



EXECUTIVE FUNCTIONS

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What Are Executive Functions?

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ORANGE

YELLOW

RED

PURPLE

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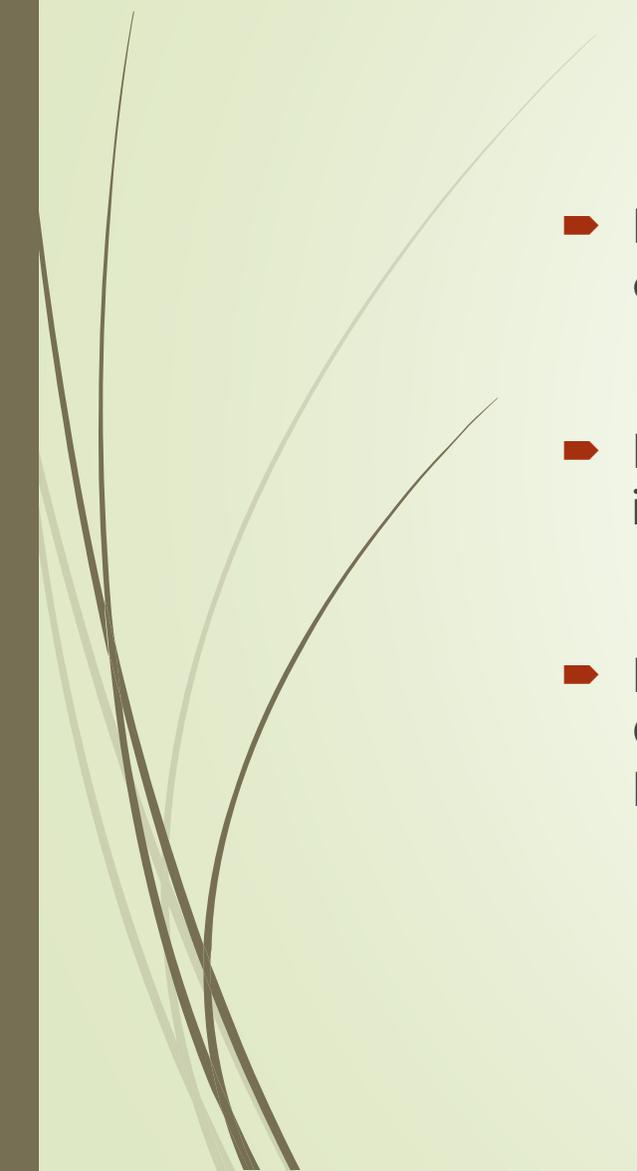


What Are Executive Functions?

- ▶ Skills in our brain that help us get stuff done
 - ▶ Guide us for purposeful action: Self-Regulation Skills
 - ▶ Skills that are developed over a lifetime
 - ▶ Located in the prefrontal cortex of the brain: the last part of the brain to completely develop
 - ▶ Not only essential but crucial for academic and social success
 - ▶ Behavioral, Cognitive and Emotional
- 



What Are Executive Functions?

- ▶ Brain-based, cognitive processes that help regulate behavior, make decisions, and set and achieve goals (Stop and Think)
 - ▶ Help to filter distractions, prioritize tasks, set and achieve goals, and control impulses
 - ▶ Planning/Prioritization, Time Management, Sustained Attention, Organization, Working Memory, Response Inhibition, Shifting, Goal-Directed Persistence, Flexibility, Task Initiation
- 



AWARENESS TEST

- ▶ https://www.youtube.com/watch?v=MFBrcM_WYXw



The Importance of EF Skills

If you look at what predicts how well children will do later in school, more and more evidence is showing that executive functions — working memory and inhibition — actually predict success better than IQ tests.





