Executive Functioning, Emotional Intelligence and Empathy: Are the 3 Es More Important Than the 3 Rs for Today's Students?

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## **Post-Pandemic Musings**



- What got in the way of student success during the pandemic?
- What do we know about learning and the brain that we can incorporate more systemically into our practice?
- Are there skill deficits that are frequently identified in referrals for intervention or special education that could be taught as "core" curriculum?



"The brain needs to be emotionally stable to function at its best because emotions such as fear and stress impair learning"

Neuroleadership and Conceptual Approaches in Educational Neuroscience, Queensland Australia

# Is the Deficit Really Academic or Behavioral?

- What about trauma, neurological differences, HOW a child learns?
- What does research tell us about the cognitive and emotional barriers to academic achievement?
- Do our interventions match the needs?

# **Executive Functioning**



 Executive function (EF) skills are the attentionregulation skills that make it possible to sustain attention, keep goals and information in mind, refrain from responding immediately, resist distraction, tolerate frustration, consider the consequences of different behaviors, reflect on past experiences, and plan for the future (Zelazo, P.D., Blair, C.B., and Willoughby, M.T., 2016)

#### **Executive Functioning**

- Neurocognitive Skills
- Prefrontal Cortex
- Typically Measured by Three Types of Brain Function
  - Cognitive Flexibility--sustain or shift attention in response to different demands or to apply different rules in different settings.
  - Working Memory—retain and manipulate distinct pieces of information over short periods of time
  - Self Control--set priorities and resist impulsive actions or responses.
- Rapid development in the preschool years and transition to adolescence (sensitive periods)

## What the Research Says

- Research on EF has established clearly that individual differences in EF are related to school readiness and academic achievement and also predict other important outcomes, including long-term physical and mental health.
- Children with better EF skills are less likely to display disruptive behavior, and difficulties with EF are associated with learning difficulties and disabilities, as well as a wide range of other conditions, from attention deficit hyperactivity disorder (ADHD) to mathematics anxiety.
- A growing body of intervention studies has established that the acquisition of EF skills can be enhanced through repeated practice in the process of reflecting upon and using specific EF skills.

#### **Teaching EF Skills**



- Limited research to date
- Better outcomes with younger children (Pre-K-Grade
  1)
- A growing body of intervention studies has established that the acquisition of EF skills can be enhanced through repeated practice in the process of reflecting upon and using specific EF skills
- Reflection training: teaching students to pause and reflect



#### EMOTIONAL INTELLIGENCE

The World Economic Forum has ranked Emotional Intelligence as one of the top 10 skills needed for the fourth industrial revolution in 2020 and beyond.

The Institute for Health and Human Potential's research indicates that Emotional Intelligence skills now account for 85 to 90 percent of what is required for exceptional performance and leadership

#### What is Emotional Intelligence?



- Emotional intelligence (EQ) is the ability to understand and recognize one's own emotions and those of others.
- Five Traits:
  - Self awareness
  - Self-regulation
  - Social skills
  - Motivation
  - Empathy



#### **EQ Meta-analysis**



 Students with higher emotional intelligence tended to get higher grades and better achievement test scores than those with lower emotional intelligence scores. This finding held true even when controlling for intelligence and personality factors. (MacCann, et al, 2019).



"It's not enough to be smart and hardworking. Students must also be able to understand and manage their emotions to succeed at school." Carol MacCann, PhD

#### What are the benefits of strengthening EQ?



- When educators devote resources to the direct and explicit instruction of social and emotional skills, schools not only become safer, but academic achievement improves. (Massari, 2011)
- When schools recognize that emotions drive much of how and what we learn, students and educators flourish. (Brackett, 2018)

## **Empathy**



- Empathy is the ability to understand, share and value the feelings of another.
  - Affective Empathy--shared emotional response
  - Cognitive Empathy--perspective taking
- The ability to connect empathically with others—to feel with them, to care about their well-being, and to act with compassion—is critical to our lives, helping us to get along, work more effectively, and thrive as a society.

#### Can Empathy Be Learned?



 Children are born with the capacity for empathy, but it needs to be nurtured throughout their lives. Learning empathy is in certain respects like learning a language or a sport. It requires practice and guidance.

Empathy Video

## **Long Term Benefits**



 A longitudinal study following more than 1,000 children found that early self-control predicted a range of long-term outcomes, including better physical health and personal finances, and lower substance dependence and criminal activity. (Moffitt et al., 2011)

#### Conclusions



- Cognitive and social-emotional competencies can be taught and developed throughout childhood, adolescence, and beyond.
- Efforts to support the development of these skills deserve much greater attention in the design of education programs.
- Teachers would be better equipped to understand and address behavioral and learning challenges in their classrooms if they had professional training in the development of executive function skills and EQ.
- Learning about emotions and how to manage them can lead to less problem behavior, high academic achievement, and increased health and wellbeing



#### Where do we go from here?

If these skills are paramount to optimal academic achievement, are we responsible for teaching them?

How might this change prereferral interventions or what we teach in special education?