



Supporting Children's Regulation

Tools, Tips and Tricks From an
Occupational Therapist

Jessica Faith, OT Reg. (Ont.)
2024

This Workshop Will Explore



01

What factors cause dysregulation



04

Useful sensory-motor and cognitive behavioural tools for a daycare or classroom setting.



02

What happens in the brain during periods of calm and stress



05

Environmental supports to promote regulation.



03

How to identify and monitor dysregulation



06

How you, the participant, can learn to co-regulate with the children in your care.

Stressors and Triggers

- Sensory stimuli
- Brain chemistry
- Unresolved hurt
- Family/Workplace dynamics
- Change or The Unexpected
- Loss of control



Stressors

Negative stress may cause a child to become disorganized, agitated, anxious, depressed, or aggressive.

Positive stress (winning a game) can cause a child to become elated, silly, agitated and even aggressive.

What Is a Stress Response?

A stress response is a physiological reaction to the detection of a real or perceived threat

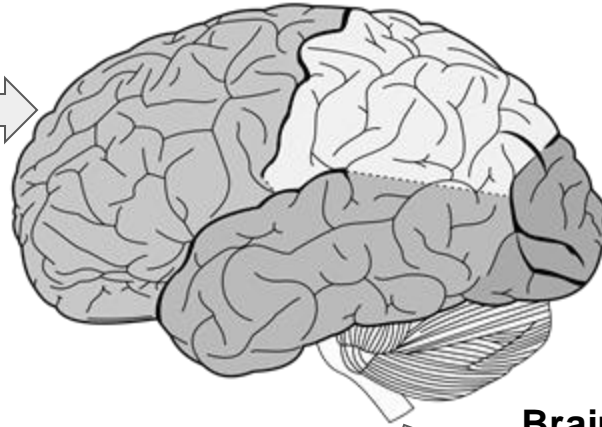


...and it begins in the brain.

The Brain



Prefrontal Cortex:
Logic, Learning and
Problem Solving



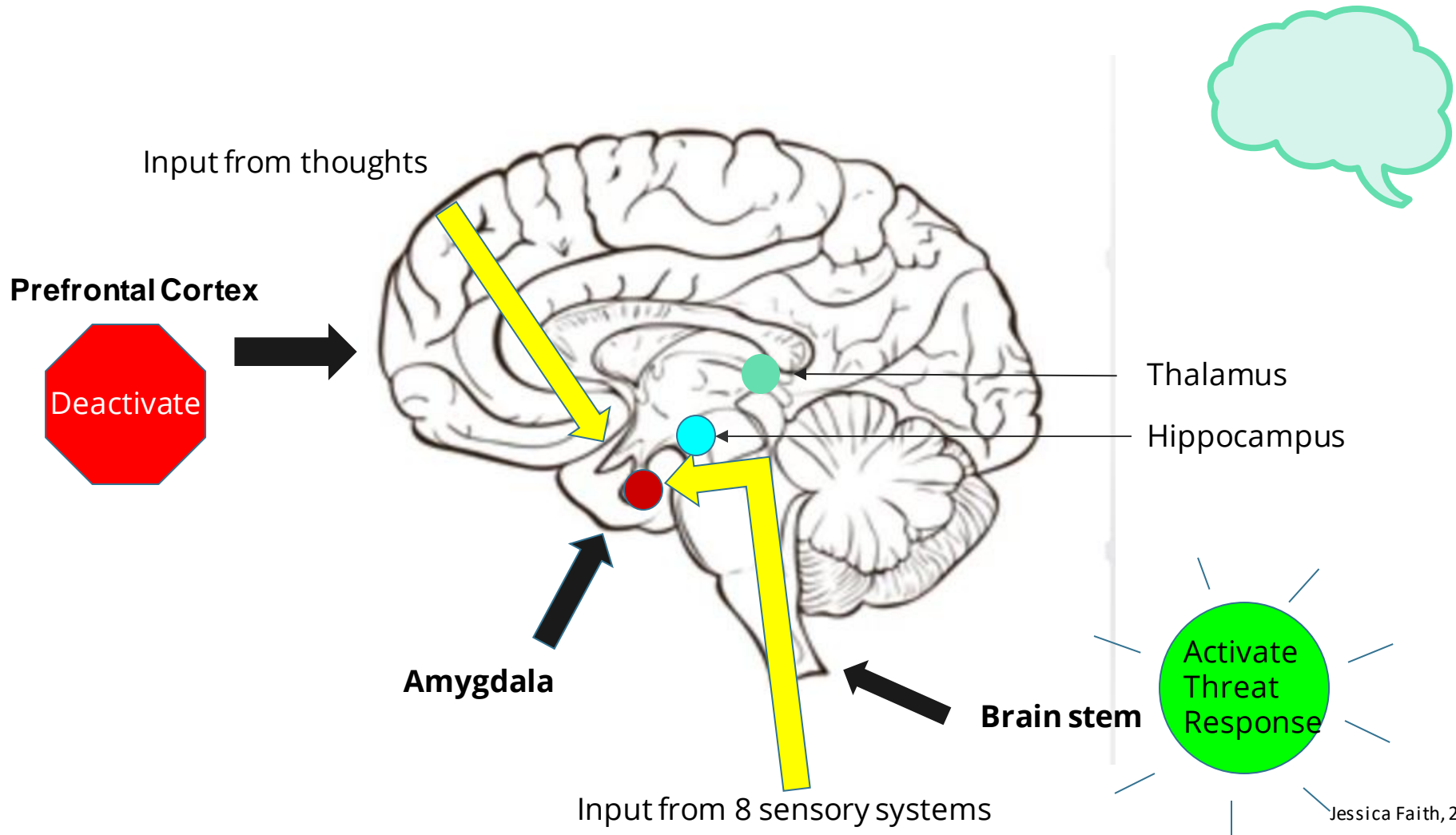
Brain Stem/Diencephalon: -
Information from Sensors
-Regulate body systems
(respiration, heart rate, digestion,
reproductive systems)
-Activate 5 F's

Van Der Kolk, 2005

Jessica Faith, 2024

Our Eight Senses

1. **Vestibular** (head movement in space and orientation to gravity)
2. **Proprioception** (body awareness, body position in space)
3. **Interoception** (Inner body sensations: full bladder/bowel, fatigue, hunger/thirst, pain, nervousness, fast heart beat, flutters in stomach, etc)
4. **Auditory** (hearing)
5. **Visual** (sight)
6. **Tactile** (touch)
7. **Olfactory** (smell)
8. **Gustatory** (taste)

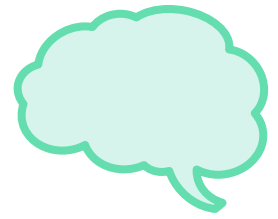


Threat Response: The 5 F's

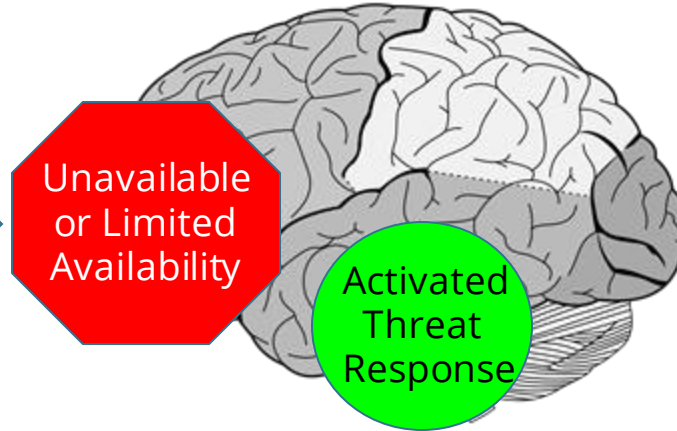


FIGHT	FLIGHT	FREEZE	FAWN	FLOP
<ul style="list-style-type: none">• Verbally Aggressive• Physically Aggressive• Argumentative• Controlling• Bullying	<ul style="list-style-type: none">• Avoiding• Anxious• Over-Achieving• Running Away• Hiding	<ul style="list-style-type: none">• Shutdown• Isolated• Disengaged• Stuck• Overwhelmed	<ul style="list-style-type: none">• Anxious to Please• Over-Sacrificing• Co-Dependent• Loss of Self• Afraid to say "no"	<ul style="list-style-type: none">• Fainting• Disengaged• Lack of emotion• Hopeless

The Brain



**Prefrontal Cortex:
Logic and
Problem Solving**

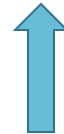


**Unavailable
or Limited
Availability**

**Activated
Threat
Response**

Increased heart rate, blood flow and respiration rate. Ready muscles for action on threat.
Release Adrenaline and Cortisol.

