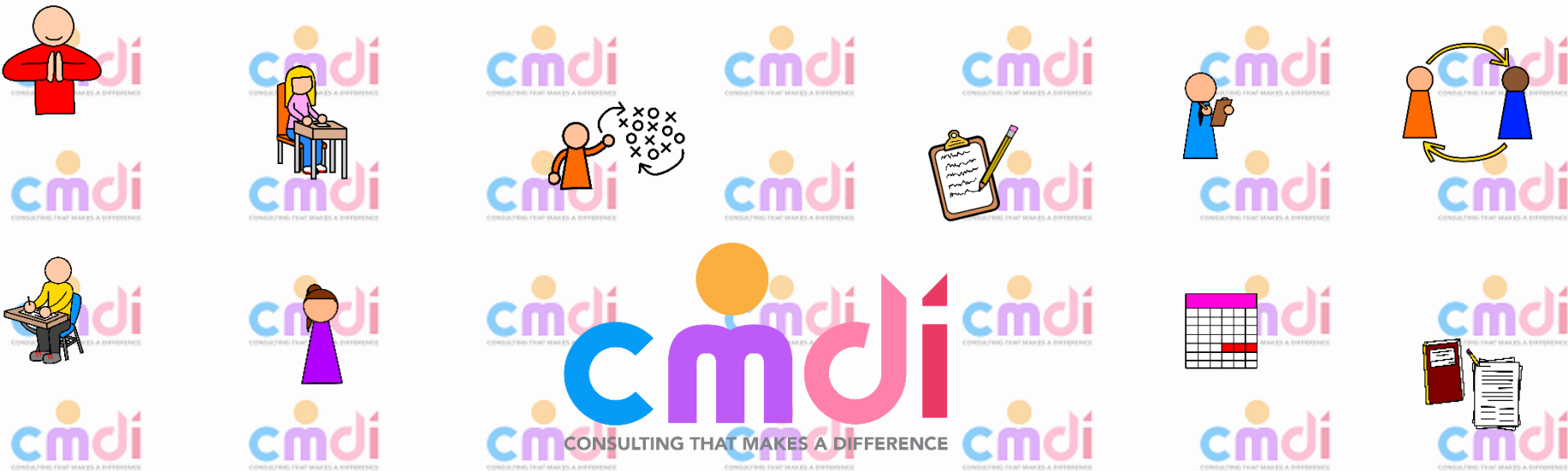




Executive Functioning: The Hidden Curriculum



Presenter: Diane Ripple

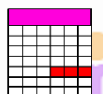
1070 Middle Country Road. Suite 7. Box 223. Selden, NY 11784
Phone: 631-680-8470. diane.ripple@cmdi.us. www.cmdi.us

What is Executive Functioning?

- The executive functions are a set of processes that all have to do with managing oneself and one's resources to achieve a goal.



These cognitive operations consist of impulse control, working memory, emotional control, flexibility/shift, sustained attention, task initiation, self-monitoring, and organizing/prioritizing.



In a typical day, EF skills help you...

❖ Pay attention to something (even if it's totally boring)

❖ Ignore the things that distract you from the thing you have to pay attention to



❖ Hold several pieces of information in your head at the same time



❖ Stifle impulses to say or do things that could get you in trouble



❖ Change what you're doing in response to a change in circumstances



Brain Structure and Function

Motor Area:

- Regulation of Voluntary Movement

Sensory Area:

Processing of Data Received from the Senses
(Touch, Taste, Sight, Smell, Hearing)

Frontal Lobe:

- Executive Functioning
- Reasoning
- Memory
- Problem Solving
- Judgment
- Planning
- Initiation
- Movement
- Concentration
- Inhibition
- Impulse Control
- Behavioral, Attentional & Emotional Regulation
- Personality

Parietal Lobe:

- Sensation
- Perception
- Integration of Sensory & Visual Input
- Body Awareness
- Attention
- Language

Occipital Lobe:

- Vision
- Perception

Wernicke's Area:

- Language Comprehension

Cerebellum:

- Posture
- Balance
- Coordination of Movement
- Fine Muscle Control

Temporal Lobe:

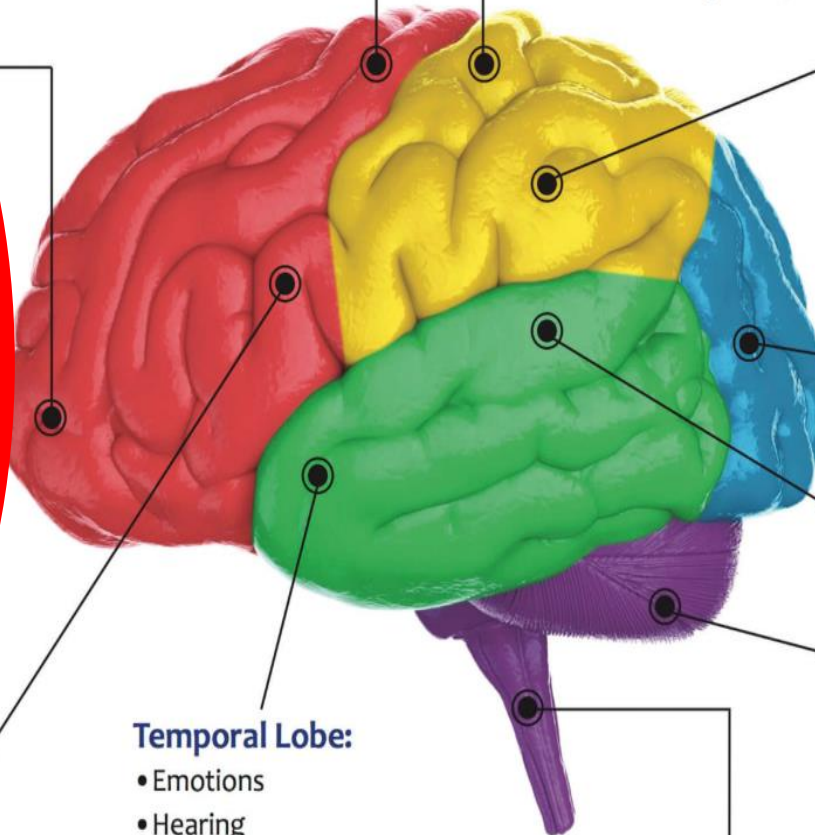
- Emotions
- Hearing
- Auditory Processing
- Language Processing (Receptive)
- Memory (Long-Term)

Brain Stem:

- Consciousness
- Breathing
- Heart Rate
- Swallowing

Broca's Area:

- Speech
- Language Production



HOW DO EXECUTIVE FUNCTION ISSUES AFFECT QUALITY OF LIFE?

- Forgetfulness
- Losing things
- Overbook, forget, or late to appointments/events
- Difficulty managing family needs and commitments
- Poor planning, organization, and time management
- Difficulty regulating emotions
- Trouble finishing things
- Lack of tact may affect social interactions
- Feel scattered and overwhelmed



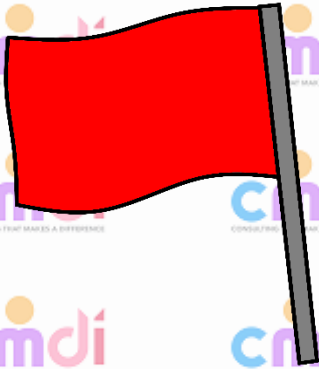
HOW DO EXECUTIVE FUNCTION ISSUES AFFECT LEARNING?

- Missing homework
- Difficulty remembering instructions
- Doesn't notice or forgets to do all parts required
- Impulsive in class, lacks control in school setting
- Trouble getting started or finishing tasks
- Lacks time management and follow-through
- Difficulty planning/executing assignments
- Poor note-taking
- Doesn't know how to study for tests
- Waits until last minute to start tasks

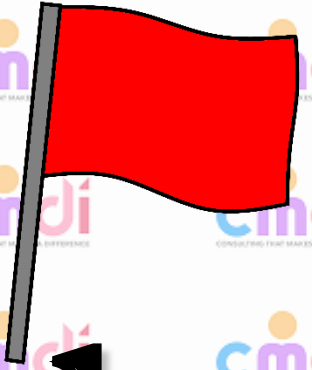


SCHOOL

What disabilities



are often



associated with

executive

dysfunction?

ADHD

**Autism
Spectrum
Disorder**

**Behavior and
Emotional
Disabilities**

Learning Disabilities









**Traumatic
Brain Injury**

**Language
Processing
Disorders**









How is EF Assessed?

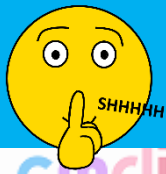


- **Formal Assessment Tools**
 - Medical
 - Psychiatric/Behavioral
 - Psychological/Educational
 - Neuropsychological
- **Informal Assessment Tools**
 - Checklists
 - Observations
 - Interviews
 - Rating Scales

 Impulse Control 	 Working Memory 	 Emotional Control 	 Flexibility/Shift 
the ability to stop and think before acting	the ability to hold information in mind and use it to complete a task	the capacity to manage emotions and feelings to respond appropriately	the ability to change strategies or revise plans when conditions change

8 Domains of Executive Functioning

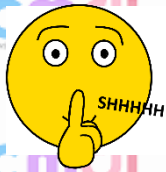
 Sustained Attention 	 Task Initiation 	 Self-Monitoring 	 Organizing/Prioritizing 
the ability to maintain attention despite fatigue, distractibility, or boredom	the ability to recognize when it is time to get started on something and begin without procrastinating	the ability to monitor and evaluate one's own performance	the ability to create steps to reach a goal and to make decisions about what to focus on



