

# EXECUTIVE FUNCTION

HOW THE BRAIN ORGANIZES AND IMPLEMENTS THE TASKS AT HAND...

## 3 Important Elements

### WORKING MEMORY

**Hold information mentally long enough to process and act on.**

Just as a conductor maintains various parts of a musical piece (tempo, rhythm, flow, and melody) to ensure a coherent performance, working memory is the brain system for maintaining and manipulating information in real-time. This ability to hold small bits of information at once, synthesize them, and act on them is critical for academic tasks, reasoning, and planning.

### ACTIVATION

**Ability to get started on a task.**

The conductor cues musicians when to start playing during a piece by pointing at them or making eye contact. Similarly, activation is the part of executive function that initiates focus in preparation to think or act. It's the necessary first step in playing a musical piece or in completing an academic task—such as starting a homework assignment, concentrating in class, or motivating to leave for class on time.

### INHIBITION

**Ability to monitor and regulate one's behaviors.**

The dynamics of a musical piece, such as the volume and timing of certain instruments, is directed by the conductor. Some instruments may stop playing for an entire section of a composition and the conductor may need to indicate to the players when this occurs. Inhibitory control is the brain process that forestalls impulses. It quiets parts of the brain when they're not needed. Inhibition is needed to ignore distractions, to stop from blurting out the first thing that comes to mind, and to resist what is immediately gratifying to achieve a later goal.

...MUCH LIKE

## THE CONDUCTOR

who guides the orchestra through the piece of music—setting tempo, cueing instruments, and controlling dynamics.



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UNDERSTANDING EXECUTIVE FUNCTION  
AND HOW STUDENTS LEARN.

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**Students of all learning styles will benefit from this easy to read and understand poster expounding on the importance of, and facts surrounding, executive function.**

- PLACE IT IN YOUR OFFICE
- HANG IT ON YOUR CLASSROOM WALLS
- USE IT AS PART OF YOUR TEACHING MATERIALS

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