**Brain Stem/Limbic System:
5 F's**



Van Der Kolk, 2005

Arousal and Self-Regulation

Arousal (physiological arousal) is the state of the nervous system: it is expressed in how alert one feels, how calm, how excited or lethargic, etc.

Self-Regulation is the ability for a person to attain, maintain, or return to, an arousal level that is appropriate for the task they are performing or the context they are in.

When should a child be able to self-regulate?

From 0-12 months: a child requires an adult to help manage regulation. The child should be regulated enough to explore their environment and begin to learn how to engage with others.

From 18 months -3 years, a child should be able to regulate enough to follow basic adult instruction. A regulated child can imitate others, learn new skills and enjoy reciprocal social interaction.

By age 5, a child should be able to recognize basic emotions and regulate these emotions with some assistance from an adult.

Some psychologists believe that you can't truly self-regulate until your 25 years of age!!



Arousal Management vs. Self-Regulation

Arousal Management

- **Adult assisted** *monitoring* and *identification* of arousal state.
- **Adult assisted** *management* of arousal state based on context.



Self-Regulation

- **Self** *monitoring* and *identification* of arousal state.
- **Self** *management* of arousal state based on context.

Levels of Arousal

Threat Response/Meltdown (Fight, Flight, Freeze, Fawn)

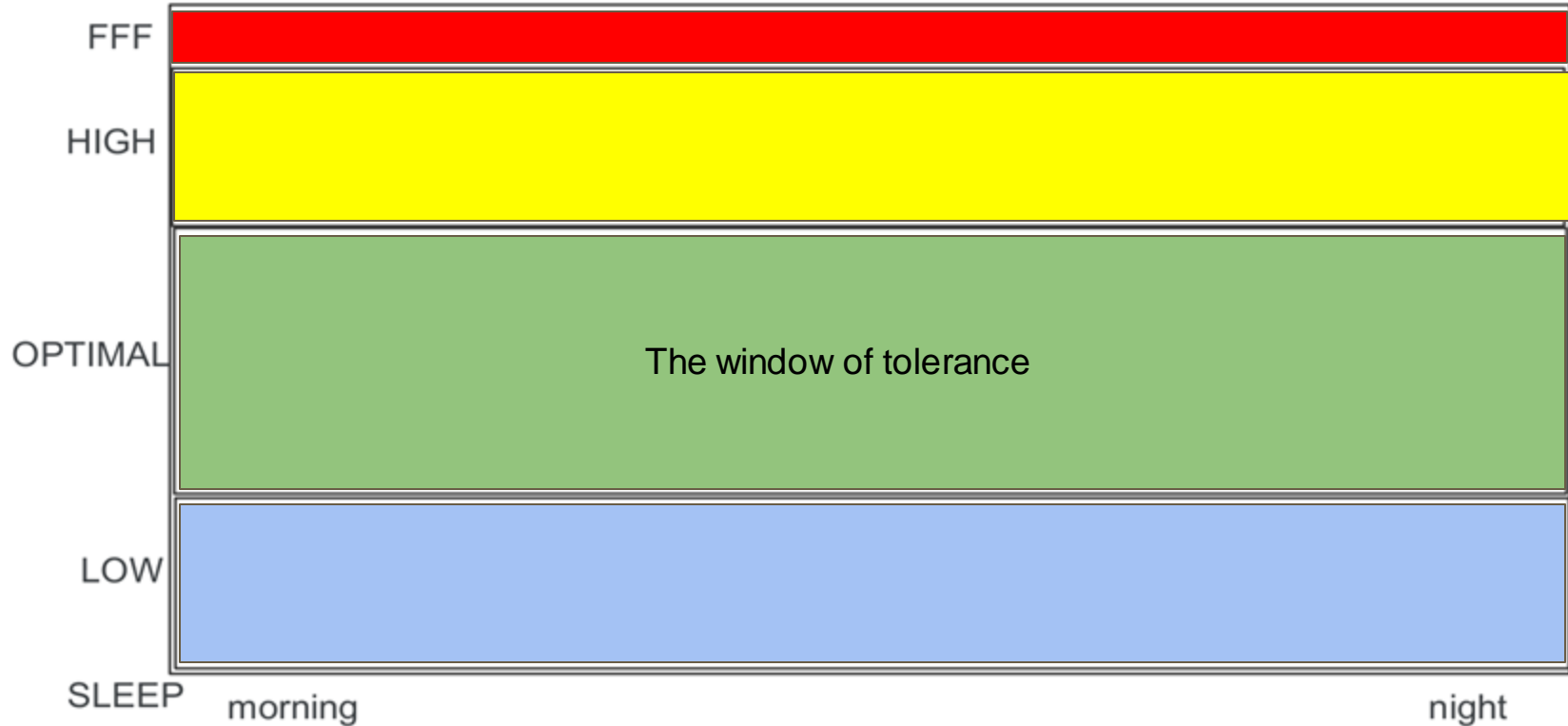
High Arousal (Anxious, Angry, Scared, Elevated, Shocked, Aggravated, Excited)

