School Psychology
Executive Functions

What are Executive Functions (EF)?

A set of related processes needed to manage oneself and one's resources to achieve a goal. Executive Function is an umbrella term for brain-based skills involving mental control and self-regulation that can be conceptualized into three categories: working memory, cognitive flexibility and impulse control.

EF develop with age and experience. All students have unique strengths and weaknesses - they may excel with some skills and struggle with others. As well, younger children or those with histories of trauma will require more support to develop EF.

Signs that students may be struggling with EF include difficulty starting or completing work, difficulty managing their emotions and behaviour, staying focused, or adapting to changes.

Working Memory:

Hold and use auditory and/or visual information in mind to complete a task.

Example: remembering and following 2-3 directions

Use multi-modal teaching techniques

(e.g., pairing visual, verbal, and tactile information)

Play memory games

(e.g., Memory Match, Bop It)

Teach external storage systems

(e.g., agenda, checklists, to-do lists, apps)

Repeat information and teach recall strategies

(e.g., mnemonics)

Cognitive Flexibility:

Adjust behavior to unexpected changes, think about things in a different way, and move freely from one situation to another.

Example: switching from free play to academic tasks

Activities that involve multiple-meaning words, word categories, and numbers puzzles

(e.g., Scattergories)

Identify unexpected events and model self-talk while approaching a task or situation

(e.g., That was unexpeted, but I have a few options...)

Use language to show flexibility

(e.g., stuck/unstuck; big deal/little deal; Plan B)

Present and use routines with visuals

(e.g., schedule)

Impulse Control:

Stop one's own behavior at the appropriate time, including actions or impulses. It is connected to self- and emotional regulation.

Example: waiting to speak until called on

Identify early signs of loss of control and plan for extra support in the moment (e.g., use a nonsense word to cue self-control)

Teach alternatives to undesirable behavior

(e.g., sticky notes to write something down rather than interrupting)

Offer cues and prompts to strengthen the "stop" function

(e.g., wristband reminder to raise hand to talk).

Offer movement and creative activities and teach calming techniques

(e.g., deep belly breathing, mindfulness)