

---

---

# Understanding and Supporting Executive Functioning

— Solange Caovan-Hornbake and Bethany Banal —  
School Psychologists

---

---

# What Is Executive Functioning?

- How we get stuff done
- Identifying and carrying out the steps needed to accomplish a goal
- Self-regulating thoughts, emotions, and actions to accomplish a goal



# What Are the Primary “Functions?”

- **Management** involves task initiation, organization of information, time management, planning, and prioritization.
- **Memory** grants access to present and prior knowledge.
- **Attention** involves the shifting, sustaining and managing of one's focus.
- **Mental State** includes both effort as well as emotional regulation or the management of moods and feelings.
- **Metacognition** involves awareness of one's thoughts, monitoring and regulation of those thoughts.

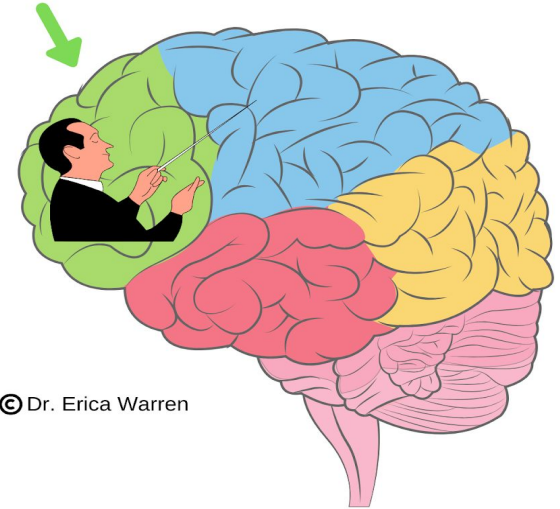
# The Brain

- Executive functioning takes place in the prefrontal cortex of the frontal lobe
- Conductor of the orchestra
- GPS of the brain
- Continue to develop until age 30

## Where are Executive Functions located in the brain?

Executive functions (EFs) are situated mainly in the prefrontal locations of the frontal lobe. Like a conductor, EFs receive incoming sensory input and information from other parts or instruments of the brain so, like an orchestra, the brain combines the cognitive functions as a united symphony.

Frontal lobe



© Dr. Erica Warren

<https://goodsensorylearning.com/>

<https://learningspecialistmaterials.blogspot.com/>

# Why Do So Many Students Struggle with EF?

- Overstimulation; sensory overload
- Overfunctioning
- Assuming a fixed skill set; equating intelligence or ability with skills
- Cognitive distortions
- Emotional overload
- Need to teach skills versus incentivizing
- Identify the “why” or “what” in order to know “how” to help



# Planning

## Developing a realistic strategy for completing a task

- What is needed
- What steps are involved
- How long it will take
- Considering potential problems

## Challenges:

- Relying on memory/not writing things down
- Unaware of how long it will take to complete
- Difficulty with prioritizing
- Not setting specific start times; waiting until the last minute
- No accountability

# Organization

## Having a system for keeping track of materials and/or steps to complete a goal

- Where materials should be kept
- What is needed for a specific task
- Need to be organized “enough” to meet goals
- Need to be able to see the big picture and the details

## Challenges:

- Materials “everywhere”
- Losing materials
- Cannot find materials
- Forgets to turn in homework even when completed

# Task Initiation

## Getting started on a task

- Activation
- Getting the ball rolling

## Challenges:

- Starting can feel overwhelming, especially a big task
- Avoidance is easier than facing the stress
- Unsure of how/where to start
- Not having needed materials
- Not having a specific start date/time
- Difficulty starting without support
- Procrastination; often linked to perfectionism in that students have difficulty starting if it does not come quickly, easily, or naturally



# Time Management

## The ability to manage time appropriately to complete a task

- Essential for planning, scheduling, prioritizing and work completion
- Understanding how long a task should take
- Understanding how to prioritize tasks
- How to transition from one task to another

## Challenges

- Difficulty with concept of time
- Difficulty estimating how long tasks should take
- No system for keeping track of schedule or what is happening when
- Difficulty prioritizing tasks
- Instant gratification results in difficulty understanding the process involved in the product
- Overfunctioning or overextending one's capacity
- Engrossed in a screen we are unaware of peripheral cues of time passing or awareness of internal clock

# Attention

## The ability to sustain focus on a task for a period of time

- Maintaining concentration to see a task through
- Ignoring distractions
- Refocusing back to task, redirecting thoughts
- Focusing on the key information

## Challenges:

- Workspace and/or materials contains distractors
- No end goal in sight
- Multitasking
- Instant gratification/unrealistic expectations
- Difficulty redirecting self back to task
- Difficulty identifying exactly what to focus on

# Working Memory

## Holding information in mind while using it to complete a task

- Remembering instructions
- Remembering details
- Completing multi-step tasks
- Remembering due dates

## Challenges:

- Difficulty identifying and/or implementing strategies (visual, auditory, etc) to help with recall
- Stress and anxiety

# Inhibit

**The ability to hold back, pause, resist engaging in an impulse or behavior**

- Thinking through a situation before acting
- Consider consequences before acting