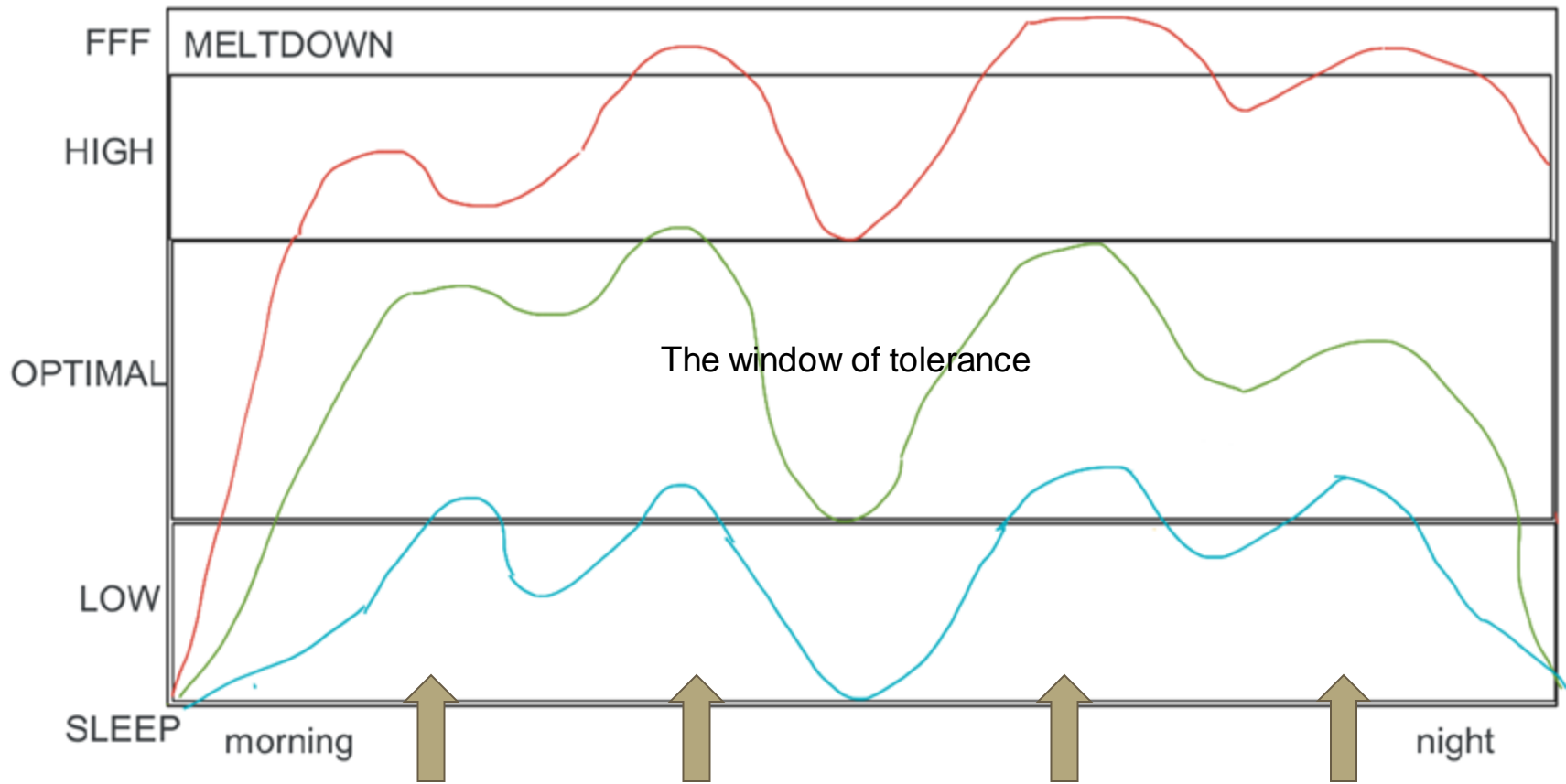
Optimal Arousal (Calm, Focused, Alert, Adaptive, Flexible, Curious, Problem Solving) “window of tolerance”

Low Arousal (Sluggish, Sad, Tired, Sick, Bored)

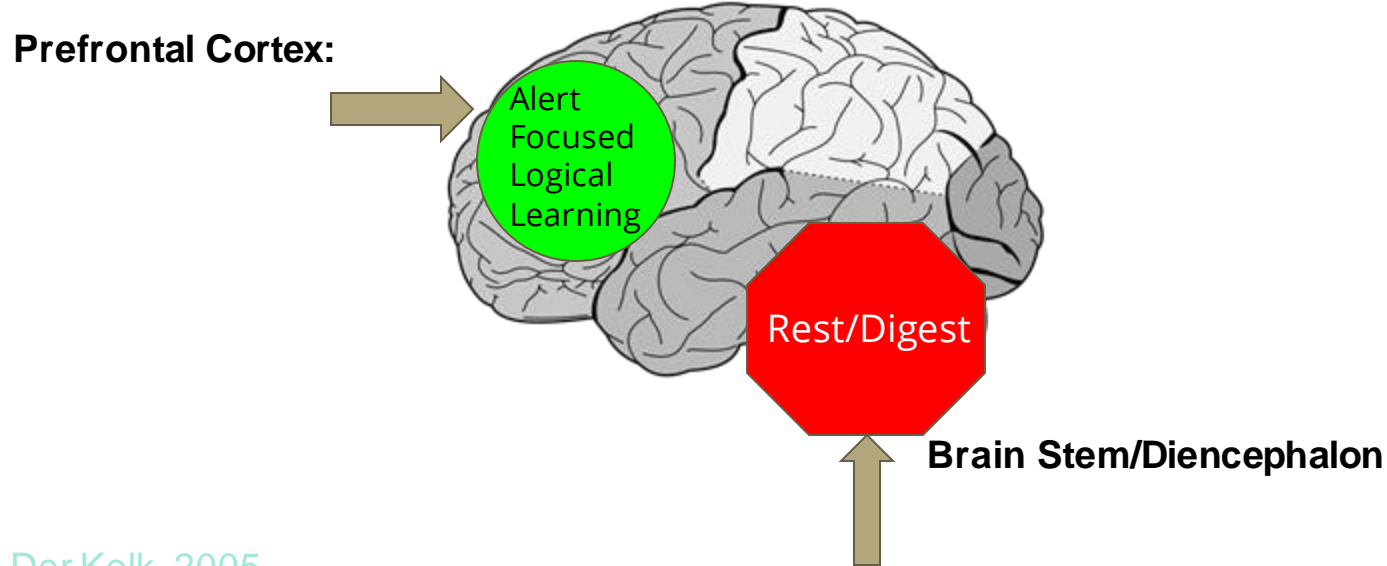
Sleep

Optimal Arousal “The Window of Tolerance”





A Regulated Brain



Van Der Kolk, 2005

Regulated Activation vs. Reactive Emotions

“It is neurobiologically and behaviourally possible to be highly aroused and still be regulated and contained within one’s window of tolerance.....”

“....Disconnected, harmful and reactive emotions that are truly dysregulated can result in the perpetuation of suffering rather than as a communication aimed at restoring and maintaining contact in relationship.”

-Kim Barthel

Sensory Processing Differences and the Impact on Arousal



Our Eight Senses

1. **Vestibular** (head movement in space and orientation to gravity)
2. **Proprioception** (body awareness, body position in space)
3. **Interoception** (Inner body sensations: full bladder/bowel, fatigue, hunger/thirst, pain, nervousness, fast heart beat, flutters in stomach, etc)
4. **Auditory** (hearing)
5. **Visual** (sight)
6. **Tactile** (touch)
7. **Olfactory** (smell)
8. **Gustatory** (taste)

