Instructional Strategies for Strengthening Executive Functioning Skills for Neurodiverse MS/HS Students

IL CCBD 4oth Anniversary Conference
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Session Objectives

Identify executive functioning skills and understand the connections to important educational outcomes and personal goals for students based on needs.

Explore strategies that can be easily applied in classrooms to meet a wide variety of student needs/ functioning in relation to executive functioning skills.

Explore resources and practical ideas on how to approach application within classrooms that lead to increased student independence & self-awareness.
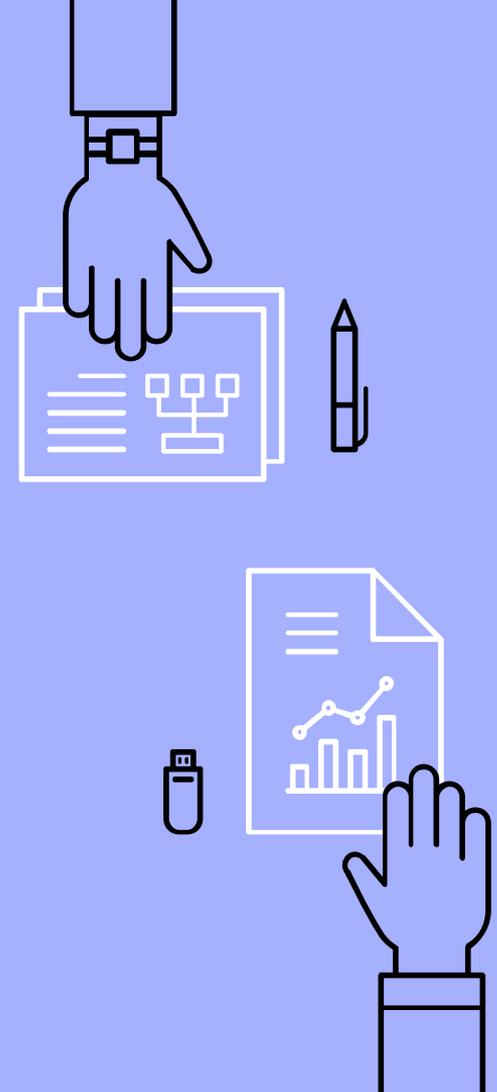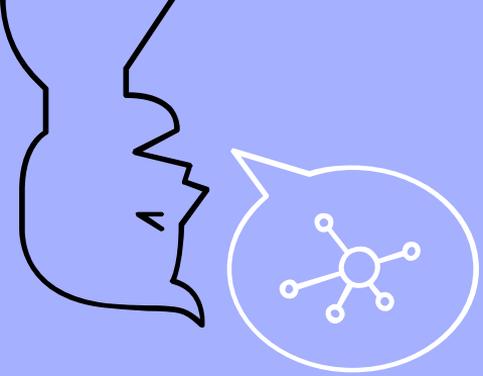
> ## EF weakness has a greater impact on academic success than language or intellectual ability.

(Faith, et. al, 2022)
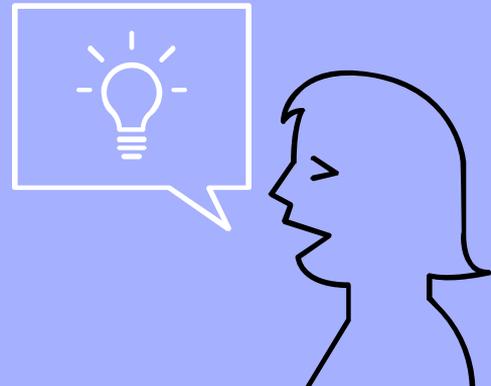
What are Executive Functioning Skills and why are so they important?

▷ Organizing, Planning & Prioritizing
▷ Flexible Thinking
▷ Working Memory
▷ Emotional Regulation

Think of your executive functioning skills as your **"air traffic control system"** that help you manage many tasks smoothly. (McNulty, 2020)

Executive Functioning Skills contd…

- ▷ **Regulation skills:**
  - ▪ Response inhibition
  - ▪ Emotional regulation
- ▷ **Planning**
- ▷ **Time management**
- ▷ **Organization**
- ▷ **Prioritization**
- ▷ **Attending**
- ▷ **Flexible thinking**
- ▷ **Working memory**
- ▷ **Self monitoring**
- ▷ **Goal completion/ follow through**
- ▷ **Metacognition**
  - ▪ **Self-monitoring**
  - ▪ **Self -evaluating**

Dawson & Guare (2018)

Development of Skills

Key age spans where an explosion in development of EF skills:

▷ Ages 3-5
▷ Adolescence - Early Adulthood

Learning EF skills does not naturally occur. They need to be explicitly taught, modeled, experienced.

