

MAINE DEPARTMENT
OF EDUCATION



Mitigating the Impacts of **Trauma and Chronic Stress** *on Student Learning and Behavior*

The Developing Brain at School



Prefrontal Cortex

- PFC = control panel for executive functioning
- All of the important skills for school success
- Not fully developed

PFC

- Use will power
- Delay gratification
- Control behavior and emotions
- Predict consequences
- Control impulsivity
- The "little editor in our heads"
- Decision-making/judgment
- Plan, prioritize, organize

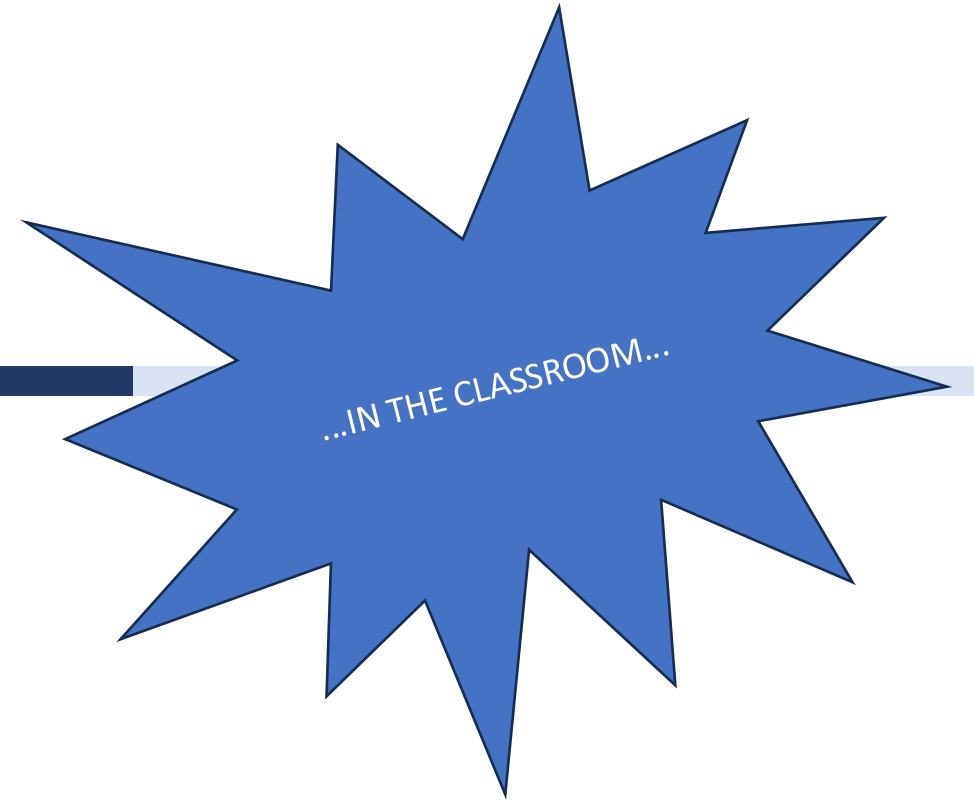


PFC also controls:

- Working memory and recall
- Activation, arousal, and effort

Weak PFC vs. Hyperactive Amygdala

- Hypervigilance
- Perception of danger that may be skewed
- Internal alarms that trigger more cortisol and norepinephrine



Cortisol and norepinephrine are helpful...

for short-term, emergency situations only!



Once safety is achieved...

The brain releases neutralizing chemicals to bring back homeostasis, restoring the chemical balance.



Trauma and Ongoing Stress



...IN THE
CLASSROOM...

- Chronic stress (no diminishment of perception of danger)
- Persistent, elevated levels of cortisol and norepinephrine cause:
 - Smaller, weaker **PFC** (brain damage)
 - Smaller, less effective **hippocampus**

In a chaotic, stressful, or unpredictable environment...

Events are **disconnected**.

There's a **kaleidoscopic perspective**.

The brain loses critical opportunities to develop
cause and effect connections.

The **locus of control** becomes **external**.



