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Thermometer vs. Thermostat:

Powerful Strategies to Manage Executive Dysfunction & Emotional Dysregulation in School-Aged Children

November 23, 2019



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Subscribe to my Podcast!

www.fullprefrontal.com



A Podcast About
Exposing the Mysteries of
Executive Function
with
Sucheta Kamath



Sucheta Kamath

Introduction to the
Full PreFrontal Podcast

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PART 1:

Executive Function and Emotional Regulation in K-12 Children

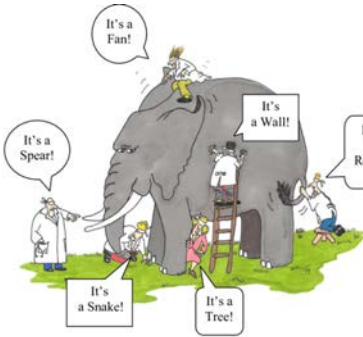
November 23, 2019



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Defining Executive Function

- Do we know what Executive Function is?
- More importantly, do we all agree?



A cartoon illustration of the parable of the blind men and an elephant. An elephant is standing in the center, with several people touching different parts of its body and making conclusions based on their limited perspective. Speech bubbles from the people include: 'It's a Fan!' (touching the ear), 'It's a Wall!' (touching the side), 'It's a Rope' (touching the leg), 'It's a Tree!' (touching the leg from below), 'It's a Snake!' (touching the tusk), and 'It's a Tree!' (touching the leg from below). A person is also standing on the elephant's back, saying 'It's a Fan!'. The cartoon is signed '© 2019 Sucheta Karanth, MA, CCC-SLP & EdQ' in the bottom left corner.

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Image Credit: <https://www.shutterstock.com/image-vector/elephant-parable-blind-men>

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Executive Function is defined as a set of abilities involved in the regulation of thoughts, emotions, and behaviors

– Adele Diamond (2013)



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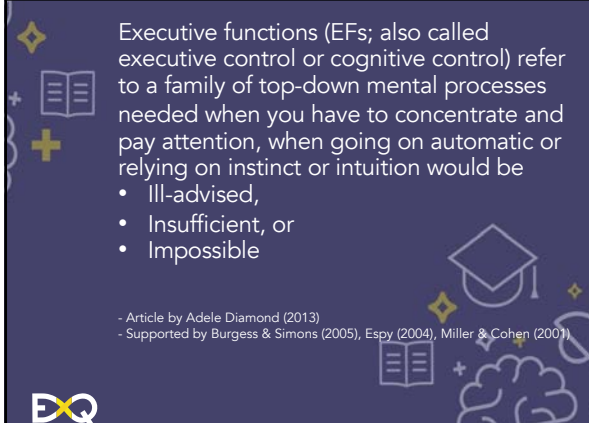
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Executive functions (EFs; also called executive control or cognitive control) refer to a family of top-down mental processes needed when you have to concentrate and pay attention, when going on automatic or relying on instinct or intuition would be

- Ill-advised,
- Insufficient, or
- Impossible

– Article by Adele Diamond (2013)
– Supported by Burgess & Simons (2005), Espy (2004), Miller & Cohen (2001)



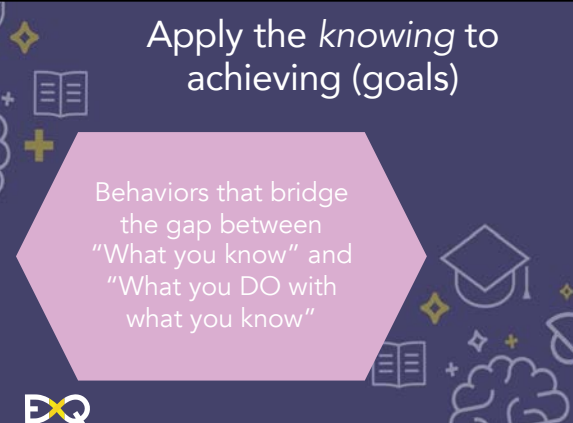
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Apply the *knowing* to achieving (goals)

Behaviors that bridge the gap between “What you know” and “What you DO with what you know”




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Executive Function vs. Self-Regulation



According to Clancy Blair (2016), self-regulation includes both top-down AND bottom-up processes whereas Executive Function includes only top-down regulatory processes

Blair, Clancy (2016): The development of executive functions and self-regulation: Third Edition: A bidirectional psychological model. In: Voita, Kathleen / Baumeister, Baumeister (eds.): Handbook of self-regulation: Research, theory, and applications, Guilford Press: New York, 417-439.