Spectrum of Response to Sensory Input

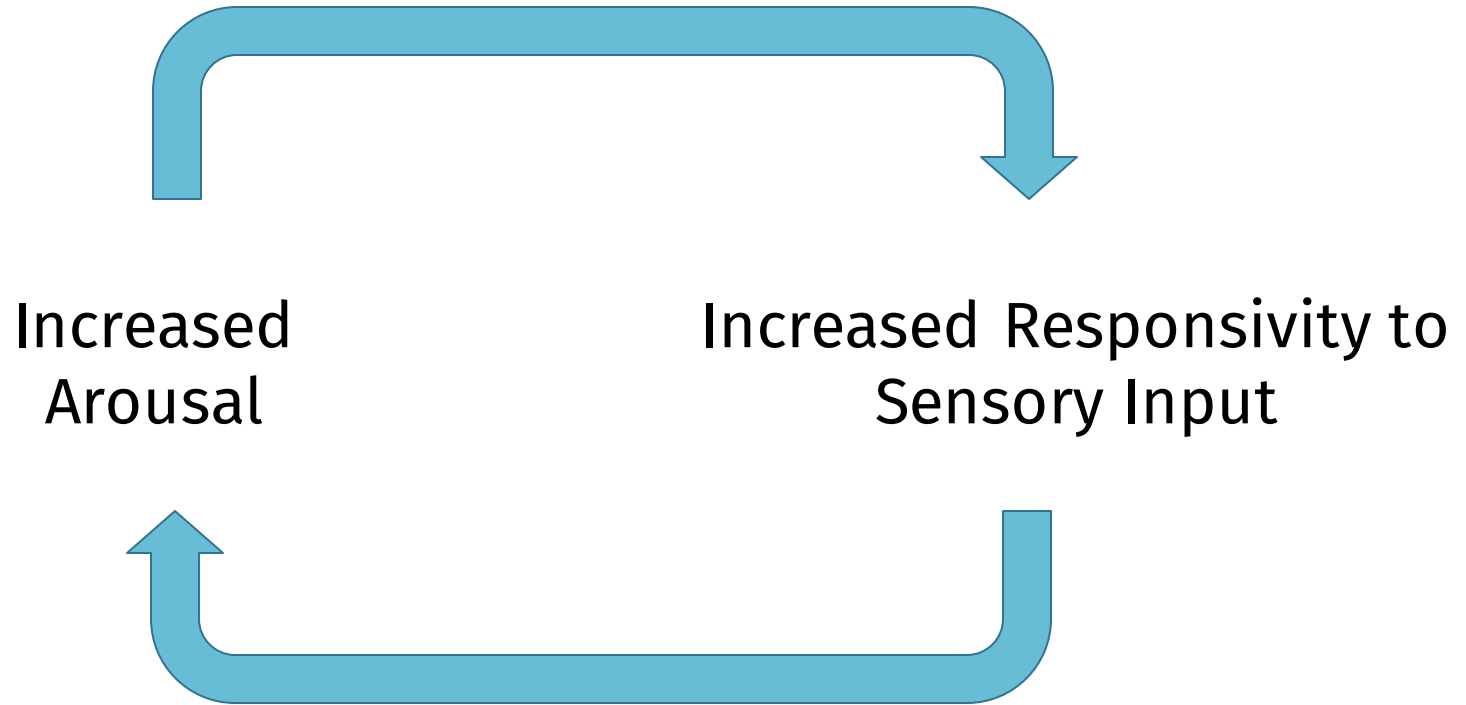
Under-Responsive

Over-Responsive

Unresponsive
(Unconscious)

Defensive
(Threat Response)





Sensory differences do not always lead to challenges but may lead to unique gifts and enhanced skills and quality of life. -Ellen Yack



Body Break!

Monitoring Dysregulation Through Body Signals and Behaviour



Assessment batteries available

https://www.aacap.org/AACAP/Member_Resources/AACAP_Committees/Infant_and_Preschool_Committee/Assessment_of_Young_Children.aspx

Signs of Stress Activation (Dysregulation)

- Disengagement (avoidance of social engagement or participation in activities)
- Regression in self-care activity (toileting and feeding)
- Disrupted sleep
- Difficulty adapting to changes
- Strong emotional responses that appear out of context
- Changes in affect (facial expression)
- Changes in speech/breathing rate and/or rhythm
- Changes in body posture

Signs of Dysregulation

High Arousal

- Anxious, elated, angry, irritated, fidgety, wide eyed, red ears, disorganized thought/movements, fast speech, fast breathing, etc

Low Arousal

- Low mood, slow speech, slow to respond, difficulty initiating, limited motivation to move, flat affect, reduced social engagement, etc

Analysing Dysregulation

- What does the underlying behaviour look like?
- What are the triggers?
- Where does the behaviour in question happen?
- When does it happen?
- Who does it happen with and why?
- When are they calm?
- What are they doing to calm themselves?

Optimal Arousal Presentation

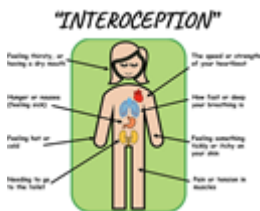
- ☐ How does the child present when calm? (How do they behave)
- ☐ When the child is upset, what are they trying to do to calm themselves?
- ☐ How does the child calm for sleep?
- ☐ Do they ever present at an optimal arousal level?

Investigate Triggers, Body Signals, and Tools



Triggers (What internal or external occurrences cause them to escalate or plunge?)

- internal and external sensory input, social interactions, demands, thoughts, unmet needs, medical issues...



Body Signals (What body sensations are communicating their state of physiological arousal? How does this influence their behaviour?)

- heaviness, fast heart beat, headache, tingling arms, sweaty palms, tight stomach, yawning. Hand flapping, hiding, speaking quickly, loss of eye contact)



Tools (what are they doing to regulate themselves)

- Chewing/mouthing, running/jumping, hiding, lying on floor, sucking thumb, groin stimulation, fidgeting, pushing/hitting/biting, elopement.

ABC Analysis Data Sheet

Student: _____






Description of behavior (s) of interest: _____

What
was
their
level of
arousal?

Date	Time	Antecedent (What happened immediately before behavior)	Behavior	Consequence (What happened immediately after behavior)	Comments/Function

The _____Calm _____ Scale 2023






Name: _____

	Emotion	What Does it Feel Like?	When Does it Happen?
5		"I'm totally overwhelmed!! I'm so upset!" Complete shutdown. Meltdown/out of control. Unable to talk about it. No access to logic.	
4		Starting to disengage, showing signs of distress. "I can't handle this, I'm feeling upset". Hard to talk about it. Emotions taking over. No access to logic.	
3 stop and use additional calming tools here		Engaged, showing signs of discomfort. "I don't think I can handle this. I'm starting to feel upset". Generally willing to talking about it. Emotions starting to take over. Struggling to access logic.	
2		Engaged, flexible, relatively calm. "I feel OK. This isn't great but I can handle it". Willing to talk about it using logic.	
1		Calm/Focused, soft affect, engaged, flexible. "I feel great, I can handle this". Very comfortable talking about it logically.	

adapted from "The Incredible 5 Point Scale" (Kari Dunn Buron)

