

Executive Function for SLPs

What is executive function (EF)?

Executive function “enables individuals to plan, organize, and complete everyday tasks.”

—Blakemore and Choudhury (2006), as cited in Gilbert et al. (2025)

Executive function is “involved in flexible, goal-directed behavior.”

—Hackman et al. (2015), as cited in Gilbert et al. (2025)

3 core executive function (EF) skills

1. Inhibition
 - a. Response inhibition - behavioral self-control
 - b. Interference control - selective attention and cognitive inhibition
 - c. Ability to control one's own attention, behavior, thoughts, and emotions
2. Working memory
 - a. Monitoring and updating information
 - b. Temporary storage and manipulation of information for tasks like reasoning, learning, and language comprehension
3. Cognitive flexibility
 - a. Shifting perspective or mental set
 - b. Creative thinking
 - c. Adapting to changed circumstances

Sources: Diamond (2013); Gilbert et al. (2025); Miyake et al. (2000)

The 3 core EF skills support higher level EF skills

- In speech therapy, focus on the 3 core EF skills first. (Schwabish, in Baar, 2025)
- Then address higher level skills like planning, sequencing, organization, time management, problem solving, etc, when it makes sense to do so.

Common EF analogies may be misleading

Analogy like the following may help some learners but may be misleading for others:

- EF skills are like the CEO of the brain
- EF skills are like an air traffic control center

Lauren Schwabish (Baar, 2025) suggests that we move away from using analogies that suggest that EF supervises and directs other brain activities from a distance.

Instead, Lauren suggests we use analogies or metaphors that emphasize that **EF skills are active and involved** in everything we do. Here is Lauren's metaphor:

Cognition is a multi-story building

- The foundation of the building is **attention**. If there are cracks in attention, all the other floors will be shaky.
- The lobby is **processing**. Information from the world is walking in and stepping onto the elevator.
- Next floor is **memory**. Memory depends on the lower levels: attention and processing.
- Higher floors = **organization, problem solving, reasoning, etc.**
- Penthouse = **higher level EF skills**. They rely on all the other skills to function well.
- Elevator = **working memory**. Limited space, constantly moving. Picks up information and takes it to the level it needs to go to. Nothing lives in the elevator. Information goes in and comes out.
- Maintenance crew = **the 3 core EF skills**. They know every inch of the building and do what's necessary to make it work smoothly.

Lauren Schwabish (Baar, 2024; Baar, 2025)

Suggestion for how to talk about EF skills with patients

Lauren Schwabish (Baar, 2025) suggested that we talk about EF using language that may be more familiar to our patients:

- Self-awareness
- Self-monitoring
- Self-management

These concepts don't map 1:1 onto the core EF skills, but they describe how the core skills show up in people's lives.

References

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