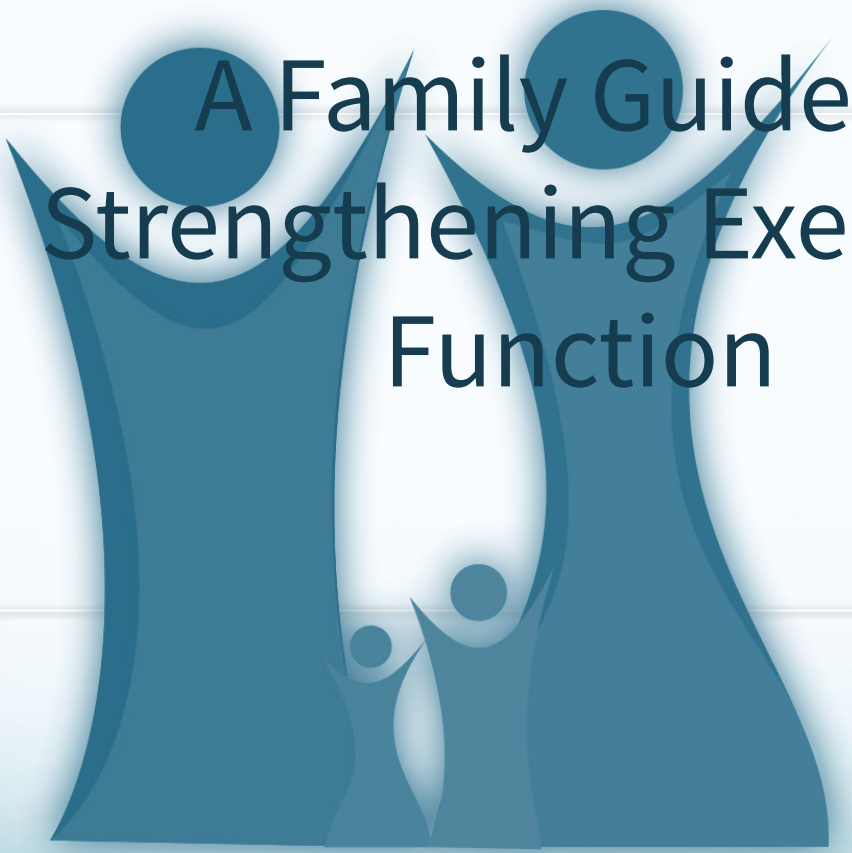
Executive Function: The Brain's Conductor

Mallory Hannaford & Andrew Pirie

A Family Guide to Strengthening Executive Function



Written by: Mallory Hannaford & Andrew Pirie

Your Presenters

- Mallory Hannaford earned her Masters of Arts in Teaching from Sacred Heart University in August of 2017. She is currently teaching 5th grade Reading at Oswegatchie. This is her 4th year in the district. She has over 17 years of teaching experience, PK-5th grade.

- Andrew Pirie is a Special Education Teacher at Oswegatchie Elementary, and holds a certification in Art Education. He currently works with 3rd and 5th grade students - many of which have executive functioning needs. He has over 14 years of teaching experience.

Format for the Evening

- 1) What do you know about Executive Function?
- 2) A brief definition of Executive Function, and how it affects student learning.
- 3) Presentation with testimonials from students, and interactive executive functioning activities (in groups)

What do you know about Executive Function?

What do you wish to know about Executive Function?

What is Executive Function?

- **Executive functioning skills** are those capacities that enable a person to engage in **successful, independent, purposeful** behavior.

- **Executive function can be broken down into 3 areas:**

WORKING MEMORY: the ability to remember and use relevant information while in the middle of an activity.

FLEXIBLE THINKING: the ability to think about something in a different way.

SELF CONTROL: To inhibit impulses in order to select a more appropriate behavior that is consistent with completing goals.