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Lifelong implications of strong EF



- School-readiness
- Academic success
- Physical health
- Mental health
- Marital harmony
- Job success
- Public safety
- Quality of life

Crescioni et al. 2011, Miller et al. 2011, Riggs et al. 2010

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EF is Essential for Shared Success




Learning
Reflection
Application

**C
E
N
T
R
A
L**


Caring
Morality
Contentment

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2 REGULATORY SYSTEMS




System 1:
The Thermometer

- Rises or falls
- Has no "controller"
- Displays effects of the outer conditions

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2 REGULATORY SYSTEMS




System 2:
The Thermostat

- Can rise and fall
- Has a "controller"
- Displays the result of controlled conditions

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Cornellis Drebbel



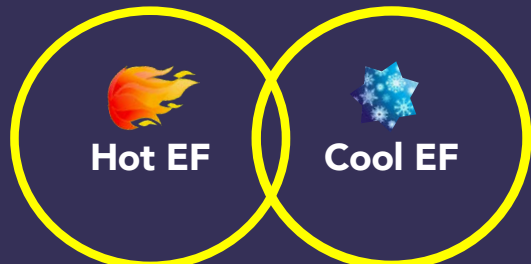
Dutch inventor (1572-1633)

- He invented mercury thermostat (for a chicken incubator)
- A "Feedback-controller" device

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Hot & Cool EF Distinction



Hot EF

Cool EF

Zelazo/Mueller (2002 & 2011)

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COOL EF



Applying self-regulation and Executive Function to

- Low-stakes situations
- No roadblocks in accomplishing the goals and
- No conflict between the self and the other

Research by Phil Zelazo & Stephanie Carlson

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HOT EF



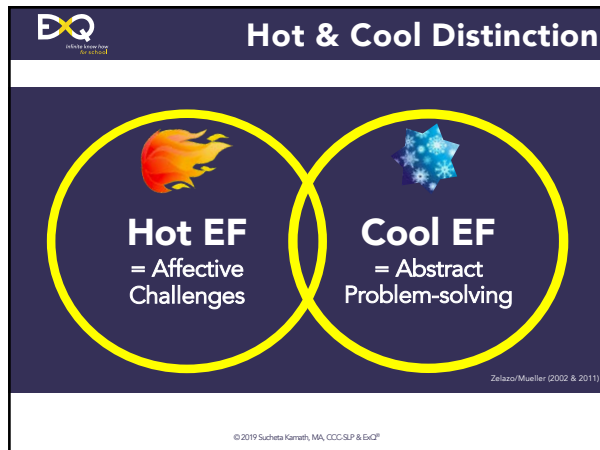
Applying self-regulation and Executive Function to

- High-stakes situations
- Multiple roadblocks in accomplishing the goals and
- Anticipated or ongoing conflict between the self and the other

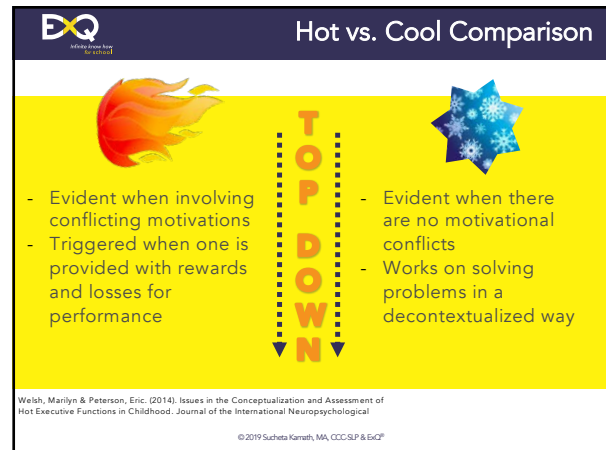
Research by Phil Zelazo & Stephanie Carlson

