Level Up Their Learning: Skills for Academic Success

The Summit School

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Meet Andrew

- 15 year old who can sit in class and offers insightful comments during class discussions
- Bright child who is creative and funny
- Teachers love him
- Eager to participate and articulate in conversations
- Great ideas
- Academically strong with good grades during elementary school





Also Andrew...



- Great difficulty getting homework in on time
- Sometimes, he does homework, but it gets handed in late or is lost
- Lacks an "internal clock"
- Is easily distracted when on his own
- Has intentions of finishing work at home, but simply forgets
- When he realizes he has something due that requires extra effort, he becomes paralyzed and overwhelmed to even get started



Meet Anna



- Loves to be a part of the group
- Active social life
- A friend to many
- Social and engaging with teachers and peers
- Creative and involved in drama club, anime club, and several sports
- Has great ideas for English papers and projects
- Is able to turn in good, quality work



Also Anna...

- Gets completely preoccupied with the drama of her friends' social lives
- May skip class to talk with a friend
- Goes to the mall instead of studying for her test
- When she does sit down to work, she worries about the quality of her efforts
- Even though she has great ideas and genuine intent to work on an English paper, she decides to reorganize her math notebook instead
- Waits for inspiration to strike before getting started
- Has missing assignments and poor grades



Perceptions

While these students are bright, creative, and academically competent, they are often labeled as unmotivated and underachieving.



Motivation and Underachievement are some of the most troublesome challenges for school administrators, teachers, and parents.

What is Executive Functioning?

- Self-regulating skills that we use every day
- Needed to accomplish just about everything
- Help us plan and organize
- Aid in decision making
- Help with shifting between situations and thoughts
- Help us control and manage our behavior and emotions
- Help us learn from past mistakes





- 1. Inhibit
- 2. Self-Monitor
- 3. Shift
- 4. Emotional Control
- 5. Initiate
- 6. Working Memory
- 7. Plan/Organize
- 8. Task Monitor
- 9. Organization of Materials



Executive Skill Definitions

Response Inhibition- The capacity to think before acting and to resist the urge to say or do something. This ability allows a person the time to evaluate a situation and how his or her behavior might affect it.

Working Memory- The ability to hold information in memory while performing complex tasks. It incorporates the ability to draw on past learning or experience to apply to the situation at hand or to project into the future.

Emotional Control- The ability to manage emotions to achieve goals, complete tasks, or control and direct behavior.

Sustained Attention- The capacity to maintain attention to achieve goals, complete tasks, or control and direct behavior.

Task Initiation- The ability to begin projects without undue procrastination, in an efficient or timely fashion.

Planning/Prioritization- The ability to create a roadmap to reach a goal or to complete a task. It also involves being able to make decisions about what is and is not important to focus on.



Executive Skill Definitions

Organization- The ability to create and maintain systems to keep track of information or materials.

Time Management-The capacity to estimate how much time one has, how to allocate it, and how to stay within time limits and deadlines. It also involves a sense that time is important. A young child can complete a short job within a time limit set by an adult. A high schooler can establish a schedule to meet deadlines.

Goal-Directed Persistence- The capacity to have a goal, follow through to completion of the goal, and not be put off by or distracted by competing interests

Flexibility- The ability to revise plans in the face of obstacles, setbacks, new information, or mistakes. It relates to an adaptability to changing conditions

Metacognition- The ability to stand back and take a bird's-eye view of oneself in a situation. It is a person's ability to observe how he or she problem-solves. It also includes self-monitoring and self-evaluative skills ("how am I doing?" or "How did I do?")



Why EF in Teens is a challenge: Things to consider...

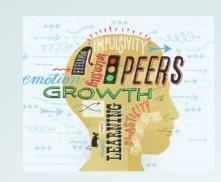
- The adolescent brain is poised for impulsivity and thrill seeking
- By adolescence most of the brain has been myelinated except for the frontal lobe, which is the center for "executive functioning"
 - The long-range planning part of the brain is slower and less hard-wired than the "here and now" parts of the brain at this stage of development
- Teenagers perceive short-term rewards as much more rewarding than adults do
 - Everything is more urgent and more intense for the teenage brain
 - Teens show a powerful response to things like food, sex and novel situations and have a hard time "putting on the breaks." The ability to conceptualize and evaluate relevant risks is simply not hard-wired yet.





