



# Building Strong Brains

One-Hour Professional Development Session for Elementary Schools

# Welcome

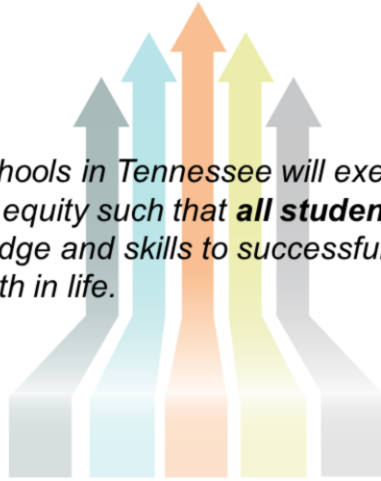


# Why?

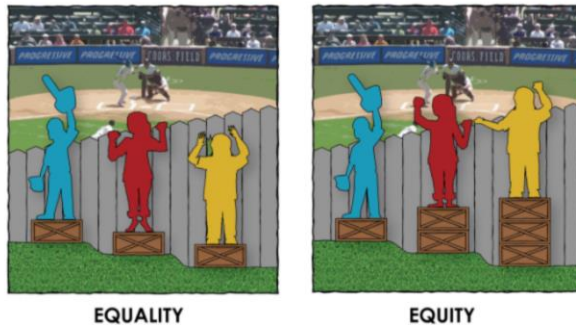
- Tennessee Department of Education 2015-16 Educator Survey
  - 73 percent of teachers reported a need for further support in meeting the non-academic needs of students
- Strategic plan *All Means All* priority areas:
  - Chronically out of school
  - Discipline
- Tennessee ACEs Initiative: <https://www.tn.gov/dcs/program-areas/child-health/aces.html>

## Strategic Plan: All Means All

*Districts and schools in Tennessee will exemplify excellence and equity such that **all students** are equipped with the knowledge and skills to successfully embark upon their chosen path in life.*



# Equality vs. Equity



What do you notice in this picture? We can treat all students equally. We have to ensure that all students have the exact supports they need.

## Goals of the Session

- Build and enhance foundation of knowledge on **trauma-informed care** in the context of **brain science**, **adverse childhood experiences**, and **resilience**.
- Create and enrich Tier I **effective practices** that support the values of a **trauma-informed teaching** and learning approach.
- Examine and integrate practices that promote **resilience** of students and staff.

## Four Core Concepts of Development

1. **Brain architecture** is established early in life and supports lifelong learning, behavior, and health.
2. **Toxic stress** in the early years of life can derail healthy development.
3. Stable, caring relationships and **“serve and return”** interaction shape brain architecture.
4. **Resilience** can be built through “serve and return” relationships, improving self-regulation and executive.

### **Key Talking Points:**

Brain architecture is established early in life and supports lifelong learning, behavior, and health.

Stable, caring relationships and “serve and return” interaction shape brain architecture.

Toxic stress in the early years of life can derail healthy development.

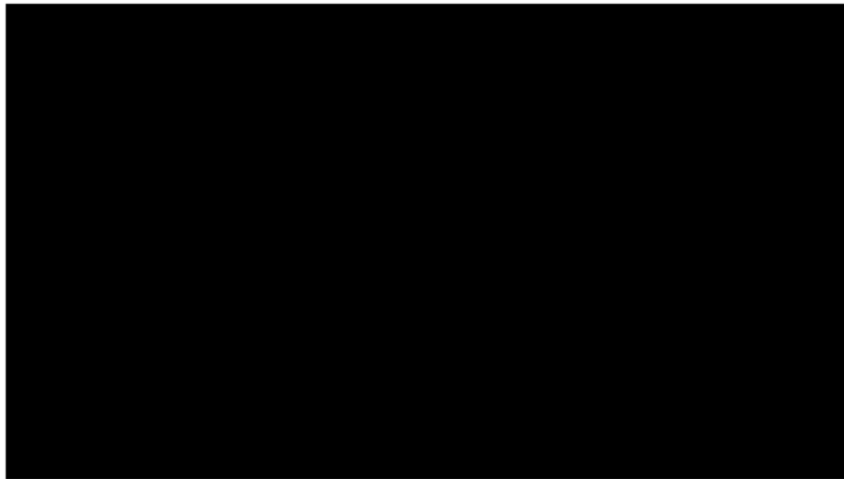
Resilience can be built through “serve and return” relationships, improving self-regulation and executive functions.

## Four Core Concepts of Development

1. **Brain architecture** is established early in life and supports lifelong learning, behavior, and health.



# How are Brains Built?



# Brain Architecture

- Brains are built over time starting at the very beginning of life. Simple skills come first, more complex skills build on top of them.
- Cognitive, social, and personal capabilities are inextricably intertwined throughout the life course.
- A strong foundation in the early years improves the odds for positive experiences of relationship, learning, and growth later on. A weak foundation increases the odds of difficulties.

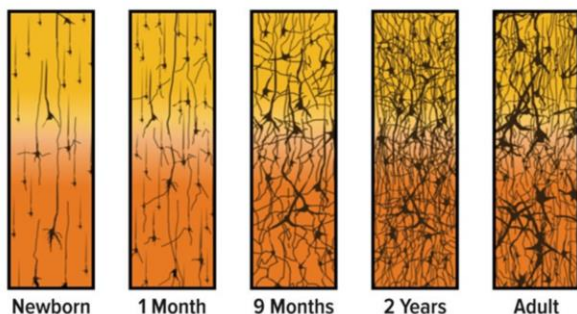


## ***Key Talking Points:***

Brains are built over time starting at the very beginning of life. Simple skills come first, more complex skills build upon them, Cognitive, social, and emotional capabilities are inextricably intertwined throughout the life course.

A strong foundation in the early years improves the odds for positive experiences in relationships, learning, and growth later on. A weak foundation increases the odds of difficulties in these areas.

## Formation of Neural Connections



The brain rapidly develops synaptic connections during the earliest years of life.

Connections that are reinforced grow stronger, and those that are not, disappear.

### ***Key Talking Points:***

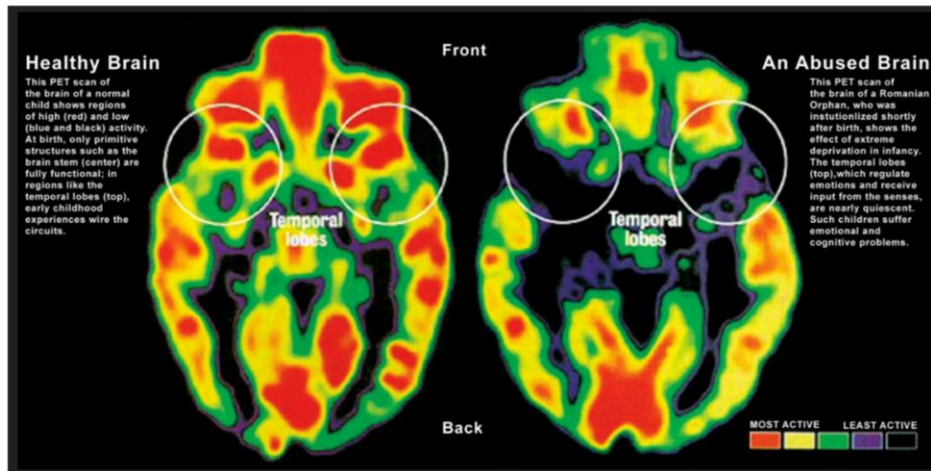
In the first five years of life, a child's brain potentially grows a quadrillion neural connections based upon the range of interactions they are engaged in.