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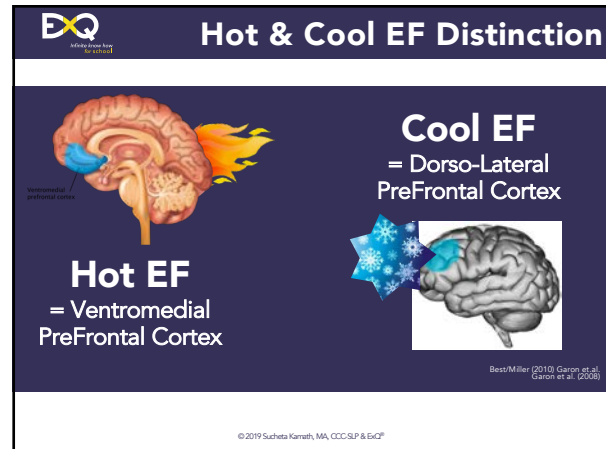
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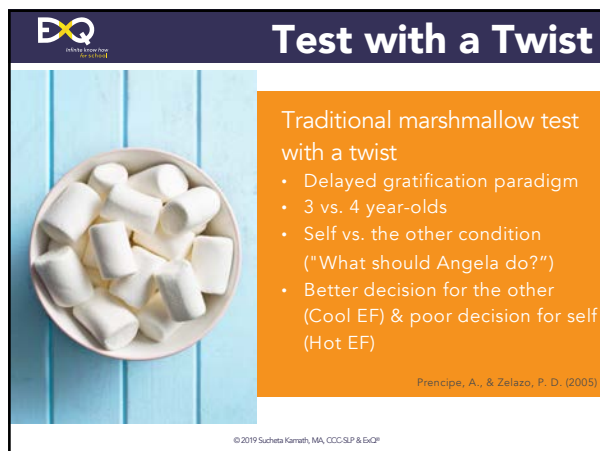
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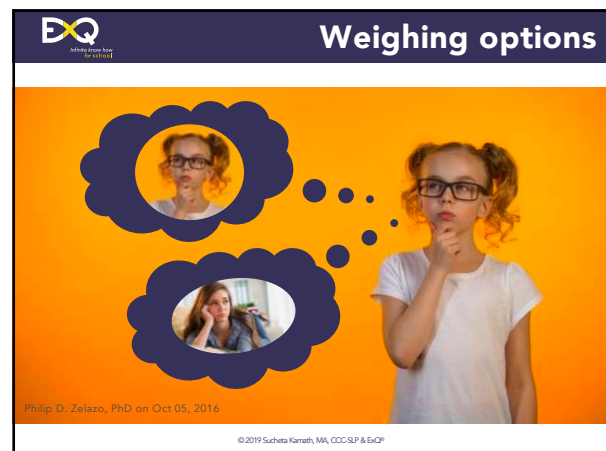
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Dysregulated Self

what are other words for uncontrolled?



unrestrained, unbridled, wild, rampant, undisciplined, uncontrollable, unchecked, runaway, uninhibited

Social emotional challenges arise from dysregulated top-down or bottom-up system:


- Lack of patience
- Easily frustrated
- Fails to take a perspective
- Solutions are limited
- Quick to anger
- Often leads to socially charged behaviors and inappropriate interpersonal interactions
- Takes way too long to cool off
- Hold grudges and
- Often draw erroneous conclusions
- Difficult to work with
- Less of a collaborator or a coordinator

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Mental Disorders & EF



EFs are impaired in many mental disorders, including:

- Addictions (Baler & Volkow 2006)
- Attention deficit hyperactivity (ADHD) (Diamond 2005, Lui & Tannock 2007)
- Conduct disorder (Fairchild et al. 2009)
- Depression (Taylor-Tavares et al. 2007)
- Obsessive compulsive disorder (OCD) (Penades et al. 2007)
- Schizophrenia (Barch 2005)

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PART 2:

Social Emotional Learning & RESILIENCE

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Social-Emotional Learning

5-Part Competencies

- Self-awareness
- Self-management
- Social-awareness
- Relationship skills and
- Responsible decision making



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The Brain & Emotions

"Brain is dynamic, plastic, experience-dependent, social and affective organ."

- Mary Helen Immordino Yang (2016)



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The Concept of Skilled Intuition

The way emotions guide and steer cognition

- Emotions help in calling up information that is relevant and pertinent to the current context in which learning is occurring



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The Brain & Emotions

Brain is an experience-making machine and emotions result from our anticipation of the next thing.

