Education Outcomes

Educational – Achievement, participation, and aspirations

- School's physical environment conducive to learning
- Primary, secondary, and tertiary school enrollment
- Regular school attendance
- Literacy
- Educational attainment
- Engagement with learning/curriculum
- Engagement with school's social environment
- Grade retention
- Learning outcomes

Education, Adversity, and the Science of Learning

- Adversity and education outcomes:
 - Decreased school attendance
 - Below grade-level standards for math, reading, and writing
 - Decreased academic engagement
 - Increased likelihood of grade repetition
 - Decreased likelihood of graduation
- How do we go beyond learning outcomes and understand learning processes to inform school and classroom prevention and intervention?
- A Science of Learning perspective

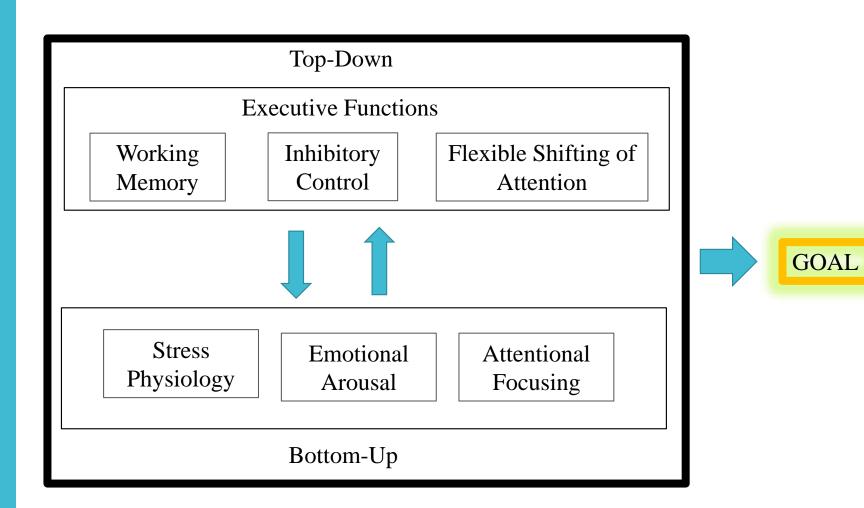
Neuroscience, Education, and Adversity's Impact

The Stress Response System:

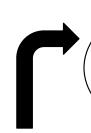
- Positive Stress
- 2) Tolerable Stress

Toxic Stress Source: https://developingchild.harvard.edu/science/key-concepts/toxic-stress Hypothalamus Thalamus Corpus Callosum Pituitary Anterior PARIETAL LOBES Cingulate Adrenal Cortex | Cortex / FRONTAL OCCIPITAL LOBES Amygdala Hippocampus **TEMPORAL** LOBES Cerebellum Brain stem

Self-Regulation (SR)



Self-Regulated Learning (SRL)



