

A decorative graphic on the left side of the slide consists of a network of light blue lines and small circles, resembling a circuit board or a neural network. The lines are vertical and horizontal, with some diagonal connections, and the circles are placed at various points along these lines.

# EXECUTIVE FUNCTION DEFICITS IN CHILDREN WITH DEVELOPMENTAL LANGUAGE DISORDER

REED SENTER, M.S. CCC-SLP

# LEARNING OUTCOMES

## 1) What are executive functions?

- Define “Executive Function”
- Explain its role in development
- Define its components

## 2) How can SLPs support students with executive dysfunction?

- Implement direct intervention
- Support through indirect intervention



# WHAT ARE EXECUTIVE FUNCTIONS?

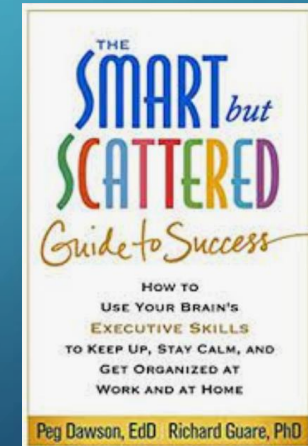
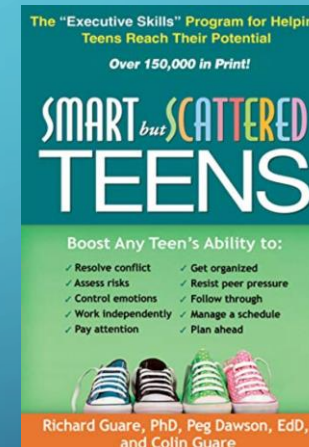
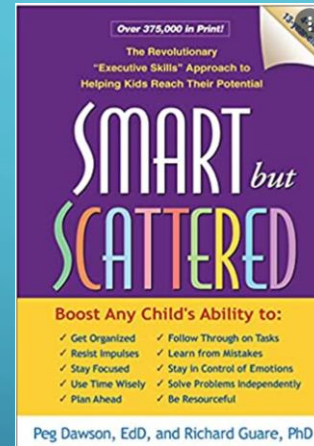
# WHAT ARE EXECUTIVE FUNCTIONS?

- Cognitive skills used to perform goal-directed behaviors



# EF COMPONENTS: THE “SMART BUT SCATTERED” MODEL

- Response Inhibition
- Working Memory
- Emotional Control
- Sustained Attention
- Task Initiation
- Planning / Prioritization
- Organization
- Time Management
- Goal-Directed Persistence
- Flexibility
- Metacognition







MEET JOHNNY

# RESPONSE INHIBITION

- Resisting distractions, urges, temptations
- Thinking before you act



# WORKING MEMORY

- Holding information in your head while you perform a complex task
- Not to be confused with short- or long-term memory





# EMOTIONAL CONTROL

- Ability to manage emotions while working on tasks



# SUSTAINED ATTENTION

- Maintaining attention despite boredom, fatigue, distractibility
- Only relevant for non-preferred tasks



# TASK INITIATION

- Ability to begin projects without undue procrastination



# PLANNING / PRIORITIZATION

- Create a plan to reach a goal
- Determine what's important or not important





# ORGANIZATION

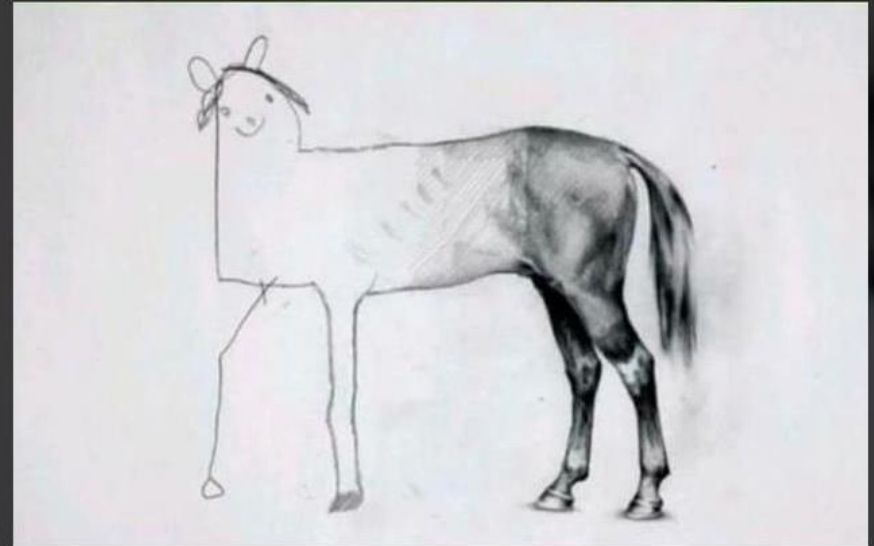
- Create and maintain systems to keep track of information or materials