- Lisa Feldman Barrett (2019)



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Bouncing back

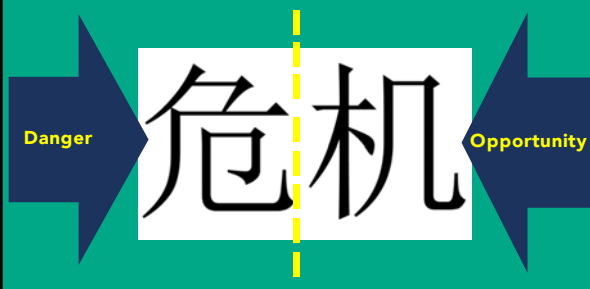


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Using emotions to bounce back



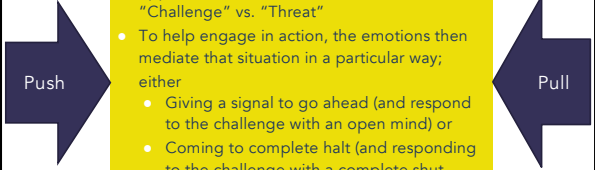
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The Concept of Skilled Intuition

- When the learner faces a problem, two opposing forces arise as a sense of "Challenge" vs. "Threat"
- To help engage in action, the emotions then mediate that situation in a particular way; either:
 - Giving a signal to go ahead (and respond to the challenge with an open mind) or
 - Coming to complete halt (and responding to the challenge with a complete shut down)




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The Role Emotions Play

- Emotions are driving the search for memory
- Thinking and feeling works in tandem to solve problems
- We are using emotions to steer and guide memory, procedures and semantic knowledge that are essential



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PART 3: INTERVENTION


M-E-T-A™ Training Approach

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Building the Controller

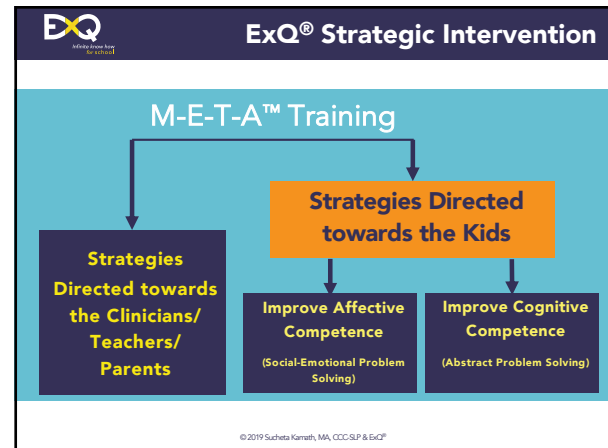


Because a healthy prefrontal system acts more like a thermostat rather than a thermometer, EF & emotional regulation therapy should focus on

- Assessing and reappraising emotions
- Effectively readjusting communication, behaviors and actions; AND
- Redirecting responses to produce contextually appropriate and favorable outcomes for self

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M-E-T-A™

Mindful Examination of Thinking & Awareness



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PART #1

Strategies For Clinicians

Clinician's work on changing their OWN skills

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1. Complete Support & Acceptance



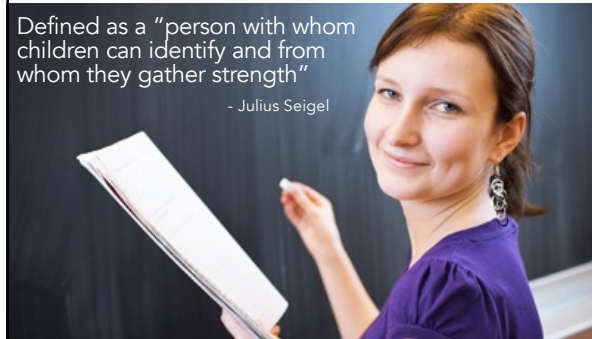
Unconditional Positive Regard:
"It means caring for the client, but not in a possessive way or in such a way as simply to satisfy the therapist's own needs,"

- Carl Rogers
Journal of Consulting Psychology (1957)

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Charismatic Adult



Defined as a "person with whom children can identify and from whom they gather strength"


- Julius Seigel

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Assuring an anxious child


- A charismatic adult offers safety, security, and unconditional acceptance
- This contributes to child feeling assured
- This has been proven to be the most critical element of success within school



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Strategies: Ways To Be Mindful



1. Make a list of your qualities that makes you the person with whom children can identify and from whom they gather strength
2. Develop a personal statement of intent
3. Take a breather between clients

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2. Non-judgmental Stance



"Here if you need me" approach


- Reduce judgement and normalize difficulties to reduce defensiveness
- Share similar experiences of others
- Ask clients to rate your interactions with them

Resource: Margaret Sobley, Ph.D.