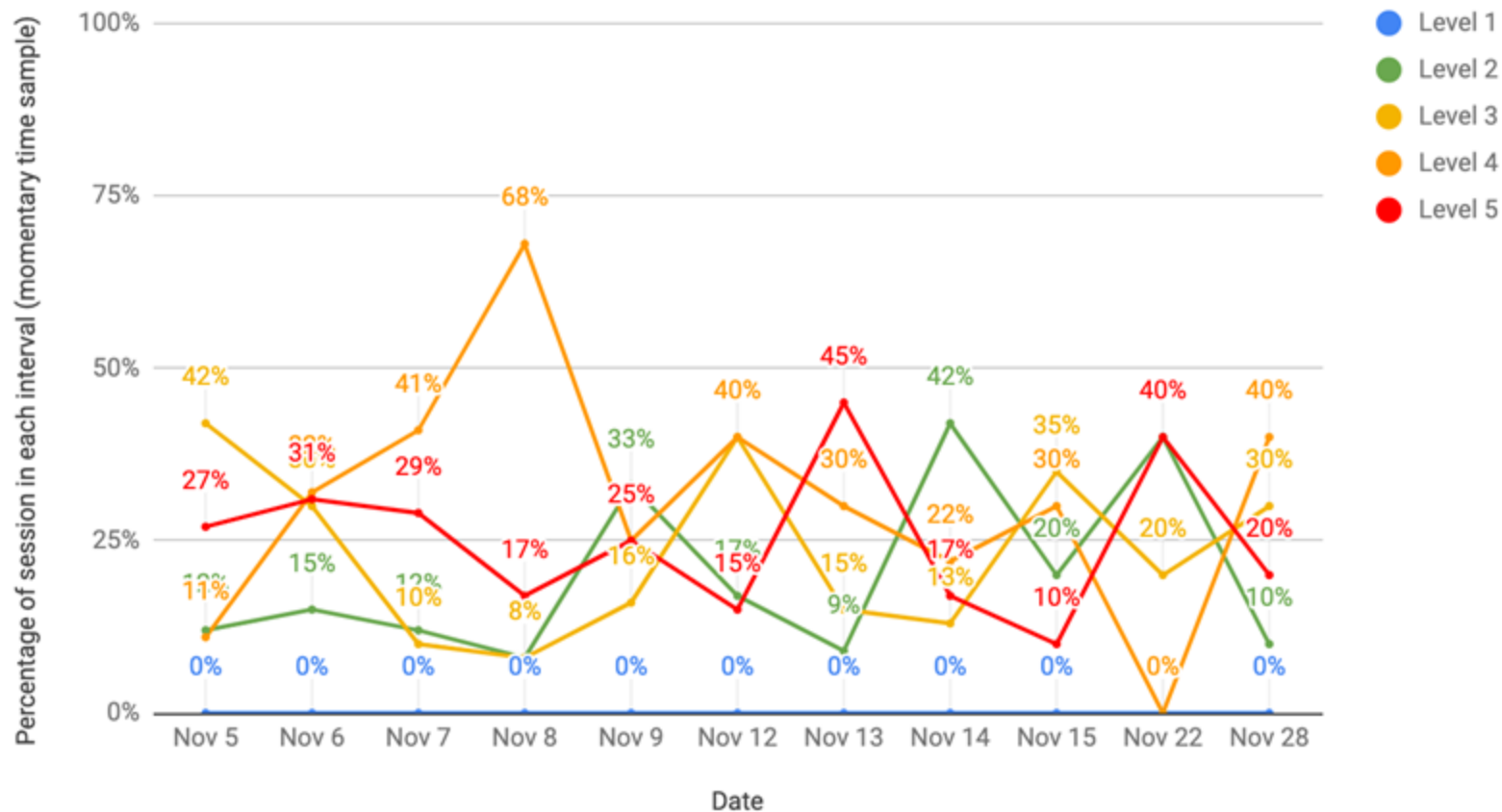
The _____ Calm _____ Scale

Name: _____

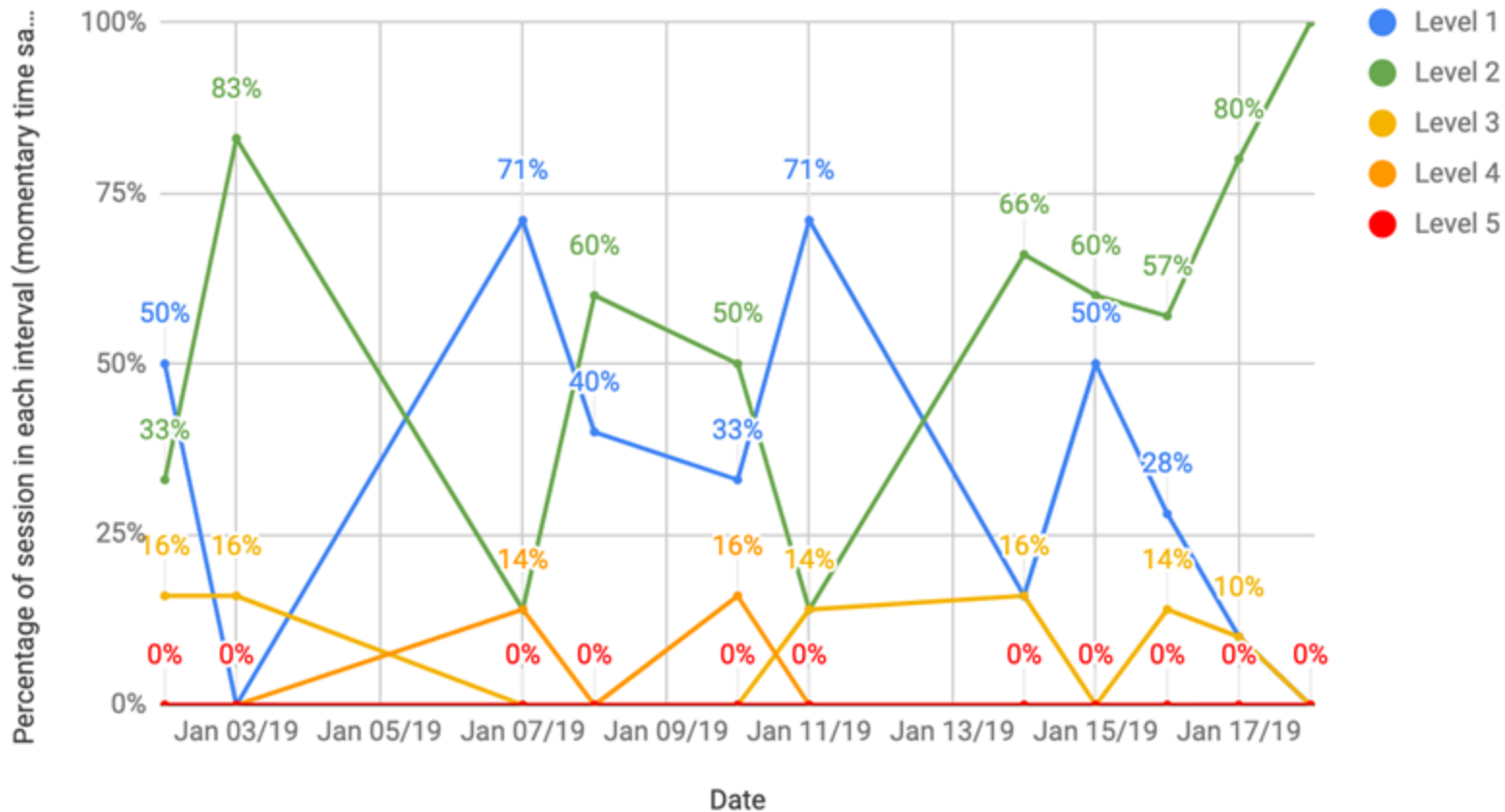
	Emotion	What Does it Look Like?	When Does it Happen?
5		Sobbing, Meltdown/out of control. Generally unresponsive to adult.	Loud, unpredictable, chaotic environments with instructional demands. (give e.g. such as: concert in the gym with dancing)
4		Crying, protesting. "I'm getting upset, I'm starting to lose control". Slightly unresponsive to adult.	Hear another child crying inconsolably. His expectations are not met.
3 stop and use additional calming tools here		Worried affect. Asking for mommy in worried tone. Moving away from task/group/room. "I don't think I can handle this. I'm feeling nervous". Responsive to adult.	Novelty and change in routine/expectations from others. Certain gross motor demands.
2		Show's signs of restlessness. Moving away from the group. May begin to protest. Says "hey, hey". "This isn't great but I can handle it". Very responsive to adult.	Transitions. Adult directed fine motor demands.
1		Calm/Focused, soft affect, clear speech. Joking, engaged, flexible. "I'm ok, I can handle this". Very responsive to adult.	knows routine, knows teachers, knows peers, feels safe and secure and successful

Regulation Data Sheet- Momentary Time Sampling					
Data Tracking Legend					
Level 1	Calm, compliant, readily follows 90-100% of IT's instructions, makes good eye contact				
Level 2	Follows 75-90% IT's instructions, some avoiding of task but can be redirected, some vocal stereotypy . Requires verbal prompt to follow IT's instructions				
Level 3	Moving quickly around the room in a circuit, follows less than 50-75% of IT's instructions, vocal stereo... equires gesture prompts to follow IT's instructions				
Level 4	Whining, crying, task avoidance, does not follow most of IT's instructions, protest "no [activity]", head hitting, requires partial physical prompt to follow IT's				
Level 5	Meltdown, out of control, head hitting, screaming, seeking surfaces to bang head on, requires full physical prompt to follow IT's instructions				
Date:_____	AM IT: _____	PM IT:_____			
	5	4	3	2	1
9:00	Activity:	Activity:	Activity:	Activity:	Activity:
9:30	Activity:	Activity:	Activity:	Activity:	Activity:
10:00	Activity:	Activity:	Activity:	Activity:	Activity:
10:30	Activity:	Activity:	Activity:	Activity:	Activity:
11:00	Activity:	Activity:	Activity:	Activity:	Activity:
11:30	Activity:	Activity:	Activity:	Activity:	Activity:
12:00	Activity:	Activity:	Activity:	Activity:	Activity:
1:00	Activity:	Activity:	Activity:	Activity:	Activity:
1:30	Activity:	Activity:	Activity:	Activity:	Activity:

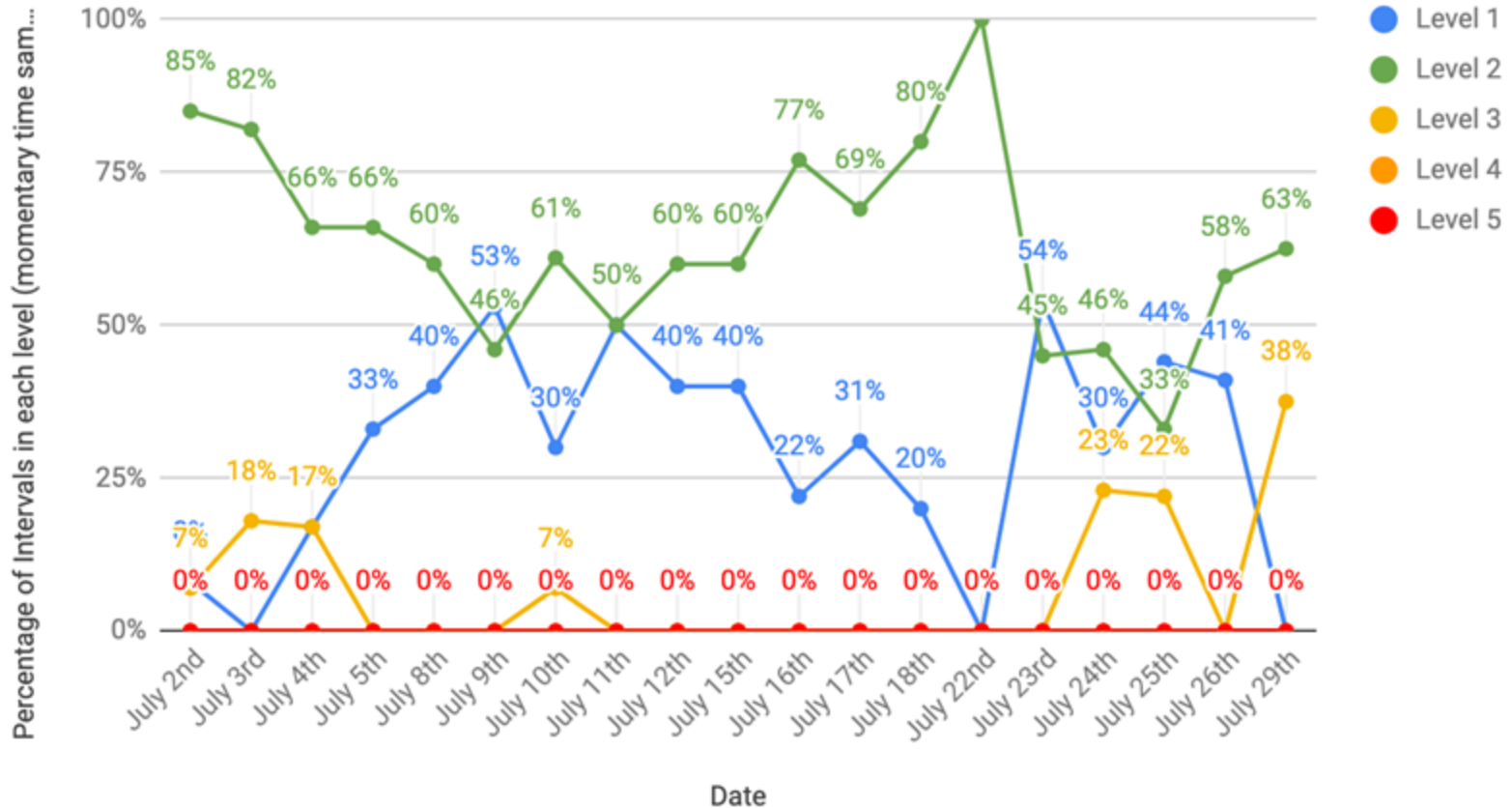
Self Regulation Data- November 2018



Self- Regulation Data- January 2019



Self Regulation Data- July 2019



Body Break!

Managing Arousal and Building Self-Regulation Skills

Three Approaches:

- ❑ Sensory-Motor Tools (Body)
- ❑ Cognitive Behaviour Tools (Mind)
- ❑ Co-Regulation (Relationship)



*Most effective when all three are combined

Sensory-Motor Tools (Body)

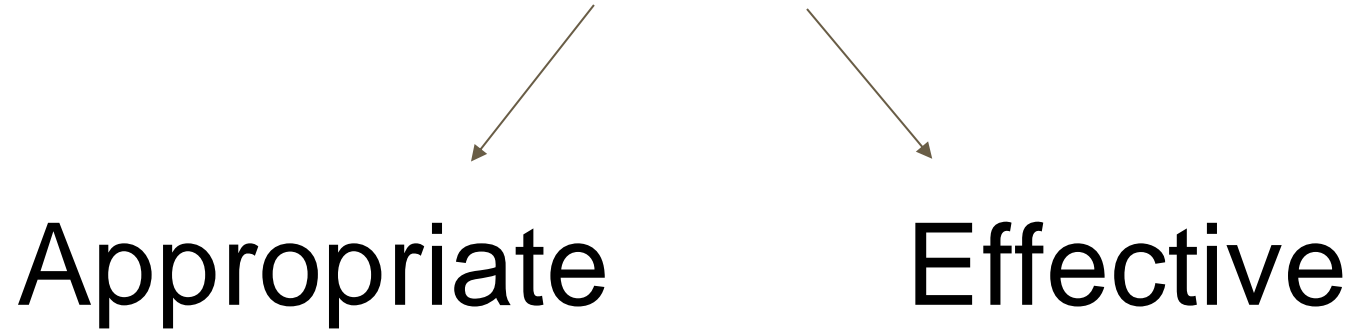
Calming

- Slow, predictable, rhythmic movement, deep breathing.
- Deep pressure, weighted items, massage, warmth.
- *Heavy work: lifting, pushing, pulling, weight bearing, chewing/sucking, blowing bubbles.*
- 60 bpm music, lavender scent, visual fixation, neutral colours, warm milk, bland flavours.
- Connection with a calm, safe, familiar person.

Alerting

- Fast, irregular, unpredictable, arrhythmic movement.
- Fast light unpredictable touch/tickling, cold input
- *Heavy work: lifting, pushing, pulling, weight bearing, chewing/sucking.*
- 100+ bpm music, mint scent, bright colours/lights, cold drinks, sour flavours.
- Interaction with a lively, active person.

Calming Tools



Intense dysregulation requires intense input

Accommodations and Supportive Environments

How do you create regulated spaces for both seekers and avoiders of input?