Impulse Control



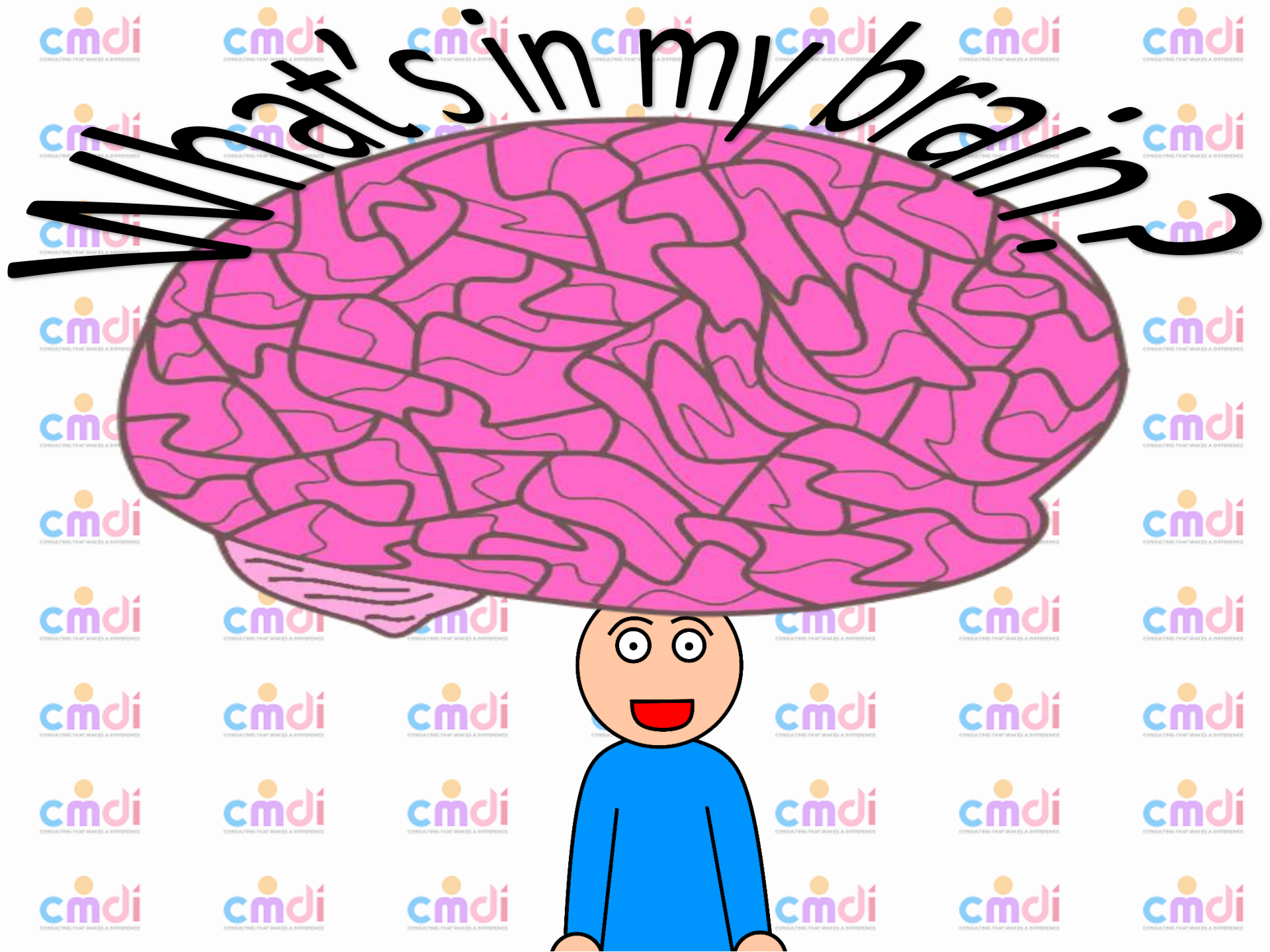
When impulse control is a fundamental weakness, people often say or do things without using a cushion of time to reflect. They'll act without considering their consequences, obligations or commitments. Children with this difficulty often speed through schoolwork, sacrificing accuracy and completeness along the way. Additionally, they may exhibit behaviors that negatively impact their relationships with adults and peers.

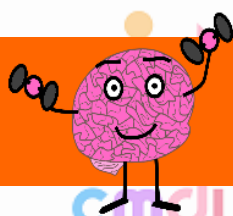


Impulse Control Strategies



- Create a pre-determined prompt, such as a hand signal or visual cue, or calming technique, such as belly breathing.
- Closely monitor behavior to identify patterns of circumstances that are particularly challenging. Intervene early when a problem presents itself to prevent a more serious problem from developing.
- Evaluate tasks assigned to the student to determine if they are too difficult and/or if the length of time to complete each task is appropriate.
- Structure activities to help prevent the student from becoming overstimulated.
- Provide a means for the student to write/draw what they are thinking and allow an appropriate time for them to share.





Working Memory



People with weak working memory are unable to remember and apply crucial information in order to move to the next step of a task. They falter when a task requires that they remember a series of directions, generate ideas in response to the directions and then express their ideas. Information just doesn't "stick" for them.



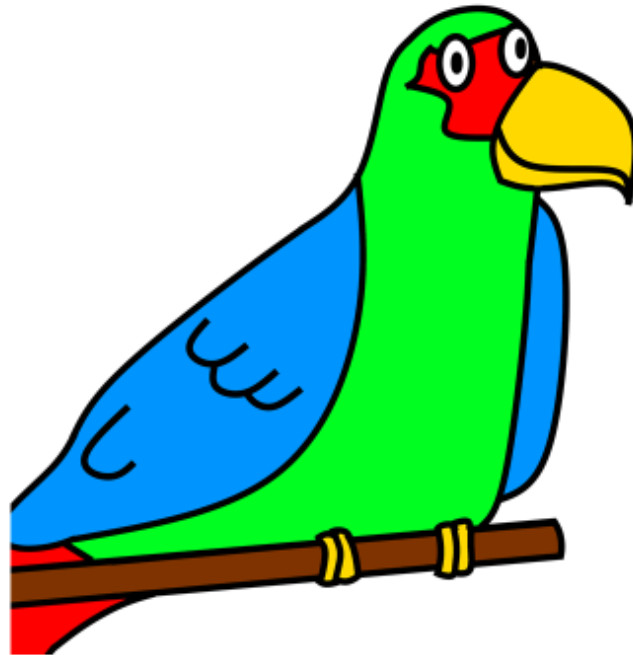
Working Memory Strategies



- Use mnemonics or other strategies to help remember a series or other information.
- Break down information/multi-step directions into smaller, more manageable steps or chunks.
- Encourage use of memory aids such as wall charts, posters, software, multiplication grids.
- Make learning active.
- Create a system for the repeat of directions.

Repeat Directions

Class or Group Parrot

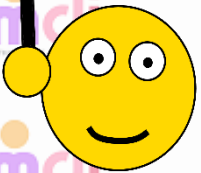


Myth



**Executive functioning issues
aren't real.**

Fact



Many studies have found that trouble with executive functioning skills is related to differences in how the brain is structured and the levels of chemicals in the brain that help with focus and attention. It's important to remember, too, that issues with executive functioning aren't signs of laziness or lack of ambition.



Emotional Control



People who can't manage their emotions have trouble accepting even constructive criticism. They can't handle life circumstances when upsetting or unexpected things happen. They're often quick to call a situation "unfair."



Emotional Control Strategies



- Teach coping strategies.
- Raise awareness of stressful situations/triggers.
- Use active listening and negotiate.
- Help identify/label emotions.
- Help students create rating scales to evaluate problems and put them into perspective.



How am I feeling?

5

I can't stand this and ready to explode.

I want to hit someone, something, or throw something. I need an adult to help me go to a safe place so I can calm down.



4

I am getting too angry.

My brain isn't working clearly. I might say or do something I will be sorry for later. I need to go to my safe place to calm down.



3

I am getting really irritated.

I need to walk away from a bad situation. I will tell my teacher that I need a break.



2

I am doing OK.

I'm not pleased, but I'm not upset. I can stay where I am and keep working. I can control my anger by myself.



1

I am doing great.

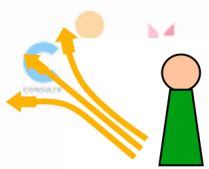
I feel good about myself and about what is going on around me.



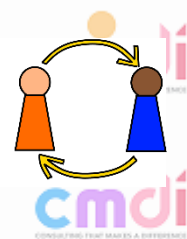


Flexibility/Shift

Inflexibility makes it challenging to adapt when a familiar routine is disrupted, or something unexpected occurs. Someone with deficits in this domain can often be perceived as stubborn or difficult to get along with.



Flexibility/Shift Strategies



- Use visual organizers, planners, schedules, and calendar boards to help learn routines and adapt to changes.
- Use positive and motivating phrases to reassure student.
- Be consistent with expectations.
- Offer a "script" for handling specific situations.
- Support transitions by using a consistent prompt, timer or visual representation for the passage of time.

Support Transitions By Representing The Passage of Time

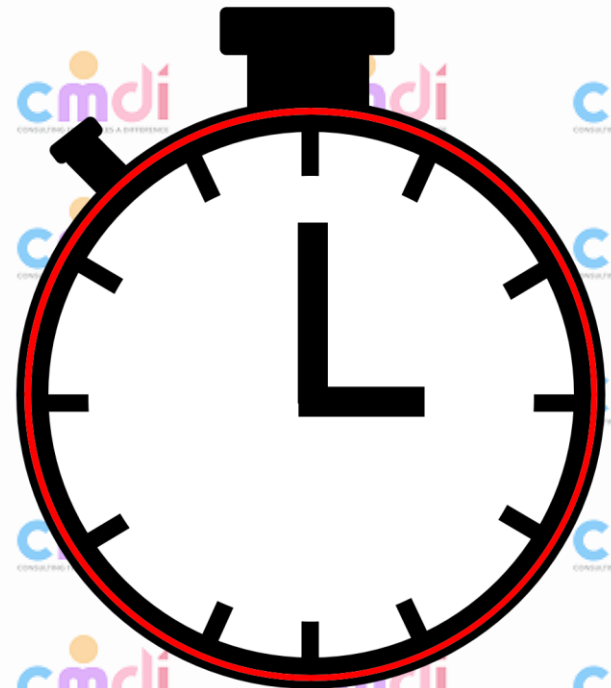
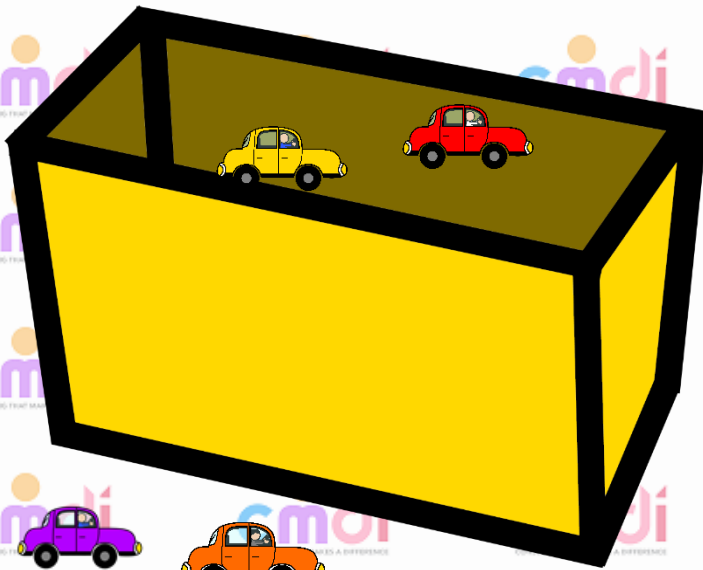
1

2

3

4

5

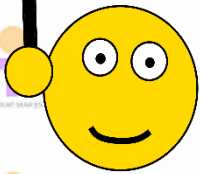


Myth



**There's nothing you can do
about executive functioning issues.**

Fact



**There are many ways to help
improve executive functioning skills.
For example, there are strategies and
tools that can be utilized both at
home and at school to help students
build organization skills like graphic
organizers and checklists.**



Sustained Attention

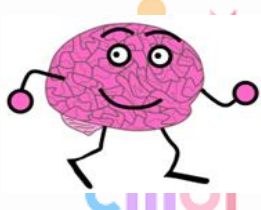


The environmental expectations combined with an individual's learning and cognitive style determine whether that individual will be able to focus. In social situations, individuals who struggle with this are often viewed as self-centered or disinterested in others. This can also be distracting to others who are trying to learn.

