

Neurodivergence and Executive Functioning

with Special Education Teachers Cory Coleman and Hing Li

- 1) How can we support Executive Functioning and Positive Habit Formation in Neurodivergent and Intellectually gifted teens?
- 2) How can we make sure that the systems they are developing can remain relevant at university and beyond?
- 3) Q and A

Special Education Teachers

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- 12 years of experience as Special Education Teacher (Maspeth Academy and Robert F. Wagner Middle School)
- Specializing in 2E Education;

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- Dual-certification in Social Studies 7-12 and Special Education;
- January 2020 in the Social Studies Department and assisted with technology integrations during remote learning.

Working Definition of Executive Functioning

1 | Understanding what it is and what it isn't

The three areas of executive function are working memory, flexible thinking, and inhibitory control.

2 | Three Areas

Working memory
Flexible Thinking
Inhibition Control

3 | How do we think about our teenagers thinking?

Intellectual gifted
Neurodivergent
Destabilized self-conception
How can we guide them in their thinking about themselves?

Three Areas

1 | Working Memory

Working memory is **the small amount of information that can be held in mind and used in the execution of cognitive tasks**, in contrast with long-term memory, the vast amount of information saved in one's life. Working memory is one of the most widely misused terms in psychology.

2 | Flexible Thinking or Cognitive Flexibility

It uses two skills – flexible thinking and set shifting.

Flexible thinking is the ability to cognitively think about something in a different way. One's ability to have a problem and come up with multiple solutions, then look at those different solutions and select the best response.

Set-shifting, or task shifting, is just what it sounds like: it's the ability to unconsciously or consciously shift attention between one task and another, and involves executive function.

3 | Inhibition Control

What is meant by inhibitory control?

Inhibitory control describes **the suppression of goal-irrelevant stimuli and behavioral responses**. Current developmental taxonomies distinguish between Response Inhibition – the ability to suppress a prepotent motor response, and Attentional Inhibition – the ability to resist interference from distracting stimuli

How do we support Working Memory?

Working memory is **the small amount of information that can be held in mind and used in the execution of cognitive tasks**, in contrast with long-term memory, the vast amount of information saved in one's life. Working memory is one of the most widely misused terms in psychology.

“Kids often truly believe that they’ll remember information later on, so they don’t write it down,” says [Matthew Cruger](#), PhD, senior director of the Learning and Development Center at the Child Mind Institute.

Break big chunks of information into small, bite-sized pieces, create and use checklists for tasks with multiple steps, develop routines, practice working memory skills (like actually physically do it...like a sport), experiment with various ways of remembering information, *reduce multitasking*,

Begin a mindfulness practice! I know we sound like every neurodivergence podcast right now but with good reason!

How do we support Flexible Thinking?

We encourage families to make unpredictability a regular *positive* part of your teen's life.

Before doing anything, check in to make sure you understand your teen's Zone of Proximal Development when it comes to flexibility. This is actually the most important step and should be checked very often. We want to make sure that our teens regularly experiences being flexible and adapting in a joyful way. Build-in flexibility as surprises like a trip to the mall, a favorite meal or snack, having a friend over, so they don't always associate having to be flexible as negative or aversive. Mindfulness practice has also been demonstrated to be helpful, especially before an event or time that demands flexibility.

Expect irritation!

This is more important than it has ever been post-pandemic.

How do we support Inhibition Control in teenagers?

The eternal question!

Assume that in the presence of peers your teen will have reduced impulse control.

Expect your teen to choose fun activities over challenging or non pleasurable ones. Have a routine way to check to see if school projects, chores, etc. are being done.

You will likely need to discuss ways to control or eliminate distractions regularly...so often...we live in a perpetually distracting society and it is only getting worse.

To help your teen delay gratification, use a waiting period for things they want to do or have. Helping your teen identify things they want and a path to earning that thing is teaching delayed gratification and response inhibition. Prepare your teen for situations that require impulse control by regularly reviewing the rules in advance.

Spend time in nature or low artificial stimulation environments (nature) and practice, you guessed it, mindfulness.

Discussion and Q&A
