Social Justice One Brain at a Time!

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Goodbye Neuromyths!

Knowing some information about the brain was found to be the biggest predictor of teacher belief in neuromyths.

Equitable Access

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Today I will...

• Understand the term executive function.

• Examine the relationship between poverty, trauma, and executive dysfunction.

• Identify actions I can take to support and develop students’ executive function skills.
Pre-Loading ... 

- Open your Sched to this session.
- Find and open the attached Word Document.
- Have it ready to use later.
# Universal Design for Learning Guidelines

**Provide Multiple Means of Engagement**  
*Purposeful, motivated learners*

- Provide options for self-regulation
  - Promote expectations and beliefs that optimize motivation
  - Facilitate personal coping skills and strategies
  - Develop self-assessment and reflection

- Provide options for sustaining effort and persistence
  - Heighten salience of goals and objectives
  - Vary demands and resources to optimize challenge
  - Foster collaboration and community
  - Increase mastery-oriented feedback

- Provide options for recruiting interest
  - Optimize individual choice and autonomy
  - Optimize relevance, value, and authenticity
  - Minimize threats and distractions

**Provide Multiple Means of Representation**  
*Resourceful, knowledgeable learners*

- Provide options for comprehension
  - Activate or supply background knowledge
  - Highlight patterns, critical features, big ideas, and relationships
  - Guide information processing, visualization, and manipulation
  - Maximize transfer and generalization

- Provide options for language, mathematical expressions, and symbols
  - Clarify vocabulary and symbols
  - Clarify syntax and structure
  - Support decoding of text, mathematical notation, and symbols
  - Promote understanding across languages
  - Illustrate through multiple media

**Provide Multiple Means of Action & Expression**  
*Strategic, goal-directed learners*

- Provide options for executive functions
  - Guide appropriate goal-setting
  - Support planning and strategy development
  - Enhance capacity for monitoring progress

- Provide options for expression and communication
  - Use multiple media for communication
  - Use multiple tools for construction and composition
  - Build fluencies with graduated levels of support for practice and performance

- Provide options for physical action
  - Vary the methods for response and navigation
  - Optimize access to tools and assistive technologies
What are Executive Functions?

“Executive functions are a family of control functions needed when you have to concentrate and think, when acting on your initial impulse might be ill-advised.” – Adele Diamond (2012)
Executive function skills develop over time...

Flexible Thinking

Working Memory

Inhibition Control

Goal Setting

Planning

Strategy

Self-Monitoring

Diamond, 2013
Mahone & Denckla, 2017
Carey & Jacobson, 2016
Lambright & Reid, 2016
Why should we care about executive function?

Executive function is a **bigger predictor** of academic and social outcomes than entering academic skills.

Executive functioning can be **influenced by the environment**.

*Photo Credit: Harvard Center on the Developing Child*
Where does executive function come from?


Low socio-economic status has been repeatedly linked to poor executive function skills.

(Noble, McCandliss, & Farah, 2007)
Photo Credit: Understood.org
Why? Toxic Stress

- Food insecurity
- Housing insecurity
- Household or neighborhood violence
- Unsafe / chaotic school
- Caregivers who have also experienced trauma

Luckily, experiences help shape the brain, and teachers shape experiences!
What Can We Do?

• Form small groups (3-4 is ideal, make sure at least one member has access to the internet).

• Each group will be given a group number.

• Use the word document to access the google doc for your group.

• Explore the materials on the google doc.

• Be prepared to report back to the whole group.
Group 3: How are kids living in poverty or with Trauma impacted by EF supports?
Group 1: What works to build EF?
Group 3: What practices ensure EF is developed?
@AllisonAposey your #UDLIRN16 talk w/the mood meter gave me an idea for redoing color behavior charts!
In, out...
CHANGE YOUR WORDS,
I'm just not good at this!
I can't make this any better.
I give up!
I'm never going to get this.
I'll never be as smart.
This is too hard!

CHANGE YOUR MINDSET!
I can always improve. I'll keep trying!
What am I missing?
I'll use some of the strategies I learned!
This may take some time and effort.
I'm on the right track!
I need to figure out what I did wrong and get some help!

FIXED
GROWTH
Questions?

Talk Nerdy To Me!

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References


