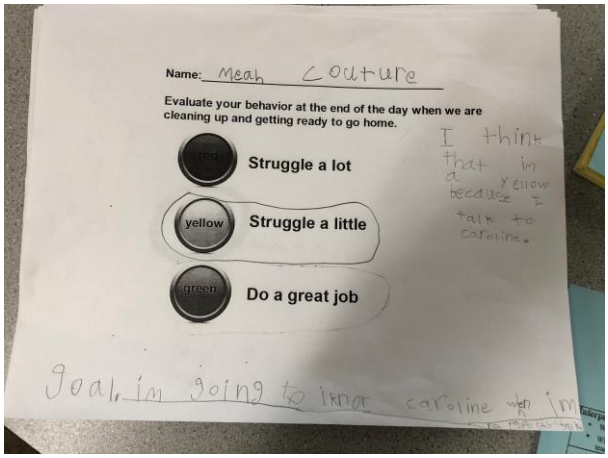
Did I encourage others?

Did I succeed?

Did I have a growth mindset?

Created by Erika Thall

Kathleen Kryza's Infinite Horizons



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Measure of Mindset – Child Adolescent

Measure of Mindset (Child & Adolescent)

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

Measure of Mindset: Teacher & Parent

Measure of Mindset (Teacher & Parent)

Jack A. Naglieri & Kathleen M. Kryza - Copyright © 2015

Name _____ Date _____

Instructions: These 10 questions ask about a child or adolescent's attitudes toward learning. Please read every question carefully and circle the number under the word that tells what you have observed about your child.

		Never	Sometimes	Most times	Always
1	He/she doesn't give up easily.	0	1	2	3
2	When things get hard he/she says, "I can do it!"	0	1	2	3
3	Failure leads him/her to try harder until the task is finished.	0	1	2	3
4	He/she views failure as an important part of learning.	0	1	2	3
5	He/she believes that you can do anything if you try hard enough.	0	1	2	3
6	He/she is afraid of failure.	0	1	2	3
7	When things get hard he/she avoids the work.	0	1	2	3
8	He/she believes that hard work usually does not pay off.	0	1	2	3
9	He/she is fast to give up on a task.	0	1	2	3
10	He/she sees failure as proof of a person's limitations.	0	1	2	3

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Time for a Brain Break

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Tree Pose: Grounding Balance Pose

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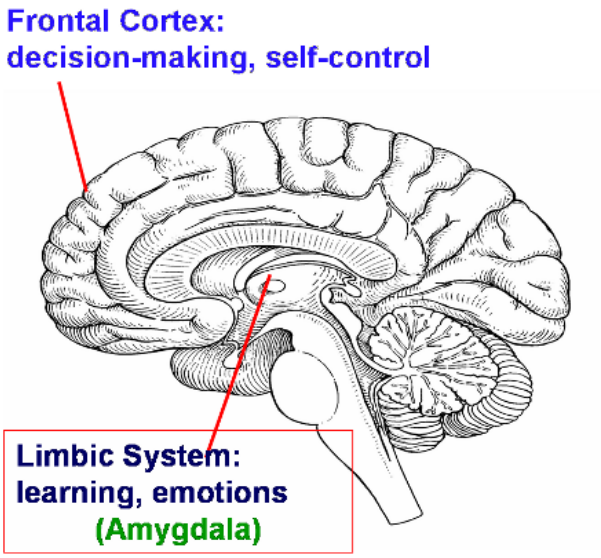

Emotions and the Brain

- 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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Amygdala flipped!

44

Think SMART! (Naglieri & Kryza, 2014)

Stop and THINK

Make a PLAN

Take **A**ction!

Review/Reflect/Revise

Ta da! (or) Try Again

45

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In Compounded Grief,
1+1 no longer equals 2.
Effects multiply til
even the strongest
hearts get overloaded.
Take extra care.
Give extra time.
Never rush or judge.

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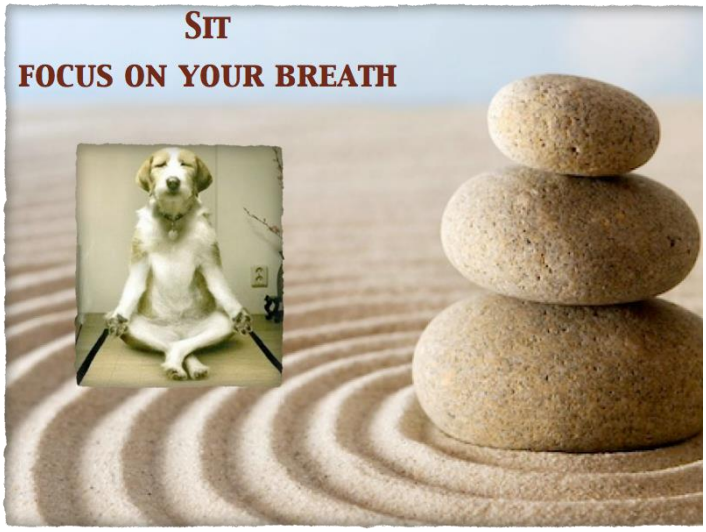

Practice Mindfulness

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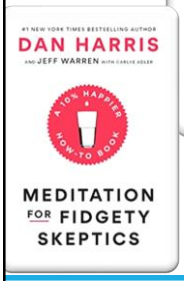

MINDFULNESS IS A SUPERPOWER!