Forethought & Planning Phase

Task analysis

- Goal setting
- Strategic planning

Motivational beliefs

- Self-efficacy & outcome expectations
- Task interest & value



Reaction & Reflection on Performance Phase

Self-judgment

- Causal attributions for performance
- Self-evaluation

Self-reaction

- Emotional reactions to performance
- Choice & adaptive inferences

Performance & Monitoring Phase

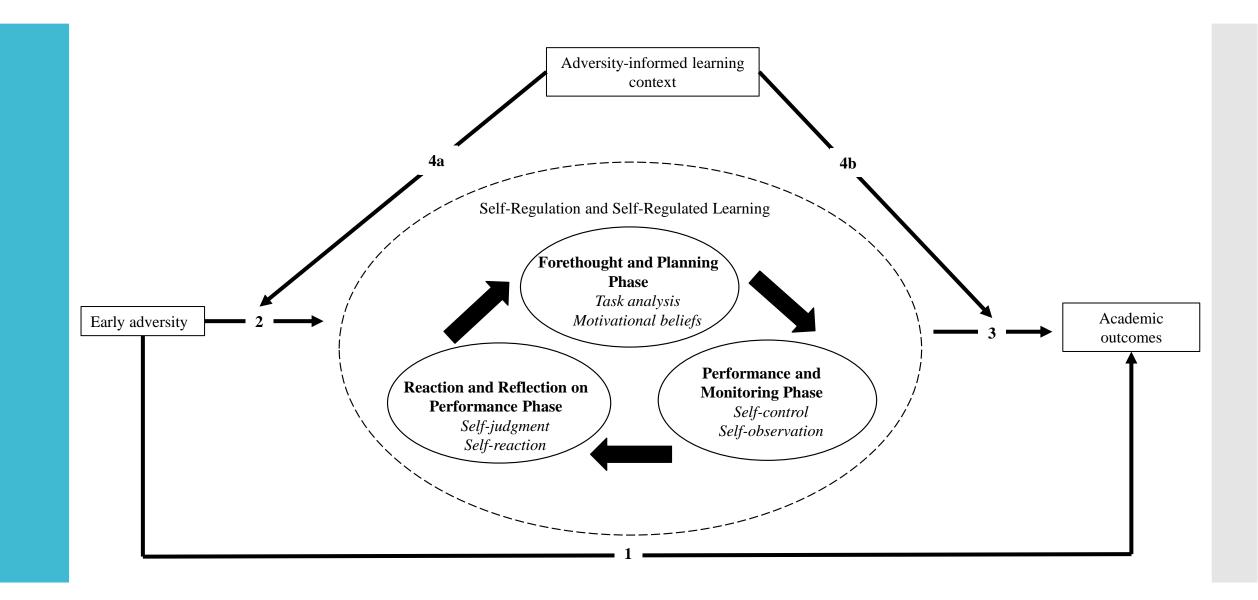
Self-control

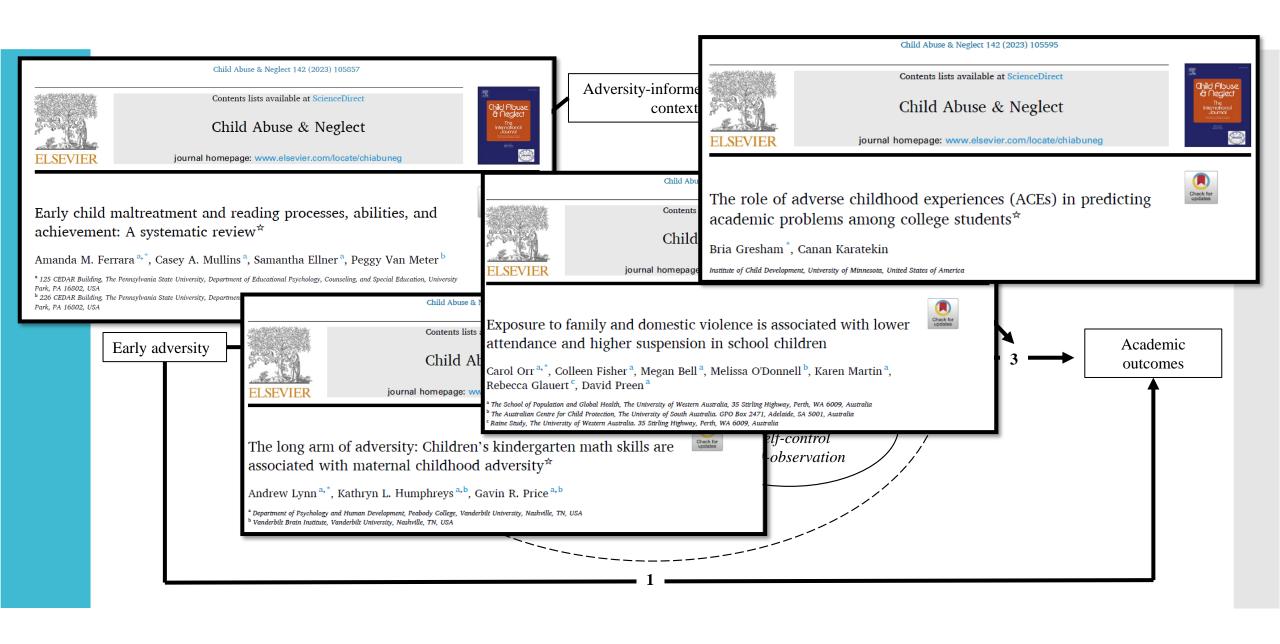
- Strategies
- Effort & persistence
- Attention focusing

