Healing School Wounds - Executive Function Through a UDL Lens

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**Session Intention & Goals**

**Intention:** Be mindful, engaged, and focused.

**Goals:**

- Establish a discussion around healing school wounds through executive function and UDL.
- Discuss executive function and dysfunction through a UDL lens.
- Engage participants to think differently about teaching and learning to support and identify executive function needs.
What is Executive Function?
Executive Functions in the Brain

- Executive skills reside in the prefrontal cortex (frontal lobe) of our brains.
- New research has shown that the development of the dorsolateral prefrontal cortex often continues through the mid-late twenties.
- No one EF skill works in isolation.

Growing a Grown-up Brain

Scientists have long thought that the human brain was formed in early childhood. But by scanning children’s brains with an MRI year after year, they discovered that the brain undergoes radical changes in adolescence. Excess gray matter is pruned out, making brain connections more specialized and efficient. The parts of the brain that control physical movement, vision, and the senses mature first, while the regions in the front that control higher thinking don’t finish the pruning process until the early 20s.

Executive Function (EF)

**Working Memory**
- Be able to take in new information & use it in a new way

**Inhibitory Control**
- Ability to stop what you are doing to make a change

**Mental Flexibility**
- Be able to adjust what you are doing to progress along a path to accomplish a goal

Diamond 2013
**Planning**
The ability to create a roadmap to reach a goal or to complete a task.

**Organization**
The ability to design and maintain systems for keeping track of information or materials.

**Time Management**
The capacity to estimate how much time one has, how to allocate it, and how to stay within time limits and deadlines.

Dawson & Guare, 2004
Gallagher & Spira, 2014
Executive Function Skill Activation

Planning - Organization - Time Management

- Response Inhibition
- Working Memory
- Emotional Control
- Sustained Attention
- Task Initiation
- Goal Directed Persistence
- Cognitive Flexibility
- Progress Monitoring
- Metacognition
+ Self- Advocacy
+ Expert Learning
+ Growth Mindset
+ Mindfulness
Together, EF skills help to define a goal, create a path and plan to that goal, while determining the resources needed along the way to be most efficient.
Executive Function in Context
Executive Dysfunction

- Vulnerabilities due to developing brain in youth, traumatic experiences, ADHD, mental health challenges, or other events that lead to lack of skill development, weakness, or vulnerability

- Impairment in the prefrontal cortex functioning can lead to combinations of inattention, inappropriate emotional responses or social behavior, impulsivity or hyperactivity

- Other factors that cause similar symptoms:
  - Emotional struggles, traumatic experiences or exceedingly high levels of stress, lack of sleep or poor nutritional habits, environmental stressors, or heightened sensitivity to sensorial stimulation.
A Day in the Life of a Child With Executive Functioning Issues

Meet Josh, a sixth grader who has executive functioning issues. Executive functions work together to help the brain organize and act on information. To understand how issues with executive functioning can affect kids in school and outside of it too, take a look at a typical day in Josh's life.

11am
Josh’s teacher asks, “Who has a good answer to the first question I gave you yesterday about last night’s reading assignment?” Josh squirms, hoping he won’t be called on. He didn’t write the questions in his planner and has no idea how to answer them.

Executive Functions: Organizing, focusing

1pm
It’s the best part of the school day: lunch! But Josh hops the conversation, talking way too loud and too much about his video games. He doesn’t notice how annoyed his friends are getting.

Executive Functions: Self-monitoring, controlling impulses

3pm
In soccer Josh is so focused on getting the ball that he doesn’t keep in mind which direction he’s supposed to run once he gets it. He quickly heads for the nearest goal and kicks the ball—right into his own team’s net.

Executive Functions: Sustaining attention, staying on task, organizing

6pm
Josh isn’t happy when his mom tells him to turn off the TV and set the dinner table. When he thinks he’s done with this task, his little sister tells him she’s forgotten to give each person a cup. Frustrated with his sister and with missing his TV show, Josh loses his cool and screams at her.

Executive Functions: Managing frustration, keeping emotions in check

7am
Argh! Josh knows he’s forgetting something. Ah, that’s it—his cheat sheet for today’s game. He runs back inside to get them...but ends up leaving his backpack at home as he races to catch the bus. He spots past the checklist his mom made to help him remember what he needs for school. But it’s too late; the bus is about to pull away! He’s going to miss it again...

Executive Functions: Organizing, using working memory

8pm
After lots of prodding from his mom, Josh sits down to do his homework. But he doesn’t know where to start. Instead of doing the book report or the math problems that are due tomorrow, he surfs the web to find a topic for his science report that’s due next week. Then he takes a break to play a video game.

Executive Functions: Setting priorities, starting tasks

10pm
When Josh finally begins the book report, his mind keeps jumping from one thought to another. He can’t figure out what to write and only gets one sentence down on paper before he gives up for the night. He thinks he can do more on the way to school tomorrow—even though he’s never gotten anything done while riding the bus with his friends.

Executive Functions: Sustaining attention, staying on task, organizing

12am
It’s way past his bedtime. Josh is exhausted. He tries to go to sleep, but he can’t shut off his brain. He keeps worrying about disappointing the teacher with his book report and getting teased by his teammates for kicking the ball into the wrong goal.