How Are EF Developed

- ▶ Foundations are set in early childhood
 - ▶ Ages 3-5 growth spurt of EF
 - ▶ Continue to develop into adolescence and early adulthood with another growth spurt between the ages of 15-23
- 



Factors That May Hinder the Development of EF Skills

- ADHD
 - Autism
 - Anxiety and other struggles with mental health
 - Adverse Childhood Experiences – Toxic Stress
- 



Critical factors To Support EF Skills



Relationships

- ▶ Create trust through consistent reliable relationship
- ▶ Engage in activities that support EF development
- ▶ Model EF skills and support your child's efforts



Environment

- ▶ Provide an environment that reduces triggers (fear, anxiety, etc.) that cause the “act now-think later” part of the brain to be activated



Activities

- ▶ Foster social connection and creative play
- ▶ Vigorous physical exercise



Does My Child Struggle with EF Skills?

- ▶ **Preschool– Grade 2**

- ▶ Gets frustrated easily; gives up instead of asking for help
- ▶ Has trouble following directions
- ▶ Has frequent temper tantrums over minor things
- ▶ Insists on doing things a certain way
- ▶ Answers questions in a vague way

- ▶ **Grades 3-7**

- ▶ Starts a task, gets distracted, and never finishes it
- ▶ Often mixes up school assignments and brings home the wrong books
- ▶ Has a messy desk and backpack
- ▶ Wants to have friends come over, but never sets it up
- ▶ Seems to focus on the least important point in a discussion



Does My Child Struggle with EF Skills?

➤ **Teens**

- **Loses track of time**
- **Engages in risky behavior**
- **Has trouble working in groups**
- **Forgets to fill out job or college applications**
- **Is overly optimistic or unrealistic**

EF Deficits...





How Can Executive Functioning Affect Social Relationships

- ▶ May miss nonverbal cues (facial expressions, tone of voice)
- ▶ Poor impulse control- blurting comments before thinking
- ▶ Talking rapidly and excessively and/or interrupting
- ▶ Poor personal-space boundaries- standing too close, running into others
- ▶ Poor perspective taking
- ▶ Saying the wrong thing at the wrong time
- ▶ Difficulty with changes in plans and activities
- ▶ Limited insight into problem solving interpersonal conflict
- ▶ Less able to tolerate frustration and failure



What Can Parents Do?

Metacognition and Mindfulness





What Can Parents Do?

- ▶ Social skills must be explicitly taught
- ▶ Build on your child's strengths (compassion, passionate, etc.)
- ▶ Provide scenarios using characters or other people to learn perspective taking and problem solving for social situations
 - ▶ Superflex: Social Thinking
 - ▶ Julia Cook books
- ▶ Talk through the social problem together and come up with one alternative behavior that may produce a more desirable outcome
- ▶ Practice new skills and then provide positive reinforcement every time you notice the skill being used in natural environment (reward system)
- ▶ Use a simple visual reminder to encourage more socially acceptable behavior



How Can Executive Functioning Affect Learning?

- ▶ Not having the right materials to complete homework
- ▶ Completing homework but forgetting to turn it in
- ▶ Trouble initiating and completing tasks in a timely manner
- ▶ Difficulty generating ideas independently
- ▶ Difficulty retaining information
- ▶ Difficulty in communicating details (written or spoken) in an organized sequential manner
- ▶ Difficulty in planning, organizing and understanding the amount of time that is needed to complete a project



What Can Parents Do?

Metacognition and Mindfulness





What Can Parents Do?