Key Brain Functions for EF Skill Development

Working Memory

Mental Flexibility

Self-Control
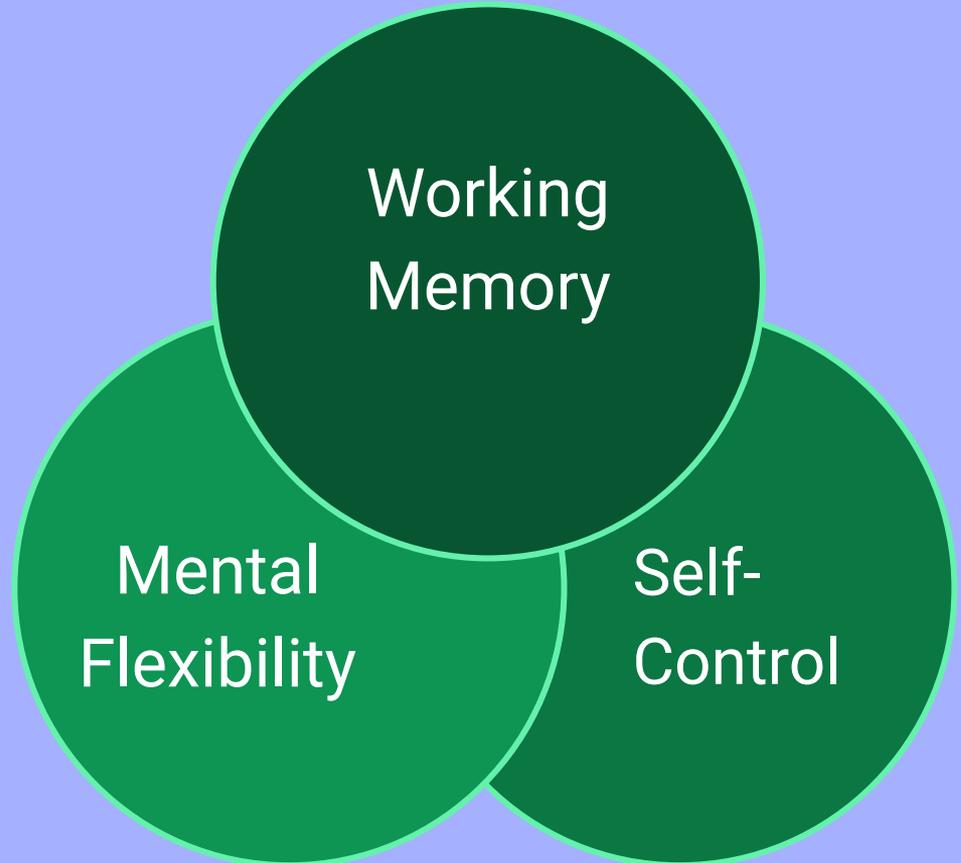
Often have difficulty with generalization of EF skills across environments

Require explicit instruction and modeling of skills

Experience emotional/ cognitive fatigue

Difficulty initiating tasks, following through, and sustaining motivation/ attention

Benefit from consistency, predictability, clearly outlined expectations

Can have difficulty remembering information, schedules, steps, recalling key details

Difficulty organizing materials, task sequences, written work/ assignments, information

Often experience fluctuating to high anxiety

Neurodiverse Students & EF

What is the "hidden curriculum"?

The hidden curriculum refers to the social rules and expectations that exist within a classroom. These rules are implied, and may not be rules or norms that are regularly discussed in class.

Examples:

- Arrival routines, coming to class on time, gathering materials, etc.

- Where to locate assignment information

- Turning in homework assignments on time

- (expectation) Taking notes during class, following along, task initiation

- Raising your hand before sharing a thought/ participating in class/ when/how to participate

- Reading a syllabus to understand the class schedule & expectations

To think about…
What are other expectations that are part of the hidden curriculum in your classroom/ school environment?