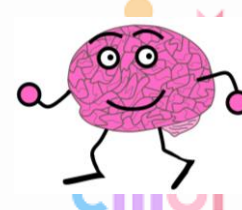


Sustained Attention Strategies

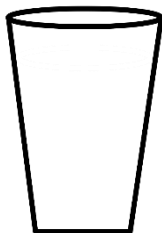
- Increase the use of visuals and hands-on learning/participation strategies.
- Structure lessons/activities with clear, consistent rules and expectations and modeling.
- Simplify instructions and choices by dividing work into smaller units.
- Assess how long it should take to complete an assigned task and slowly increase time on task expectations.
- Provide break choices.



Break Choices



Drink of water



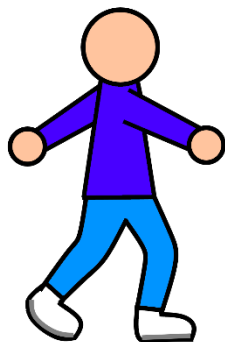
Wall Push-Ups



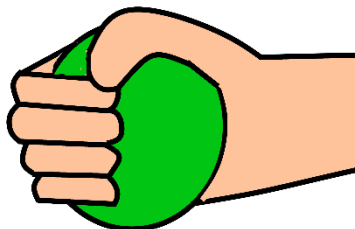
Listen to Calming Music



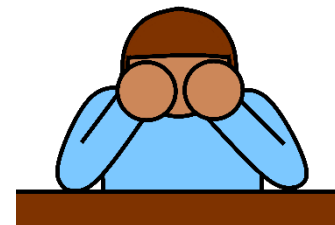
Hallway Walk



Ball Squeeze

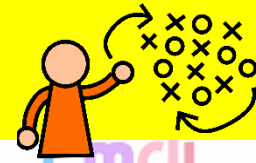


Quiet Time



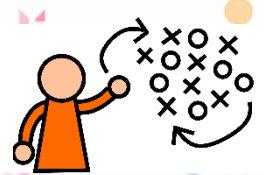


Task Initiation



Individuals who are weak in this domain have trouble starting tasks and often put them off until the last minute. They're sometimes judged to be lazy or unmotivated, however this procrastination is often due to not knowing how to start or fear of failure. At times they can get so overwhelmed with what they have to do that they end up doing nothing at all.

Initiation Strategies



- Provide examples for tasks/work.
- Demonstrate where to begin and what steps to follow.
- Break up the task into manageable pieces.
- Assist with the first item/step to ensure the individual understands the task demands.
- Create a "to do list" with time expectations.

Provide A "To Do List" With Time Expectations

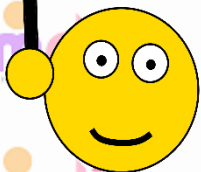
Assignment	Amount of Time	Check When Completed
Watch Video	5 minutes	
Answer Questions About Video	10 minutes	
Read Paragraph	5 minutes	
Answer Questions About Paragraph	10 minutes	

Myth



**Executive functioning issues
are the same thing as ADHD.**

Fact



It's true that executive functioning can be a challenge for many people who have ADHD . But not all people who have executive functioning issues have ADHD, and vice versa. While researchers are still exploring the connection between the two conditions, they do know that people who have the inattentive type of ADHD are more likely to have trouble with executive functioning than kids who are hyperactive or impulsive.



Self-Monitoring



Individuals who are weak at monitoring themselves may not notice that they're not following directions until someone points this out. They tend to misjudge their own efforts and have trouble adjusting what they're doing based on feedback or cues.



Self-Monitoring Strategies

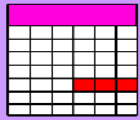


- Create a daily reflection checklist.
- Encourage students to chart performance to provide a tangible record of activity for ongoing monitoring.
- Implement a planning chart to promote reasonable and timely progress towards the completion of long-term assignments.
- Compare student and adult predictions about time necessary to complete tasks.
- Provide a checklist for established routines.

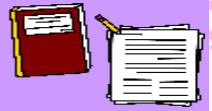
Provide A Checklist For Established Routines



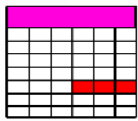
- ☐ Place your homework on your desk.
- ☐ Complete the “Do Now” posted on the board.
- ☐ Read over your notes from yesterday’s lesson.
- ☐ Be ready for the new lesson to begin at 1:15.



Organizing/Prioritizing



Students who have difficulty with organization and setting priorities are easily overwhelmed by complicated, multi-part tasks. They can't independently impose structure and order on ideas. They have trouble thinking through the steps required to achieve a goal. They tend to underestimate a project's complexity and time requirements.



Organizing/Prioritizing Strategies



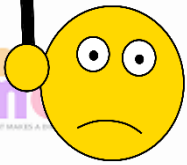
- Implement a color-coding system for materials and/or assignment due dates.
- Provide or co-create a calendar for upcoming activities and assignments.
- Engage in frequent communication between home and school regarding the completion of assignments to promote accountability and prevent overdue work from piling up.
- Systematically teach organization as a learned skill that can be taught like reading and math.
- Use a checklist and/or photo of organized materials and spaces to reference.



Photo of Organized Desk

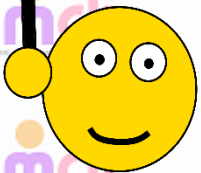


Myth



Kids outgrow executive functioning issues.

Fact



Because executive functioning issues are brain-based, it's not something children outgrow. That doesn't mean a child with executive functioning issues can't improve his/her executive skills, however. As kids get older, these skills continue to develop. Getting help at school and using at-home strategies to build on strengths can help a child's brain learn ways to work around weaknesses in all areas.



10 Principles for Improving EF Skills



1. Teach deficient skills rather than expecting the student/child to acquire through observation.
2. Consider the student/child's developmental level.
3. Teach externally before the skill is learned internally.
4. The external includes changes you can make in the environment, the task, or the way you interact with the student/child.
5. Use (rather than fight) the student/child's innate drive for mastery and control.
6. Modify tasks to match the student/child's capacity to exert effort.
7. Use incentives to augment instruction.
8. Provide just enough support for the student/child to be successful.
9. Keep supports and supervision in place until the student/child achieves mastery or success.
10. When you do stop the supports, supervision, and incentives, fade them gradually.

What Executive Function Skills Are Expected In Elementary School?

This is a critical time for the development of foundational executive function skills.

These include:

- **Self-Monitoring** - managing strong emotions and inhibiting impulsive behaviors
- **Sustained Attention** - sustaining focus, especially for multi-part tasks
- **Task Initiation** - starting a non-preferred task
- **Organizing/Prioritizing** - maintaining materials at home and in school

What Executive Function Challenges Are Noticed In Middle School?

Parents and educators often notice signs of executive dysfunction in middle school, when students face increased demands for self-management.

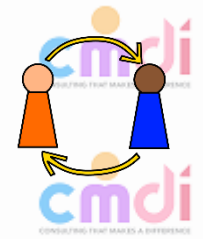
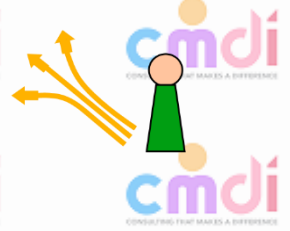
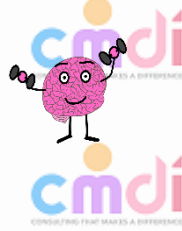
- **Organizing/Prioritizing Challenges** - The student has difficulty organizing their school life: whether a backpack, a desk, or multi-step directions for class assignments, the student may lose or forget to turn in homework.
- **Impulse/Emotional Control Challenges** - The student is impulsive or easily frustrated, cannot resist online distractions, has difficulty settling down to do work and persisting with tasks.
- **Task Initiation Challenges** - The student leaves work/tasks until the last minute, causing panic and stress at home.
- **Self-Monitoring Challenges** - The student has difficulty self-evaluating his/her performance and may do poorly on tests due to ineffective study habits and/or may lose credit for late assignments.

What Executive Function Skills Are Expected In High School?

High school is an important time for applying and expanding the foundational executive function skills that began in elementary and middle school grades.

- **Impulse/Emotional Control** - managing strong emotions and inhibiting impulsive behaviors
- **Working Memory** – applying learned information to more complex tasks
- **Sustained Attention** - sustaining focus, especially for lengthy or challenging tasks that may have many components
- **Task Initiation** - starting a non-preferred task and overcoming a desire to procrastinate
- **Organizing/Prioritizing** - keeping track of materials at home and in school, organizing ideas and information for essays and research papers, managing digital data and files, mapping out multi- step tasks such as long-term class projects, and tackling assignments in order of importance
- **Self-Monitoring**- the ability to reflect on one's own learning and have self-awareness that drives good choices
- **Flexibility/Shift** - taking the perspective of teachers and peers and formulating different solutions to problems

Executive Functioning Charts & Tools





Executive Functioning Student Inventory



Name: _____

	Impulse Control	Working Memory	Emotional Control	Flexibility/Shift	Sustained Attention	Task Initiation	Self-Monitoring	Organizing/Prioritizing
Acts without thinking								
Interrupts others								
Overreacts to small problems								
Upset by changes in plans								
Talks or plays too loudly								
Resists change of routine								
Acts wild or out of control								
Easily overstimulated and has trouble calming down								
Gets stuck on one topic or activity								
Gets overly upset about "little things"								
Out of control more than peers								
Low tolerance for frustration								
Overwhelmed by large assignments								
Doesn't notice impact of behavior of others								
Slow to initiate tasks								





Executive Functioning Student Inventory





















Name: _____

	Impulse Control	Working Memory	Emotional Control	Flexibility/Shift	Sustained Attention	Task Initiation	Self-Monitoring	Organizing/Prioritizing
Runs out of steam before finishing work								
Doesn't bother to write down assignment								
Loses books, papers, notebooks								
Lack of time sense/urgency								
Forgets to bring materials home								
Keeps putting off homework								
Chooses "fun stuff" over homework								
Forgets homework/forgets to pass it in								
Leaves long-term assignments until the last minute								
Can't break down long-term assignments								
Sloppy work								
Messy notebooks								
Can't find things in backpack/locker								
Passive study methods (or doesn't study)								





















8 Executive Functioning Domains:

	 Impulse Control 	 Working Memory 	 Emotional Control 	 Flexibility/Shift 
Domain Definition	the ability to stop and think before acting	the ability to hold information in mind and use it to complete a task	the capacity to manage emotions and feelings to respond appropriately	the ability to change strategies or revise plans when conditions change
Strategies/ Ideas 				

















