Executive Functioning Components Knowledge Meter

• I already know where Self-Regulation falls on the Executive Function Components scale . . .

1 — 3 — 5
SO WHERE DO I START THIS SEMINAR?

WITH RESEARCH

REAL PRACTICAL STRATEGIES

HOW CAN I MAKE THIS PRACTICAL FOR YOU...? ????
Studies have documented that schedules and routines influence children's emotional, cognitive, and social development.

Predictable and consistent schedules in classrooms help students with ASD feel secure and comfortable.

Schedules and routines help preschool children understand the expectations of the environment and reduce the frequency of behavior problems, such as tantrums and acts of aggression.

-Ostrosky, Jung, Hemmeter, Thomas
What does research say?

Using an agenda of the day’s lesson makes learning more relevant to students and takes the mystery out of what is going to happen that day.

NOTE: This research applies to neuro-typical individuals.

What Successful Mentors Do
81 Research-Based Strategies for New Teacher Induction, Training, and Support
Cathy D. Hicks • Neal A. Glasgow • Sarah J. McNary
Predictability, structure and routine!
Anticipating change...

Helps to respond to change!

-Lisa Rogers
This is not a "sit and get" seminar!

So.. time for..

ENGAGEMENT IN LEARNING!
The Brain Learns Best . . .

- Reflection
- Discussion
- Movement
WHAT ARE EXECUTIVE FUNCTIONS?  
No formally agreed upon definition.

The Conductor or CEO of the Brain

This theory states that EFs are a single, unitary cognitive control process that directs all thought and behavior

(McCloskey, Perkins, & Van Divner, 2009)
EF’S AS CO-CONDUCTORS OF THE BRAIN’S ORCHESTRA

- Set of multiple cognitive capacities that act in a coordinated manner

(McCloskey, Perkins, & Van Divner, 2009)
Multi-dimensional Construct

( McCloskey, Perkins, & Van Divner, 2009 )

Overarching developmental cognitive neuropsychological construct that is used to represent a set of neural mechanisms that are responsible for cueing, directing, and coordinating multiple aspects of perception, emotion, cognition and action.
Self-Regulation

- Working Memory (Adaptability)
- Inhibitory control (Response Inhibition)
- Mental Flexibility (Emotional Control)
METACOGNITION

Awareness and understanding of one's own thought processes.

Includes-
- Goal setting
- Planning and strategizing
- Sequencing
- Organization
- Time management
- Task initiation
- Executive attention
Executive Functioning Components

Social/Emotional Regulation Strand

- Response Inhibition
- Emotional Control
- Adaptability
“Ability to respond to the ongoing demands of experiences with the range of emotions in a manner that is socially tolerable and sufficiently flexible to permit spontaneous reaction as well as the ability to delay spontaneous reactions as needed.”
(Cole, Michael, and Teti, 1994)
REFERS TO BOTH UNCONSCIOUS AND CONSCIOUS PROCESSES

• That affect the ability to control responses

• It is a **skill** that has overarching effects on an individual’s ability to tolerate unmet needs, handle disappointments and failures, and work towards success.
SIGNS OF DIFFICULTY WITH SELF-REGULATION:

- Act overly silly or “out of control”
- Have tantrums and meltdowns
- Struggle with transitions between activities
- Have difficulty waiting or taking turns
- Struggle with being in close proximity to others
- Move too quickly or with too much force
- Grab, throw, or touch things impulsively
- Have difficulty walking or waiting in line
DIFFICULTIES WITH SENSORY OR COGNITIVE OVERLOADS

Resulting in a meltdown, such as in someone with an ASD.
frontal lobes

prefrontal lobes (associated with behavioral and personality changes)

The brain develops back to front so the prefrontal cortex is not fully mature till age 25.

Yes, Your Teen is Crazy!
Michael J. Bradley, 2002
EXECUTIVE FUNCTIONS ARE DEVELOPING AND AVAILABLE/CONSOLIDATED BY 4 YEARS OLD.

THESE ARE DEVELOPED THROUGH PLAY.

However, they are not fixed and fully mature in neurotypical adults until their 20’s
PSYCHOLOGICAL AND DEVELOPMENTAL DISORDERS ASSOCIATED WITH EF DEFICITS

- ADHD
- Learning Disabilities
- Autism Spectrum Disorders
- Mood Disorders
- Obsessive Compulsive Disorders
- Tourette’s Syndrome
- Schizophrenia
- Antisocial Personality Disorders
- Borderline Personality Disorders

Suchy, 2009
Games and Fun Activities

Self-Awareness Strategies

Calming Techniques

Visual Cues and Positive Behavior Supports
Research Proven Games and Activities

#1. Red Light/Green Light
- Recommended Age 3-7 years
- What you need: A bunch of kids and wide open space

CONNECTING THE DOTS:
- LISTENING
- CONTROLLING URGES
- BREAKING A HABIT
#2 Freeze Game
Recommended Age 3-7 years
What you need: A music system and wide open space

LISTENING, CONTROLLING URGES, BREAKING A HABIT
Research Proven Games and Activities

#3 Wacky Relay
Recommended Age 3-10 years
What you need: An object to carry between two children using designated body parts, such as elbow to elbow, back to back, finger to finger

TEAMWORK, SOCIAL SKILLS, CONTROLLING EMOTIONS
#4 Self Control Bubbles
Recommended Age 3-10 years
What you need: bubble mixture

RESIST TEMPTATIONS, INHIBITORY CONTROL, CONTROLLING EMOTIONS
Research Proven Games and Activities

#5 READY, SET, GO! (INSTEAD, SAY GORILLA, GUAVA, GOOGOO)
Recommended Age 3-10 years
What you need: bunch of kids and open space

RESIST TEMPTATIONS, INHIBITORY CONTROL, LISTENING
Research Proven Games and Activities—but do they really help self-regulation?