At around five years, the brain begins pruning the connections that are not used and strengthening those that are.

The very young child's brain is like wet cement—very strong and incredibly impressionable and vulnerable to its environment.

*Underscore that we as educators are like neural connection highways; the brain can connect and grow rapidly in healthy environments; a primary factor of a healthy environment for young people is a stable, secure and positive relationship with at least one adult.*

# What Childhood Neglect Tells Us About Nature vs. Nurture



- As you are learning, toxic stress in children has devastating effects. The effects of increased levels of stress chemicals have physical consequences for the developing brain.
- Until the 1990s, orphanages in Romania were known for harsh and overcrowded conditions. Institutions were understaffed and abuse and neglect were a reality for everyday life. This picture is of a PET scan of two young developing brains. PET scans measure activity in the brain, which are reflected through increasingly vibrant colors.
- This slide shows the physical effects of a normal developing three year-old child versus a three- year-old child who entered one of these Romanian orphanage shortly after birth. The scan provides a picture of activity in the temporal lobes reflecting activity of early childhood experiences and the wiring of circuits in the brain.
- The picture on your left, of the normal developing brain, shows high density with lots of red, yellow and green, indicating high brain circuitry and activity. The picture on the right, of the Romanian orphan, shows significantly more regions of black and blue colors, reflecting low neural activity in the temporal lobes, which regulate emotions and receive input from the senses.
- Children in these institutions had minimal serve and return interaction with a caregiver, and caregivers had very little training on child development. As a result, the lack of a secure attachment for these children resulted in lower levels of neural activity and brain development.

- The good news is that early intervention may address and reverse these effects. The effects of identifying a stable home with attentive and nurturing adult caregivers, with supportive services as indicated, can provide long-lasting effects.  
**Source:** Felitti, V.J. (2011, July 20). The impacts of Adverse Childhood Experiences on adults [Webinar]. In *The Impact of Trauma on Women and Girls Across the Lifespan Webinar Series*. Retrieved from <https://services.choruscall.com/links/womenshealth.html#>

Nelson, C. A., Zeanah, C. H., Fox, N. A., Marshall, P. J., Smyke, A. T., & Guthrie, D. (2007). Cognitive recovery in socially deprived

# Bottom Up Processing

## Neocortex (planning, judgement,...):

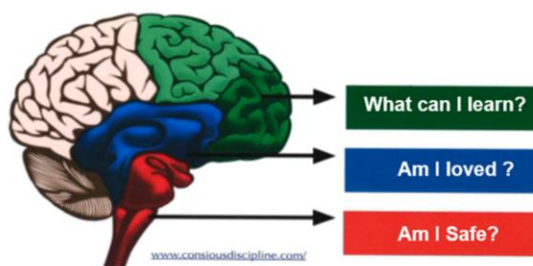
What can I learn from this?

## Limbic System (emotions):

Am I loved?

## Brain Stem:

Am I safe?



The triune brain model can be useful tool to develop an awareness of brain functioning. It is often used to teach children as they develop self-awareness and the capacity for mindful self-regulation of their nervous systems.

The triune brain is a model that divides the brain into three basic parts:

The Brain Stem (the lizard brain) ...

The Limbic System (the emotional brain) ...

The Neocortex and Pre-frontal Cortex (executive functioning) ...

As the brain evolved, so did the human's capacity for bonded relationships and complex thinking. Each part of the triune brain is concerned primarily with a particular type of experience. (Am I safe? Am I loved? What can I learn from this?) Fundamentally, we can't get to decision making, cause and effect, judgement, or discernment (NeoCortex) unless we feel like we have positive relationships and are safe.

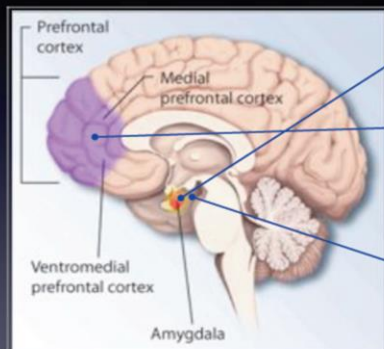
The amygdala is a fascinating part of our brain: the amygdala decides if we are safe or if we are in danger.

Importantly, the more stressed, the harder it is for the amygdala to recognize real or perceived danger.

For our students who quickly turn to fighting or fleeing for reasons we may not understand, this might be their amygdala firing.

We also have to recognize that the amygdala over firing is happening because in other contexts (maybe outside of school), this is keeping our student safe. There is a reason for everything.

# What happens?



**Amygdala:**  
activates the stress response  
*Toxic stress:* enlargement

**Prefrontal cortex:**  
usually a check to the amygdala  
*Toxic stress:* loss of neurons, less able to function

**Hippocampus:**  
major role in memory and mood  
*Toxic stress:* impairment in understanding and emotion

Freely-reproducible image from the National Institutes of Health

- Studies like the one just referenced demonstrate the lasting effects of toxic stress on the brain. Let's talk about why that is so.
- The brain is a complex organ and many factors influence development. The limbic system, located in the inner brain beneath the cortex, is a collection of small structures involved in emotional and stress responses and reward-seeking behaviors. The limbic system is primarily associated with instinctive behaviors.
- The amygdala [*uh-mig-duh-luh*] is a small, almond shaped structure acting like an alarm clock for your brain. When you confront a stressor, the amygdala interprets and evaluates the images and sounds and when it perceives danger, it signals the stress response system in the body.
- When the amygdala identifies a danger and triggers the stress response system, the hippocampus engages and assigns memory formation and spatial learning to the event.
- Also involved, the hypothalamus acts as the control center for the body's stress response systems, regulating the release of cortisol and other stress hormones.
- The limbic system functions to provide a foundation for continued learning and brain development, allowing a child to further engage in higher level cognitive functioning skills in other areas. When this system is disrupted by toxic stress, the brain is unable to form important neural connections, resulting in an inability to move into higher level cognitive skills. The child remains in a flight, fight or freeze response with the amygdala consistently sending the alarm and the stress response system remains elevated.

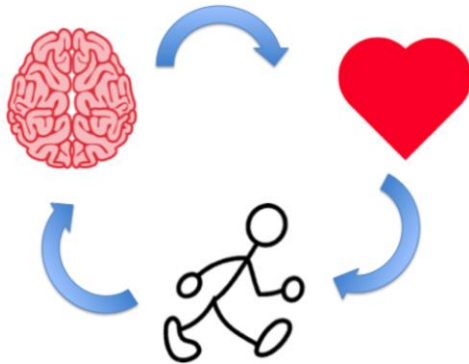
- This kind of prolonged activation of the stress response systems can disrupt the development of brain architecture and other organ systems, and increase the risk for stress-related disease and cognitive impairment, well into the adult years.
- Toxic stress, when triggered by multiple sources or not mitigated, can have a cumulative toll on physical and mental health across the lifespan.



