Opening the Door to Learning

Every child does the best they can with what they’ve got;
Your job is to figure out what they don’t got.

Anonymous
Objectives for Today

● Developing a deeper understanding of how executive functioning skills impact learning across subject areas and grade levels
● To offer practical strategies for embedding these skills in everyday learning and enhancing intellectual growth
Shifting Our Mindset

“All students want to feel successful”

- Shifting attitudes about how we see students
- Understanding the basics of brain development
- Assessing and explicitly teaching lagging skills
- Developing relationships that promote growth
- Planning with the whole child in mind
- Creating a culture of positive discipline
- Leading with empathy and understanding
What are Executive Functions?

- Brain-based pathways that are required for humans to **execute** or **perform** tasks; processes that direct our behaviour in getting things done
- A set of discrete skills necessary for learning in all forms
- “Conductor’ or ‘Air Traffic Controller’
- **Behavioural**, **Cognitive** and **Emotional**
Executive Function 3  Core Areas

- Inhibitory control
- Working memory
- Cognitive Flexibility
Foundational, Core and Higher Order Skills

Higher Order Executive Functions
- Reasoning, Problem Solving, Planning, Critical Thinking, Collaboration, Creativity, Communication

Core Executive Functions
- Working Memory, Inhibitory Control, Cognitive Flexibility

Foundational Cognitive Skills
- Attention (Sustained, selective, divided), Visual processing (Visual Discrimination, Visual Span, Visual Form Consistency, Visualization), Auditory processing, Sensory Integration (Processing Speed, Timing and Rhythm, Visual-Auditory Integration, Simultaneous and Sequential Processing), Memory (Immediate short-term, short-term and long term)
11 Sub-Skills of Executive Function

- Task Initiation
- Planning and Prioritizing
- Organization
- Time management
- Goal Directed Persistence
- Flexibility/Shifting focus
- Metacognition
- Sustained Attention
- Emotional Control
- Working Memory
- Response Inhibition
Executive Functions and the Developing Brain

Use It or Lose It
Neuroplasticity
Relationships are Key

Empathy = Effective Education

When we meet a student’s emotional needs, they are truly available for learning!
The Impact of Anxiety on Executive Control

Remember that a stressed brain is not a learning brain. It’s about calming the nervous system in order to access the part of the brain that is able to learn and to hold on to new information.

Ask; What can I do to help this student feel more secure and less stressed or anxious at school?

Having repeated success reduces anxiety and builds confidence. With the student, design opportunities for frequent and repeated success!
A Stressed Brain is not a Learning Brain

**Prefrontal Cortex** - Where higher order reasoning takes place - Uses information to plan, decide, compute, analyze and reason

**Amygdala** - Emotional center of the brain - When you feel safe the amygdala will pass on information to the PFC

**Hippocampus** - Creates stores and process facts and memories that are then passed on to the PFC
Amygdala Hijack

- Trigger
- Fight or Flight Solution
- Physical Response body & Mind
- Reduced Circulation and Blood Flow
- Brain Electrical and Chemical Response
- Acute Stress
CASEL Core Competencies

The current research about the future of education is centred around the importance of embedding social emotional skills. It’s a shift away from the focus of content to the teaching of soft skills.
MTSS Planning with the Split Screen
Strategy 1 - Connect Before You Direct

- Check-in in authentic ways each day
- Model empathy and compassion
- Listening and ask more
- Help to name and validate emotions
- Praise perseverance and celebrate each success
- Promote student voice and self-advocacy
- Design relevant and authentic learning experiences
- Connect new learning to prior experiences
- Great students warmly and make eye contact
- Help students to feel known and heard

SEEN
SAFE
SECURE
SOOTHED
"Connection before correction." This is critical because it allows your teen to get out of fight-or-flight mode and learn.

Shipp, Josh. The Grown-Up's Guide to Teenage Humans: How to Decode Their Behavior, Develop Unshakable Trust, and Raise a Respectable Adult
Strategy 2 - Build Self-Awareness and Self-Monitoring

ASK DON’T TELL!

Asking rather than telling builds meta-cognition and prefrontal reasoning ability!

- How do you learn best?
- How do you manage stress and anxiety?
- How can I support you as a learner?
- What works for you as a learner?
- Tell me how I can support you best?
- What do you need to do next?
- What do you need to put in your backpack?
Strategy 3 - Make Learning Visible and Accessible

Give students ways to organize their thinking by providing:

- Visual frames and images
- Graphic organizers
- Highlighters
- Technology tools
- Visual reminders
- Organizational tools

Have options available for all. This supports flexible thinking.
Strategy 4 - Stop Think Go - Self-regulate

Students now live in an age on instant gratification. They are continually rewarded instantly and EF skills are delayed as a result. Teaching them to stop and think about their surroundings and the outcome of their actions can be a very powerful tool for building the ability to control impulses and self regulate.
Strategy 5 - Teach Skills Explicitly - Embed them

These skills can not be taught in isolation. As you plan embed the CASEL competencies. Think not only about the what, but also the who and the how!

**Don’t assume students know how to do certain things!**

**Task initiation** feels impossible for students with EF difficulties. This is often driven by anxiety or fear. Helping them get started and then slowly backing away builds confidence over time. It’s like scaffolding for independence. Many students need co-regulation!
Self Regulation
Tools for Assessing and Targeting EF skills

- Student interviews and self reports
- Asking about the learning history
- Collecting student work samples
- Documenting patterns of behavior
- Recognizing repetitive mistakes
- Phrasing things in a non-judgemental way
- Observation of time on task
- Noticing what is calming and what is not
Assess Yourself

Now that you know what the Executive Functions are....

**Step 1**- Read each item on the questionnaire and then rate it based on the extent to which you agree or disagree with how well it describes you. Use the scale provided.

**Step 2**- Add the 3 scores in each section. Use the key at the end of questionnaire to determine your executive Skills strengths and weaknesses.
What did you learn about yourself?

**Step 3** - Answer the following questions about your results

Look at your **strengths** (your **three highest** scores). How do you use them on the job? Are they skills that your job requires you to use frequently? Do they impact how you manage your home or tasks outside of work?

Look at your **weaknesses** (your **three lowest** scores). Do these make some aspects of your work challenging? Have you figured out coping strategies to compensate for those weaknesses? Are there strategies you think might help you improve those skills?
Empathy

“When you provide a secure and caring interpersonal context, you enhance the development of intrinsic motivation.”