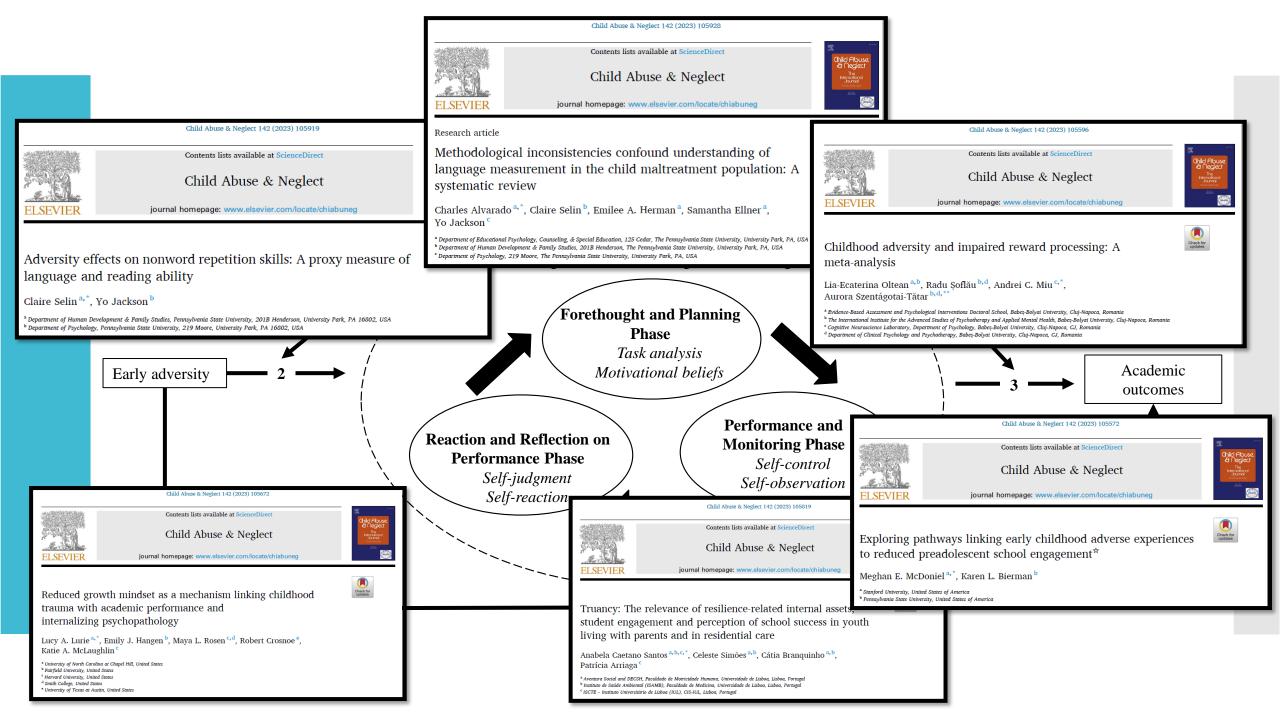
Self-observation

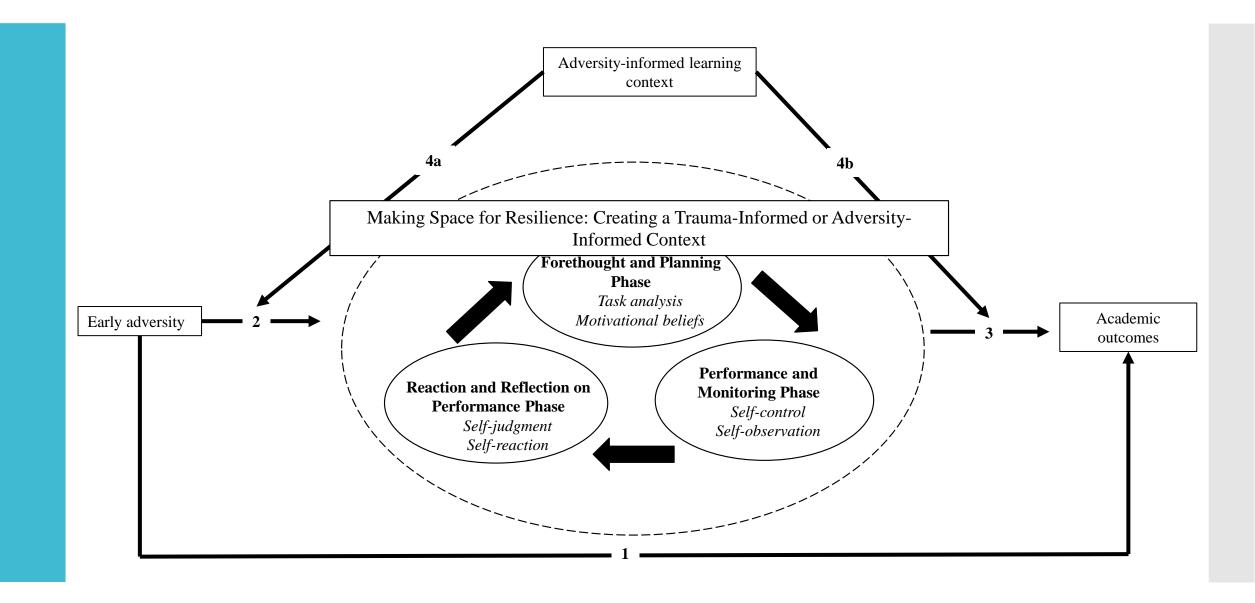
- Metacognitive monitoring
- Self-recording

Creating a Trauma-Informed Learning **Environment: Self-**Regulation and Self-Regulated Learning









Adversity-informed learning context

Ten Essential Elements of Trauma-Informed School Systems (National Child Traumatic Stress Network):

- 1) Identifying and assessing traumatic stress
- 2) Addressing and treating traumatic stress
- 3) Teaching trauma education and awareness
- 4) Having partnerships with students and families
- 5) Creating a trauma-informed learning environment
- 6) Being culturally responsive

Early adversity

- 7) Integrating emergency management and crisis response
- 8) Understanding and addressing staff self-care and secondary traumatic stress
- 9) Evaluating and revising school discipline policies and practices
- 10) Collaborating across systems and establishing community partnerships

Academic outcomes



Thank you!

And now we turn to our panel members...

Dr. Catherine Corr

University of Illinois, Champagne-Urbana

Areas of Expertise:

Early Childhood

Disability

Trauma/Maltreatment

Dr. Christy Tirrell-Corbin
University of Maryland, College
Park

Areas of Expertise:

- Early Childhood Education (Preschool through 3rd grade)
- Teacher Secondary Traumatic Stress
- High Poverty Schools
- School/University Partnerships

Dr. Lisa Schelbe Florida State University

Areas of Expertise:

- Education of Youth in Foster Care
- Youth in Foster Care in Postsecondary Education
- Research-Policy-Practice Partnerships