	 Sustained Attention 	 Task Initiation 	 Self-Monitoring 	 Organizing/Prioritizing 
Domain Definition	the ability to maintain attention despite fatigue, distractibility, or boredom	the ability to recognize when it is time to get started on something and begin without procrastinating	the ability to monitor and evaluate one's own performance	the ability to create steps to reach a goal and to make decisions about what to focus on
Strategies/ Ideas 				

8 Executive Functioning Domains: Ricky

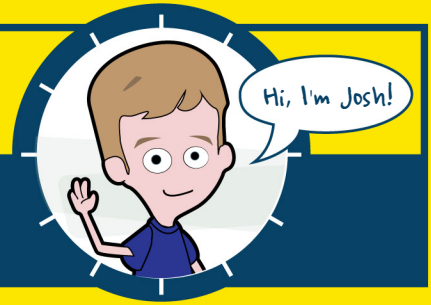
	 Impulse Control 	 Working Memory 	 Emotional Control 	 Flexibility/Shift 
Domain Definition	the ability to stop and think before acting	the ability to hold information in mind and use it to complete a task	the capacity to manage emotions and feelings to respond appropriately	the ability to change strategies or revise plans when conditions change
Strategies/Ideas 	Provide explicit and clear sets of rules and expectations -Model your thought process -Use visual cues (i.e. stop sign)	-Pre-teach and preview new information -Use graphic organizers -Personalize the information taught	-Try to anticipate problem situations -Teach coping strategies -Provide breaks	-Make the day as predictable as possible -Model problem-solving techniques -Model self-talk strategies

	 Sustained Attention 	 Task Initiation 	 Self-Monitoring 	 Organizing/Prioritizing 
Domain Definition	the ability to maintain attention despite fatigue, distractibility, or boredom	the ability to recognize when it is time to get started on something and begin without procrastinating	the ability to monitor and evaluate one's own performance	the ability to create steps to reach a goal and to make decisions about what to focus on
Strategies/Ideas 	-Break down tasks -Ask Ricky to repeat information and/or directions -Inject novelty and humor into the instruction	-Demonstrate where to begin and what steps to follow -Provide access to assistive technology as per IEP -Set time frames for completing tasks	-Provide specific feedback -Create a self-monitoring checklist -Periodically check-in during an assignment or long-term project	-Don't assume directions or tasks are obvious to Ricky (be very explicit) -Break down long assignments/tasks into smaller chunks -Provide "to do" list

Executive Functioning Skill Development by Age

	 PLANNING	 TIME MANAGEMENT	 TASK INITIATION	 ORGANIZATION	 PROBLEM SOLVING	 FLEXIBILITY	 WORKING MEMORY	 EMOTIONAL CONTROL	 IMPULSE CONTROL	 ATTENTIONAL CONTROL	 SELF MONITORING
 INFANT (0-24 MONTHS)	<ul style="list-style-type: none"> • focusing for objects • pointing & grabbing 			<ul style="list-style-type: none"> • shows interest in color, size, shapes • beginning matching skills 	<ul style="list-style-type: none"> • engages in cause and effect play • figuring out 'how things work' through simple body movements and basic play skills 	<ul style="list-style-type: none"> • Older children in this age range play simple role play or imaginative play games 	<ul style="list-style-type: none"> • plays hide-and-seek and simple recall games • participates and enjoys familiar rhymes and songs 			<ul style="list-style-type: none"> • plays simple games like peek-a-boo and pat-a-cake • imitation and copying behaviors emerge 	
 TODDLER (2-4 YEARS)	<ul style="list-style-type: none"> • understands simple instructions and can run simple errands 	<ul style="list-style-type: none"> • beginning understanding of time concepts including seasons, days, weeks, etc. • follows visual picture schedules to order tasks. • practices waiting. 	<ul style="list-style-type: none"> • able to independently start and complete tasks that take up to 10 minutes 	<ul style="list-style-type: none"> • understands categories and patterns • can sort toys and objects by function, form, and class • cleans up toys and belongings with adult assistance 	<ul style="list-style-type: none"> • completes simple puzzles and games that combine language and movement to accomplish a goal. • decision making and turn-taking during play promote basic problem solving 	<ul style="list-style-type: none"> • Beginning skills to shift between activities. • Sometimes able to manage transitions and unexpected changes without upset. 	<ul style="list-style-type: none"> • follows along to songs and fingerplays with many steps and movements. 	<ul style="list-style-type: none"> • labels own emotions and the emotions of others • may often have tantrums or upset when frustrated, tired, or overwhelmed requiring adult comfort to soothe. 	<ul style="list-style-type: none"> • plays active inhibition games like musical chairs, and freeze dance • learns to inhibit safety-related behaviors like touching a hot stove and street safety. 	<ul style="list-style-type: none"> • able to direct attention to objects and activities for longer periods of time. • Responds to adult cues and redirections back to 'pay attention' when needed. 	<ul style="list-style-type: none"> • talks about own feelings and connects simple behaviors with emotions. • plays along with other children, directing play and accepting play ideas.
 EARLY LEARNER (5-12 YEARS)	<ul style="list-style-type: none"> • able to follow a planned out set of steps to meet an end goal. • plays fast moving games and games requiring strategy and planning ahead. 	<ul style="list-style-type: none"> • developing time estimation and a sense of how long tasks will take. • beginning skills to manage leisure time and required tasks. 	<ul style="list-style-type: none"> • able to independently start and complete tasks that take up to 30-60 minutes 	<ul style="list-style-type: none"> • organize and sequence stories • can follow simple checklists • gathers materials for familiar routines, often with adult assistance and reminders 	<ul style="list-style-type: none"> • identifies and defines problems to many simple social and academic tasks; • emerging skills to brainstorm and break apart problems to identify solutions. 	<ul style="list-style-type: none"> • Participates in organized social activities like sports, clubs, and activities where unpredictable events occur. Often uses adult support to dynamically adjust. 	<ul style="list-style-type: none"> • Independent with puzzles, logic games, and coordinated group activities. • able to collect information and apply it to new settings. 	<ul style="list-style-type: none"> • learns to control tantrums and frustrations without adult comfort. 	<ul style="list-style-type: none"> • follows safety rules and most social norms for behavior. • behavior maintains when teachers or adults are not around 	<ul style="list-style-type: none"> • able to save money for desired objects. • developing note taking, reminders, and planning tools to help sustain attentional control. 	<ul style="list-style-type: none"> • able to complete activities like journaling to reflect on own behavior. • checks own work for simple mistakes.
 TEEN (13-18)	<ul style="list-style-type: none"> • able to independently plan out the steps of homework or important project to meet an end goal. • Works in a group of peers to plan social activities and events. 	<ul style="list-style-type: none"> • estimates how long it takes to complete tasks and adjusts working speed to fit. • understands and works to avoid the consequences of ineffective time management. 	<ul style="list-style-type: none"> • able to independently start tasks that take up to 60-90 minutes to complete 	<ul style="list-style-type: none"> • follows complex school schedules combined with home routines. • able to use systems for organizing schoolwork and activities. 	<ul style="list-style-type: none"> • independently identifies problems at home, work, and with friends. • able to sort out many conflicts and make decisions about complex problems independently, make seek adult guidance. 	<ul style="list-style-type: none"> • Able to manage many unpredictable changes to schedules and routines, but may sometimes need adult support to identify strategies to dynamically adjust. 	<ul style="list-style-type: none"> • able to collect information and apply it to new settings. • independent with puzzles, logic games, and coordinated group activities 	<ul style="list-style-type: none"> • greater understanding of others emotions, including empathy and a desire for social change. • may experience 'adult feelings' but not have experience yet in how to manage them. 	<ul style="list-style-type: none"> • greater risk-taking behaviors • may begin to test some adult safety behaviors and social norms • may engage in self-talk to help manage impulses 	<ul style="list-style-type: none"> • able to save money for desired objects as well as creates and executes plans to earn money for desired items. • Beginning mindfulness of distractions, but may need adult support to avoid them. 	<ul style="list-style-type: none"> • able to monitor performance and adjust/improve. • Uses tools to monitor behavior. • May recruit adult feedback or need reminders from coaches, parents, friends, teachers, etc.
 YOUNG ADULT (19+)	<ul style="list-style-type: none"> • able to develop and maintain multiple different plans at one time to meet many different goals • able to establish and meet long-term goals. 	<ul style="list-style-type: none"> • seeks out and implements tools and systems to manage time more efficiently • uses routines and modifies schedules dynamically to meet changing demands. 	<ul style="list-style-type: none"> • initiates and completes tasks despite adverse conditions and distractions. • prioritizing and planning occurs ahead of beginning most activities 	<ul style="list-style-type: none"> • maintains neat and orderly systems for daily living tasks. • when areas of life like email household chores get out of hand, can re-organize as needed. 	<ul style="list-style-type: none"> • generates solutions to complex problems. • persists in developing new and creative strategies to ongoing problems. 	<ul style="list-style-type: none"> • modifies schedules dynamically to meet changing demands. • Unpredictability causes occasional stress, but able to handle most changes easily. 	<ul style="list-style-type: none"> • greatest working memory capacity in early adulthood. • able to collect, store, and synthesize information from multiple sources to accomplish tasks and goals. 	<ul style="list-style-type: none"> • emotional modulation in most settings including controlling outbursts and managing frustration in healthy ways. 	<ul style="list-style-type: none"> • manages impulsive behaviors across a variety of settings. • Withholds rushing through things • inhibits reckless and dangerous behaviors. 	<ul style="list-style-type: none"> • Able to sustain attention in the face of many distractions • Eliminates or reduces distractions when needed 	<ul style="list-style-type: none"> • checks work for mistakes. • monitors and compares own behavior to others performance.

EXECUTIVE FUNCTION AROUND THE CLOCK



Meet Josh, a sixth grader who struggles with executive function.
This is a day in his life.



7 A.M.

Argh! Josh knows that he has forgotten something. Ah, that's it—his cleats for today's game. He sprints back inside the house to get them ... and leaves his backpack in the kitchen. He walks right past the checklist his mom made to help him remember what he needs for school. But it's too late: The bus is here and about to pull away! He's going to miss it again.

EF Area: ORGANIZATION

11 A.M.

Josh's English teacher stands at the blackboard and asks: "Tell me how last night's reading relates to the words on the board." Every hand in the class goes up...except for Josh's. His heart sinks thinking about all the steps answering this question takes.



I don't know...
I wasn't thinking about those words when I read last night.
I'm so overwhelmed.

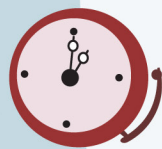


EF Area: WORKING MEMORY

Last night I was playing my video games and it was AMAZING!!! There were like eighty-five CRAZY MONSTERS and I GOT ALL OF THEM, POW-POW-POW-POW-POW-POW!!