Executive Functions: Regulating alertness, keeping emotions in check
Potential Challenges

• Arriving to an appointment or commitment on time.
• Keeping track of important documents, papers, or items.
• Completing a task, but not submitting or turning in the work product.
• Creating a plan or schedule.
• Estimating and predicting time needed to complete a task.
• Initiating or starting a task.
• Making connections or categorizing/prioritizing information across contexts
• Effectively communicating needs and desires.
Perceived Resources vs. Demands
EF Integration + UDL Advantage

Goal of UDL: Expert Learners

- Purposeful & Motivated: Self-Regulation, Effort & Persistence, Recruiting Interest, Engagement
- Resourceful & Knowledgeable: Comprehension, Language, Math, Symbols, Perception
- Strategic & Goal-Directed: Executive Functions, Communication, Physical Action, Action & Expression

SMART: Self-Monitoring, Monitor, Adjust, Reflect, Track
Flexible Accessible Proactive Design #UDL
Avoid Making Assumptions

'I expect you all to be independent, innovative, critical thinkers who will do exactly as I say'
What Are The Effects Of School Wounds?

- “Students believe they aren’t “smart”
- Students believe they don’t have what it takes to succeed in school (and by implication, life)
- Students believe their ideas lack value or validity
- Students believe all their efforts, no matter how hard they try, are below standard
- Students believe they are “flawed people”
- Students feel ashamed of themselves and their efforts; they develop “learned helplessness”
- Students show less pleasure, less courage in learning
- Students have lowered ambition, less self-discipline, and diminished persistence in the face of obstacle”

From: *Wounded by Schools* by, Kirsten Olson
Case Study: The Disengagement Conundrum

THAT'S IT! I'M DONE! I CAN'T DO IT!

You can't give up so easily! Learning new things is an arduous process for most people!

You figure it out. I'm going to watch game shows.

Wait no! Please no! I need your help to stay motivated!

Fine. Learn something that genuinely interests me and I'll help.

"NOTHING" isn't a genuine interest! You don't support me!

"THE CHICKEN -OR- THE CHICKEN EGG"
Learners Experiencing Executive Dysfunction May...

| Physically tense up or freeze in the face of a challenge |
| Avoid the task with additional conversations, urges, or distractions |
| Experience anxiety that stifles their EF skills |
  * not sure how/where to start, how to make a plan, or what to do |
| Exhibit negative self talk |
  * “I don’t know what to do” |
  * “I’m so dumb” |
| Experience a panic or anxiety attack |
  * Loss of breath, focus, or may even faint |
| Refuse to engage in the task |
Recognize what is needed

Awareness allows us to assess Barriers, build in Positive Supports, and determine potential Points of Distraction that affect performance.
What are some ways to address Executive Dysfunction?

- **Ask appropriate questions** to determine which EF skill they are struggling to access

- Recognize **how and why the barriers exist**

- **Work together** to determine/ suggest **strategies** to:
  - **Refocus** and **redirect** attention to the task or lesson with appropriate supports
  - Practice mindful **breathing** or exercises to recenter and focus
  - **Visualization** of a successful or calming experience while focusing on breath
  - Acknowledge, Validate, and Monitor status of anxiety
  - **Reflect** on the shift from **fixed mindset/negative thinking** → **growth mindset/positive thinking**
What are some ways to address Executive Dysfunction?

• Utilize critical and accurate feedback to describe observations in the moment
  • Be sure to acknowledge ways in which client is handling the situation well, when they use effective strategies, and when they ask good questions to seek support
• Talk through ways in which strategies have been helpful in similar situations in the past
• Give space and time with available positive support
• Give previews of what you are going to do or what is coming next
• Always reflect on ways in which they took steps to regain focus and be available for the work. Note areas to improve in the future, while praising the positives.
Activating Resiliency

“Resilience is manifested in having a **sense of purpose** and a belief in a bright future, including **goal direction**, educational aspirations, achievement motivation, persistence, hopefulness, optimism, and spiritual connectedness.”

(Bernard 1995)
The Power of Connection & Mistakes

“The people who make a difference in your life are not the ones with the most credentials, the most money, or the most awards. They are the ones who care.”

-Charles Schultz

“Anyone who has never made a mistake has never tried anything new.”

-Albert Einstein

“Creating a safe space for experimentation and comfort in making mistakes is key to self exploration and developing skills.”

-Alexis Reid
Explicit Skill Development - What is Your EF Integration Action Plan

Suggestions and Ideas to Consider:

• Explicitly teach learners how to break down directions, instructions, word problems, stories & text, and challenges

• Help to show different perspectives, approaches and successes through mistakes

• Support learners not only by providing options, but experiences to plan, prioritize, organize, and manage time. Initiate HW challenges, rather than just extra practice:
  • Can you make a plan for an event with a budget and deadline?
  • Can you create a problem for others who just learned x math lesson today to solve?
  • Can you prove why a problem was solved incorrectly and can you teach another to improve their approach?

• Encourage peer support, conversations, tutoring, and editing in and out of the classroom: If you get stuck with this project or assignment, then what can you do?

• Model backwards outlining or planning of how to reach a goal- what are the steps, materials, & assistance you may need to be set up for success?
Please Share Your Take-Aways & EF Integration Action Plan via Twitter/Email

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#UDL4SocialJustice #EF

THANK YOU.

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References and Resources


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