Things to consider....

- During development, children go from mimicking their family members to wanting to mimic or mirror their peers
 - Belonging to a peer group is an important part of their identify
- Teenagers whose brain connectivity most resembles the adult brain are better able to resist their peers
- Teens with less integrated long-range brain connectivity are most likely to be influenced by their peers and do things that they would not have gotten involved with on their own
 - The ability to resist peer influence develops only as the process of brain integration is finalizing
- Teens with ADHD often have a more delayed frontal lobe maturation, although most catch up by their mid-twenties





Executive Functioning



Understanding the Symptoms of ADHD as Deficits in Executive Functioning

Hyperactivity-Impulsivity (Executive Inhibition)

- Deficient motor inhibition (restless, hyperactive)
- Impaired <u>verbal</u> inhibition (excessive talking, interrupting)
- Impulsive <u>cognition</u> (difficulty suppressing task irrelevant thoughts, rapid decision making;
- Impulsive <u>motivation</u> (prefer immediate gratification, greater discounting of delayed consequences)
- <u>Emotion</u> dysregulation (impulsive affect; poor emotional self-regulation)
- Restlessness decreases with age, becoming more internal



Executive Functioning



Understanding the Symptoms of ADHD as Deficits in Executive Functioning

Inattention:

Executive Attention (& Functioning)

- Poor persistence toward goals, tasks, and the future (can't sustain attention/action over time)
- Distractible (impaired resistance to responding to goal-irrelevant external and internal events)
- Deficient task re-engagement following disruptions (skips across uncompleted tasks)
- Impaired working memory (forgetful in daily activities, cannot remember what is to be done)
- Diminished self-monitoring



Classroom Accommodations

Executive Functioning



- ADHD appears to delay EF development by 25-40%, or an average of 30%
- Use this estimate to understand a child's executive age or EA (chronological age minus 30%)
- Adjust expectations to match this EA
- Determine new responsibilities and freedoms based on their EA not their CA
- Provide accommodations or scaffolding to support the child at this EA

Executive Dysfunction and related Writing Dysfunction

Executive Dysfunction

Writing Dysfunction

Processes
in the frontal
lobe of the
brain cue
other
regions of
the brain to
carry out
tasks

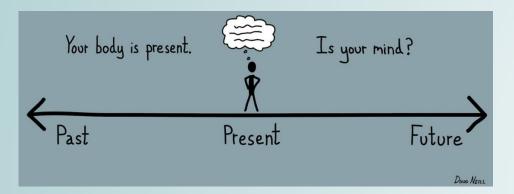
1.	Poor task initiation	Poor idea generationPoor independent writing skills
1.	Inability to sustain attention	 Loses track of thoughts and ideas Poor task completion Disjointed sentence structure
1.	Poor inhibition	Impulsive writing styleDisorganized thought patternIncomplete sentences
1.	Difficulty shifting attention	 Perseveration on topics Difficulty writing about multiple events Poorly connected writing
1.	Poor organization	 Frequent erasures Forgets main idea Disjointed content Poor paragraph separation
1.	Poor self-monitoring	Careless spelling miscuesCareless grammar mistakesSloppy handwriting

Written
language
places a
large
demand
on
executive
functions

(Feifer, 2020)



- Using mindfulness, self-awareness, self-advocacy, role play
- Neuroplasticity: activation of neural pathways repeated over time changes these pathways
 - Provide supports and scaffolding in a variety of contexts
- Have children reflect on these EF skills to understand their importance (metacognition) and how to apply them to new situations





Must Haves in the Structured Classroom Physical Structure Visual Structure Visual Schedules Work Systems