Sooooo weird.

He never lets anyone else talk!



1 P.M.

It's the best part of the school day...lunch! At a table with his friends, Josh shouts at a mile a minute and jumps in and out of his seat. He doesn't even notice that the lunch monitor is glaring at him and that his friends look annoyed.

EF Area: SELF-MONITORING, IMPULSE CONTROL

3 P.M.

Time for soccer! A teammate kicks the ball toward Josh. He knows that in soccer, you do one thing—you kick that ball as hard as you can! But where? He can't exactly remember, so he just kicks. *Wham! Uh-oh.* He's sent the ball right into his own team's net. Anger brews on his teammates' faces as Josh's heart sinks yet again.



EF Area: FLEXIBILITY, WORKING MEMORY

Moooo-ooooom.

Josh didn't put the cups on the table AGAIN!

6 P.M.

It is time for dinner — but first, Josh has to set the table. *Hmm.* Josh scratches his head and tries to remember exactly what goes at each place setting. He thinks he has got it right this time, but his little sister reminds him that he doesn't. *How dare she!* He blows up screaming at her.

EF Area: ORGANIZATION, EMOTIONAL CONTROL

8 P.M.

After hours of cajoling from his mom, Josh finally sits down to do his homework. But, ugh, where to begin? He knows he has several projects and papers that need attention, but what's due when? What needs done for tomorrow? Overwhelmed, he puts his head down.



I don't even know where to **start**.



EF Area: TASK INITIATION



12 A.M.

Delays and procrastination mean that Josh is burning the midnight oil. He is exhausted, but his history paper is due tomorrow. But he just can't figure out a structure for his paper and the steps he needs to take to get it done.

EF Area: PLANNING & SETTING PRIORITIES

3 A.M.

Finally, the paper is done and Josh can catch a few hours of Z's. But he can't seem to drift off to sleep—he's worried that he didn't do the paper right. And then there's the problem he'll discover tomorrow morning: His disorganization has gotten the best of him, and he forgot to put the finished paper in his backpack.



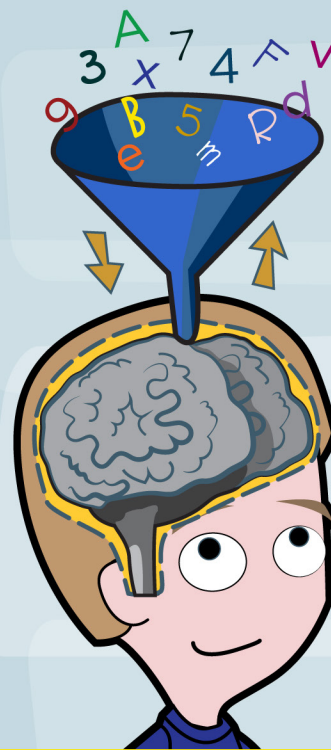
EF Area: SELF MONITORING, ORGANIZATION

Illustrations by Fil Vocasek

ABOUT EXECUTIVE FUNCTION

Executive function is a set of mental processes that help us connect past experience with present action. These are skills and processes each of us use every day. Children and adults with learning and attention issues often struggle profoundly with many of these skills.

The model of a “clogged funnel” (Meltzer, 2004, 2007, 2010) helps us understand the challenges faced by Josh and students like him. They struggle with open-ended tasks because they’re unable to prioritize and organize the various steps. They have difficulty shifting between aspects of a task and often over-focus on details. They lose track of main ideas. They have difficulty checking their work and often forget to hand in completed work.



EXECUTIVE FUNCTION PROCESSES

- Organizing
- Prioritizing
- Shifting / Thinking Flexibly
- Accessing Working Memory
- Self-Monitoring / Self-Checking

This infographic was adapted from a “Clogged Funnel” infographic created by ResearchILD.



National Center for Learning Disabilities

The National Center for Learning Disabilities (NCLD) improves the lives of all people with learning difficulties and disabilities by empowering parents, enabling young adults, transforming schools, and creating policy and advocacy impact. We envision a society in which every individual possesses the academic, social and emotional skills needed to succeed in school, at work and in life.

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Environmental Modifications and Teaching Strategies for Specific Executive Skills

Executive Skill	Environmental Modification	Teaching Strategy
Response Inhibition	<ul style="list-style-type: none"> • Increase external controls • Restrict access • Post home or classroom rules and review regularly 	<ul style="list-style-type: none"> • Prompt the child (external to internal) • Teach wait/stop • Teach delayed gratification (apps: Token Board) • Discourage “multi-tasking”—e.g., build in technology breaks rather than having kids combine homework with technology use
Working Memory	Use orthotic memory devices Principle of “off-loading” <ul style="list-style-type: none"> • Agenda books/calendars • To do lists (paper, white board to post prominently) • Electronic devices & apps (Wunderlist, Nudge, BugMe!) 	<ul style="list-style-type: none"> • Directions/Past experience (prompt them to access it) • Generate options for reminders and have them choose (or elicit options from student) • Mentally rehearse association between cue and working memory
Emotional Control	<ul style="list-style-type: none"> • Reduce or eliminate triggers • Give child a script to follow • Remove child from problem situation 	<ul style="list-style-type: none"> • Teach kids to recognize situations or early signs • Graded exposure/guided mastery • Teach coping strategy • Rehearse the strategy repeatedly until it is internalized • Use Hard Times Board • Teach mindfulness meditation (http://thehawnfoundation.org/mindup/)
Flexibility	General rule: Limit flexibility demand <ul style="list-style-type: none"> • Reduce novelty • Highlight similarities • Provide a template • Put in place a default strategy • Turn open-ended tasks into closed-ended tasks • Make steps more explicit • “Normalize” errors 	Increase support <ul style="list-style-type: none"> • Present expectations • Walk them through the task • Give plans or rules for managing situations • Think aloud Teach error factor Change tolerance by gradual exposure <ul style="list-style-type: none"> • Introduce change (lightning bolt-preferred to non-preferred)

		<ul style="list-style-type: none"> • Introduce new situations
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Executive Skill	Environmental Modification	Teaching Strategy
Task Initiation	<ul style="list-style-type: none"> • Provide cues/prompts • Reduce perceived effort/task demand • Walk through first step—build behavioral momentum • Make help readily available • Establish set time to do non-preferred tasks • Apps: Lckety Split, Good Habit Maker, FTVS (First Then Visual Schedule, Chore Pad HD, ChoreMonster) 	<ul style="list-style-type: none"> • Have the child select cueing system • Help the child limit initial demand • Help the child select reinforcer • Help the child make a plan for doing the task
Sustained Attention	<ul style="list-style-type: none"> • Reduce distractions (seating arrangements, white noise) • Prompt to attend (look, listen, respond) • Modify/limit task length or demand (end in sight) • Build in variety/choice • Choose best time of day • Immediately reinforce (pay attention to them <i>while they're paying attention</i>) • Use sand timers and/or fidget toys such as stress balls (www.officeplayground.com) • App: Lckety Split, Chore Monster, iRewardChart, Motivaider, Chore Pad HD 	<ul style="list-style-type: none"> • Teach self-monitoring/peer coaching • Have the child identify something to look forward to • Teach mindfulness meditation
Planning/Prioritization	<ul style="list-style-type: none"> • Demonstrate what a plan is • Help child design a plan/template • Provide planning tools (calendar, agenda book, apps – e.g., Choiceworks, CanPlan) 	<ul style="list-style-type: none"> • Walk through the planning process (use a template) • Have them apply plan to a simple task and gradually prompt to do more of the planning themselves • Ask questions to get child to prioritize (What do you need? What should you do first?)

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Executive Skill	Environmental Modification	Teaching Strategy
Organization	<ul style="list-style-type: none"> • Demonstrate principle of off-loading with example from their lives • Work with them to create scheme, template or picture/photograph • Show organizational tools and have them try them out (e.g., Inspiration) • Structure the environment to promote organization 	<ul style="list-style-type: none"> • Help them walk through the process. Have them motorically practice it (a long-term process, requiring that they put a system in place that's monitored, initially on a daily basis). • Give them choices of organizational systems and have them choose/modify the one they like best. • Ask students to evaluate current systems and challenge them to improve them.
Time Management	<ul style="list-style-type: none"> • Make schedules and time limits explicit • Work with kids to make a schedule to follow and prompt each step of the way <ul style="list-style-type: none"> ○ Picture schedules ○ Clocks, alarms ○ Tablet/phone apps (Choiceworks, Pomodoro) ○ Timers (app: Sand Timer; www.timetimer.com) 	<ul style="list-style-type: none"> • Show them ways to mark time and let them practice. • Practice estimating how long it takes to do something. • Help them to follow schedules (daily events to homework plans).
Goal-Directed Persistence	<ul style="list-style-type: none"> • Establish goals with kids • Reward kids for persistence (sticking with difficult tasks)—use verbal reinforcers as much as possible • Make sure the goal or benchmark is in sight • Apps: Token Board 	<ul style="list-style-type: none"> • Point out to kids how they already set goals but they may not know what they are. Define goals as something that people want to get better at or to change. • Ask kids to set small, achievable goals, or a goal for something they want to do outside of school, or set class goals.
Metacognition	<ul style="list-style-type: none"> • Specify what is to be evaluated and how (goal or objective) • Evaluate performance for the student • Provide sample to match or error-monitoring checklist • Embed metacognitive questions into instruction/conversations 	<ul style="list-style-type: none"> • Help child decide on how performance will be evaluated • Have the child evaluate her performance • Compare evaluations • Teach students to ask questions <ul style="list-style-type: none"> ○ What's my problem? ○ What's my plan? ○ Am I following I my plan? ○ How did I do?

Checklist for Executive Function Skills – Elementary Level

The following is a list of Executive Function Skills. These are abilities that allow a student to be successful. Please mark any of the behaviors below that apply to your student. Only mark items that are comparatively worse than other students his or her age.

SUSTAINED ATTENTION: Ability to maintain attention despite distractibility, fatigue, or boredom.

- ☐ Distractibility
- ☐ Inconsistent performance
- ☐ Forgetfulness
- ☐ Zoning out/daydreaming
- ☐ Making careless mistakes
- ☐ Difficulty following directions
- ☐ Difficulty completing assignments
- ☐ Poor *note* taking skills
- ☐ Off task behaviors (i.e., talking to neighbors, playing with items in desk)

WORKING MEMORY: Holding information in mind while performing complex tasks.

- ☐ Gets confused when too much information is presented
- ☐ Has trouble remembering things (i.e., phone numbers)
- ☐ May lose track of what they are doing as they work
- ☐ May forget what they need to retrieve when sent on an errand
- ☐ May frequently switch tasks or fail to complete tasks
- ☐ Has difficulty keeping up with classroom lessons
- ☐ Has difficulty remaining attentive and focused for appropriate length of time
- ☐ Has difficulty sequencing math word problems
- ☐ Extreme difficulty solving problems mentally (i.e., mental math)
- ☐ Has poor reading comprehension
- ☐ Has difficulty summarizing
- ☐ Demonstrates inconsistent performance
- ☐ Has difficulty following directions
- ☐ Has difficulty keeping track of a lot of information

FLEXIBILITY: To move freely from one situation to another and to think flexibly in order to respond appropriately to the situation.