Externalized Locus of Control

PREVENTS:

- Resilience
- Motivation
- Engagement
- Growth
- Self-Efficacy
- Academic achievement

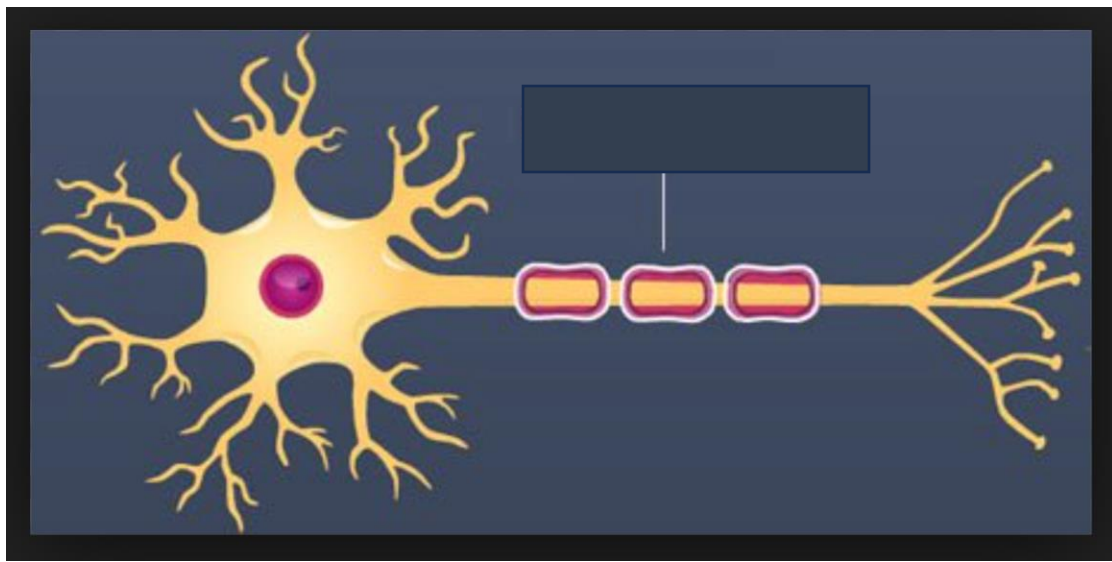
The developing brain
is exponentially faster than
the adult brain
at **processing/wiring/encoding**
new information and habits.



Neuroplasticity:
Experience is the
architect of brain
development.

A photograph of a narrow, reddish-brown dirt road that curves gently through a lush, dense forest. The road is flanked by thick green foliage and tall trees, with sunlight filtering through the canopy in the distance. The overall scene is peaceful and natural.

Repeated experiences cause development
of stronger, deeper, more well-defined
synaptic connections.



Direct **TEACHING** and **PRACTICING** of
executive functioning skills
can **BUILD** and **STRENGTHEN**
the missing or weak connections, forming
synaptic superhighways.