# TIME MANAGEMENT

- Estimating how much time you have
- Estimating how long tasks will take
- Allocating time, staying within time limits and deadlines

**When there is 5 minutes remaining on your test**



# GOAL-DIRECTED PERSISTENCE

- Having (or making) a goal
- Following through to completion, despite distractions or competing interests



# FLEXIBILITY

- Ability to revise plans in the face of obstacles, setbacks, new information, or mistakes

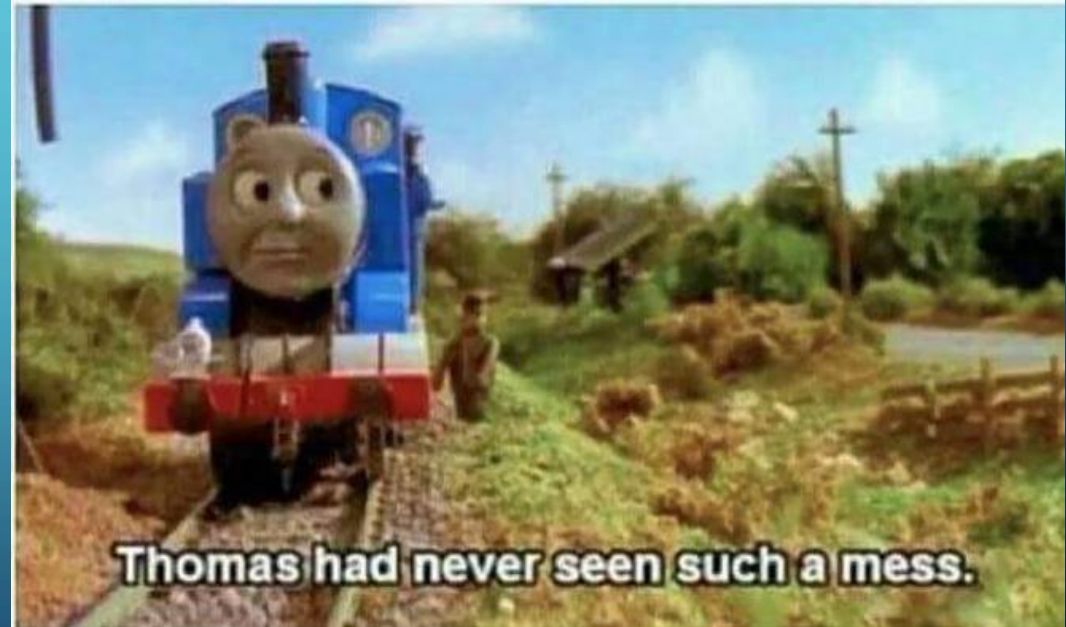




# METACOGNITION

- Self-monitoring and self-evaluating skills
- Observing your own problem-solving