- ☐ Has difficulty making transitions
- ☐ Has difficulty starting a new task before the first task is complete
- ☐ Has difficulty switching gears (addition and subtraction problems on same page)
- ☐ Demonstrates perseverative behaviors
- ☐ Gives the same answers to different questions
- ☐ Has difficulty switching to a new topic or new subject
- ☐ Is inflexible
- ☐ Has difficulty with problem solving and conflict resolution
- ☐ Fails to comply with task instructions

Checklist for Executive Function Skills – Elementary Level

INHIBITION: The ability to stop one's own behavior at the appropriate time, including stopping actions and thoughts

- ☐ Has difficulty waiting
- ☐ Interrupts and disrupts group activities
- ☐ May call out
- ☐ Touches things or people
- ☐ Makes careless mistakes
- ☐ Displays hyperactivity
- ☐ Acts on auto-pilot without reflection
- ☐ Perseverates
- ☐ Has many false starts
- ☐ Dives right into problems without pausing, reflecting, developing a strategy or game plan
- ☐ Talks excessively
- ☐ Is unlikely to reflect or self-monitor
- ☐ Misinterprets directions

ORGANIZING/PLANNING/INITIATING: The ability to impose order on work, play, and storage spaces. The ability to manage current and future oriented task demands. The ability to begin a task or activity and to independently generate ideas, responses, or problem-solving strategies.

- ☐ May forget homework assignments/materials
- ☐ Can be unprepared and not be able to find materials or has a messy desk/workspace
- ☐ May get "stuck"
- ☐ Appears to be daydreaming
- ☐ Has difficulty completing assignments in a timely manner (may underestimate the time needed)
- ☐ Has difficulty organizing and expressing ideas in oral and/or written form
- ☐ Approaches tasks in a haphazard fashion
- ☐ Has difficulty responding to open-ended questions
- ☐ Performs better with multiple choice questions
- ☐ Has difficulty making decisions
- ☐ Has difficulty starting an assignment independently
- ☐ Has difficulty generating ideas, responses and problem solving
- ☐ Has difficulty with multi-step problem solving

Checklist for Executive Function Skills – Elementary Level

EMOTIONAL CONTROL: The ability to modulate emotional responses by bringing rational thought to bear on feelings.

- ☐ Emotional reactions are out of sync with the situation (Small events trigger big emotional responses)
- ☐ May laugh hysterically or cry easily with little provocation
- ☐ Has temper tantrums or explosive outbursts
- ☐ Is bossy
- ☐ Is easily upset/overly sensitive
- ☐ Demonstrates aggressive behavior
- ☐ Is rigid/inflexible in thinking
- ☐ Demonstrates rapid mood changes without apparent cause)
- ☐ Has a low tolerance for frustration
- ☐ Is socially immature
- ☐ Appears insensitive to others' perspective and/or feelings

SELF-MONITORING: The ability to monitor one's own performance and to measure it against some standard of what is needed or expected.

- ☐ Makes careless mistakes
- ☐ Rushes through work
- ☐ Appears to lack pride in work
- ☐ Is disorganized
- ☐ Exhibits undesired classroom behavior
- ☐ Has difficulty checking over work/proofreading
- ☐ Produces sloppy work
- ☐ Acts without thinking things through
- ☐ Is unaware of behavior and impact on others
- ☐ Has difficulty with time management
- ☐ May have difficulty monitoring volume of voice
- ☐ Has difficulty with pragmatic skills
- ☐ Has difficulty empathizing
- ☐ Procrastinates
- ☐ Misses deadlines
- ☐ Has difficulty completing work

Checklist for Executive Function Skills – Elementary Level

ABSTRACT REASONING/CONCEPT FORMATION/SALIENCY DETERMINATION: The ability to make connections, synthesize and categorize information.

- ☐ Has difficulty with perspective taking
- ☐ Has difficulty with social problem solving
- ☐ May ask the same questions repetitively
- ☐ Is a concrete, literal learner
- ☐ Has difficulty understanding what cannot be seen, heard or touched
- ☐ Has difficulty sorting/organizing information
- ☐ Has difficulty with abstract concepts
- ☐ Has difficulty with reading comprehension
- ☐ Has difficulty understanding the most important thing to focus on during lessons
- ☐ Has difficulty summarizing information
- ☐ Focuses on details and misses the "big picture"
- ☐ Has difficulty determining what is irrelevant versus relevant
- ☐ Has difficulty making inferences
- ☐ Performs better during structured tasks (answering specific concrete questions)
- ☐ Struggles in unstructured tasks when not given much direction (write a story)
- ☐ Has difficulty reading between the lines or "catching on"

FORM 2.5**Executive Skills Questionnaire for Parents/Teachers**

Big problem	1
Moderate problem	2
Mild problem	3
Slight problem	4
No problem	5

Item	Score
1. Acts on impulse	_____
2. Gets in trouble for talking too much in class	_____
3. Says things without thinking	_____
TOTAL SCORE:	_____
4. Says, "I'll do it later" and then forgets about it	_____
5. Forgets homework assignments or forgets to bring home needed materials	_____
6. Loses or misplaces belongings such as coats, mittens, sports equipment, etc.	_____
TOTAL SCORE:	_____
7. Gets annoyed when homework is too hard or confusing or takes too long to finish	_____
8. Has a short fuse; easily frustrated	_____
9. Easily upset when things don't go as planned	_____
TOTAL SCORE:	_____
10. Difficulty paying attention; easily distracted	_____
11. Runs out of steam before finishing homework or other tasks	_____
12. Problems sticking with schoolwork or chores until they are done	_____
TOTAL SCORE:	_____
13. Puts off homework or chores until the last minute	_____
14. Difficulty setting aside fun activities in order to start homework	_____
15. Needs many reminders to start chores	_____
TOTAL SCORE:	_____
16. Trouble planning for big assignments (knowing what to do first, second, etc.?)	_____
17. Difficulty setting priorities when has a lot of things to do	_____
18. Becomes overwhelmed by long-term projects or big assignments	_____
TOTAL SCORE:	_____

(continued)

Executive Skills Questionnaire for Parents/Teachers *(page 2 of 2)*

- | Item | Score |
|---|-------|
| 19. Backpack and notebooks are disorganized | _____ |
| 20. Desk or workspace at home or school is a mess | _____ |
| 21. Trouble keeping bedroom or locker tidy | _____ |

TOTAL SCORE: _____

- | | |
|--|-------|
| 22. Has a hard time estimating how long it takes to do something (such as homework?) | _____ |
| 23. Often doesn't finish homework at night; rushes to get it done in school before class | _____ |
| 24. Slow getting ready for things (e.g., appointments, school, changing classes?) | _____ |

TOTAL SCORE: _____

- | | |
|--|-------|
| 25. If the first solution to a problem doesn't work, has trouble thinking of a different one | _____ |
| 26. Resists changes in plans or routines | _____ |
| 27. Has problems with open-ended homework assignments (e.g., doesn't know what to write about when given a creative writing assignment?) | _____ |

TOTAL SCORE: _____

High School Students Only

- | | |
|--|-------|
| 28. Lacks effective study strategies | _____ |
| 29. Doesn't check work for mistakes even when the stakes are high | _____ |
| 30. Doesn't evaluate performance and change tactics in order to increase success | _____ |

TOTAL SCORE: _____

- | | |
|---|-------|
| 31. Can't seem to save up money for a desired object; problems delaying gratification | _____ |
| 32. Doesn't see the value in earning good grades to achieve a long-term goal | _____ |
| 33. Seems to live in the present | _____ |

TOTAL SCORE: _____

KEY			
Items	Executive Skill	Items	Executive Skill
1–3	Response inhibition	4–6	Working memory
7–9	Emotional control	10–12	Sustained attention
13–15	Task initiation	16–18	Planning/prioritization
19–21	Organization	22–24	Time management
25–27	Flexibility	28–30	Metacognition
31–33	Goal-directed persistence		

Child's Executive Skills Strengths

Child's Executive Skills Weaknesses

PARENT EXECUTIVE FUNCTIONING QUESTIONNAIRE

INSTRUCTIONS:

Read each of the following statements, then select the response that best describes how often that statement is true for you.

At the end of each section (e.g., "Inhibition," "Emotion Regulation," etc.), select the rating that best describes how much of an impact that specific area of executive functioning is having on your day-to-day functioning and overall well-being. If you aren't sure, look back over the problems you identified in that section and consider how much they are impacting your parenting, work, self-esteem, health, mood, energy, stress, anxiety, and relationships with family and friends. In other words, *the impact rating for each section is a holistic rating of the impact of that specific area of executive functioning on your life.*

For example, Mato is often impulsive. People get annoyed that he often interrupts, and his tendency to rush causes him to make mistakes at work. However, he has some close friends and a good job, so he chooses an impact rating of "2" (moderate) for Inhibition. Kim is also frequently impulsive. Her impulsivity is contributing to serious conflict in her relationships, and she sometimes jumps into situations that put her health or safety at significant risk. Therefore, she chooses an impact rating of "4" (severe) for Inhibition.

