HEARTS & MINDS

From TDSB Psychological Services to Your Family

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This Month We Are Highlighting

EXECUTIVE FUNCTIONING

Much like a conductor coordinates the musicians in an orchestra, the part of the brain right above your eyes (called the frontal lobe) is in charge of our *executive functions*, which are the thinking, reasoning, and decision-making abilities that control and regulate most of what we do every day. And just like how the conductor organizes the instruments to play well together, our executive functions are the mind's "conductor", helping us to make good, healthy decisions, and take appropriate actions.

PLANNING & PRIORITIZING
SET AND MEET GOALS

MOTIVATION
GETTING STARTED AND KEEPING AT IT

ORGANIZATION
KEEP TRACK OF THINGS PHYSICALLY AND MENTALLY

FLEXIBLE THINKING
ADJUST BEHAVIOUR TO UNEXPECTED CHANGES

IMPULSE CONTROL
PAUSE & THINK BEFORE ACTING

EMOTIONAL CONTROL
KEEP FEELINGS IN CHECK

SELF MONITORING
AWARENESS OF HOW YOU ARE DOING IN THE MOMENT

WORKING MEMORY
KEEPING IMPORTANT INFORMATION IN MIND WHILE USING IT

THE LEARNING SPACE

Executive Functioning and Mood Regulation

Dela Farzanfar, M.A.

"Think before you speak." "Pause before you act." Dealing with the activities of our daily life can become difficult when our ability to control our emotions, actions, and choices to engage in purposeful behaviour is impaired. These skills belong to a broad domain referred to as executive functions (or "EF" for short).

Traditionally, EFs are assessed using standardized psychological assessments that look at working memory (see the article below for more information on this topic) and attentional control (how we focus on what's important, and try to ignore or block out distractions). We call these abilities "cool EFs" because they help keep us focused on things like not getting distracted or completing our work.

There are also "hot EFs", which refers to the more emotional aspects of life; things like controlling or regulating our strong feelings, keeping ourselves calm when we're frustrated, and making healthy choices when we're upset. Research on the development of the different aspects of EF suggest that emotional aspects (the "hot EFs") are more indicative of behaviour in the real-world – things like self-regulation, risk-taking, and delaying immediate gratification for a larger reward in the future.
These are the kinds of challenges that often show up in social contexts (like recess, playing with our friends, or just being in class with other students).

SIGNS OF POSSIBLE PROBLEMS WITH EXECUTIVE FUNCTIONS:
- **DOES YOUR CHILD HAVE DIFFICULTY GETTING STARTED ON HOMEWORK?**
- **IS YOUR CHILD'S MOOD EASILY INFLUENCED BY THE SITUATION?**

When someone struggles with things like poor planning, organization, and getting started on something, we refer to this as ***executive function dysfunction*** (or "EFD" for short). We sometimes see these difficulties in children with ADHD, Autism, and Learning Disabilities.

It can be hard to capture the all the parts of executive functioning. Therefore, it is important for parents and caregivers to be aware of these abilities in their children, and to share their thoughts with school support teams in order to better help children who struggle in this domain. Check out the Resource Section for more on how to help kids with Executive Functioning.

EXECUTIVE FUNCTIONING: SPOTLIGHT ON WORKING MEMORY

David Schwartzbein, PhD., C.Psych

Working memory (WM) is a part of executive functioning that refers to the short-term ability to hold information in mind while mentally working on it. You use WM when keeping track of or attending to something, or when you have to keep a lot of ideas in mind while thinking, planning, or organizing. You don't need WM to calculate 2 + 2. You do need it to calculate 37 x 23. This information remains in short term memory for just seconds before it is pushed away by new information. In fact, you can ***only keep about 7 items in mind for about 7 seconds!*** This is the "747" rule. You can remember information longer, but only if you do something to keep that information in mind like repeating it over and over, writing it down, or making it part of a bigger idea.

SIGNS OF POSSIBLE WORKING MEMORY PROBLEMS:

- Trouble following directions or following step-by-step procedures
- Trouble keeping up with fast-paced presentations.
- Trouble multitasking
- Inattention or loss of focus
- Trouble with math (e.g., counting with fingers or needing manipulatives for basic computation)

HOW TO HELP WORKING MEMORY AT HOME:

- Use mnemonics such as BEDMAS, Roy G Biv (colour spectrum), and HOMES (names of Great Lakes)
- Play games that use WM skills like card games or Concentration
- Reducing demands on WM by using more visuals (e.g. checklists, visual schedules, etc).

READ MORE ABOUT WORKING MEMORY HERE

SELF REGULATION AND STRESS

Jennifer Kapler, M.A., C.Psych

Many of us have heard of the famous 'marshmallow test' first done in the 1960's in which children were left in a room with a marshmallow and told if they could wait to eat it, then they would be rewarded with more marshmallows later. This study in self control had powerful predictions for future adult success.

Science now tells us that a child's arousal state right before this task DIRECTLY impacts his or her response. In a nutshell, ***stress levels can affect our ability to use important executive functioning skills like self-control***. "If a child is in a depleted state, they are going to find it much harder to resist an impulse. The more stress, the greater the energy drain" (Shanker, 'Self-Reg" 2016).

Too often, we attribute a child's misbehaviour to a lack of self control or self regulation, when in reality, their system is overtaxed. Although they may know the correct behaviour, a combination of stressors may be acting upon their ability to use executive functions to regulate the behaviour. As parents and caregivers, we can act as 'stress detectives' to try to figure out the stressors that may be impacting our kids' ability to manage their behaviour. We can also examine the factors that impact our own ability to handle stress.

Learn more about how to become a stress detective!

Although the area of the brain that controls executive functioning is not fully developed until adulthood, it's never too early to start learning these skills!

Games are a great way to help young children build self-control.

Here are a few suggestions you can click on!

Simon Says
Memory Games
Freeze! Dance

RESOURCES

SMHO Executive Functioning resources
What is Executive Functioning
LD@School Self regulation

@TDSB_Psych

@TDSB_Psych

Virtual Drop-Ins!

Connect directly with staff from TDSB Professional Support Services. to explore ideas regarding your child or youth's mental health and well-being.
Tuesdays, 10 a.m. - 11 a.m.
Thursdays 7 p.m. - 8 p.m.