**Challenges:**

- Difficulty with impulse control
- Difficulty considering consequences of one's actions

# Flexibility

**The ability to adapt to change, to be flexible in thinking**

- Important in problem-solving and decision-making, perspective-taking
- 

**Challenges:**

- Getting stuck in one way of thinking or problem-solving
- Reluctant to accept help or try a new way of approaching a task

# Task Persistence

## Perseverance, stick with it, follow-through

- Important for task completion
- Pushing through challenges
- Self-advocacy when help is needed

## Challenges:

- Equating intelligence or achievement with success and undervaluing effort and process
- Seeing challenges as weaknesses if something does not come easily or quickly
- Difficulty generating alternative strategies
- Difficulty with self-advocacy

# Metacognition

**Thinking about our thinking, awareness of our understanding and performance**

- Self-monitoring
- Task-monitoring

**Challenges:**

- Difficulty visualizing the process
- Difficulty visualizing the outcome
- Difficulty understanding one's strengths and weaknesses, self-awareness
- No checkpoints for accountability

# Emotional Control

## Working through and managing challenging emotions appropriately

- Self-regulation of emotions helps with task productivity

## Challenges:

- Cognitive distortions
- Easily overwhelmed
- Moody, disproportionate emotional reactions
- Anxiety and emotional dysregulation interfere with executive functioning, working memory, flexible thinking
- Difficulty managing boredom and stress without tech they don't have to figure out how to be bored
- Amygdala takes over (Fear) instead of frontal lobe and frontal lobe disengages and shuts down



# How to Help Support Development of EF

- Identify the “why” or “what” in order to know “how” to help (teach v. incentivize)
- Foundation
- Environment/Structures
- Visual strategies
- Auditory strategies
- Communication
- Accountability

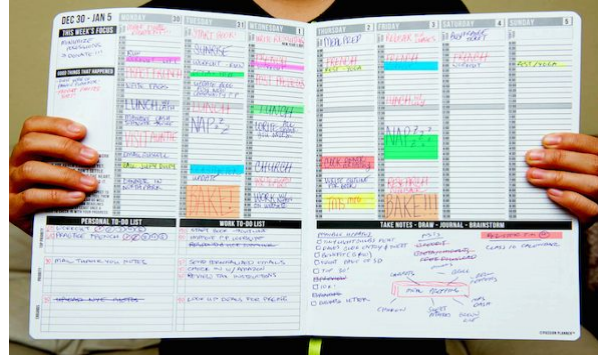


**WORK IN PROGRESS**



# Visual Strategies: Write It Down!

- Calendar (Monthly)
- Agenda (Daily/Weekly)
- Lists
- Post-its
- Mnemonic devices
- Pictures and visual models
- Kinesthetic reinforcer
- All in one place
- Free of distractors
- Include
  - Assignments
  - Tests/Quizzes
  - Study Time
  - Extra Help
  - Backwards Planning



# Auditory Strategies

- Alarms
- Timers
- Reminders
- Notifications
- Recording function
- Non-phone preferred
- Mnemonic devices



# Environmental/Structural Supports

- Predictable routines
- Schedule
- Workspace clear of distractions
- Materials needed
- Brief work periods

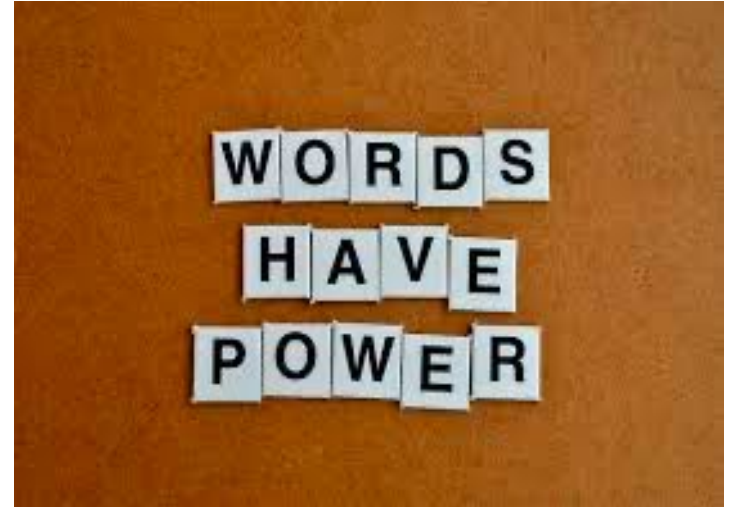


# Communication and Accountability

- Compassionate communication
  - Understanding versus arguing (what is behavior communicating: skill deficit? Resistance? Procrastination? Fear? etc)
  - Validate
  - Work through cognitive distortions; reframing self-defeating thoughts
  - Acknowledge successes
  - Reasonable expectations
- **Continue** versus **start** feels less overwhelming/not all or nothing
- **Pause** versus **stop** elicits a calmer response
- Is **working on developing** or **yet** versus **can't** or **won't**
- Give notice of transitions (**What's your 5 minute plan?**)
- Speak like the student is playing a video game or "change the channel"
- What would they tell a friend?
- Why do you think you're stuck on \_\_?
- Reinforce use of the strategy and micros successes