	Never	Rarely	Sometimes	Often	Almost Always
INHIBITION					
1. I act or speak without thinking.	0	1	2	3	4
2. My jump to conclusions too quickly (e.g., misjudging situations, making assumptions).	0	1	2	3	4
3. I find it hard to not act on urges and/or feel <i>driven</i> to act on certain urges (e.g., saying something I shouldn't, etc.).	0	1	2	3	4
4. I tend to jump into situations without thinking things through and/or am a risk-taker.	0	1	2	3	4
5. I talk too much.	0	1	2	3	4
6. I feel impatient when waiting (e.g., in lines, for people to finish speaking, etc.).	0	1	2	3	4
7. I rush to get things done (e.g., paperwork, tasks, etc.).	0	1	2	3	4
8. Once I start doing or saying something, it is difficult to stop even when I need to (e.g., because it's causing conflict).	0	1	2	3	4
9. I tend to interrupt people or finish their sentences for them.	0	1	2	3	4
10. I find it hard to follow certain social norms or to maintain social boundaries (e.g., swearing when it's not appropriate, asking too many questions, prying into personal information, gossiping).	0	1	2	3	4
Circle an impact rating for inhibition	0=none	1	2=moderate	3	4=severe

	Never	Rarely	Sometimes	Often	Almost Always
EMOTION REGULATION					
11. My emotions tend to be intense.	0	1	2	3	4
12. I am easily frustrated or have a low frustration tolerance.	0	1	2	3	4
13. I feel irritable, stressed or on edge.	0	1	2	3	4
14. It is hard for me to calm myself down, especially "in the moment."	0	1	2	3	4
15. I tend to put off or avoid things that make me anxious or uncomfortable (e.g., doing stressful tasks, addressing conflict).	0	1	2	3	4
16. I tend to avoid or put off unfamiliar tasks or other things that I feel uncertain about.	0	1	2	3	4
17. I tend to overreact.	0	1	2	3	4
18. I am very sensitive to other people's intense emotions.	0	1	2	3	4
19. My emotions tend to be all over the place, and/or change easily based on what is going on in the moment.	0	1	2	3	4
20. I am very sensitive to criticism and/or rejection.	0	1	2	3	4
Circle impact rating for Emotion Regulation	0=none	1	2=moderate	3	4=severe
MOTIVATION					
21. It's hard for me to get going or get started (e.g., on tasks, routines, etc.)	0	1	2	3	4
22. My motivation is inconsistent and/or I have bursts of energy, but then feel tired.	0	1	2	3	4
23. I avoid tasks that require a lot of energy or effort, and/or experience anticipatory anxiety (i.e., intense anxiety <i>thinking</i> about what I need to do).	0	1	2	3	4
24. I feel tired or irritable during long or unengaging tasks or activities.	0	1	2	3	4
25. I feel motivated when things are new, but lose motivation over time (e.g., enjoy starting projects, but don't finish them).	0	1	2	3	4
26. I leave things until the last minute and/or am more productive under pressure.	0	1	2	3	4
27. I have difficulty finishing tasks.	0	1	2	3	4
28. I tend to do the bare minimum required unless I find a task/project engaging.	0	1	2	3	4
29. I find it hard to achieve long-term goals.	0	1	2	3	4
30. I am easily distracted by short-term goals and/or a need for instant gratification.	0	1	2	3	4
Circle an impact rating for Motivation	0=none	1	2=moderate	3	4=severe

	Never	Rarely	Sometimes	Often	Almost Always
ATTENTION					
31. I am easily distracted by things in the environment or internal experiences (e.g., thoughts, feelings, sensations, etc.).	0	1	2	3	4
32. I find myself daydreaming or thinking of other things; my mind wanders.	0	1	2	3	4
33. I have difficulty staying focused, particularly if something is boring or seems unimportant to me.	0	1	2	3	4
34. I find it hard to stay on one topic and/or my conversations jump around a lot.	0	1	2	3	4
35. I tend to make "oversight" errors (e.g., calculation or spelling errors, writing the wrong time/day for an appointment, etc.) .	0	1	2	3	4
36. I miss important details or overlook important information (e.g., misreading instructions, not noticing criteria, etc.).	0	1	2	3	4
37. I don't notice where I put things, and/or frequently lose or misplace them.	0	1	2	3	4
38. I forget what I am doing (e.g., I start doing other things before finishing what I was already doing; I need to re-read the same paragraph multiple times, etc.).	0	1	2	3	4
39. I am easily distracted by sensory needs or aversions (e.g., need to fidget, scratchy fabrics, certain sounds or scents, bright lights, loud sounds, etc.).	0	1	2	3	4
40. I miss social cues (e.g., facial expressions, tone of voice, etc.)	0	1	2	3	4
Circle an impact rating for Attention	0=none	1	2=moderate	3	4=severe
WORKING MEMORY					
41. I am easily overwhelmed or confused by too much information or too many details.	0	1	2	3	4
42. I have difficulty remembering multiple pieces of information while completing a task (e.g., phone numbers, directions, instructions, task requirements)	0	1	2	3	4
43. I lose track of where I am in a multi-step task (e.g., what step I am on, what else I need to do, what number I am on when counting, etc.)	0	1	2	3	4
44. I struggle with mental problem-solving (e.g., mental math, riddles, etc.) and/or making decisions when there are too many choices.	0	1	2	3	4
45. I find it hard to do complex or multi-step tasks (e.g., cooking meals, driving, following more than 2 or 3 directions).	0	1	2	3	4

	Never	Rarely	Sometimes	Often	Almost Always
46. I forget to apply useful information I have learned from past experiences to similar situations when they occur, and/or I forget to use strategies when I need them.	0	1	2	3	4
47. When speaking, I omit important information, forget what points I've already made, and/or repeat information.	0	1	2	3	4
48. I have difficulty considering multiple ideas simultaneously (e.g., my own <u>and</u> other's thoughts/feelings; multiple solutions; the big picture <u>and</u> small details).	0	1	2	3	4
49. I find it difficult to identify important information, prioritize, summarize or sequence information, etc.	0	1	2	3	4
50. I prefer being with one or two people and/or struggle to cope in group situations (e.g., group activities, meetings, etc.).	0	1	2	3	4
Circle an impact rating for Working Memory	0=none	1	2=moderate	3	4=severe
SHIFTING					
51. I tend to hyper-focus on engaging activities and/or find it hard to stop doing them when I need to (e.g., to take a break, move onto another task, etc.)	0	1	2	3	4
52. It is difficult for me to stop doing tasks I am invested in or to leave them incomplete.	0	1	2	3	4
53. I find it hard to switch between multiple demands (e.g., cooking and cleaning; thinking about the "big picture" and attending to details, etc.).	0	1	2	3	4
54. I find transitions stressful.	0	1	2	3	4
55. I feel upset or frustrated when routines aren't followed, plans change, or things don't go as expected.	0	1	2	3	4
56. I get stuck on certain thoughts (e.g., topics, ideas, details, fairness, expectations, rules, etc.).	0	1	2	3	4
57. I tend to get stuck in negative emotions, or I take a long time to recover from negative experiences.	0	1	2	3	4
58. I find it hard to shift back and forth between my own thoughts/feelings/needs and those of others (e.g., may tend to focus on one, while neglecting the other).	0	1	2	3	4
59. It is hard to change my approach to a task or situation, even when what I am doing isn't working.	0	1	2	3	4
60. I tend to be too literal or see things as "black & white" or "either/or."	0	1	2	3	4
Circle an impact rating for Shifting	0=none	1	2=moderate	3	4=severe

	Never	Rarely	Sometimes	Often	Almost Always
PLANNING					
61. It is difficult to plan ahead (e.g., meal planning, planning long-term projects, etc.).	0	1	2	3	4
62. I find it hard to break tasks into steps or figure out the steps required to meet a goal.	0	1	2	3	4
63. I have difficulty prioritizing tasks and/or knowing what order to do things in.	0	1	2	3	4
64. I tend to underestimate how long it will take to do things (e.g., get ready, complete a task, get to an appointment, etc.).	0	1	2	3	4
65. I find it hard to think of more than one way to approach a task or solve a problem.	0	1	2	3	4
66. I find it hard to anticipate what will be needed in a specific situation and/or find myself (or my children) unprepared.	0	1	2	3	4
67. I tend to end up rushing, because I run out of time.	0	1	2	3	4
68. I am late for or miss deadlines.	0	1	2	3	4
69. I fail to anticipate the consequences of my actions.	0	1	2	3	4
70. I find it hard to predict whether a plan or solution to a problem will be successful.	0	1	2	3	4
Circle an impact rating for Planning	0=none	1	2=moderate	3	4=severe
ORGANIZATION					
71. I struggle to organize my home, workspace, car, bag/purse, etc..	0	1	2	3	4
72. I can't find things I need (materials, belongings, important paperwork, etc.).	0	1	2	3	4
73. I never know where to put things and leave them all over the place.	0	1	2	3	4
74. I find it hard to categorize or group things in a logical way, and/or to develop effective, functional organization systems.	0	1	2	3	4
75. I find it hard to organize information and/or ideas when writing.	0	1	2	3	4
76. People get confused when I try to explain things to them.	0	1	2	3	4
77. I find it hard to do things in a logical or sequential order.	0	1	2	3	4
78. I find it hard to develop or stick to routines.	0	1	2	3	4
79. I forget things (e.g., bag, phone, keys, documents, etc.)	0	1	2	3	4
80. I tend to forget important information (e.g., due dates, appointment times).	0	1	2	3	4
Circle an impact rating for Organization	0=none	1	2=moderate	3	4=severe

	Never	Rarely	Sometimes	Often	Almost Always
SELF-MONITORING					
81. I tend to miss internal cues (e.g., hunger, fatigue, early signs of irritation or stress, etc.).	0	1	2	3	4
82. I tend to lose track of time.	0	1	2	3	4
83. I have difficulty monitoring my progress on a task (e.g., speed, accuracy, whether my approach to the task is working, etc.).	0	1	2	3	4
84. I find it difficult to accurately evaluate my own strengths and weaknesses.	0	1	2	3	4
85. I find it hard to adapt to different contexts (e.g., how to speak to a boss vs. a friend; speaking at an appropriate volume, using appropriate language, etc.).	0	1	2	3	4
86. I don't realize that I haven't understood something, or I over- or under-estimate how well I understand something.	0	1	2	3	4
87. I don't realize when I have misread a situation or misunderstood somebody.	0	1	2	3	4
88. People ask me what I'm talking about or become confused when I change topic without warning.	0	1	2	3	4
89. I find it hard to reflect upon and/or learn from experience (e.g., I keep repeating the same mistakes).	0	1	2	3	4
90. I don't notice how I am impacting people in the moment (e.g., if I am bothering or confusing them).	0	1	2	3	4
Circle impact rating for Self-Monitoring	0=none	1	2=moderate	3	4=severe

PARENT EXECUTIVE FUNCTIONING PROFILE SCORING

Instructions for Completing Table 1: "Parent Assessment Scores"

- For each section of the questionnaire (e.g., Inhibition, Attention, etc.), add up your ratings for all the items. Write the total for each section in the corresponding space in the "Total Score" column.
 ➤ Note: the "Items" column tells you which items (i.e., questions) are included in each section.
- For each section of the questionnaire, count how many items you rated a "3" (often) or "4" (almost always). Write that number in the corresponding space in the "Frequency" column.
- Record the impact rating you wrote for each section of the questionnaire in corresponding space in the "Impact" column.

TABLE 1: PARENT ASSESSMENT SCORES				
Area of Functioning	Items	Total Score	Frequency	Impact
Inhibition	1-10			
Emotion Regulation	11-20			
Motivation/Drive	21-30			
Attention	31-40			
Working Memory	41-50			
Shifting	51-60			
Planning	61-70			
Organization	71-80			
Self-Monitoring	81-90			

Instructions for Completing Table 2: "Parent Executive Functioning Profile"

Use the information from Table 1 to complete Table 2 by writing the name of the area of executive functioning (e.g., "Inhibition," "Attention," etc.) corresponding to the score (from Table 1) indicated in parenthesis below each item.

Example: for "Area in which I experience the most difficulty, overall," you would write the name of the area of executive functioning that had the highest "Total Score" in Table 1.