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How Mindfulness Helps

Without Mindfulness	Stimulus	→ Reaction	
With Mindfulness	Stimulus	→ Mindfulness	→ Response

Mindfulness creates space…

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

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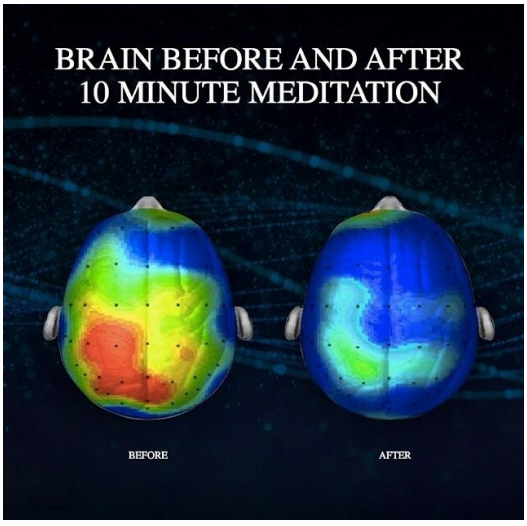

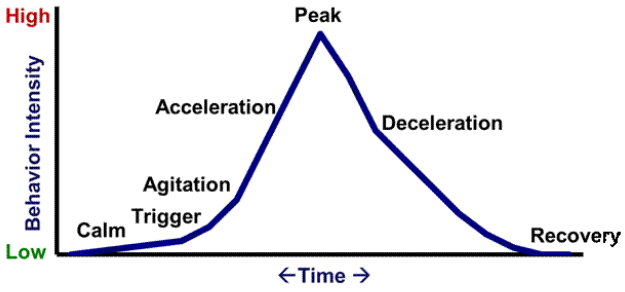

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From Monkey Mind To Mindfulness

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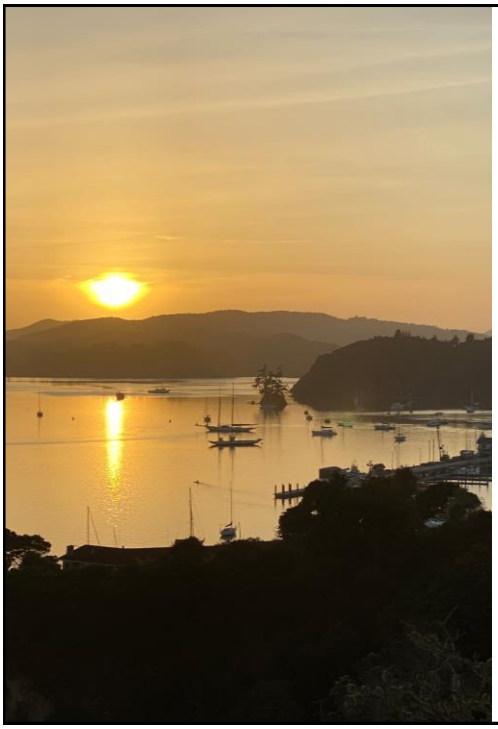

Simple Mindfulness Practices

- Quiet Place – Real or Envisioned
- Mindful Movement
  - Calm or Energize
- Grounding on the Floor, Earth, Tree
- Mindful Walks, Eating
- Peace Hour (or 10 minutes!) as a family
- Peace corners
- Breath In Peace, Breath Out Love

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Sooth Your Nervous System

TOUCH ACTIVATES THE CARE SYSTEM,

AND CALMS THE NERVOUS SYSTEM.