When I take a minute to focus on my own life



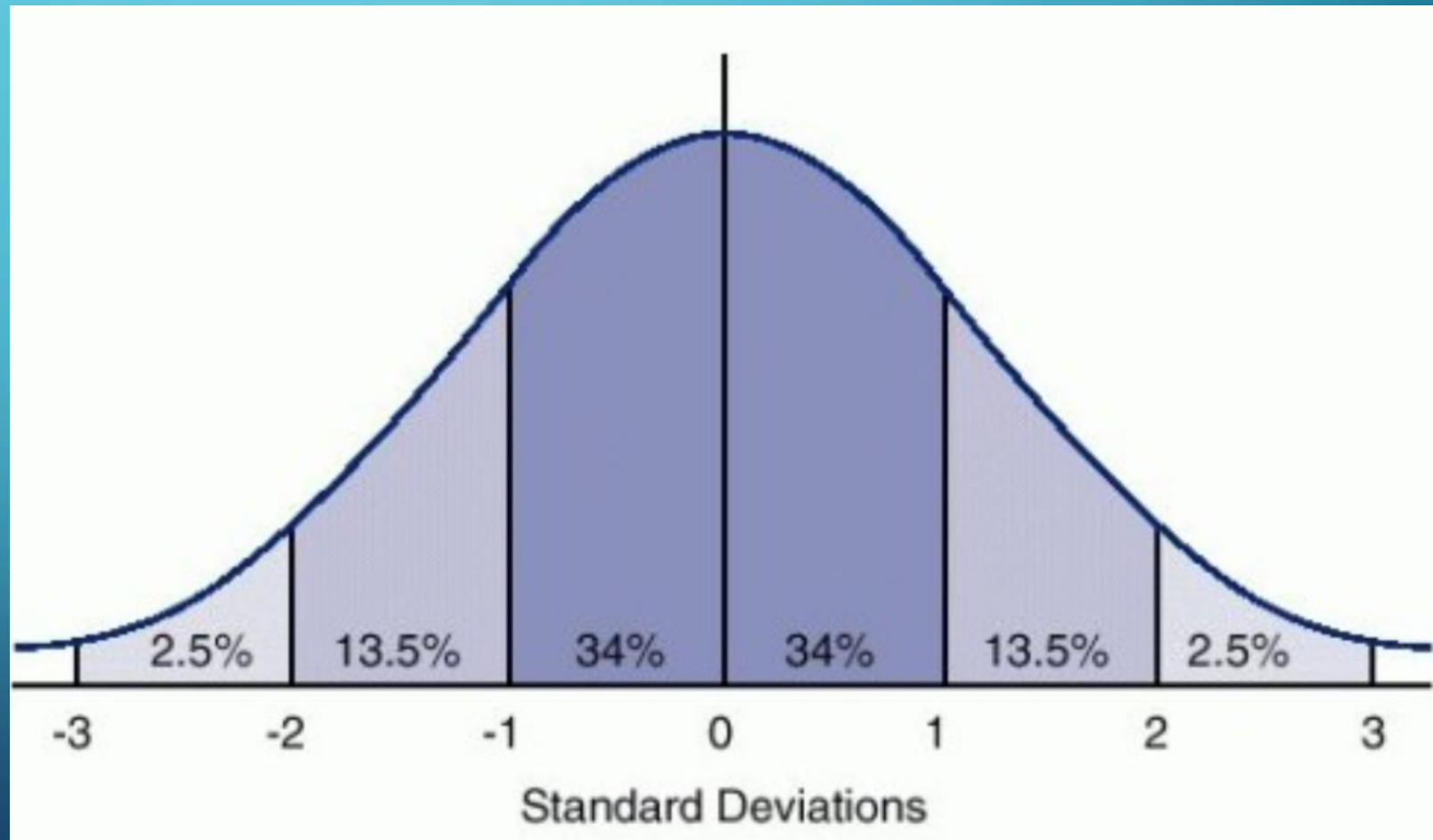
**Thomas had never seen such a mess.**

## SO WHAT ABOUT JOHNNY?

- Response Inhibition
- Working Memory
- Emotional Control
- Sustained Attention
- Task Initiation
- Planning / Prioritization
- Organization
- Time Management
- Goal-Directed Persistence
- Flexibility
- Metacognition

# EXECUTIVE FUNCTION AND LANGUAGE

EF domain	Difference between SLI and language-typical
Working Memory (phonological)	-1.27 SDs
Working Memory (visuospatial)	-0.63 SDs
Inhibitory control	-0.56 SDs
Flexibility	-0.27 SDs



The background is a blue gradient. In the corners, there are white line art elements resembling circuit boards or neural networks, with lines and small circles connecting them.