Calming corners



Play tents for movement and calming spaces



Vestibular Input



Active Sitting



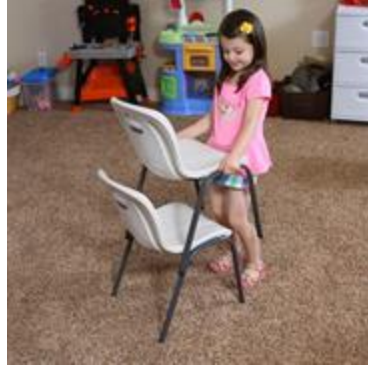
Flexible Seating



Heavy work



More Heavy Work Ideas



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Fidgets

Ideally with no visual interest or sound if used during instruction.



Deep Pressure Input



Oral Motor Input (heavy work for the mouth)



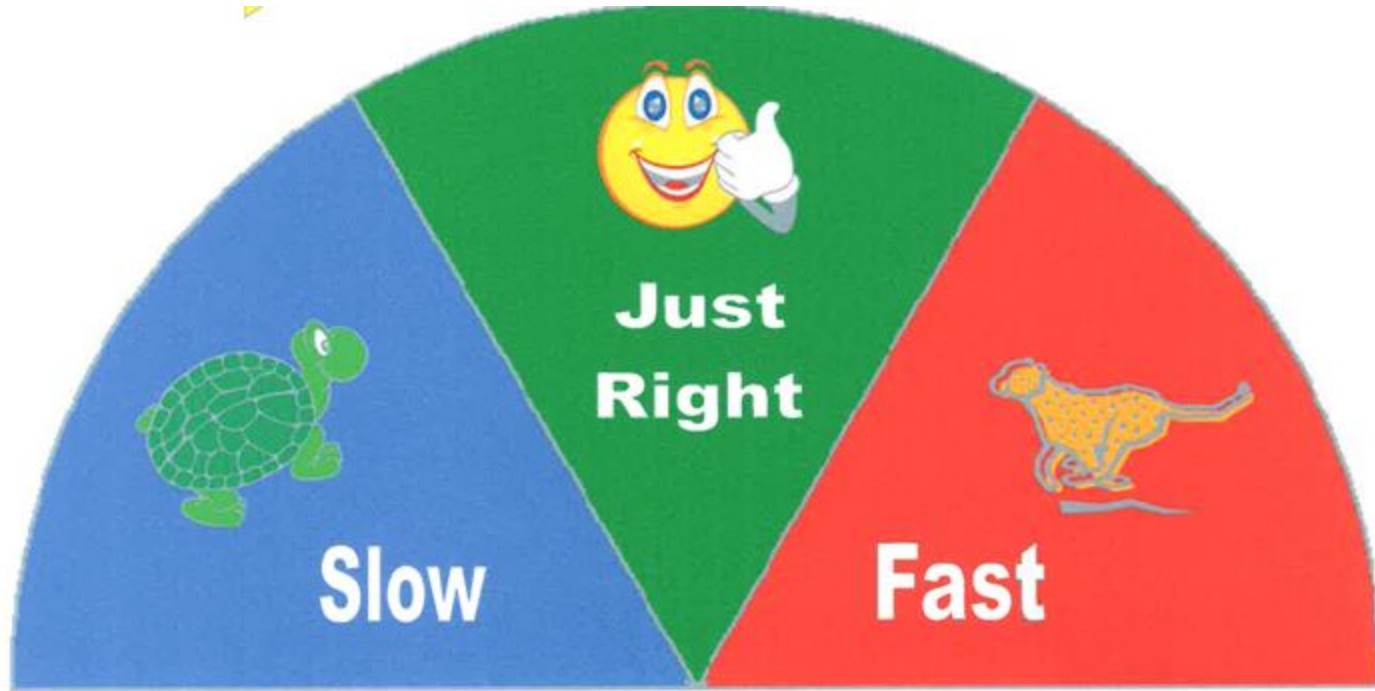
Multiple Inputs



Cognitive Behaviour Programs (Mind)

- The Zones of Regulation (Kuypers, 2011)
- The Incredible 5-Point Scale (Dunn Buron & Curtis, 2003)
- The Alert Program: How Does Your Engine Run? (Williams & Shellenberger, 1996)





The Alert Program






Where's Your Engine?

The Alert Program: How Does Your Engine Run? (Williams & Shellenberger, 1996)

The ZONES of Regulation®

			
BLUE ZONE Sad Sick Tired Bored Moving Slowly	GREEN ZONE Happy Calm Feeling Okay Focused Ready to Learn	YELLOW ZONE Frustrated Worried Silly/Wiggly Excited Loss of Some Control	RED ZONE Mad/Angry Mean Terrified Yelling/Hitting Out of Control

3 Point Scale

3	
2	
1	

Co-Regulation: Calming Together Regulation Through Relationship



“Take responsibility for the energy you bring into this space”.

-Dr. Jill Bolte Taylor

**You cannot save someone from drowning if you
don't know how to swim**

Regulate
yourself
first



What is co-regulation?

*Involves the ability to **utilize relationships to either stimulate or calm**, keeping oneself inside the window of tolerance. (Koomar, 2009)*

Requires one to model and influence arousal levels and emotional responses that are adaptive to the environment and specific demands.



Therapeutic Use of Self

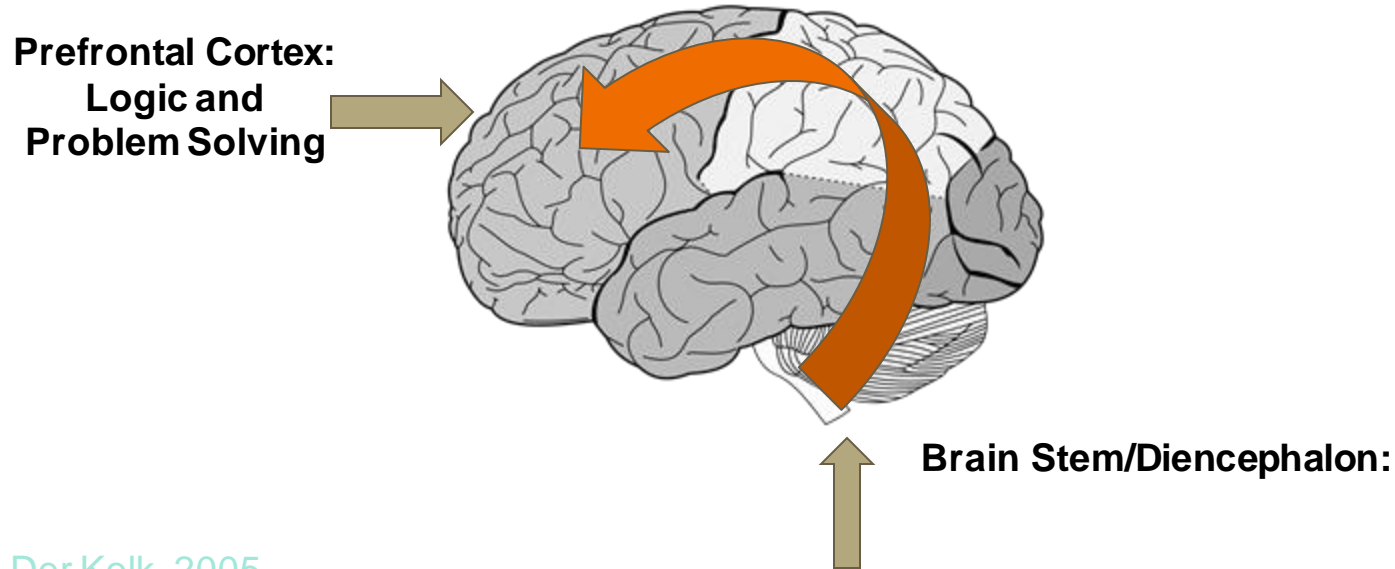
“involves a planned interaction with another person in order to alleviate fear or anxiety, provide reassurance, obtain necessary information, provide information, give advice, and assist the other individual to gain more appreciation of, more expression of, and more functional use of his or her latent inner resources” (Mosey, 1986, p.199).