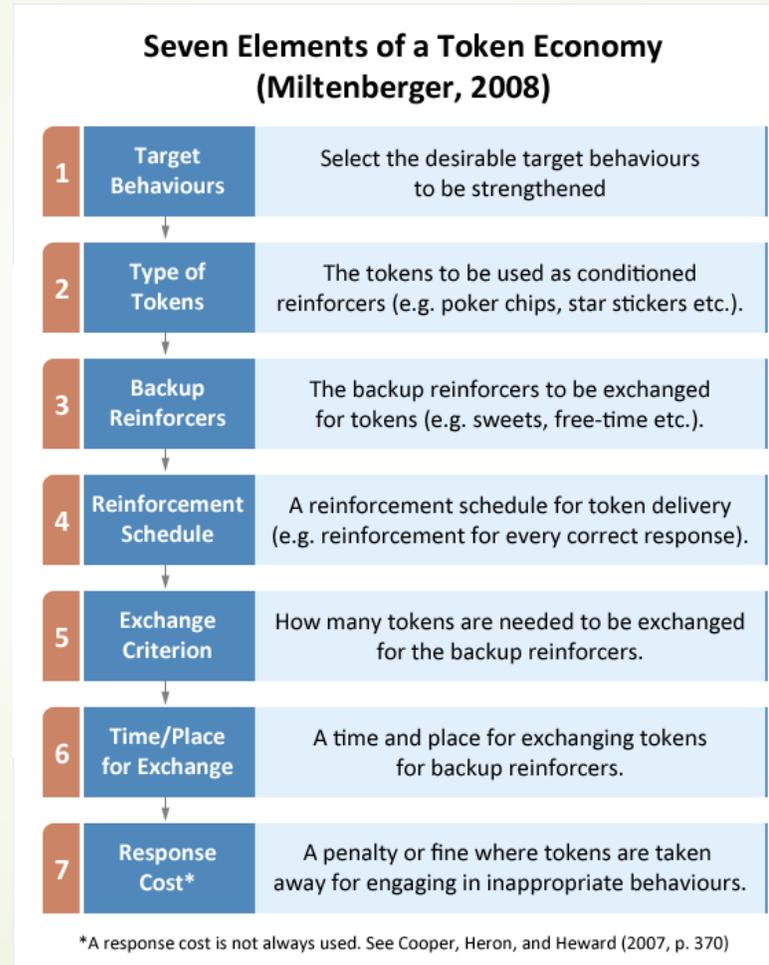
- ▶ Create structure around homework
- ▶ Break projects into steps and discuss what is involved with each step for better time management
- ▶ Demonstrate and model how you organize your time and tasks (i.e., calendars, planners, lists)
- ▶ Write down multi-step tasks
- ▶ Create incentive programs, behavior charts, token-economy systems
- ▶ Talk about topic of essay in depth before having child start writing
- ▶ Utilize graphic organizers (paper and/or electronic)
 - ▶ Inspiration map-visual learning map
 - ▶ RACE



What Can Parents Do?

- ▶ Scaffold skills to meet child's "zone" of being challenged but not frustrated
 - ▶ HOPS for Parents: Homework, Organization, and Planning Skills
 - ▶ Smart But Scattered; Smart But Scattered Teens by Peg Dawson and Richard Guare
 - ▶ Seeing My Time program
 - ▶ <https://youtu.be/DbzNVN3OO4>
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Token Economy



Sample Behavior Chart

I am working for

 Snack	 Swing	 Computer	 Puzzle	 Walk
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I am working for:



Questions??

It's exhausting
being the frontal
lobe for the entire
family.



someecards
user card



Website Resources

- ▶ Smart But Scattered Kids Website: <https://www.smartbutscatteredkids.com/>
- ▶ Center On Developing Child, Harvard University: <https://developingchild.harvard.edu/science/key-concepts/executive-function/>
- ▶ LD Online: www.ldonline.org
- ▶ Understood: www.understood.org



References

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- ▶ National Scientific Council, (2014) "[Excessive stress disrupts the development of brain architecture](https://doi.org/10.1108/JCS-01-2014-0006)", *Journal of Children's Services*, Vol. 9 Issue: 2, pp.143-153, <https://doi.org/10.1108/JCS-01-2014-0006>
- ▶ Understood (2019). *Understanding Executive Functioning Issues*. Retrieved from <https://www.understood.org/en/learning-thinking-differences/child-learning-disabilities/executive-functioning-issues/understanding-executive-functioning-issues>