# Example: Classroom Norms

Listen to the speaker

Participate by sharing your ideas

let's talk

**Ask questions**

Respectful behaviors

NO PHONES
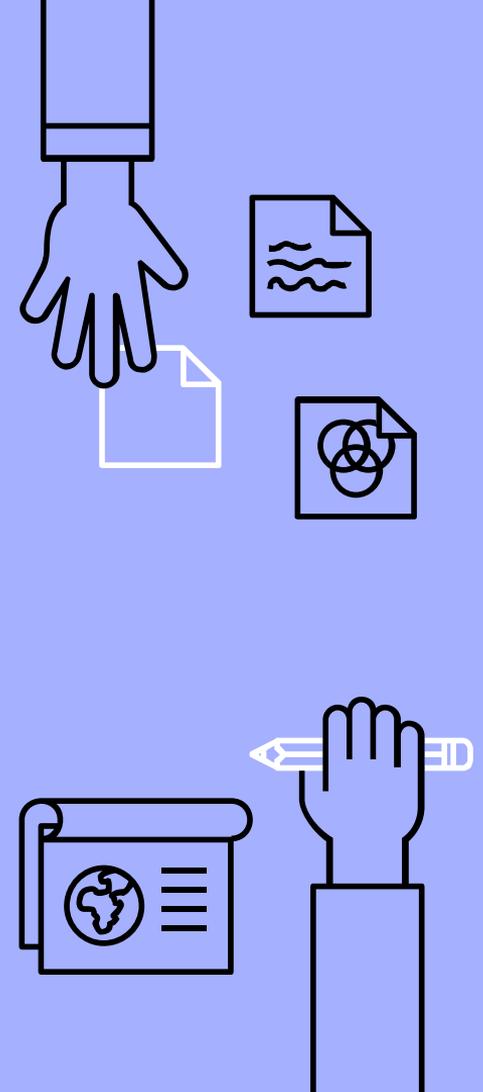
Day 1: Schedule

- Welcome & Introduction of staff
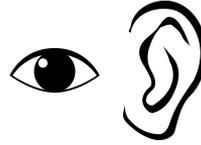
- **Executive Functioning Skills**: *What are they and why are they important in college?*

Activity: Making Introductions, Peer Interview & Sharing Information (hopes & dreams for college)

let's talk

Just because a student struggles with EF skills doesn't mean they are not capable of success.

Focus on the strengths each student has within learning.

This should be the very first thing you & they identify!

Try these:

- Student Interest Inventory (1-2 times per year)

- Individual "Get to Know You" meetings/ conferencing

- Digital student poster/class slide deck

Balance support and demand.

There will always be a range of EF needs in any classroom, however you really want to aim for **BUILDING independence.**

Strategy:
Plan a range of supports for each EF category (identify 3 levels of support)

Example: Planning/ Prioritizing
Level 1 : Provide planner/ calendar with pre written headers for key assignments

Level 2: Planner/ calendar with partially completed headers - students prioritize and expand

Level 3: Blank planner/ calendar paired with suggestions for schedule management

Teach Students About Executive Functions

Teaching students to understand what executive functioning skills are, why they are important, and how you address them in your classroom helps to reinforce self awareness skills.

Here are some ways you can incorporate this into your regular daily instructional routine:

Organization: Map out a daily plan, weekly plan, monthly plan that includes immediate topics, assignments, tasks as well as ones on the horizon.
 Provide important reminders of key dates

Working Memory: Weave in preview and recall activities multiple times per week to allow students time to build working memory skills and connect old learning to new learning.

Self- directed/ goal setting: Have your students set a weekly/ daily goal (academic or non academic) identify steps to meet the goal.

Example: Daily Schedule

Monday 7/11 ✅	***Making Introductions & Important Skills Needed for Success in College***
Tuesday 7/12 ✅	***Getting Organized: Setting Priorities & College Routines***
Wednesday 7/13 ✅	***Getting Organized: Workspaces & Creating To-Do Lists/ Action Plans***
Thursday 7/14 ✅	***Study Habits for Success! What's My Study Action Plan?***
Friday 7/15	***Weekly Wrap Up: "Air Traffic Control Plan" to Successful Organization & Studying Planning to Get Involved: Clubs, Organizations, Exploring your Interests in College.***
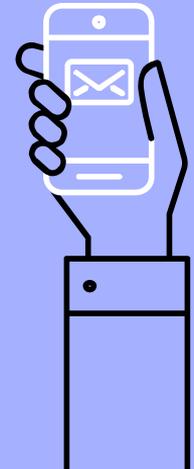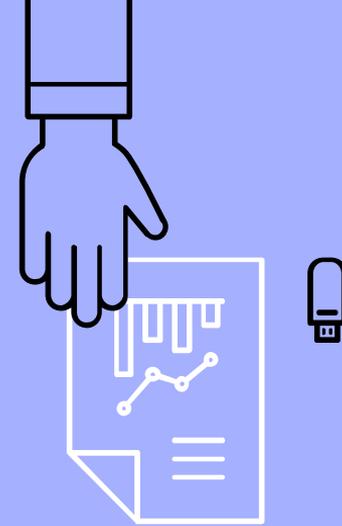
Important EF Skills To Prioritize in Adolescent Classrooms

Planning:

Model planning methods intentionally; as related to classroom projects, routines, tasks.