# Why Do We Lose Control of Our Emotions?



# Think, Feel, Do Cycle



# What Lies Beneath Behavior

FLIGHT	FIGHT	FREEZE
Withdrawal	Acting out	Numbness
Running out of the classroom	Aggression	Refusal to answer
Daydreaming	Refusal and defiance	Refusal to get needs met
Appearance of sleeping	Silliness	Giving a blank look
Avoidance of others	Hyperactivity	Inability to move or act
Hiding or wandering	Argumentative	Answering "I don't know"

## Four Core Concepts of Development

1. **Brain architecture** is established early in life and supports lifelong learning, behavior, and health.
2. **Toxic stress** in the early years of life can derail healthy development.

# Three Types of Stress

## Positive Stress



Short, stressful events like meeting new people or starting the first day of school are healthy for brain development. They prepare the brain and body for stressful situations later in life.

## Tolerable Stress



Tragic, unavoidable events like a natural disaster or losing a loved one aren't good for us. But if supportive caregivers are around to buffer the stress response, these events won't do lasting damage to the brain and body.

## Toxic Stress



Ongoing, repeated exposure to abuse or neglect is bad for brain development. If no supportive adults are present to help buffer the stress response, stress hormones will damage developing structures in the child's brain. The result is an increased vulnerability to lifelong physical and mental health problems, including addiction.

### ***Key Talking Points:***

Stress can be positive, such as when we are trying something new, playing a game or sport, facing something we were once afraid of, etc.

When stress overwhelms our internal coping system, we can still regain balance with the support of relationships that help us to reconnect and learn from our experience. However, in the absence of such buffering relationships, overwhelming and prolonged experiences of stress can become toxic to our nervous system.

# Toxic Stress Derails Healthy Development



The word “trauma” comes from the Greek word meaning “wound.” Experiences of toxic stress have traumatic—or wounding—effects on the body and mind. This is why these two terms are sometimes used interchangeably.

## Activity: Match the Terms to the Definitions

Chronic Trauma  
Adverse Childhood Experiences  
Toxic Stress  
Secondary Trauma & Vicarious Trauma  
Acute Trauma  
Complex Trauma  
Insidious Trauma and Historical Trauma  
Compassion Fatigue

Match the  
terms to the  
definitions!



### ***Key Talking Points:***

**Complex Trauma:** Of the many types of trauma, the one that is most frequent for all members of our school communities, and the one that is most relevant to our work today, is complex trauma.

Dr. Chris Blodgett at Washington State University describes complex trauma as persistent and unpredictable.

It might feel like needing to be alert and ready at all times—what is called a constant state of hyper-arousal.

It is often a physiological response that is embedded very early in families:

“Who you love may not be who you can count on.”

However, blaming the parents is a trap. Most of the time, parents are survivors of similar experience of complex trauma.

**Compounded Trauma:** When the system—family, community, institutions—that is supposed to serve and support you doesn’t.

**ASK:** How might this relate to students’ experiences in schools?

## Activity: Match the Term to the Definition

### Definition

Children/adolescent's experiences of multiple traumatic events and the impact of exposure to these events, often occurring with the care giving system.

### Terms

**Adverse Childhood Experiences**

**Acute Trauma**

**Chronic Trauma**

**Complex Trauma**

**Toxic Stress**

**Secondary or Vicarious Trauma**

**Compassion Fatigue**

**Insidious or Historical Trauma**



## Activity: Match the Term to the Definition

### Definition

A single, time-limited traumatic event.

### Terms

**Adverse Childhood Experiences**  
**Acute Trauma**  
**Chronic Trauma**  
**Complex Trauma**  
**Toxic Stress**  
**Secondary or Vicarious Trauma**  
**Compassion Fatigue**  
**Insidious or Historical Trauma**

## Activity: Match the Term to the Definition

### Definition

Adverse experiences that lead to strong, frequent or prolonged activation of the body's stress response system.

### Terms

**Adverse Childhood Experiences**

**Acute Trauma**

**Chronic Trauma**

**Complex Trauma**

**Toxic Stress**

**Secondary or Vicarious Trauma**

**Compassion Fatigue**

**Insidious or Historical Trauma**

## Activity: Match the Term to the Definition

### Definition

Single or multiple traumatic exposures and/or events experienced in childhood.

### Terms

#### **Adverse Childhood Experiences**

**Acute Trauma**

**Chronic Trauma**

**Complex Trauma**

**Toxic Stress**

**Secondary or Vicarious Trauma**

**Compassion Fatigue**

**Insidious or Historical Trauma**

## Activity: Match the Term to the Definition

### Definition

Cumulative physical, emotional, spiritual and psychological effects of exposure of traumatic stories or events when working in a helping capacity.

### Terms

**Adverse Childhood Experiences**

**Acute Trauma**

**Chronic Trauma**

**Complex Trauma**

**Toxic Stress**

**Secondary or Vicarious Trauma**

**Compassion Fatigue**

**Insidious or Historical Trauma**

## Activity: Match the Term to the Definition

Definition

Terms

Multiple traumatic exposures and/or events over extended periods of time.

**Adverse Childhood Experiences**

**Acute Trauma**

**Chronic Trauma**

**Complex Trauma**

**Toxic Stress**

**Secondary or Vicarious Trauma**

**Compassion Fatigue**

**Insidious or Historical Trauma**

## Activity: Match the Term to the Definition

### Definition

Exposure to the trauma of others as experienced, realized, or imagined by providers, family members, partners or friends in close contact with the individual.

### Terms

**Adverse Childhood Experiences**

**Acute Trauma**

**Chronic Trauma**

**Complex Trauma**

**Toxic Stress**

**Secondary or Vicarious Trauma**

**Compassion Fatigue**

**Insidious or Historical Trauma**

## Activity: Match the Term to the Definition

### Definition

Collective, massive group trauma and compounding forms of multiple oppressions including discrimination based on race, economic status, gender, sexuality, and immigration status as experienced over periods of time, within societies and institutions.