Educator Strategies

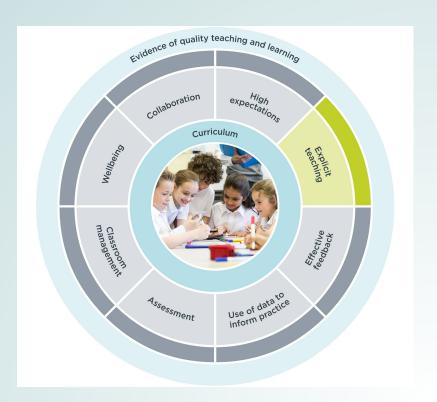
- 1. Instructional Modifications- putting structure in place
 - Routines
 - Organizational schemes
 - Making tasks shorter
 - Presenting steps explicitly
 - Building in choice
 - Reduce assignments that are open ended
 - Adult prompts, reminders and supports embedded in the day



Educator Strategies

2. Teach Skills Directly

- Identify the skill deficit
- Set a goal
- Outline the steps to complete the goal
- Create a check list or task list
- Supervise the child and provide feedback
- Evaluation and revise the plan if necessary





Educator Strategies

- 3. Provide positive reinforcement
 - Encourage students to use executive skills they are learning
 - Could be social praise
 - Free homework pass, prize box, stickers
 - Group rewards
 - Check in with older kids and tell them you appreciate all the hard work they are doing



School is really hard for some children and it shouldn't be a given that learning these things is easy.



Top 3 Classroom Accommodations

Executive Functioning

1. Extra Time/Reduced Assignments

- Allow extra time on tests and assignments as needed in order to allow students to demonstrate their understanding.
- If that extra time becomes so extensive that it begins to deplete the student, or cuts into other important parts of the student's day, consider reducing the assignment itself until a balance between the assignment and the student's ability is achieved.
- As long as the essential elements of a unit or assignment are not eliminated, the modified assessment should still be a valid measure of student understanding. Typically 100 percent extra time is too much for most students unless they have a severely reduced class load that allows them to make good use of the extra time. Even then, the value of such a lengthy assessment should be weighed carefully against the depleting effect of so much time spent on a single task.



Top 3 Classroom Accommodations

Executive Functioning

2. Copy of Teacher's Notes

- If the student's evaluation results and teacher observations confirm that the student is capable of note taking, have students to take their own notes in class, but also provide them with a copy of teacher notes afterwards.
- After class, they can compare their own notes to the teacher's model and see where they might improve. Over time, this activity becomes a form of guided instruction that helps students develop their own organization of ideas while taking notes.
- While guided note taking may enhance organization of thought, this is not always true. Some students have so much trouble with working memory that listening, organizing, and taking notes all at the same time may just be too much and cause them to misunderstand the important points of a lecture. The student should simply be given a copy of the notes so they can engage through listening and asking questions instead.



Top 3 Classroom Accommodations

Executive Functioning

3. Testing in a separate environment

- Testing in a separate environment is a fairly simple accommodation that allows the student freedom from distractions and from the anxiety of wondering, "Is somebody already on page two before me?" or "Is everybody ahead of me?"
- However, there are two sides to this accommodation that should be discussed with each student. When a student takes a test in a separate environment, someone other than the student's teacher proctors the test in most cases.
- Poth teachers and students tell us that this is not always helpful, since the proctor may not be able to address content-based clarifying questions during the test as effectively as the teacher. So, unless you are certain that a student's distractibility and anxiety are so significant that they outweigh these other concerns, give students a choice on this accommodation.





Checklists- minimize the mental and emotional strain many children with EF difficulty experience while trying to make decision and move through steps

Checklists can be made for almost anything!



Time Limits

- When making checklists, it is important to assign a timeline to each step (especially longer-term projects)
- Monitoring time will help the student get used to how long they might need for particular tasks





Use of a Planner- Children with EF problems often struggle with working memory and it is hard for them to remember things like homework assignments. A planner is essential!

