

## ACADEMIC SUCCESS & EXECUTIVE FUNCTIONS – *Information for Parents*

Academic success in our 21<sup>st</sup> century schools is increasingly linked with children's and teen's mastery of a wide range of skills that rely on their use of executive function strategies. The crucial role of **executive function processes** begins in the preschool years and increases as students progress through middle and high school when they are expected to master complex skills that involve summarizing, note-taking and writing. Success depends on students' ability to plan, organize and prioritize tasks, materials, and information, separate main ideas from details, think flexibly, memorize content and monitor their progress. It is important to help children and teens to understand **how** they think and learn and to teach them to use strategies in five major executive function areas:

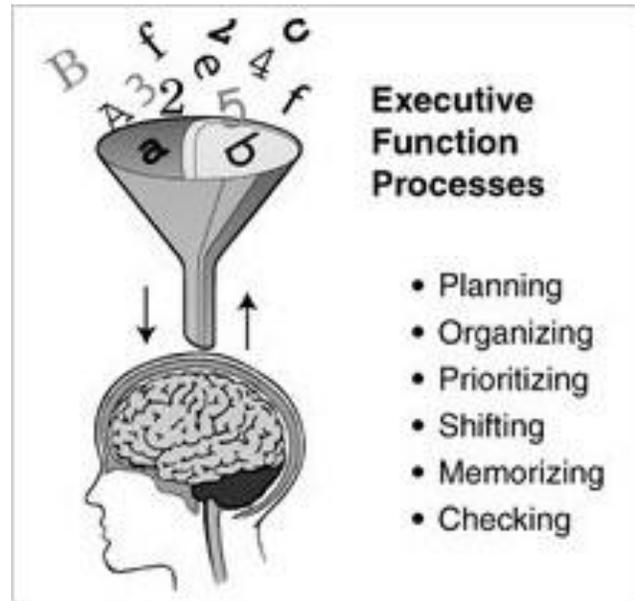
- Shifting / Thinking Flexibility
- Organizing
- Prioritizing
- Accessing Working Memory
- Self-checking / Self-monitoring

### The Impact of Executive Function Weaknesses on Academic Performance

*“When I have to write a paper, I try to write but I can't figure how to get my mind unstuck. I get so frustrated when I have written only a few sentences after an hour so I give up.”*

(John, 7<sup>th</sup> grade)

When students like John need to coordinate the skills required for tasks such as writing or completing long-term projects, they often become “stuck,” the information gets “clogged,” and they struggle to produce.



This model of a “clogged funnel” (Meltzer, 2007, 2010) best explains the challenges faced by students with executive function weaknesses who often:

- Struggle with open-ended tasks (e.g., organizing their calendars) because they are unable to prioritize and organize the various steps;
- Have difficulty shifting between different aspects of the task (e.g., switching from outlining to writing, from one academic subject to another, or from calculating a math fact to checking the answer);
- Over-focus on the details, ignoring the bigger picture;
- Struggle to take notes or to outline because they lose track of the main ideas;
- Have difficulty checking their work without structure or guidance;
- Forget to hand in completed work.

Students who cannot “unclog the funnel” may have difficulty showing what they know. Their grades often do not reflect their ability and, in spite of their effort, they may be labeled as “lazy” or “disinterested” or “lacking attention and focus.” As they enter middle and high school, where the demands for independence and efficiency increase along with skills in abstract reasoning and social problem solving, they often become frustrated, lose self-confidence, and, as a result, make less effort in school or choose to drop out.

### Executive Function Strategies: An Overview

*“My success is due to the strategies I learned and the confidence and self-understanding I gained after I used the strategies and got higher grades.”*

(Sarah, 11<sup>th</sup> grader)

## **ACADEMIC SUCCESS & EXECUTIVE FUNCTIONS – *Information for Parents***

Executive function strategies provide an important foundation for improving students' academic performance, confidence and effort. Students like Sarah who use strategies develop a deeper understanding of their unique strengths and weaknesses and begin to see improved grades. Encourage the youth or teen to use strategies and, in doing so, keep the following principles in mind:

- Do NOT assume that the youth already knows how to use a strategy.
- Children and teens need to learn **when** to use **which** strategies and in **what** contexts. Not all strategies work for everyone all the time.
- You know the youth! Help her or him to personalize the strategies that work best so that these techniques become more meaningful.

**Here are a few strategies to use as starting points.**

### **Goal setting**

- Help the youth to set attainable goals that are well-defined.
- Break goals down into smaller steps and talk about alternative approaches.

### **Shifting/Thinking Flexibly**

- Expose the youth to jokes, riddles and puns which are enjoyable ways of learning to shift between different meanings.
- Teach the youth to think flexibly when solving math problems by comparing their estimates with their answers to word problems or discussing a variety of approaches to a problem.

### **Organizing Ideas**

- Encourage the youth to use outlines, graphic organizers or webs to organize ideas for a large project.
- Encourage the youth to use two- or three-column notes when reading or studying.

### **Organizing Materials**

- Work with the youth to develop a system for organizing materials in folders, backpacks and lockers.
  - Make sure the youth has a designated place for completed assignments.
  - Encourage the youth to clean out his or her backpack once a week.
  - Provide space at home to file old tests and study guides that may be needed at a later date.

### **Prioritizing**

- Have the youth “divide and conquer” upcoming assignments and projects by planning to complete larger assignments in steps to avoid last-minute panics.

### **Accessing Working Memory**

- Encourage the youth to create his or her own silly sentences, acronyms or cartoons to remember information.
- Help the youth to create songs, stories and acronyms to remember the steps involved in completing and checking written papers and math problems.

### **Self-monitoring/Self-Checking**

- Children need to learn to check their schoolwork before turning it in. Help the youth to develop personalized checklists to correct his or her most common mistakes.