### Terms

**Adverse Childhood Experiences**

**Acute Trauma**

**Chronic Trauma**

**Complex Trauma**

**Toxic Stress**

**Secondary or Vicarious Trauma**

**Compassion Fatigue**

**Insidious or Historical Trauma**

# Adverse Childhood Experiences Study





## ACEs include:

### **Abuse and Neglect**

- Child physical abuse
- Child sexual abuse
- Child emotional abuse
- Emotional neglect
- Physical neglect

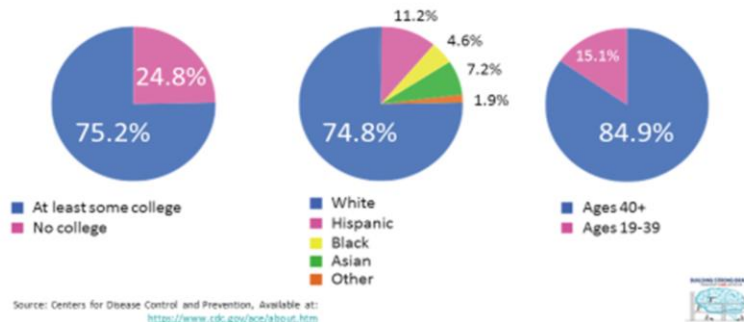
### **Indicators of Family Dysfunction**

- Mentally ill, depressed, or suicidal person in the home
- Drug addicted or alcoholic family member
- Witnessing domestic violence against the mother
- Parental discord – indicated by divorce, separation, abandonment
- Incarceration of any family member

# Demographics

## ACE Study Demographics

Participants were mostly white, middle-aged, college educated, and insured. They didn't face many of life's challenges such as poverty or racism.

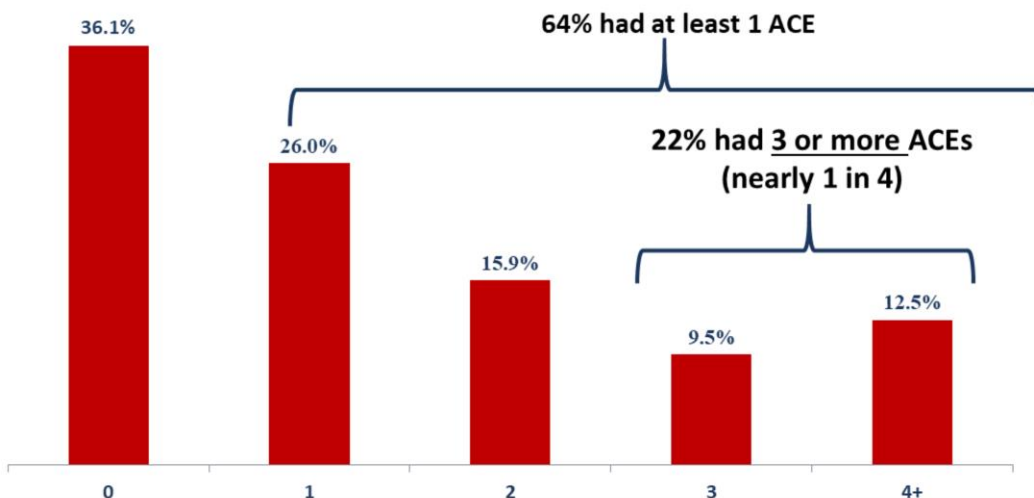


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- The Adverse Childhood Experiences study was conducted in the mid-90s by Kaiser Permanente and the Centers for Disease Control. The researchers wanted to understand the common denominator for many of the health risk behaviors and preventable diseases observed in their practice. They hypothesized that childhood adversity may be the root cause of these diseases.
- They gave out a survey to over 17,000 Kaiser Permanente members asking about 10 types of childhood adversity. The members were a privately insured, middle class, Caucasian and mostly college-educated population.
- The people studied were not the individuals you expect to have traumatic life experiences. The majority of this population most likely did not have many of life's challenges such as racism, unemployment or poverty.

**Source:** Centers for Disease Control and Prevention, Kaiser Permanente. (2016). *The ACE study survey data*. Retrieved from <https://www.cdc.gov/violenceprevention/acestudy/about.html>

## Number of ACEs Experienced Before Age 18 by Adults in CDC-Kaiser ACE Study



- The original ACE study found that most people (64%) had at least 1 ACE; about 12% of the population has an ACE score of 4 or more.
- 4 or more ACEs is the tipping point for a significantly increased risk of poor social, emotional and physical health outcomes.

**Source:** Centers for Disease Control and Prevention, Kaiser Permanente.

(2016). *The ACE study survey data*. Retrieved from

<https://www.cdc.gov/violenceprevention/acestudy/about.html>

# ACEs Can Have Lasting Effects On...



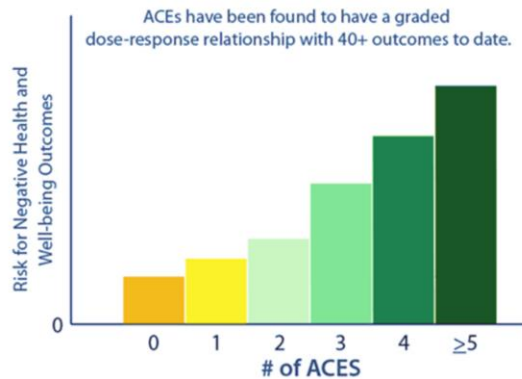
Health (obesity, diabetes, depression, suicide attempts, STDs, heart disease, cancer, stroke, COPD, broken bones)



Behaviors (smoking, alcoholism, drug use)



Life Potential (graduation rates, academic achievement, lost time from work)



\*This pattern holds for the 40+ outcomes, but the exact risk values vary depending on the outcome.

- As your ACE Score increased, so did your risk for health risk behaviors, disease, social problems and mental health issues.
- ACEs have been found to have a graded dose-response relationship with 40+ negative outcomes to date. A “graded dose-response” means that as the number of ACEs increases the intensity of the response, or likelihood that you experience poor outcomes, increases.
- Listed on the screen are some of the negative outcomes associated with an increased ACE score.
- You can think of an ACE score as a cholesterol score for childhood trauma. The ACE Study found that the higher someone’s ACE score – the more types of childhood adversity a person experienced – the higher their risk of chronic disease, mental illness, violence, being a victim of violence and a bunch of other consequences.
- People with an ACE score of 4 are twice as likely to be smokers and seven times more likely to be alcoholic.
- Having an ACE score of 4 increases the risk of emphysema or chronic bronchitis by nearly 400% and suicide by 1,200%. An ACE score above 6 was associated with a 3,000% increase in attempted suicide.
- Compared to an ACE score of zero, having 4 adverse childhood experiences was associated with a doubling of risk of being diagnosed with cancer.
- People with an ACE score of 5 or higher are seven to ten times more likely to use illegal drugs, to report addiction and to inject illegal drugs.
- People with high ACE scores are more likely to be violent, to have more marriages,

more broken bones, more drug prescriptions, more depression and more autoimmune diseases.

- ACEs are responsible for a big chunk of workplace absenteeism, and for costs in health care, emergency response, mental health and criminal justice. A major finding from the ACE Study is that childhood adversity contributes to most of our major chronic health, mental health, economic health and social health issues.
- Regardless of socio-economic class or other demographics, people who have adverse childhood experiences use more health and medical services through their lifetime.
- The ACE Study also found that it didn't matter what the types of ACEs were. An ACE score of 4 that includes divorce, physical abuse, an incarcerated family member and a depressed family member has the same statistical health consequences as an ACE score of 4 that includes living with an alcoholic, verbal abuse, emotional neglect and physical neglect.