- Schools often require planners but don't necessarily teach them how to use it
- Students won't remember that they didn't remember the last time they tried without writing it down. It doesn't matter how many times they forget
- With the use of platforms like Google classroom or teacher webpages to post homework, kids with difficulty in EF have one less thing to worry about



			DAC201	ORM 5.3				
4		Do	aily Hon	nework	Planner			
Date:								
Subject/assignment	Do I hav	e all the rials?	Do I nee	ed help?	How long do you think it will take?	Start time	Stop time	How long di
	Yes	No ·	Yes	No □				
	Yes	No	Yes	No				
	Yes	No	Yes	No				
	Yes	No	Yes	No				
	Yes	No	Yes	No ·				
	Yes □	No ·	Yes	No				

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Goal	Future Picture	Obstacles?		
Clean my room	In 10 minutes my clothes will be put away and the books will be in the shelves	I might see a good book and want to read it.		
Do my math homework	In 30 minutes my math worksheet will be complete	I might get stuck on a hard problem and I won't be able to move on.		
Start my research paper	At 4:30 I will have two articles printed out	I may find other websites interesting. I may get hungry because it's almost dinner time.		



Share the Rationale- It is essential that students understand the reason behind using strategies or things like planning will feel like a waste of time.



- Students often feel pressure by their commitments and responsibilities and are weighing in their mind what is worth their effort
- They might feel like it is a waste of their time if they don't know the rationale behind it
- Explaining the rationale behind a particular strategy makes a child much more likely to commit to do it



Share the Rationale

EF Questionnaire for Younger Students

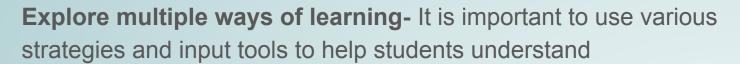
EF Questionnaire for Older Students



Landmarkoutreach.org



Red Orange Yellow Green Blue Indigo Violet



- Visual- pictures, graphic organizers, drawing
- Kinesthetic- hands on learning
 - Making, moving, touching, doing
- Social Stories- narratives about someone successfully performing a certain task or particular skill
- Mnemonic Devices-memory tools for learning dry, factual information
- Use of Technology

Ideally, one skill at a time should be worked on at a time for at least two weeks before evaluating effectiveness and moving on to anything new





Establish a Homework Routine- Children have less anxiety and are more prepared when they know what is ahead

- Start homework at the same time everyday
 - Very important for older children who struggle to get started and prefer to wait until "they feel like it"
 - Realistically, the desire to do home is probably not going to come
 - It's best for children to come home, unpack, have a snack and get started on their work
- Homework is best accomplished in a quiet, well-lit space
- Supplies should be readily available (paper, pencils)
- Use a space with minimal distractions
- Be available if support is needed





Use Rewards

Using positive reinforcement by giving a desirable or pleasant stimulus after a behavior.

Positive reinforcement communicates to children that their parents and teachers also value the skill.

Types of Positive Reinforcement

There are four types of positive reinforcers that can be used to encourage behaviors, each of which may be more or less effective depending on the individual and the situation (Kamery, 2004).

Natural reinforcers are those that occur directly as a result of the behavior. For example, a person who creates a high-yielding campaign at work as a result of persistent research and effort may get raises and promotions at work.

Social reinforcers involve expressing approval for desirable behavior. For example, a teacher or parent may praise a child, or an employer may call an employee's work excellent (Kamery, 2004).

Tangible reinforcers involve actual, physical rewards for desirable behavior. These could include candy, treats, toys, money, or some other desirable object. While these rewards can be powerful, their overuse can disincentivize the behavior when they are not used (Kamery, 2004).

Token reinforcers are points or tokens awarded for performing certain actions. These can then be exchanged for something of value. For example, a teacher may give a student points for completing assignments on time, which can be exchanged for a prize (Kamery, 2004).

Resources

National Resource Center on ADHD

https://chadd.org

National Institute of Mental Health

https://www.nimh.nih.gov/sites/default/files/documents/health/publications/adhd-what-you-need-to-know/adhd-in-children-and-teens-what-you-need-to-know.pdf

Center for Disease Control and Prevention

https://www.cdc.gov/ncbddd/adhd/index.html

Center on PBIS

https://www.pbis.org/

Child Mind Institute

https://childmind.org/



Thank You

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