**Think Alouds** - explain your process or a process they could take to plan.

Connect explicitly to the EF skill(s) and future purpose. This is important because...

Self-Monitoring:

Model goal setting related to classroom projects/ tasks. Have students identify goals for projects and check in as they go,

Study Skills:

Model how to create a study plan with actionable steps. What should happen first? Are planning tools needed?
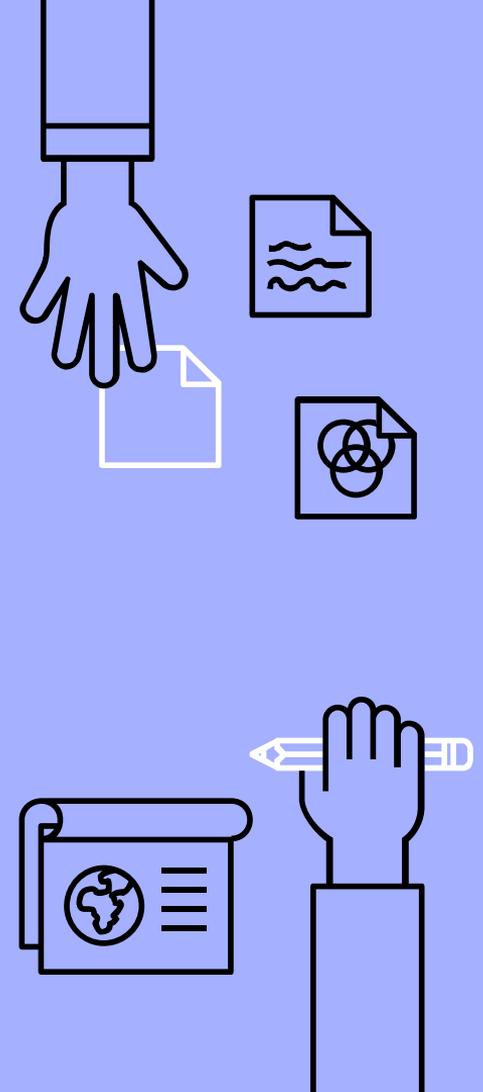
Identifying Barriers

To think about…
What are other ways you explore barriers and help students build their self awareness within your classroom/setting?

Help students to identify the barriers that stand in the way of their learning. This helps to build self-awareness which can lead to better self-monitoring and supports growth mindset.

Strategies for identifying these:

Model by sharing your own barriers. Provide examples and relate back to how you applied that to meeting goals.

Survey check in's: You can incorporate quick check-ins using a variety of survey tools (Example; Poll Everywhere, Google Forms) Have students self-reflect and then link back to their goals.

Reevaluate/ calibrate accommodations and supports that are in place or being used by the student to minimize barriers. If a student is not using an accommodation, then other options should be considered.

Self Regulation Management

Checklists often work best for this, however most teens, young adults prefer that these fall "under the radar" and do not want these obvious to others/ peers.

Great Apps to support Self- Monitoring/ Focus/ Task monitoring /Emotional Regulation

▷ Calm   - FitMind: Mental Fitness
▷ Headspace
▷ Focus Keeper
▷ Focus Time Management
▷ Flora/ Forest Focus
▷ Focus To-Do List
▷ Be Focused

Rating	How it Feels & What I Can Do	
5	**I am NOT ok!** I need a safe place to calm down right away.	
4	**Very upset or Angry.** I need to be in a quiet/ calm space and need support to help calm down.	
3	**Not very good.** I am not feeling well and may need to take a break or use strategies to calm down.	
2	**Ok.** I can continue my day.	
1	**I'm Good!** I am having a good day, I am calm and focused.	

5 Point Scale for Emotional Regulation

Whole Project Model/ Application

1. **Identify Project Goals –** have students identify 2-3 goals they want to achieve (in relation to executive functioning skills) within the project.
2. **Action Plan –** have students plan out a sequence of steps that lead to meeting the goals/ outcomes for the project. This can look like a timeline for the project, task sequences that will meet the project goals/ outcomes, and identification of how they will execute the steps.
3. **Identify Barriers –** have students self-reflect and identify the biggest hurdles standing in their way of completing the project.
4. **Develop a plan for self-monitoring** their progress. Will they check in on their own progres daily, use a specific tool like a to-do list app? Do they want a more formal check in with a teacher?
5. **Self -reflect/ evaluate outcomes.** At the end of the project, have students complete a self -reflection activity that builds connections between their outcomes, goals, and plan. Was it successful? Why or why not? What do they want to change?