**Sources:** ACEs Too High. (n.d.) *ACEs science 101*. Retrieved from

<https://acestoohigh.com/aces-101/>

Bellis, M., Hughes, K., Hardcastle, K., Ashton, K., Ford, K., Quigg, Z., & Davies, A. (2017). The impact of adverse childhood experiences on health service use across the life course using a retrospective cohort study. *Journal of Health Services Research & Policy*, 22(3), 168-177.

Centers for Disease Control and Prevention. (2016, April 1). *About adverse childhood experiences*. Retrieved from

[https://www.cdc.gov/violenceprevention/acestudy/about\\_ace.html](https://www.cdc.gov/violenceprevention/acestudy/about_ace.html)

Felitti, V.J. (2002). The relation between adverse childhood experiences and adult health: Turning gold into lead. *The Permanente Journal*, 6(1), 44-47.

Medical Xpress. (2017, July 12). Higher use of general health care services throughout adult life linked with traumatic childhoods. Retrieved from

<https://medicalxpress.com/news/2017-07-higher-health-adult-life-linked.html>

Stevens, J.E. (2012, December 8). The adverse childhood experiences study - The largest public health study you never heard of, part two [Blog post]. Retrieved from

[http://www.huffingtonpost.com/jane-ellen-stevens/the-adverse-childhood-exp\\_4\\_b\\_1943772.html](http://www.huffingtonpost.com/jane-ellen-stevens/the-adverse-childhood-exp_4_b_1943772.html)

## ACEs Score

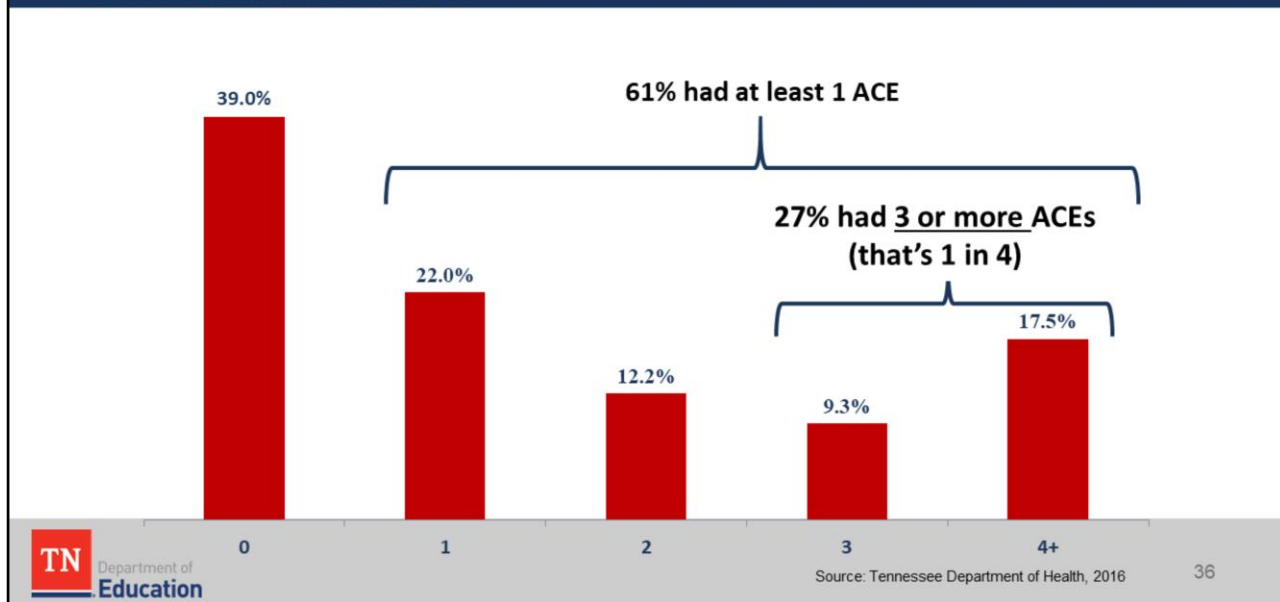
### ACE score of 4 or higher:

- 7 times more likely to be an alcoholic
- 6 times more likely to have sex by age 15
- 2 times more likely to be diagnosed with cancer
- 4 times more likely to be a smoker

### ACE score of 6 or higher:

- 30 times more likely to attempt suicide
- 20-year shortening of life span

## Number of ACEs Experienced Before Age 18 by Adult Tennesseans in 2016



- Tennessee is one of 30 states that have examined the rates of ACEs at the state population level with similar findings to previous studies on ACEs.
- Using the Behavioral Risk Factors Surveillance System (BRFSS), citizens are randomly called via landline and cell phone.
- In 2014, 61% of Tennessee's population had an ACE score of at least 1, and 27% reported having 3 or more. That is 1 in 4 Tennesseans.

**Source:** Tennessee Department of Health, Division of Policy, Planning, and Assessment, Office of Surveillance, Epidemiology, and Evaluation. (2016). *Behavioral Risk Factor Surveillance System (BRFSS) ACEs* [Data analyzed by the Division of Family, Health, and Wellness]. Available from <https://www.tn.gov/health/topic/statistics-brfss>

## ACEs $\neq$ Trauma

- Significant relationships can be pivotal buffers
- Being a member of a marginalized population does not equal trauma or an adverse childhood experience (it is not causal, just a risk factor)
- ACEs are universal, but the access to healing is not.

**It's not about the event,  
It's about the  
experience of the event.**

### **Key Talking Points:**

Studies have shown that high ACEs can compromise cognitive, social, and emotional development.

It makes sense that the stress that results from healthy development being compromised would lead to the adoption of other health risk behaviors.

We know that people who experience trauma as a result of ACEs are likely to pass ACEs on to their children.

However, we also know that safe, stable, nurturing relationships and strong communities can disrupt this cycle and help people heal and grow from trauma.

It's fundamental to recognize that trauma and ACEs are not the same thing; you can have an ACE score of 10 and NOT have an experience of trauma because you had stable, loving adults to help you make meaning of what was going on around you.

*Per the last point, solicit connections participants are making with their role as educators. This is an important positive affirmation to give your participants: they can be trauma preventers and interrupters simply by being present and attuned to their students.*



## What do your students face daily?



## Four Core Concepts of Development

1. **Brain architecture** is established early in life and supports lifelong learning, behavior, and health.
2. **Toxic stress** in the early years of life can derail healthy development.
3. Stable, caring relationships and **“serve and return”** interaction shape brain architecture.

## Serve and Return: Foundation for Literacy



Baby sees an object.

Child names an image in  
a picture book

Child sounds out words,  
makes guesses about  
meaning



Adult says object's name.

Adult points to the  
corresponding word.

Adult offers feedback,  
asks questions to  
encourage discovery of  
meaning.

