# Parent Coffee

Executive Function: What is it and why is it important to understand?

#### Purpose

To be able define what executive function is and describe the various aspects of Executive Function

Discuss various behaviors related to executive function

Discover how and why executive function is impacted through the Middle School years

Explore different approaches to supporting the development of executive function

#### Let's start here

"...There is a parallel between development of the brain and the development of the child's ability to act, think and feel."

#### **Executive Function**

High level cognitive skills that help us regulate our behavior and manage resources.

#### This works in two ways:

- 1. The capacity to select and achieve goals. To develop solution for problem.
- 2. Capacity for our behavior to work towards our outlined goals.

#### 1a. Time Management and Planning

Time Management is the capacity to know how much time is necessary to complete a task and how to allocate the time related to certain tasks.

Planning is the ability to develop a roadmap of steps to work toward a goal. It also involves being able to decide what is important to focus on and what is not.

#### 1b. Organization and Working Memory

Organization is the ability to design and maintain systems for keeping track of information and materials.

Working memory is the ability to hold information in the mind while performing complex tasks. This incorporates the ability to draw on past experience to apply to the situation at hand or future tasks

#### 2a. Response Inhibition and Emotion Control

The capacity to think before you act reflects one's response inhibition.

Emotion control is the ability to manage emotions in order to commit to working on or completing a task.

#### 2b. Sustained Attention and Flexibility

Sustained attention is the ability to attend to a situation or task regardless of distraction, fatigue or boredom

Flexibility is the ability to adapt one's plans given setbacks, mistakes or new information.

# Goal Directed Persistence (perseverance)

The capacity to complete task given the presence of challenges or competing interests.

#### -Metacognition-

Metacognition is one's ability to step back and look at themselves in a given situation to observe how they problem solve. This includes self-monitoring and self-evaluation.

"How am I doing?", "How did I do?", "What behaviors impacted my ability in this task?"

This is the skill that is most directly taught at AES.

# Why this is important?

Do you see dips in executive function in MSers?

• What specific areas have you observed fluctuations?

 Why would this be the case that a child would show evidence of a skill one year but not the next? "Addressing learning difficulties without looking at EF "...is akin to repairing a car's transmission but ignoring its faulty steering."

-MARCIA ECKERD, STEPHEN RUDIN

# Middle School Specific

- Structures of ES have been eliminated
  - a. Structure routines
  - b. Expectation aligned with group
- 2. Expectations are increased
  - a. Homework
  - b. Independence
- 3. Puberty

#### ...more on puberty

Increase in the development of grey matter in the frontal cortex during puberty.

Studies showed that a decrease in the neuron activity during executive function tasks *may* increase improvement of executive function.

"...more is not always better; sometimes too much communication can create confusion (just as too many chefs can spoil potentially good broth), and fewer synapses may be associated with more streamlined and more efficient communication among neurons."

-Philip David Zelazo

#### **Another Factor**

Motivation and Effort

### Troubleshooting perceived EF deficits\*

1. Identify the executive function/skill that your child is having difficulty with.

2. Approach a conversation that deals with the executive function rather that the task.

"I notice that you're having trouble getting started with cleaning your room. What do you think would be a way to start?"

# Troubleshooting perceived EF deficits\* (continued)

3. Make connections between different tasks where the same executive function seems to be compromised.

If they are having trouble being organized in one areas, chances are they're having trouble in another area.

- 4. Make sure that the *should* be able to do the task.
- 5. Metacognition Create a dialogue about what's working and what is not working.

#### Avoid...

...thinking that there is a direct correlation between executive function and IQ.

Lot's of geniuses struggle with EF.

...Focusing concerns on the curriculum.

...Thinking that your child should be able to do this.

"Your in 8th grade...how come you lose you homework??!!!"

#### Resources for you

**Executive Skills Questionnaire** 

Form 5.3 - Daily Homework Planner

Form 5.8 - Tools for Studying