# Communication and Accountability

- Weekly group email
- Shared Google trackers
- Regular check-ins; relationships and connections matter and success can be very person-dependent
- Opportunities for extra help
- Student buy in and ownership; sense of control
- Self-advocacy
- Difficulty with virtual is no observation of students seeing each other work, ask questions, learn, limited opportunities for social practice

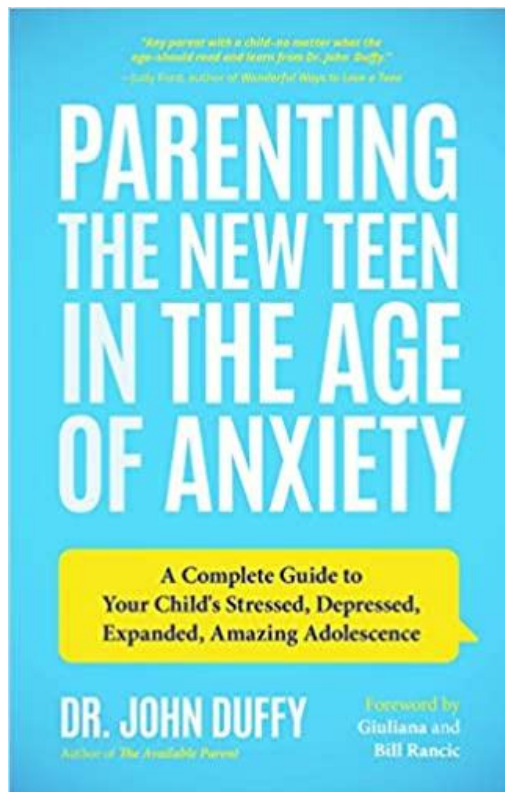
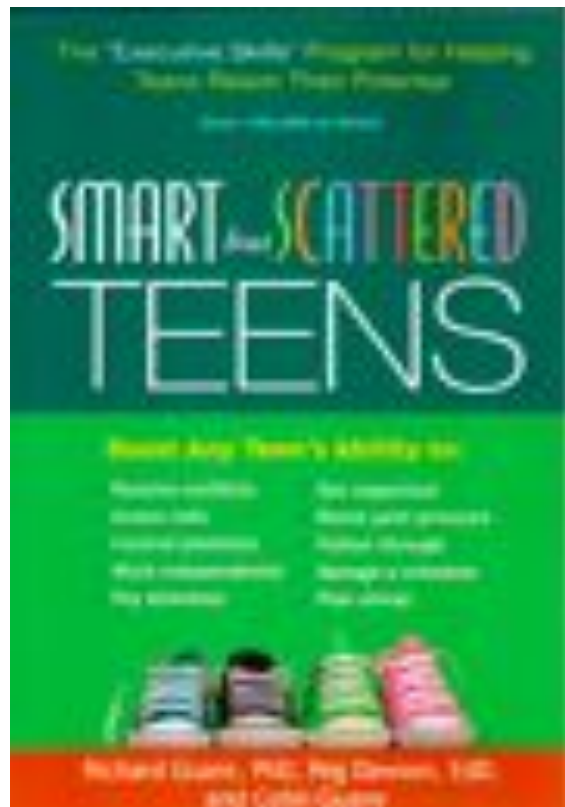


# Strategy Sheet

Identify Concern, Strategies, and Reflection:

<b>IT'S HARD TO...</b>	<b>I WILL TRY TO...</b>	<b>WAS IT HELPFUL?</b>
Keep track of assignments	Use an agenda	
Get started	Set a start time; Put phone away/give to parent	
Know how long an assignment should take	Ask the teacher for an estimate	



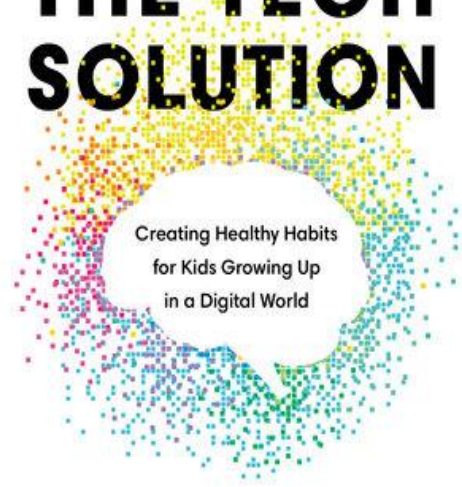


Shimi Kang, MD  
**THE TECH  
SOLUTION**

Creating Healthy Habits  
for Kids Growing Up  
in a Digital World

Includes a 6-step plan for success

"Straightforward guidelines for how to protect our most important resource: the next generations' brains." **DANIEL LEVITIN, PhD**, *New York Times* bestselling author of *Successful Aging*





A Podcast About Exposing the  
Mysteries of Executive Function

with  
Sucheta Kamath



**When kids struggle with reading,**  
*we teach them.*

**When kids struggle with math,**  
*we teach them.*

**So when kids struggle with  
executive functioning skills,**

*let's teach them.*

[www.thepathway2success.com](http://www.thepathway2success.com)