## Serve and Return: The Still Face Experiment



*(Play Video: The Still Face Experiment)*

<https://www.youtube.com/watch?v=apzXGEbZht0> ; 2:48 min

## Four Core Concepts of Development

1. **Brain architecture** is established early in life and supports lifelong learning, behavior, and health.
2. **Toxic stress** in the early years of life can derail healthy development.
3. Stable, caring relationships and “**serve and return**” interaction shape brain architecture.
4. **Resilience** can be built through “serve and return” relationships, improving self-regulation and executive functions.

## The 3 R's Are Not Enough

# RESILIENCE

[ri-zil-yuhns]

**The power to be**  
able to recover readily  
from adversity or challenge.

## 3 R's for Fostering Resilience

**Compassion is a prerequisite for fostering resilience.**

- **Relationship**
  - Connection that conveys caring, cooperation and hope.
- **Respect**
  - Mutual, unconditional respect for each individual and their boundaries and challenges, through appropriate expectations, consequences, activities and materials.
- **Reasonable**
  - Teacher accommodations for student needs that are reasonable given the challenges of most school environments and the realities of ACEs of many students.

### ***Key Talking Points:***

- Resilience is a process, not an outcome.
- All people have the capacity for resilience. Some people have a pattern of resilience throughout their lives, whereas others have periods of resilience.
- There are many pathways to resilience, such that no two people reach a resilient outcome from the same path.
- Research has identified a common set of factors that predispose children to positive outcomes in the face of adversity:
  - Facilitating supportive adult-child relationships
  - Building a sense of self-efficacy and perceived control
  - Providing opportunities to strengthen adaptive skills and self-regulatory capacities
  - Mobilizing sources of faith, hope, and cultural traditions

## A Note on Neuroplasticity



neu·ro·plas·tic·i·ty  
the ability of the  
brain to **form and  
reorganize synaptic  
connections**,  
especially in  
response to learning  
or experience or  
following injury.

### ***Key Talking Points:***

Neuroplasticity can be defined as the brain's ability to form and reorganize synaptic connections, especially in response to learning, experience, and/or following injury. With their focus on learning and building healthy habits, schools are key settings to engage in fostering spaces and opportunities for this kind of healing and growth to occur.



# Backwards Bicycle



## Shifting to a Trauma-Informed Lens

**From:** “What’s wrong with you?”

**To:** “What happened to you?  
(And how can I help?)”



Becoming trauma informed begins with a simple but profound shift in how we view and respond to the behavior children “serve” us on a daily basis.

*Discuss the shift from “What’s wrong with you?” to “What happened to you?” and the follow-up question of “How can I be of help?” What would we see change in our programs, practices, and policies?*

## What can we do?

- If trauma leaves us feeling unsafe, we structure safety.
- If trauma leaves us feeling helpless, we structure for choice and empowerment.
- If trauma leaves us in need of developmentally strong and sustained relationships, we structure for collaboration.
- If trauma leaves us in a heightened state of caution and instability, we structure for trustworthiness and predictability.

## 5 Critical Steps to Implementing A Trauma-Informed School

Concept	Mantra	Strategy
1. The stress is coming from outside.	It's not about me.	Drop your personal mirror.
2. Allow the student to de-escalate and regulate before solving the issue.	Problem solving and solutions can't be worked through while "in the moment."	Designate a quiet place(s) where students can feel safe to de-escalate.
3. It's never about the issue at hand. It goes much deeper.	What's really driving this child's behavior?	Be the one who listens and values the student's voice...ask how you can help. Explore the underlying issue behind the behavior.
4. It's a brain issue, not a behavior issue.	My job is to help this school regulate, not simply behave.	Incorporate regulatory activities into the culture of the classroom and support students in their ability to learn how to self-regulate.
5. Discipline is to teach, not to punish.	Discipline should happen through the context of relationships.	Use consequences that keep students in school and foster the building of trust and safety with caring adults.

If trauma leaves us feeling unsafe, we structure safety.

If trauma leaves us feeling helpless, we structure for choice and empowerment.

If trauma leaves us in need of developmentally strong and sustained relationships, we structure for collaboration.

If trauma leaves us in a heightened state of caution and instability, we structure for trustworthiness and predictability.

## Activity: Five Critical Steps

### Pair and Share

- Does the step you chose resonate with particular experiences or patterns you notice in the school community?
- How is the step currently being practiced (or not) in your classroom/school community?
- What might make this step easy or hard to practice in your classroom/at your school?



## Responding vs. Reacting

- Give emotional space.
- Ask yourself the right questions.
- Tune into your own experience.

Traditional Reactions	Trauma-Informed Responses
"Go to the principal's office."	"I'm here. You're not in trouble."
"Stop crying."	"It's okay to feel."
"Detention is waiting for you."	"Sit with me."
"Don't you talk to an adult like that."	"You're allowed to have a voice. Let's talk together."
"Stop acting like a baby"	"That really set you back, didn't it?"
"You're old enough to handle this on your own."	"Let's handle this together."

### **Key Talking Points:**

**Give emotional space.** Dysregulated students are acting from their survival brain.

Accept without trying to solve the issue.

Ask probing questions to better understand what is going on inside your student.

Allow the student to be upset.

Give empathy to the issue (this doesn't mean you have to agree with it).

### **What's driving my student's behavior?**

What else is going on here?

What does my student need?

How can I change my perspective?

What keeps me only looking at behavior?

What is this behavior communicating right now?

What in the environment could be triggering the behavior?

**What can I do at this moment to improve my relationship with this student?**

**What does my student need?** (Validation? Connection? Affirmation?)

**Tune in to your own experience of the interaction and the students' behavior.** As Forbes notes, we each have our own "window of tolerance" that is colored by our

own regulation state, emotional awareness, and belief system. What are ways you might support your own regulation?

Get validation (from yourself or a colleague)

Have compassion for yourself—we get to operate out of our survival brain, too! This means we may not always behave, respond or react in the ways we would have liked. There is always space to restore a relationship.

(Adapted from Forbes & Sporleder, 2016)

## Traditional Reactions

- “Go to the principal’s office.”
- “Stop acting like a baby.”
- “Don’t you talk to an adult like that.”
- “It’s not that difficult.”
- “You should have never acted like that.”
- “Act your age.”
- “Stop whining.”



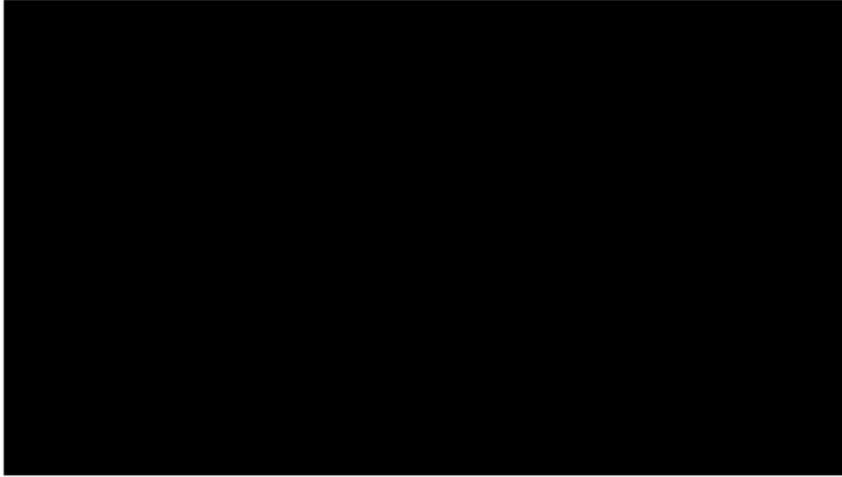


## Trauma-Informed Responses

- “I’m here. You’re not in trouble.”
- “That really set you back, didn’t it?”
- “You’re allowed to have a voice. Let’s talk together.”
- “I need to know how hard this is for you.”
- “Sometimes life just gets too hard, doesn’t it?”
- “Let’s talk about it.”
- “I want to understand you better. If I know how you feel, I’ll be able to help you better. Use your voice.”