Researchers Shauna Tominey and Megan McClelland proved that kids who played twice a week for 30 mins each for 8 weeks had improved on their self-regulation scores!
Today I did my math and science.  
I toasted bread, I halved and quartered, counted, measured, and used my eyes, ears and hands.  
I added and subtracted on the way.  
I used magnets, blocks and memory tray.  
I learned about a rainbow and how to weigh.  
So please don't say -  
'ANYTHING IN YOUR BAG TODAY?'
You see. I'm sharing as I play, to learn to listen and speak clearly when I talk to wait my turn and when inside to walk. To put my words into a phrase, to find my name and write it down. To do it with a smile and not a frown, to put my pasting brush away. So please, don't say - WHAT NOTHING IN YOUR BAG TODAY?
I learned about a snail and a worm. Remembered how to take my turn. Helped a friend when he was stuck. Learned that water runs off a duck. Looked at words from left to right. Agreed to differ, not to fight. So please don't say - 'DID YOU ONLY PLAY TODAY?'
Yes, I played the whole day through.
I played to learn the things I do.
I speak a problem, find a clue
and work out for myself just what to do.
My teacher has set the scene, and stay near-by to
help me when I really try. They are there to pose
the problems, and to help me think.
I hope they will keep me floating and never let me
sink.
All of this is in my head and not in my bag. It makes
me sad to hear you say -
'HAVEN'T YOU DONE ANYTHING TODAY?'
When you attend your meeting today and do your work I will remember not to say to you - 'WHAT NOTHING IN YOUR BAG? WHAT DID YOU DO?'
The Brain Learns Best . . .

- Reflection
- Discussion
- Movement
TIME FOR REFLECTION

• ON NEXT SLIDE

TAKE 1 MINUTE to write down your top 3 IDEAS OR TOPICS you want to remember so far.
TIME FOR REFLECTION

1. _______________________

2. _______________________

3. _______________________

Help! Time for Movement!

Find your PARTNER

READ THE FOLLOWING SCRIPT:

Good morning..
Here is what I want to remember so far..
1.
2.
3.
Games and Fun Activities

Self-Awareness Strategies

Calming Techniques

Visual Cues and Positive Behavior Supports
Temper Tantrums

Will look to see if behavior is getting a reaction
Can alter behavior to ensure he doesn’t get hurt
Will use the situation to his advantage
Has a goal and, when the goal is met, the behavior returns to typical
Is in control
Meltdowns

Has no involvement in the social situation

Isn’t concerned with his own safety

Doesn’t care how others react to his situation

Meltdowns appear to be under their own power and have a cycle

Excerpted from Brenda Smith Myles, Ph.D., webinar from Virginia Commonwealth University webinar 10/9/17 ASD and Regulation: The Brain, Meltdowns, and Evidence-Based Practices: Part 1
The difference is the *function* of the behavior.

Consequences are different for a meltdown than for a tantrum.
Emotional control-
Ability to modulate reactions from hypoactivity to hyperactivity to “just right”.
“Behavior problems” sometimes occur due to sensory overload.

Breakdowns occur when there are sensory traffic jams.
Sensory overload, hyperarousal, underarousal, can be prevented or intervened....

Process of the brain by which sensory input is organized so that it can be used appropriately.

Kids in Motion,
Aren’t Commotion
Mind Jar

In a glass jar (recycled pasta sauce or baby food jar), mix about 1 tablespoon of glitter glue (found in any art store) with 1 cup of warm water. If desired, add food coloring for some vibrant color.

Ask the students to imagine the glitter as their thoughts. Have them shake the jar and imagine their head full of whirling thoughts. Then have them set the jar down, and continue to watch the thoughts slowly settle as they, themselves, begin to calm.
When to do MeMoves:
- Before a test
- Before stressful event
- First period in the morning
- Prior to quiet, indoor activity

Stephen Porges’ polyvagal theory, one of the most celebrated new developments in neurobiology.

MeMoves’ faces with eye contact and expressive features of emotion, music supporting the same frequency as the female voice, and simple gestures perfectly align with the positive social engagement elements identified by Porges.
How Might Children Communicate
They are “Running on Empty!”

- Crying
- Hitting
- What else?
Turtle Technique

Recognize that you feel angry.

Go into shell. Take 3 deep breathes. And think calm, coping thoughts.

“Think” Stop.

Come out of shell when calm and think of a solution.
Tucker Turtle Takes Time to Tuck and Think

A scripted story to assist with teaching the “Turtle Technique”

By Rochelle Lentini

March 2005

Tucker Turtle is a terrific turtle. He likes to play with his friends at Wet Lake School.
But sometimes things happen that can make Tucker really mad.
When Tucker got mad, he used to hit, kick, or yell at his friends. His friends would get mad or upset when he hit, kicked, or yelled at them.
Tucker now knows a new way to “think like a turtle” when he gets mad.
He can stop and keep his hands, body, and yelling to himself!
He can tuck inside his shell and take 3 deep breaths to calm down.
Tucker’s friends are happy when he plays nicely and keeps his body to himself. Friends also like it when Tucker uses nice words or has a teacher help him when he is upset.
The End!