Tips for **Building and Strengthening Connections for Learning**

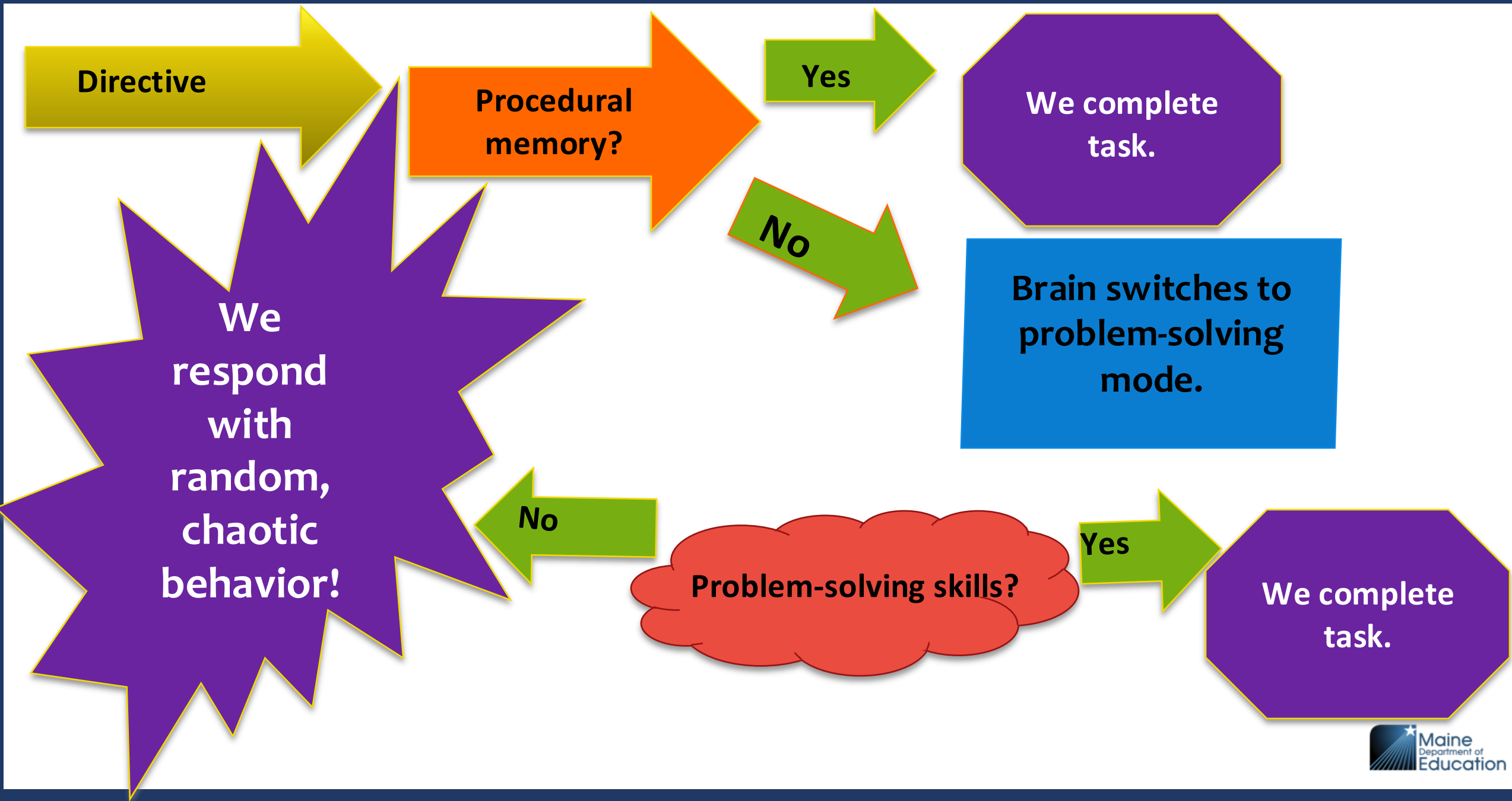
- **Teach strategies for being self-directed.**
 - Checklists
 - System for Metacognitive Reflection
- **Conduct critical-thinking exercises.**
 - Comparison-contrast
 - Venn diagrams
 - Other graphic organizers to show cause-effect
- **Practicing recognizing and rewarding adapting behaviors.**
- **Use restorative justice practices.**

Debriefing makes **MEANING** out of **EXPERIENCE.**

*Debrief to make sense of what happened and
to set goals for next time.*

Remember **REFLECTION** and **FEEDBACK** to
lock in learning!

Children with traumatic, chaotic, and stressful histories may not have developed much in the way of "procedural memory".



What Can We Do About It?



- Practice direct teaching and rehearsing of "procedural" activities.
- Take nothing for granted!
- Implement problem-solving skills.
- Recognize, reward, and reinforce.
- Maintain a nonjudgmental presence.



Remember...

Physiological needs win out over cognitive engagement every time.

Social/emotional needs win out over cognitive engagement every time.

Learning depends upon **CONNECTIONS**.

*A **socially/culturally/emotionally safe environment** reduces the stress that inhibits learning through:*

- Predictable rhythms and routines.
- A plan for choosing groups.
- The direct teaching of friendship skills.
- A strong classroom community/sense of belonging.