# HOW CAN SLPS SUPPORT STUDENTS WITH EXECUTIVE FUNCTION DEFICITS?



# SLP INTERVENTIONS

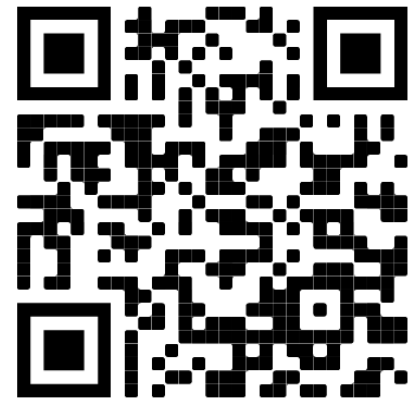
## Direct intervention

- Pull-out therapy
- Push-in therapy (working with student)

## Indirect intervention

- Consulting with teacher, parents
- Implementing learning accommodations
- Adjusting instructional practices

# COMPONENTS OF DIRECT INTERVENTION



Domains to target

Purpose of intervention (skill development or strategy use)

Delivery

Form (decontextualized, contextualized, activity-focused)

Teaching techniques (prompting, linguistic, and regulatory techniques)

# SAMPLE INTERVENTION #1: SELF-ASSIST STRATEGIES

Teach and rehearse the use of self-talk scripts  
(Barkley, 2013)

See the future

Say the future

Feel the future

Make the future



# SAMPLE INTERVENTION #2: GET READY, DO, DONE

<p>3. <b>Get Ready:</b> What do I need?</p>	<p>2. <b>DO</b> What steps do I need to take to be done? How long will each step take?</p>	<p>1. What will it look like when I am <b>DONE</b>? Future Sketch/Picture</p>
<p>4. What materials do I need to do the steps? Prepare my Space</p>	<p>5. Sketch the time, create time markers and <math>\frac{1}{2}</math> way checkpoint. Set timer to alert <math>\frac{1}{2}</math> way point. Do My Work! Check in at the <math>\frac{1}{2}</math> way point and Determine if there are any time Robbers: Identify/Remove/Replan</p>	<p>6. Know when to STOP. Close out the Task. Review: What Worked? What did not Work?</p>









Ward &  
Jacobsen, 2014





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### Print Articles

Below is a list of PDF articles, research, and publications that Drs. Dawson and Guare have authored.

- [Tips for Caregivers on Schooling at Home – What Role Do Executive Skills Play?](#)  
Written guide by Dr. Peg Dawson
- [Executive Skills Coaching Parent Handout](#)  
Executive Skills Coaching – What Parents Should Know
- [Coaching Teenagers \(and Younger Children\)](#)  
A coaching model to help teenagers with attention disorders and executive skill deficits be more successful in school and reach the career goals.
- [Homework: Problems and Solutions](#)  
Of all the challenges parents face as they guide their children through school, homework is, for many, the most daunting. This handbook is written for parents who struggle with children who struggle with homework.
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- [Best Practices in Assessing and Improving Executive Skills](#)  
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[What are executive functions and self-regulation, and what do they have to do with Language Learning Disabilities? \(Singer & Bashir, 1999\) \(PDF\)](#)

[Assisting students with becoming self-regulated writers \(Bashir & Singer, 2006\) \(PDF\)](#)

[Wait...What??? Guiding intervention principles for students with verbal working memory limitations \(Singer & Bashir, 2018\) \(PDF\)](#)

[Measures of oral and silent reading fluency in children who stutter vs. controls: A case study. \(Scaler-Scott, K, Howland, K., Singer, B., et al., 2016\). \(PDF\)](#)



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## Content in This Guide

### Step 1: Executive Function 101

- Executive Function & Self-Regulation
- Executive Function: Skills for Life and Learning

### Step 2: The Science of Executive Function

- Building the Brain's "Air Traffic Control" System
- Video: How to Build Core Capabilities for Life

### Step 3: Building Executive Function Skills

- **You Are Here:** Activities Guides: Practicing Executive Function Skills
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# QUESTIONS?

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