

# **Assistive Technology for Independence- Executive Functioning**

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# Welcome!

- Assistive Technology Specialist
- Behavior Specialist
- Problem Solver
- Collector of things that may come in handy
- Believer that everyone can learn

@cfrost\_disteach



# Agenda

- Introduction
- Executive Functioning
  - Memory
  - Time Management
  - Attention
  - Organization
- Low Tech vs. High Tech
- Supports for Independence



# What is Executive Functioning?

“the group of complex mental processes and cognitive abilities (such as [working memory](#), impulse inhibition, and reasoning) that control the skills (such as organizing tasks, remembering details, managing time, and solving problems) required for goal-directed behavior”

<https://www.merriam-webster.com/dictionary/executive%20function>



# Let's Simplify...

Executive Functioning is how you get yourself together to do the things you need to do.



# Examples

- Making a list before going to the store
- Coming to work/school with all materials
- Planning a family vacation
- Attending to a task
- Cleaning your room



# Parts of Executive Functioning

- Working Memory (memory/processing)
- Inhibitory Control (attention)
- Cognitive Flexibility (processing/switching)
- Organization
- Time Management



# Attention

- Focused Attention- focus on one stimuli
- Sustained Attention- vigilance & persistence
- Selective Attention- freedom from distractibility
- Alternating Attention- mental flexibility
- Divided Attention- multitasking





# Memory

- Attention
- Encoding
- Storage
- Consolidation
- Retrieval



# Processing/Switching

- **Cues:**
  - **Auditory**- hearing a cue, recognizing it's meaning
  - **Visual**- seeing a cue, an expression, a visual
- **Speed**- how fast can you process, stop one task and move to the next
- **Motor Planning**- mentally planning what physical steps come next
- **Time Management**- being aware of time passing and adjusting accordingly.



# Organization

- Home Environment & Personal Space
- Desks, Workspaces, Digital Worlds
- Expectations
- Direct Instruction



# Time Management

- Abstract vs. Concrete
- “Time Blindness”
- Interruptions
- Effects of Attention, Organization, or Memory deficits



# Changes Over Time



# Executive Functioning Supports



# Low Tech vs High Tech

- Price
- Availability
- Ease of Use
- Engagement
- Features



# Environmental Supports

- Visual Supports
- Avoid Visual Clutter
- Consistency When Possible
- Time Management/Clocks
- Clear Spaces for Class





# Systematic Supports- What Do You Do?



What order do you do these tasks?

A- Put on Left Sock

B- Put on Right Sock

C- Put on Pants/Shorts/Skirt

D- Put on Left Shoe

E- Put on Right Shoe



# Systematic Supports- Consistency

Consistent routines and supports allow our brain to develop patterns



# Systematic Supports:

- Visual Instructions
  - Videos, Pictures,
  - Think of a recipe: [www.allrecipes.com](http://www.allrecipes.com)
- Everything in its place
- Calendars
- Planners
- Timers

[https://bit.ly/CEC24\\_EF](https://bit.ly/CEC24_EF)



# Digital Organization

- Color Coding & File Organization
- File Naming System
- Drive Search
- Password Managers
- Bookmarks
- Group Tabs



# AI for Executive Functioning

## Goblin AI

Free

Magic To-Do, Estimator, Compiler: break down tasks, estimate time for tasks, and more



# Multi-Platform Strategies

## Daily Decision Wheel

Free

Using a wheel to select next task. Available on multiple platforms



# Digital Supports- Smart Phone

- Camera
- Audio Recorder
- Calendar
- Timers



# Thank You!

I welcome questions or comments any time at the email listed below!

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