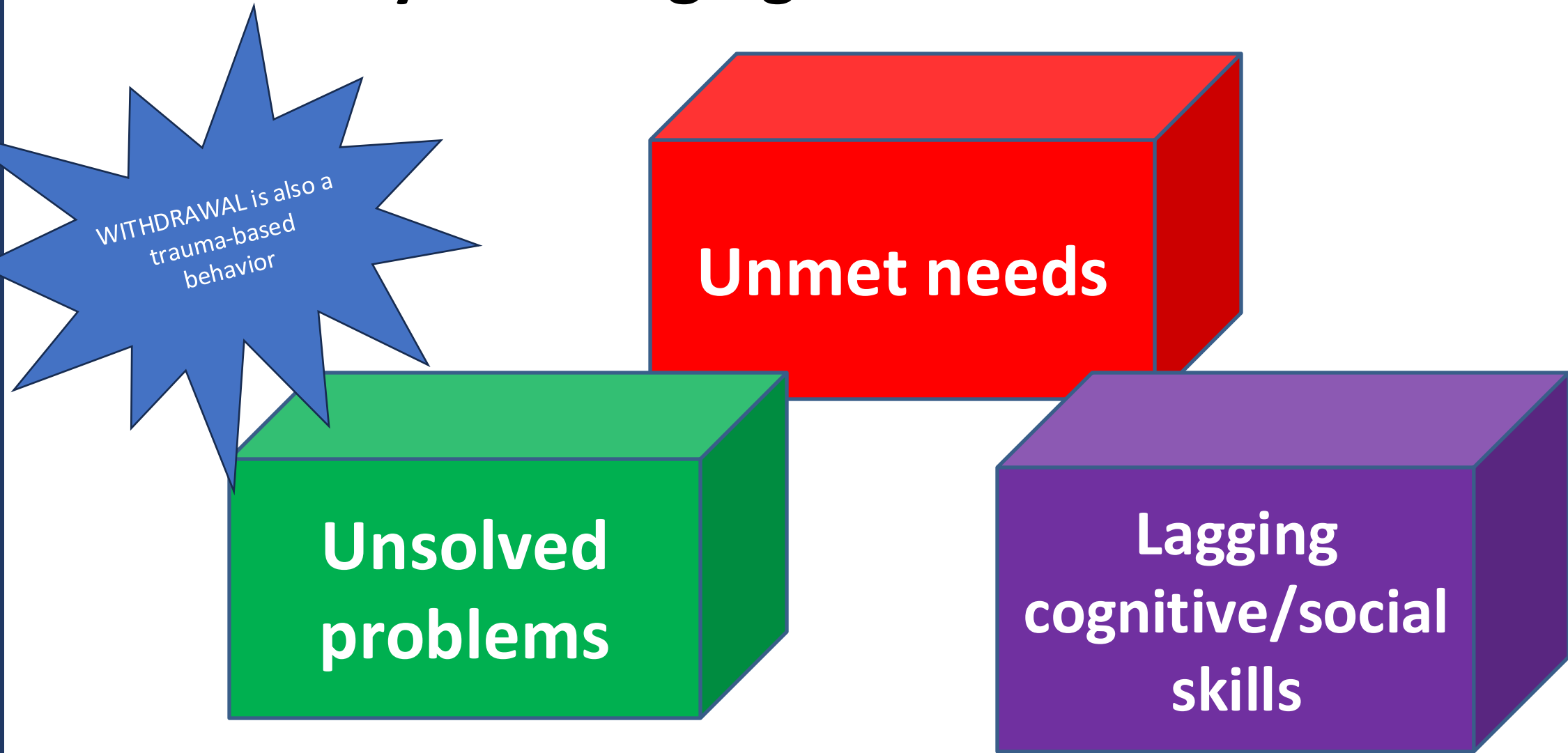
Challenging Behavior

- Pushing of limits
- Defiant behaviors
- Taking of risks
- Breaking of rules



*It's actually their
developmental job!*

Chronically-challenging behavior is communicating...



Restorative Discipline:

...IN THE
CLASSROOM...

Builds cause-and-effect connections
Emphasizes personal power/responsibility
Develops internal locus of control
Keeps relationships at the center

SUSPEND JUDGMENT in order to teach all students!

***Laziness? Bad attitude? Disrespectful? Unwilling?
Unmotivated?***

(A student with a broken leg isn't considered lazy or unmotivated if they're not running quickly.)

The behavioral and academic effects of chronic stress and trauma are **reversible to a great extent.**

Keep **expectations high**, while providing necessary accommodations, interventions, and motivation.

FROM TRAUMA-FOCUSED to ASSETS-FOCUSED....

POSITIVE CHILDHOOD EXPERIENCES can mitigate harmful impacts from trauma!

Both INTERNAL and EXTERNAL ASSETS can mitigate harmful impacts of trauma!!

ACES do NOT necessarily limit our potential or outcomes!

INTERNAL ASSETS

Motivation
Responsibility
Empathy
Decision-making skills

EXTERNAL ASSETS

Caring school
Clear boundaries
Positive peers
Sports, clubs, etc



...IN THE
CLASSROOM...



An adult in the classroom is ALWAYS either building a bridge or building a wall.

Trauma-Informed School Practices in Maine Schools

- **Restorative justice** (instead of punitive responses to behavior)
- **Behavioral Threat Assessment**
- **The Regulated Classroom**
- **Building Assets, Reducing Risks (BARR)**



the
Regulated
classroom®

Teaching self-regulatory
skills
Activating parasympathetic
nervous system

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BARR

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ASSETS-Based Model
Relationships
Data
Early Interventions