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Strategies: Ways to be Equanimous



Done by: _____ Date: _____

Report card for Sucheta
(5 = the best and 1 = Sucheta needs to do better)

5	4	3	2	1	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	How kind was I to you?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	How patient was I with you?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	How helpful was I to you?

1. Gather a report from your clients
2. Reflect on your scores & strategize for the next session
3. For younger clients, YOU fill out the report yourself

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3. Client-Centric Support



- Explore difficulties with the client from their worldview
- Allow client to define their own difficulties
- Share list of common difficulties and allow client to identify relevant problems
- Can share experiences of similar others
- Use client language when discussing problems

Margaret Sobley, Ph.D.

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Let the solutions emerge from the child!



Adrian Diamond, Ph.D.

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PART #2

Strategies For Kids

A. Work on changing client's Affective Competence

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Befriend Your Dragon

Fire-breathing, overbearing, and internal limbic system = The Dragon



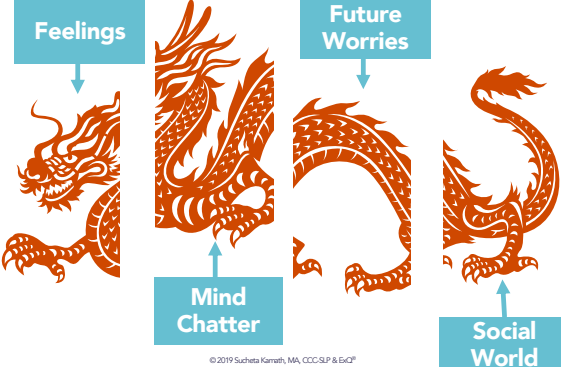
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Befriend Your Dragon




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Strategies: For Feelings




Help identify and regulate prosocial-emotions

- Dysregulated emotions
 - Annoyed
 - Frustrated
 - Mad
- Pro-social positive emotions
 - Calm
 - Reflective


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Some examples



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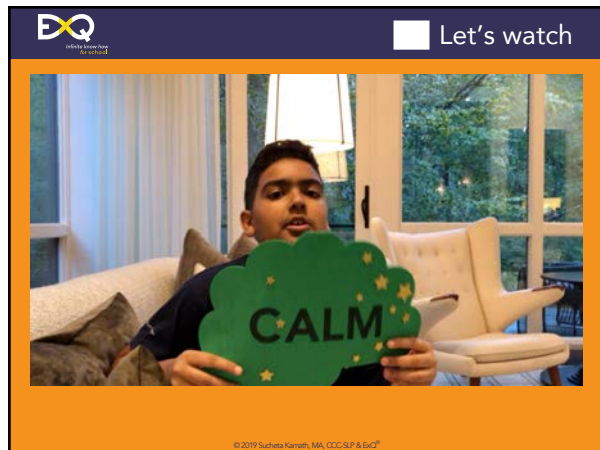
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Let's watch

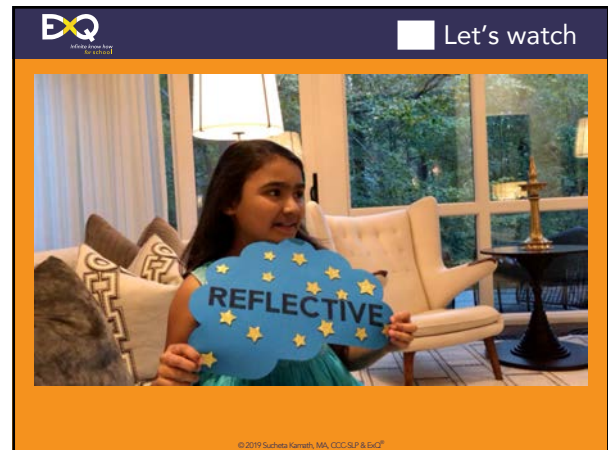


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 **Strategies: Eliminate Mind Chatter**




Guided Self-Reflection

- What am I doing?
- Why am I doing it?
- How does this matter?