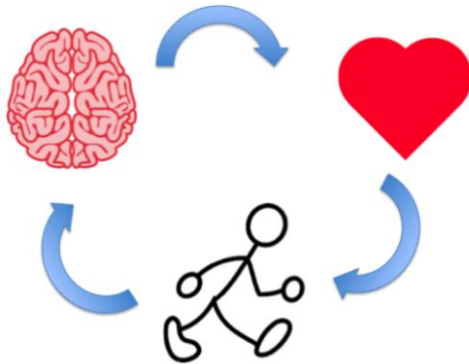


# Every Opportunity



Optional video

# Head, Heart, Feet



**Head:** What did you learn? What resonates with you?

**Heart:** How does this feel emotionally? Did it bring up feelings from the past: Yours, families and students that you work with?

**Feet:** How will this change what you do?

## Questions?

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*Districts and schools in Tennessee will exemplify excellence and equity such that all students are equipped with the knowledge and skills to successfully embark on their chosen path in life.*

**Excellence | Optimism | Judgment | Courage | Teamwork**

## Pre-Reading Homework

### From *Fostering Resilient Learners: Strategies for Creating a Trauma-Sensitive Classroom* (Souers and Hall, 2016)

#### EXCERPTS FROM: "Chapter 1. Understanding Trauma and the Prevalence of the Not-OK"

Educators have long known that what happens outside school can have a profound effect on what happens in school. A full library's worth of research explained why some students were successful in school and others weren't (see Hattie, 2009, for a meta-analysis of external factors affecting student achievement).

As an educator, you don't need a peer-edited research article to validate what your gut and your experience have already told you is true: a student's life outside school matters.

Trauma is an exceptional experience in which powerful and dangerous events overwhelm a person's capacity to cope. (Rice & Groves, 2005, p. 3)

The term *complex trauma* was first explored in 2003 by the National Child Traumatic Stress Network's Complex Trauma Task Force, a collective of professionals representing a dozen universities, hospitals, trauma centers, and health programs across the United States. This term emerged from the recognition that many people experience multiple adversities over the course of their lifetime.

Note that these definitions focus on the *impact* of the events, not the *nature* of the events. Although some events (the death of a parent or surviving the September 11, 2001, terrorist attacks on the World Trade Center, for example) may warrant a label of trauma in their own right, we all respond differently to trauma. Our own experiences and interpretations influence the degree of impact we feel following exposure to a traumatic event.

#### More Than Their Story

When schools first started integrating trauma awareness about 10 years ago, they tended to emphasize the events themselves and the details of those experiences. Educators and other professionals felt compelled to learn a student's "story" as a means of understanding his or her behavior. That approach often led to getting caught up in the trauma narrative rather than supporting and understanding the effect of that event on the young person. It's not that a person's story isn't important, but educators don't always have the luxury of knowing the story. We do, however, see the story's lingering effects.

For instance, let's say I work with two children who have had similar traumatic experiences: they both have a parent who has been incarcerated for the last two years, and they rarely get to see that parent. Although that life event is devastating for us to consider, the two young people have dramatically different responses: one is unable to process the reality and shuts down whenever something evokes a memory of his parent, while the other functions relatively well, compensating by building a stronger bond with the remaining parent. It is much more helpful for me to monitor the *effect* of the event on each individual, not to preoccupy myself with the details of the event itself.

This shift in perspective prompts us to be more sensitive to that effect and thus better foster healing and growth. Moreover, by altering our approach, we can begin to see students as more than their story. All too often, we reduce students to their experiences and make decisions about their capabilities based on those experiences. Changing our focus enables us to concentrate on nurturing the whole child and creating trauma-sensitive learning environments for all students.

### **ACEs Wild**

In the late 1990s, Dr. Robert Anda and Dr. Vincent Felitti led a collaborative project between the Centers for Disease Control and the Department of Preventive Medicine at Kaiser Permanente in San Diego, California, to explore the relationship between children's emotional experiences and their subsequent mental and physical health as adults. This groundbreaking research (Felitti et al., 1998) revealed a strong correlation between adverse childhood experiences and adult health and, perhaps more significantly, signaled that these ACEs were far more prevalent than previously thought.

What constitutes an ACE? Many of us can probably come up with some ideas, but the initial eight ACEs that Felitti and colleagues studied were

- Substance abuse in the home.
- Parental separation or divorce.
- Mental illness in the home.
- Witnessing domestic violence.
- Suicidal household member.
- Death of a parent or another loved one.
- Parental incarceration.
- Experience of abuse (psychological, physical, or sexual) or neglect (emotional or physical).

Many would argue now, and I would agree, that the list is not complete and should include other experiences, such as exposure to a natural disaster, criminal behavior in the home, terminal or chronic illness of a family member, military deployment of a family member, war exposure, homelessness, and victimization or bullying.

Despite this limitation, the details of the original ACE Study are fascinating. Anda and Felitti collected data from more than 17,000 adult patients who were insured by the major insurance provider in Southern California (Kaiser Permanente), tallying how many ACEs from the list each respondent had experienced. Each ACE listed was given a value of 1, so individuals reporting none of the above would have an ACE score of 0, whereas those who experienced all of the ACEs would have a score of 8. The researchers found that more than half of their subjects had experienced at least one ACE during their youth. Roughly 25 percent had experienced multiple ACEs, and 1 in 16 had an ACE score of 4 or above (Felitti et al., 1998).

Not only did this study's result shock the belief systems of many people working in the caregiving fields, but it also helped dispel the myth that trauma happens only in populations of poverty. Although living in poverty increases the likelihood of ACE exposure, poverty itself is not considered an adverse childhood experience. This study supported what many of us already knew: trauma does not discriminate. It happens everywhere—across all races, religions, socioeconomic levels, and family systems.

One of the more profound implications of this study was the acknowledgment of the prevalence of trauma in our society. One might even hypothesize that these numbers were low estimates of the actual occurrences, owing to social taboos against seeking or sharing this type of information and the fact that the traumatic experiences were self-reported. In fact, in two similar studies (Breslau, Kessler, & Chilcoat, 1998; Burns, 2005), more than 90 percent of respondents reported at least one lifetime traumatic event. These studies have been replicated with hundreds of thousands of subjects and across several arenas (including, for example, health care, education, and military), but the results remain consistent. These findings have been so powerful that many states are incorporating ACE awareness into their state studies and census data.