PHOTO: EMMA DARVICK

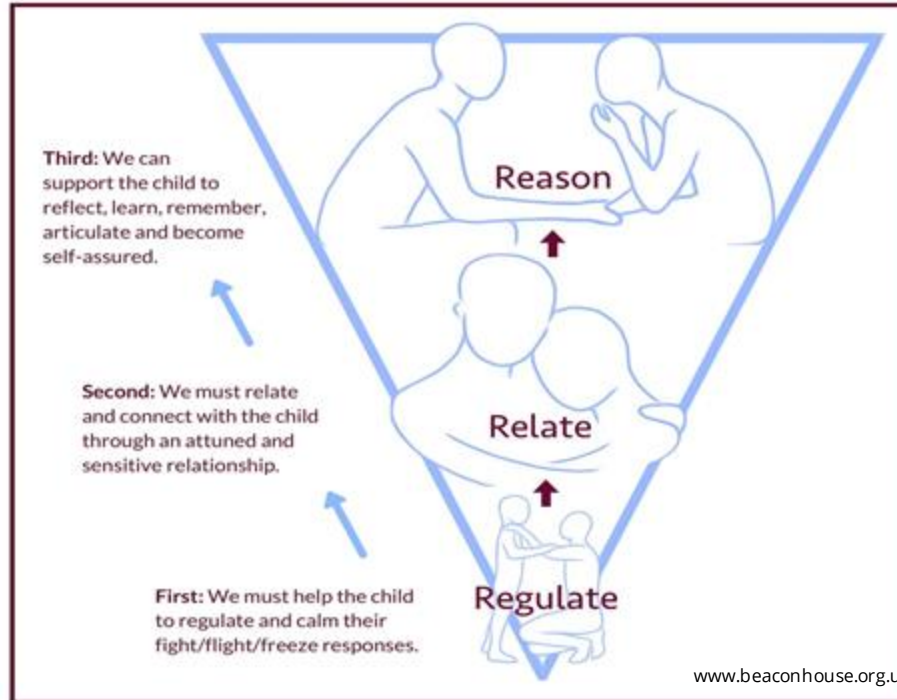
Jessica Faith, 2024

Regulation and the Brain



Van Der Kolk, 2005

Dr. Bruce Perry's 3 R's



Talk about it

Validate emotions

Use Body Tools and
Co-Regulation

The Goldfish With the Shark Fin



Dr. Bruce Perry's Neurosequential Model in Education (NME)

“The Neurosequential Model in Education (NME) draws upon the NMT (a neurodevelopmentally-informed, biologically respectful perspective on human development and functioning) to help educators understand student behavior and performance.”

<https://www.neurosequential.com/nme>

The Conscious Dance

Monitoring the child's affect, movement and engagement while adjusting your affect, movement, and engagement to guide the child towards positive outcomes.

*requires constant observation, analysis, trial, feedback and adjustment.



Monitor and Adjust Your...



- Own state of arousal
- Emotional response
- Posture
- Affect and facial expression
- Eye contact
- Voice volume, tone, rhythm, speed (...and content of speech)
- Speed of movement and gestures
- Breathing rate
- Use of equipment

When a person in your care is dysregulated


1. Practice mindful attunement (calm yourself, leave your goals behind, focus on the person)
2. Analyze the emotion motivating the behaviour*.
3. Focus on up or down-regulation as required
4. Use calming or alerting voice, posture, affect, etc
5. Reduce or eliminate language
6. Use sensory-motor input
7. Only when individual is in an optimal state of arousal, do you use cognitive strategies and social thinking concepts (if age/developmentally appropriate)

*Look at the anger not the fact that the person is hitting. Look at the fear rather than the fact that the person is crying and avoiding. Which emotion is driving the behaviour?

Regulation Worksheet






	How it feels in my body (where do you feel it?)	I feel this way when.. (What are your triggers?)	TOOLS that energize me	TOOLS that calm me down
High Angry, Frustrated Worried, Scared Excited				
Optimal Happy Calm Focused Curious				
Low Sad Tired Sick Bored				

Regulation Worksheet

	How it feels in my body (where do you feel it?)	I feel this way when..	TOOLS that energize me	TOOLS that calm me down
High Angry, Frustrated Worried, Scared Excited	-Tight chest -Stomach ache -Hands shaking	-I'm disrespected -Presenting a new topic	 -Lifting weights -Volleyball -Dancing -Walking -Music -Mint tea -Coffee	-Deep breathing -Meditation -Lifting weights -Walking -Connecting with a loved one -Camomile tea -Hot bath
Optimal Happy Calm Focused Curious	-Relaxed body -slower heart rate and breathing	-Singing -Being with loved ones -Connected with clients -Meditating		
Low Sad Tired Sick Bored	-Heavy head -Floppy -Muscle ache	-I'm overworked -Ignoring my needs		

The Calm Scale

Name: _____

	Emotion	What Does It Look/Feel Like?	When Does It Happen?	What Can We Do About It?
5		"I'm totally overwhelmed!!" Complete shutdown. Meltdown/out of control. Unresponsive to talking about it.		
4		"I can't handle this, I'm getting upset". Becoming responsive to talking it through.		
3 stop and use additional calming tools here		"I don't think I can handle this. I'm feeling nervous". Generally responsive to talking about it.		
2		"This isn't great, it's OK, but I can handle it". Responsive to talking about it and using logic.		
1		Calm/Focused, soft affect, engaged, flexible. "I feel great, I can handle this". Very comfortable talking about it logically.		

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adapted from "The Incredible 5 Point Scale" (Kari Dunn Buron)

Jessica Faith, 2024

Case Study

Armand

- 3 years old
- Hx of biting other kids
- Screams or speaks loudly
- Breaking toys
- Toe walking
- Mouthing non-edibles
- Needs constant redirection
- Attention issues

Questions and Comments



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Audio Books, Podcast References and Online Articles

Neuroscience Meets Social and Emotional Learning Podcast EPISODE #52 inspired by Dr. Bruce Perry on “Igniting Your Personal Leadership That Builds Resiliency”

<https://andreasamadi.podbean.com/e/igniting-your-personal-leadership-that-builds-resiliency-inspired-by-dr-bruce-perry/>

[iii] What Happened to You: Conversations on Trauma, Resilience and Healing <https://www.amazon.com/What-Happened-You-Understanding-Resilience/dp/1250223180>

[iv] Neuroscience Meets Social and Emotional Learning Podcast EPISODE #66 on The Legendary Bob Proctor on “Social and Emotional Learning: Where it All Started” <https://andreasamadi.podbean.com/e/the-legendary-bob-proctor-on/>

Neuroscience Meets Social and Emotional Learning Podcast EPISODE #53 Inspired by Dr. Bruce Perry on “Self-Regulation and Your Brain: How to Bounce Back Towards Resiliency” <https://andreasamadi.podbean.com/e/self-regulation-and-your-brain-how-to-bounce-back-towards-resilience/>

Neuroscience Meets Social and Emotional Learning Podcast EPISODE #56 with Educational Neuroscience Pioneer Dr. Lori Desautels on her NEW Book “Connections Over Compliance: Rewiring Our Perceptions of Discipline” <https://andreasamadi.podbean.com/e/educational-neuroscience-pioneer-dr-lori-desautels-on-her-new-book-about-connections-over-compliance-rewiring-our-perceptions-of-discipline/>

<https://www.kimbarthel.ca/reflections/2023-02-calm-is-overrated>

Websites

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