

# Executive Functions: An Introduction for Teachers

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Do you have a student who appears to be

- lazy
- unmotivated
- forgetful
- chronically late
- unable to hand in homework on time
- extremely disorganized
- frequently distracted
- needing constant redirection to stay on task

Students who show some or all of the above behaviors are often seen as “difficult” because it looks to others as if they are just not trying hard enough to stay on track. However, one of the most frequently overlooked reasons why students are having academic and behavioral problems is a problem in the brain, known as *executive function deficit*.

## What are Executive Functions?

The term *Executive Functions* refers to the cognitive processes required to plan and organize activities, make good decisions, keep track of time, monitor our own behavior, get started on tasks and follow-through on them, persist in goal-directed activities, pay attention, and control our impulses and emotions (they are called “executive” because the tasks are often the responsibilities of a company executive). Simply stated, executive skills help us to regulate our behavior in two ways: Using thinking skills to problem solve, and modifying our behavior.

Thinking Skills	Behavioral Skills
<ul style="list-style-type: none"><li>• <b>Planning</b> – planning the steps involved in reaching a goal, and deciding what’s important to focus on what’s not</li><li>• <b>Organization</b> – arranging things according to a system</li><li>• <b>Time Management</b> – estimating how much time one has, and how to stay within time limits and deadlines</li><li>• <b>Working Memory</b> – holding information in mind long enough to perform a task with it; this is related to one’s ability to pay attention, as well as the ability to learn from past experiences</li><li>• <b>Metacognition</b> – standing back and observing and evaluating one’s own thinking and problem solving skills (“How did I do?”)</li></ul>	<ul style="list-style-type: none"><li>• <b>Impulse Control</b> – thinking before acting, resisting the urge to say or do something and thinking about the consequences first</li><li>• <b>Emotional Control</b> – managing emotions in order to achieve goals</li><li>• <b>Initiation</b> – getting started on a task without excessive procrastination, and without pressure from others</li><li>• <b>Flexibility</b> – revising plans when obstacles come up, or when new information becomes available; adapting to changing conditions</li><li>• <b>Goal-directed Persistence</b> – following through on the completion of a goal and not getting distracted by competing interests</li></ul>

Executive functions develop gradually and in a clear progression throughout the first two decades of life. Children get progressively better at these skills as they get older. When children’s executive skills develop normally, they will eventually develop the ability to self-regulate their behavior and act responsibly, to get started on and complete chores and homework, and to delay immediate gratification in favor of longer-term goals.

Executive dysfunction is often seen in students who have a history of traumatic brain injury, Attention-Deficit/Hyperactivity Disorder, Autism Spectrum Disorder, and learning disabilities. However, it also occurs in students without any of these disorders.

### ***How Can Teachers Help Students With Executive Dysfunction?***

Students with executive function deficits have problems of a neurobiological nature that affect both their thinking style and their behavior. For example, when they have a project to complete, they will have difficulties picking a topic, planning the project, sequencing the steps involved in completing the project, breaking the project down into manageable steps, getting started and completing the project, as well as estimating how much time is needed to finish.

If you suspect executive dysfunction in a student, consult with your school psychologist. While there is currently no standard battery of tests for executive dysfunction, there are several behavioral rating scales that can be used to pinpoint the particular areas that are most problematic for the student so that appropriate interventions can be discussed. The good news is that students will become better at these skills if they have plenty of opportunities to practice, and are supported and encouraged along the way.

As a teacher, the most important thing you can do for a student with executive dysfunction is to ***keep in mind is that the student is not unmotivated or willfully engaging in problematic behavior.*** They really cannot organize and flexibly solve problems without appropriate supports. Some of the supports you can provide as a teacher include:

#### **Managing Time**

- Ask the student to estimate how long a task will take, and then check on the accuracy of that estimate
- Break long assignments into chunks with time frames for completing each chunk
- Establish immediate deadlines for big projects; ask the student to show you the completed parts of the project at these deadlines

#### **Managing Materials**

- Schedule a weekly time for the student to clean out their desk and book bag
- Have the student leave a large supply of pens etc. in the classroom
- Give the student two copies of each textbook, one labeled “To be left at school” and the other “To be left at home”
- Ask the student to make a written list of the daily routine at school (e.g., turn in homework at the beginning, get out paper/book/pen, check blackboard for assignments, have assignment book checked and initialed, etc.), then ask the student each day to go down the list and check off the tasks completed; encourage students to follow a very similar routine when they get home (e.g., have parents check assignment book, clean out backpack, check school supplies for next day, etc.)

#### **Managing Work**

- Provide checklists to guide students through an independent project; include “obvious” tasks such as “put name on paper” “put deadline on top of paper” and “read directions” etc.
- Brainstorm with the student about the best strategy to get started on a task; be sure to evaluate the strategy after a week to see how it worked; revise if necessary
- Focus more on quantity than quality; it’s more important at first for the student to get work done rather than getting it done correctly; praise the student for effort, not for getting the right answers

#### **Increasing Structure**

- Use a written (visual) daily schedule, as well as a visual calendar to keep the student focused and “on task”
- Give written directions whenever possible (e.g., hand the student an index card or dry erase board) rather than only auditory reminders
- Give fewer problems/questions on a worksheet (consider cutting worksheets in half and not giving out the other half until the first one is completed); create checkboxes next to each question so student can check it off as it is answered
- Use a visual timer (e.g., a kitchen timer or digital countdown timer) to help student understand time constraints