Hand on Heart

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Calm

YOGA ed.
embody • empower • educate

Mindfulness Apps for Kids

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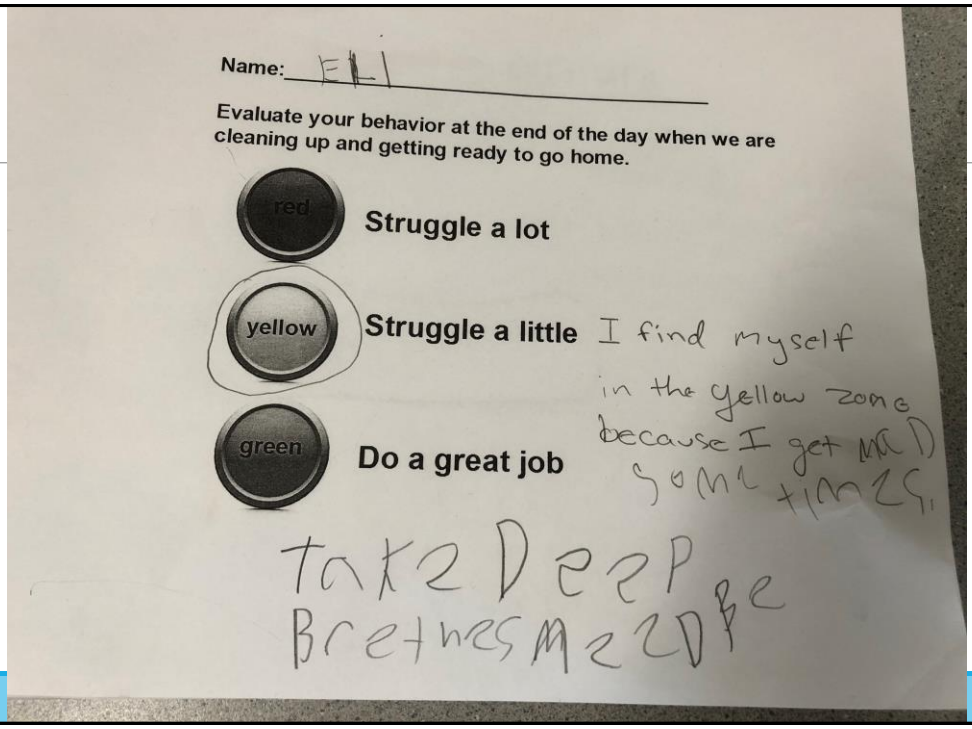

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Nature and Movement

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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)

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Find Ways to Give Back

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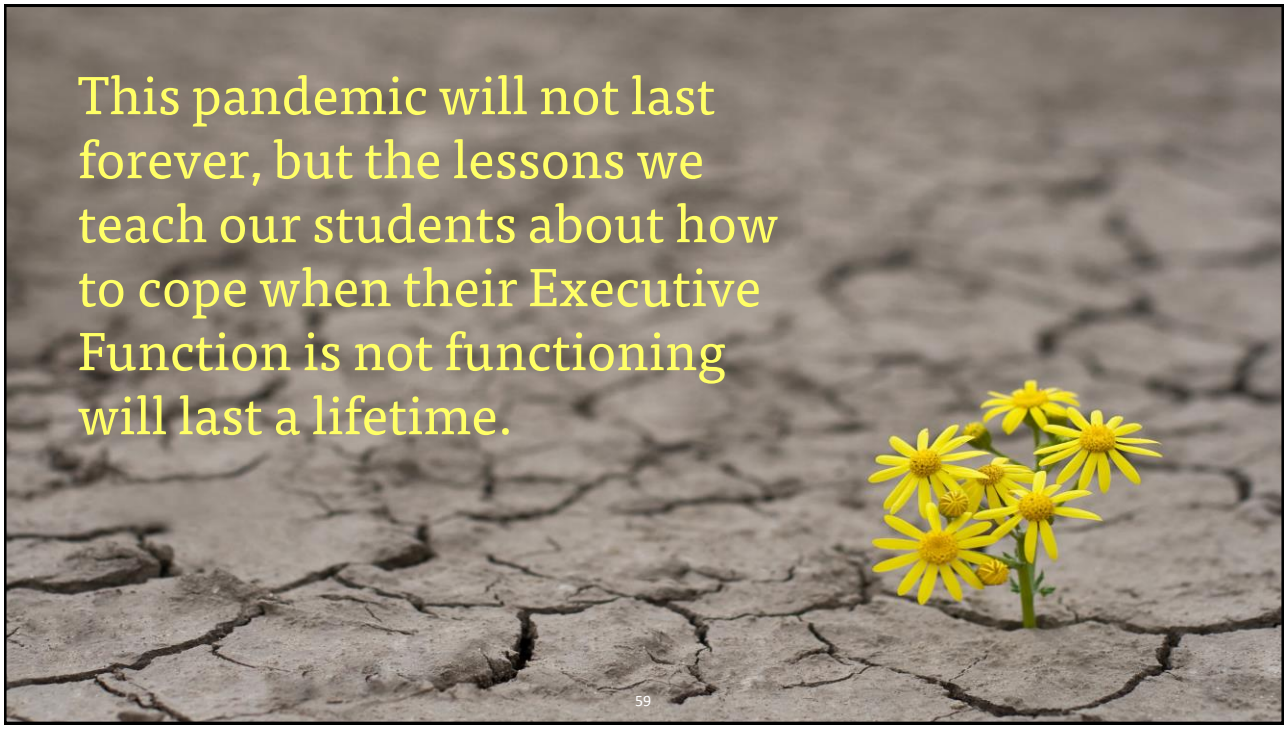
This pandemic will not last forever, but the lessons we teach our students about how to cope when their Executive Function is not functioning will last a lifetime.
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Tips and Takeaways

- Motivation and Mindsets matter in growing neural connections. Teach intentionally and transparently.
- Practice, Practice, Practice
- Build a toolkits of practices to use to put the PFC back in charge.
- MINDSETS + SKILLSETS = RESULTS!!!
- Be Kind and Be Gentle with Yourself.

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

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