- **Executive function can affect student ability to:**

- Organize information, tasks, and thoughts
- Follow multi-step directions
- Complete assignments in a timely manner
- Prioritize tasks by importance
- Relate to others

Group Work

Simulation Activity

Using what you know about: Working Memory, Flexible Thinking and Self Control - listen to the student testimonial, and complete the activity, at your station.

DIRECTIONS:

Split up into 2 groups, and locate a Station.

Follow the directions at the station.

What Did You Notice?

Discuss with your group how each of the areas below was exhibited in your simulation:

Working Memory: The ability to remember and use relevant information while in the middle of an activity.

Flexible Thinking: The ability to think about something in a different way.

Self Control: To inhibit impulses in order to select a more appropriate behavior that is consistent with completing goals.

Here are some strategies to help improve: **working memory**, **flexible thinking** and **inhibitory control**

WORKING MEMORY

1. **Work on visualization skills -** Encourage kids to create a picture in their mind of what they've just read or heard, or even to recall how their day went at school. This eliminates the issue of responding with "nothing," when asked how their day was.

2. **Have your child teach you -** Being able to explain to someone else, how to do something involves making sense of information. In school students often work with partners to build on this skill. One way to do this at home is to have your child teach you a skill they worked on at school that day.

3. **Try games that use visual memory -** There are lots of games that help kids with their working memory, from the classic game Memory to Go Fish to Checkers...

FLEXIBLE THINKING

Switch it up - Try changing the rules to your favorite board games. Your child might fight this at first, but by making small changes, he will learn that he can bend. This applies to your daily routine as well. Feel free to make small changes to your day, or to teach your child to build awareness around if the intensity of their reaction matches the situation. A glass of spilled milk is not the same thing as a house fire.

Teach self-talk - Self-talk is a great way to work through a problem. Teach your child to take a few deep breaths, state how they're feeling about the problem, consider at least three solutions and choose one. You could model this as an adult.

Get a joke book - Rigid thinkers tend to struggle to understand jokes. They also have trouble making up their own jokes and puns. Joke books can be a great way to talk about the different meanings of words and think about how changing the meaning of a word makes it funny.

SELF CONTROL

Help identify feelings - Help your child identify what they are feeling, before they fester. As a team, you can work together to prevent outbursts. You can say something like:

“Boy, you were really mad when I said you couldn’t have a quarter for the gumball machine.”

“You seemed sad when your sister said you’re too little to play with her and her friends.”

Practice self-control - In everyday life, have your child stop and start different actions. For example, have your child freeze when you say “Potato!” These types of games teach kids to stop and think before acting—a self-control essential.

Praise their efforts - When you see your child practice self-control, acknowledge out loud.

“You were really patient when you had to wait for your turn!”

What did you learn?

References:

Bozeday, G., Gidaspow, J., & Allen, A. (2013). Executive Functions A Blueprint for Success Guide. Bellingham, WA: Premier Graphics.

Conyers, M., & Wilson, D. (2015). Smart moves: Powering up the brain with physical activity. *Phi Delta Kappan*, *96*(8), 38-42.

Dawson, P., & Guare, R. (2009). *Smart but scattered: The revolutionary "executive skills" approach to helping kids reach their potential*. New York: Guilford Press.

Drijbooms, E., Groen, M., & Verhoeven, L. (2015). The contribution of executive functions to narrative writing in fourth grade children. *Reading & Writing*, *28*(7), 989-1011. doi:10.1007/s11145-015-9558-z

Forgan, J. W., & Richey, M. A. (2015). The impulsive, disorganized child: solutions for parenting kids with executive functioning difficulties. Waco, TX: Prufrock Press Inc.

Less Structure, More Self-Direction (2014). *Educational Leadership*, *72*(2).

(n.d.). Retrieved April 29, 2017, from http://developingchild.harvard.edu/
(n.d.). Retrieved April 29, 2017, from http://images.google.com

Tomporowski, P. D., Davis, C. L., Miller, P. H., & Naglieri, J. A. (2008). Exercise and Children's Intelligence, Cognition, and Academic Achievement. *Educational Psychology Review*, *20*(2), 111-131.

www.understood.org