TABLE 2: PARENT EXECUTIVE FUNCTIONING PROFILE	
Area in which I experience the most difficulty, overall (area with the highest "Total Score")	
Area in which I experience the least difficulty, overall (area with the lowest "Total Score")	
Area in which I have the most frequently occurring problems (area with the highest "Frequency" score)	
Area in which I have the fewest frequently occurring problems (area with the lowest "Frequency" score)	
Area that is having the greatest negative impact on my life (area with the highest "Impact" score)	
Area that is having the least negative impact in my life (area with the lowest "Impact" score)	
Areas of greatest need (areas with both a high frequency <i>and</i> high impact scores)	
Areas of greatest strength (areas with low frequency <i>and</i> low impact)	

Executive Skills Questionnaire for Children
Grades 1-3

Read each item below and rate that item based on how well it describes our child. Then add the scores in each section. Find the three highest and three lowest scores.

Almost Always	4
Often	3
Sometimes	2
Never	1

1. Can follow simple classroom rules.	
2. Can be in close proximity to another child without need for physical contact.	
3. Can wait until parent gets off phone before telling him/her something (may need one reminder)	
Total Score	
4. Is able to run errands with two or three steps.	
5. Remembers instructions given a couple of minutes earlier	
6. Follows two steps of a routine with one prompt.	
Total Score	
7. Can tolerate criticism from an adult.	
8. Can deal with perceived "unfairness" without undue upset.	
9. Is able to adjust behavior quickly in new situations (e.g., calming down after recess).	
Total Score	
10. Can spend 20-30 minutes on homework assignments.	
11. Can complete a chore that takes 15-20 minutes.	
12. Can sit through a mean of normal duration.	
Total Score	
13. Can remember and follow simple one- to two-step routines (such as brushing teeth and combing hair after breakfast).	
14. Can get right to work on classroom assignments following teacher instruction to begin.	
15. Will start homework at established time (with one reminder).	
Total Score	
16. Can carry out a two- or three-step project of own design (e.g., arts and crafts, construction).	
17. Can figure out how to earn/save money for an inexpensive toy.	
18. Can carry out two- to three-step homework assignment with support (e.g., book report).	
Total Score	

19. Puts coat, winter gear, sports equipment in proper locations (may need reminder)	
20. Has specific places in bedroom for belongings.	
21. Doesn't lose permission slips, notices from school.	
Total Score	
22. Can complete a short task within time limits set by an adult.	
23. Can build in appropriate amount of time to complete a chore before a deadline (may need assistance).	
24. Can complete a morning routine within time limits (may need practice).	
Total Score	
25. Will stick with challenging task to achieve desired goal (e.g., building difficulty Lego construct).	
26. Will come back to a task later if interrupted.	
27. Will work on a desired project for several hours or over several days.	
Total Score	
28. Plays well with others (doesn't need to be in charge, can share, etc.)	
29. Tolerates redirection by teacher when not following instructions.	
30. Adjusts easily to unplanned for situations (e.g., substitute teacher).	
Total Score	
31. Can adjust behavior in response to feedback from parent or teacher.	
32. Can watch what happens to others and change behavior accordingly.	
33. Can verbalize more than one solution to a problem and make the best choice.	
Total Score	

Key			
Items	Executive Skill	Items	Executive Skills
1-3	Response Inhibition	4-6	Working Memory
7-9	Emotional control	10-12	Sustained attention
13-15	Task initiations	16-18	Planning/prioritization
19-21	Organization	22-24	Time management
25-27	Goal-directed persistence	28-30	Flexibility
31-33	Metacognition		

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Checklist for Executive Function Skills – Middle School Level

The following is a list of Executive Function Skills. These are abilities that allow a student to be successful. Please mark any of the behaviors below that apply to your student. Only mark items that are comparatively worse than other students his or her age.

INHIBITION: Ability to stop one's own behavior at the appropriate time, including inappropriate actions and thoughts.

- ☐ Calls out during lessons
- ☐ Touches objects/peers
- ☐ Invades others' personal space
- ☐ Interrupts conversations
- ☐ Makes careless errors- written & verbal
- ☐ Struggles with directions: not reading directions or misreading directions
- ☐ Misinterprets text
- ☐ Attempts to solve problems without planning
- ☐ Starts & stops tasks repeatedly

FLEXIBILITY: Ability to move from one situation to another and to think flexibly. The ability to stop an old behavior and start a new one.

- ☐ Perseverates on a topic, idea or activity
- ☐ Repeats the same behavior after the task has changed
- ☐ Is driven by routine and consistency
- ☐ Needs the same seat
- ☐ Wears the same color
- ☐ Eats the same foods
- ☐ Has difficulty transitioning - class to class, weekend to school, one activity to another,...
- ☐ Is unable to tolerate changes in schedule
- ☐ Has difficulty with transitioning within conversation

EMOTIONAL CONTROL: Ability to manage emotions in order to achieve goals and complete tasks.

- ☐ Tantrums
- ☐ Cries
- ☐ Laughs inappropriately
- ☐ Calls out
- ☐ Makes irrational statements ("Teacher hates me," "Someone's laughing at me")
- ☐ Demonstrates aggressive behavior, physically or verbally

Checklist for Executive Function Skills – Middle School Level

PLANNING, ORGANIZING AND INITIATING: Ability to plan, begin and manage a task or activity independently.

- ☐ Doesn't begin tasks (i.e. sits and stares)
- ☐ Has messy desk/notebooks/locker/backpacks
- ☐ Has difficulty with unstructured tasks
- ☐ Is often off task (i.e. looks lost)
- ☐ Has difficulty understanding what to do
- ☐ Has difficulty with time management
- ☐ Is overwhelmed by large amounts of information
- ☐ Has difficulty retrieving information spontaneously or answering open ended questions
- ☐ Has difficulty handing in assignments in a timely fashion

WORKING MEMORY: Ability to hold information in one's mind for the purpose of completing a task.

- ☐ Has difficulty keeping up with information to complete a task
- ☐ May look like poor attention
- ☐ Misses important pieces of information
- ☐ Gets confused when too much information is presented at once or too quickly (i.e. information overload)
- ☐ Has difficulty taking notes from lectures
- ☐ Has extreme difficulty solving problems mentally (i.e. mental math)
- ☐ Has difficulty keeping up with and maintaining conversation
- ☐ Frequently asks questions
- ☐ Has difficulty sequencing

SELF-MONITORING: Ability "to monitor one's own performance and "to measure against some standard of what is needed or expected.

- ☐ Has difficulty with perspective taking
- ☐ Has difficulty understanding someone else's point of view
- ☐ Is often unaware of his own behavior or its impact on others
- ☐ Has difficulty with empathy
- ☐ Has difficulty knowing what to say and when to say it

Checklist for Executive Function Skills – Middle School Level

SUSTAINED ATTENTION: Ability to notice information and maintain focus over a long period of time.

- ☐ Demonstrates poor attention
- ☐ "Zones out"
- ☐ Demonstrates inconsistent performance
- ☐ Has difficulty with note-taking
- ☐ Is distractible
- ☐ Pays attention to everything, not just target activity
- ☐ Struggles to stay on task
- ☐ Asks questions that were just answered

ABSTRACT REASONING/CONCEPT FORMATION/SALIENCY: Ability to see relationships, make connections and categorize information.

- ☐ Has difficulty forming theories and problem solving
- ☐ Has difficulty understanding what he/she cannot hear, see or touch
- ☐ Has difficulty understanding figurative language
- ☐ Has difficulty understanding ambiguous language
- ☐ Has difficulty understanding multiple meaning words, similes and metaphors, humor and sarcasm
- ☐ Has difficulty synthesizing information
- ☐ Has difficulty determining relevant vs. irrelevant details
- ☐ Has difficulty determining main idea
- ☐ Has difficulty determining related concepts
- ☐ Has difficulty "reading between the lines"
- ☐ Misses the "Big Picture"

Checklist for Executive Function Skills – High School Level

The following is a list of Executive Function Skills. These are abilities that allow a student to be successful. Please mark any of the behaviors below that apply to your student. Only mark items that are comparatively worse than other students his or her age.

INHIBITION: The ability to stop one's own behavior at the appropriate time, including stopping actions and thoughts.

- ☐ Calls out during lessons
- ☐ Does not follow directions
- ☐ Has inconsistent test performance
- ☐ Touches things/ other people
- ☐ Is restless
- ☐ Demonstrates over-active behaviors

FLEXIBILITY: The ability to move freely from one situation to another and to think flexibly in order to respond appropriately to the situation.

- ☐ Perseverates on previous and current tasks
- ☐ Is often not prepared for next activity
- ☐ May just sit and stare
- ☐ Does not participate

EMOTIONAL CONTROL: The ability to modulate emotional responses by bringing rational thought to bear on feelings.

- ☐ Often calls out in class without consideration of others
- ☐ Lacks emotional regulation
- ☐ Has difficulty redirecting and refocusing once the child exhibits the lack of emotional control (e.g., temper tantrums, cursing, crying, extreme laughter, etc.)
- ☐ Exhibits unpredictable emotional responses that are out-of-sync with the situation

INITIATION: The ability to begin a task or activity ability to begin a task or activity and to independently generate ideas, responses, or problem-solving strategies.

- ☐ Sits with a blank page
- ☐ Exhibits task avoidance behaviors such as leaving the classroom
- ☐ Gives excuses on a consistent basis

WORKING MEMORY: The capacity to hold information in mind for the purpose of completing a task.

- ☐ May appear as poor attention
- ☐ Only obtains part of the information and gets confused when too much information is presented in quick manner
- ☐ Has significant difficulty solving problems mentally
- ☐ Has poor reading comprehension
- ☐ Has difficulty sequencing information

Checklist for Executive Function Skills – High School Level

PLANNING/ORGANIZATION: The ability to manage current and future-oriented task demands.

- ☐ Lacks follow through with assignments or projects
- ☐ Inconsistently meets of deadlines and completes homework
- ☐ Has messy backpack and/or folders

ORGANIZATION OF MATERIALS: The ability to impose order on work, play, and storage spaces.

- ☐ Lacks checklist(s)
- ☐ Demonstrates inefficient use of space
- ☐ Has disorganized desk and/or locker
- ☐ Is often missing materials needed for class (e.g., writing utensils, paper)

SUSTAINED ATTENTION: The ability to hold attention in one spot and to maintain focus over a prolonged period of time.

- ☐ Has poor attention; is easily distractible
- ☐ "Zones Out"
- ☐ Is inconsist-The student knows what was covered when s/he was paying attention and does not know what was covered when s/he was not paying attention
- ☐ Has difficulty beginning activities
- ☐ Has difficulty remaining on task until activity is finished
- ☐ Pays attention to everything; however, does not filter relevant from irrelevant information

SELF-MONITORING: The ability to monitor one's own performance and to measure it against some standard of what is needed or expected.

- ☐ Is unaware of how behaviors impact their learning environment and the learning environment of others
- ☐ Lacks time management skills
- ☐ Fails to check work and makes careless mistakes
- ☐ Rushes through work and often overlooks directions and task requirements