Thank you for attending this session today! Please feel free to reach out with any questions.

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Additional Resources
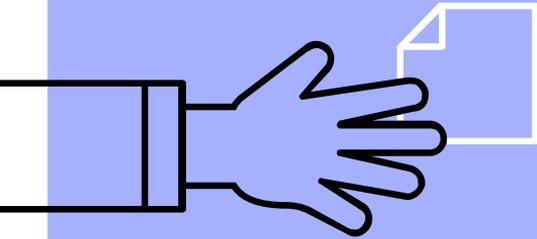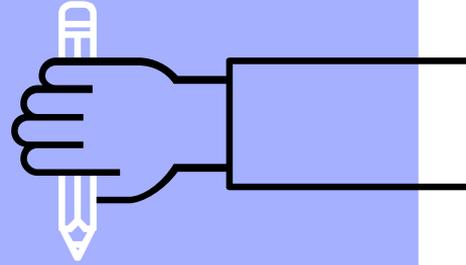
January 31 & February 2:

Topics: Multicultural & Bilingual Aspects of Special Education

- Ethnicity & Exceptionality
- Assessment Issues in Multicultural & Bilingual Special Education
- Providing Effective Teaching Practices for Diverse Students
- Student Information within the IEP

In class Engagement:

Small group discussion: Exploring RTI in Multicultural & Bilingual Special Education

Small group discussion: Addressing Multicultural/ Bilingual Special Education needs within lessons

Assignments, Readings, & Reminders:

- **Small group activity (in class)**
- Plan ahead tip: Professional Interview (confirm interview time/ educator; begin developing interview questions)

Due Week 5:
- Read Chapter 4 (Hallahan, Kauffman, & Pullen, 2019)
- Reading Reflection & Connection (your choice of topics related to chapter 3 or 4)
- Read Part 1: pages 8-15 in Writing Measurable IEP Goals & Objectives (2019)

📄 Week 4 Lecture/ Interactive Slides

9	▶	Week 5 - Toggle	Topic 9
10	▶	Week 6 - Toggle	Topic 10
11	▶	Week 7 - Toggle	Topic 11
12	▶	Week 8 MIDTERMS - Toggle	Topic 12

I have found that students newer to college benefit from planning, time management, and study strategies in order to stay on track for success. Periodically, I will share helpful tips, strategies, and possible links to information that supports strong time management skills. Take a look... and dive right in!

Time Management Strategies for the Semester!

Want to get the semester started strong? Try some of these time management strategies to maximize your time and learning!

- Set deadlines for projects, goals, activities. Review the course calendar and align it with your personal calendar... what do you need to accomplish? what do you want to do for fun? What are you going to do to relax/ stay grounded?
- Give yourself mini rewards for meeting your deadlines and goals- it is always good to treat yourself!
- Prioritize 3 activities/ goals for each day. Try not to overextend your time. What is reasonable to accomplish today?
- Do similar tasks/ activities together whenever possible.
- Advocate for your time!

Sample Course Page - Overview for Week w/ integration of strategies that encourage planning/ break down of projects.

Questionnaire: Organizing, Planning and Prioritizing

Name:_____

Directions:
1. **Read the questions on the self- assessment.**
2. **Think about what best describes your planning habits.**
3. **Circle "True" or "False"**

_____

True   False   I often lose things or forget where I put them.

True   False   I usually leave the house without everything I need for the day.

True False   When someone asks me what I think the most important task on my to-do list is, I usually don't know what to say.

True False   I like to remember details, but sometimes I get lost or overwhelmed with the details.

True False   I have a regular plan/ routine that I like to follow on a daily basis.

True False   Sometimes, I procrastinate and might leave assignments or tasks until the last minute and then feel overwhelmed.

True False   My room, backpack, locker are usually organized and I can find items easily,

True False   Sometimes I am organized, but it can be stressful to stay organized.

True False   I keep a daily planner or have a planning system (calendar, notebook, etc).

True False   When I have a task or assignment to complete, I need help to get started on completing it.

Student
Questionnaire
Example

Low volume (casual conversation)

Medium volume (group work/ conversation; collaboration activities)

Loud volume (highly active engagement activities; videos)

Volume Control

Rating	How it Feels & What I Can Do	
5	**I am NOT ok!** I need a safe place to calm down right away.	
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