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 **Strategies: Manage the Future**

Utilizing commitment devices to strengthen the relationship with the "Future-self"


- Letter or a video message to the future-self
- Thank you note from the future-self

Future Worries




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 **Example**

Letter to Future Self
Dear present self,
Hi how are you and I know you're good because you went to Sucheta's class. In Sucheta's class you learned how to focus and use willpower you also learned how to have self control and thoroughly describe something. The reason why the willpower and the self control is working for you is in your pitching it will keep you more focused, it will also keep you focused when you're battling to not move your hands a lot. You also will do good in school because you mastered the planning skills all 23 of them. You will do amazing in the future. Just wanted to catch up so it was nice seeing you bye.



12.08.2013 17:53

Exercising the prefrontal-system's forecasting skills: "Mental time travel!"

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Strategies: Build Social Understanding

Build 4 skills:

- Appreciating Interpersonal Diversity
- Regulating the Social-Self
- Perspective-Taking
- Empathy
- Respecting Others



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Interpersonal Diversity



- What's the difference between athletes and non-athletes?
- How does the varsity football player spend his time after school?
- Why did the girl stop getting bullied?

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Regulating the Social-Self
Example: Expectation Card


Name: _____ Date: _____

L2L EXPECTATION CARD

- Eye contact - Think about a "tennis-match"
- Do not interrupt - Think about a "buffet"
- Fidgeting to minimum - Move but no-eyes
- Show a "listener-stance" - Eyebrows slightly raised, a gentle smile and head slightly tilted
- Take interest in others' stories - Listen carefully and decide what you like about what is being said
- Figure out the Shared-Goals - Think about what both of you want
- Be a partner - Think about giving feedback in a nice way (help them get better)

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Building Empathy




1. What is the boy thinking & feeling?
2. What is the mom thinking & feeling?
3. What would your teacher think and feel?
4. What do YOU think & feel?

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Effective Learning Through
Experiential Inquiry

PART #2 Strategies For Kids

B. Work on changing client's cognitive competence


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1. Promote a sense of agency

Allow clients to define their own difficulties

- Explore difficulties with the client from their worldview
- Use lists of common difficulties to allow client to identify relevant problems
- Use client language when discussing problems
- Can share experiences of similar others
- Always get client's feedback on information or psychoeducation in bite-sized pieces
- Normalize difficulties to reduce defensiveness




Margaret Shiley, Ph.D.

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Work in Action




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2. Intent Analysis



1. Reading minds of others
2. Gauging impact on self and others
3. Imagining consequences

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Example


1. Who is being kind?
2. Who are they kind to?
3. What's the story behind this act of kindness? Describe it in 5 sentences using the following format:
 - a. Start with the main idea or big picture sentence.
 - b. Describe the steps in the picture in an organized and systematic fashion.
 - c. Describe how it affects the characters in the picture.
 - d. Compare yourself with the people in the picture.

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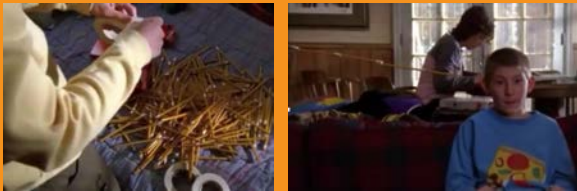
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3. Predicting Actions of Others




1. What will the older brother do next?
2. What will mom do next?

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Navigating Learning with M-E-T-A™



Mindful Examination of Thinking And Awareness:

- Attune attention and intention
- Frequent self-check of daily habits
- Revisiting mistakes and glitches deliberately
- Recalibrate or regroup and
- Readjust responses

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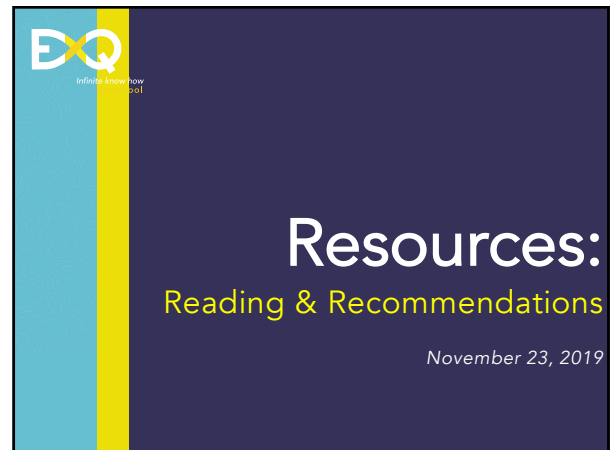
"(When things get hard and frustrating) I take deep breaths and keep doing. And ExQ taught me to do that!"

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