### **Effect of ACEs on Adult Health**

The original ACE Study investigated the relationship between ACEs and overall health and found, quite simply, that the higher an individual's ACE score was, the more likely it was that he or she would adopt or present with significant health-concerning outcomes, such as chronic obstructive pulmonary disease, hepatitis, sexually transmitted disease, intravenous drug use, depression, obesity, attempted suicide, or early death. In fact, there is a clear "dose effect," meaning the likelihood of having physical or mental health issues later in life increases in direct correlation to an individual's ACE score (Felitti et al., 1998).

Those working in the medical and mental health fields have long known that trauma exposure is toxic to the human body, and the ACE Study gave health professionals permission to begin to significantly address this issue on a global level.

### **Effect of ACEs on Children**

The ACE Study shows a remarkable link between not-OK childhood events and health issues later in life. What the original ACE research did not explore, however, was the immediate effect that these traumatic experiences had on children. This is crucial information that can inform educators' practice and the supports we offer to the young people under our care.

First, is childhood trauma as prevalent as the original ACE Study suggested? Sadly, yes. Recent research indicates that there are now more children affected by trauma than ever before:

- Nearly 35 million U.S. children have experienced at least one type of childhood trauma (National Survey of Children's Health, 2011/2012).
- One study (Egger & Angold, 2006) of young children ages 2–5 found that 52 percent had experienced a severe stressor in their lifetime.
- A report of child abuse is made every 10 seconds (ChildHelp, 2013).
- In 2010, suicide was the second leading cause of death among children ages 12–17 (Centers for Disease Control and Prevention, 2011).

Having established the continued prevalence of trauma, let's look at how these experiences affect children's educational outcomes. Inspired by the original ACE Study, Dr. Chris Blodgett and his research team (Blodgett, 2012) at Washington State University's Area Health Education Center conducted its own adverse childhood experiences study in 2011, investigating the effect of the same eight ACEs on the educational outcomes of elementary school students (ages 5–11) in Spokane County, Washington. The results confirmed the pervasiveness of ACEs:



- Forty-five percent of students had at least one ACE.
- Twenty-two percent of students had multiple ACEs.
- One in 16 students had an ACE score of 4 or higher.

Simultaneously, it emerged that ACEs have a powerful negative effect on students' readiness to learn, leading to the "triple whammy" of school troubles in attendance, behavior, and coursework (the ABCs). Students showed progressively higher incidents of scholastic struggles as their ACE scores rose, again revealing the "dose effect" suggesting that the number of traumatic occurrences matters even more than their severity. For example, a student with one adverse childhood experience was 2.2 times more likely than was a student with no ACEs to have serious attendance issues, a student with two ACEs was 2.6 times more likely to have these issues, and a student with three or more ACEs was 4.9 times more likely to have these issues. Figure 1.1 summarizes Blodgett's team's findings.

**Figure 1.1. Correlation Between Number of ACEs and Struggles with School and Health**

	Attendance	Behavior	Coursework	Health
<b>3+ ACEs</b>	4.9	6.1	2.9	3.9
<b>2 ACEs</b>	2.6	4.3	2.5	2.4
<b>1 ACE</b>	2.2	2.4	1.5	2.3
<b>No known ACEs</b>	1.0	1.0	1.0	1.0
The more ACEs a student experienced, the more likely he or she was to experience serious school and health issues.				

Note that there is a fourth column labeled "Health." Blodgett and his team found a direct link between childhood trauma and physical health, documenting higher rates of frequent illness, obesity, asthma, and speech problems in students with higher ACE scores. These results further support the original ACE Study's findings that ACEs are toxic to the body.

### How Trauma Affects the Brain

So how, exactly, does exposure to trauma affect educational outcomes? Simply put, trauma is toxic to the brain as well as to the body. There has been vast research conducted on the brain in the last two decades that challenges much of how we have historically interpreted the brain and its function. Scientists have discovered a new way of looking at the power of nurture in human development. Further, the increasing awareness of the effects of trauma on the brain has offered tremendous insight into the role trauma exposure plays in development, especially in childhood.

In the midst of extreme stress, our bodies are forced to respond via a heightened state of alert known as the *fight, flight, or freeze response*. Our bodies were designed to be in that state only for brief periods, and

only in the face of extreme danger. But when children are exposed to complex or acute trauma, the brain shifts its operation from development to stress response, which can have lasting repercussions. According to Harvard University professor Jack Shonko (2009),

In contrast to normal or tolerable stress, which can build resilience and properly calibrate a child's stress-response system, toxic stress is caused by extreme, prolonged adversity in the absence of a supportive network of adults to help the child adapt. When it occurs, toxic stress can actually damage the architecture of the developing brain, leading to disrupted circuits and a weakened foundation for future learning and health.

When brains are triggered by threat or perception of threat, they release chemicals into the body to allow us to "survive" those states of stress. When released in large doses, these chemicals become toxic to the body and can create significant impairment in development. Because the fetal, infant, and early childhood brain is so sensitive, chronically elevated levels of stress hormones can significantly disrupt the development of the brain in a multitude of ways, affecting learning, memory, mood, relational skills, and aspects of executive functioning (Shonko & Garner, 2012)—all required for success in a classroom setting.

### **Wrapping It Up**

Exposure to multiple and severe stressors can profoundly affect how children interpret their world. The more ACEs a child is exposed to, the greater the likelihood that he or she will experience developmental delays and health problems down the line. Increasing our awareness of ACEs in children and looking at our students through a trauma-sensitive lens open up an opportunity for us to approach teaching and learning in new ways.

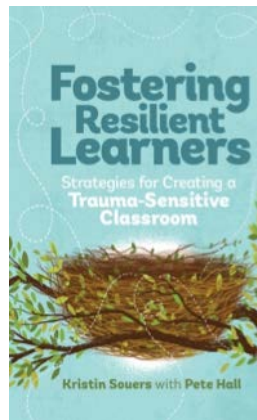
Further, when we start to look at the prevalence of the adversity that many of us have faced in our own lives, we must also celebrate the power of resilience. Many of us have found a way to survive the not-OK. As professionals, how can we foster that same resilience in students that we were able to muster up to survive our own experiences?

We know that childhood trauma has become an epidemic. No one is immune: trauma occurs everywhere, in all populations and circumstances, at every socioeconomic level, across ethnic and cultural lines, within all religions, and at all levels of education (ChildHelp, 2013). Because trauma's effect often presents itself as a mental health issue, the need for services is growing substantially. Yet research reveals that only a minority of children receive services: according to the Surgeon General's Report, "about 75 to 80 percent of children with a serious emotional disturbance fail to receive specialty services, and, according to family members, the majority of these children fail to receive any services at all." According to Kutash, Duchnowski, and Lynn (2006), the vast majority of children receive no mental health services, and among those who do, most receive the services at school.

Children with mental health issues are not required to obtain professional mental health services, but they are legally obligated to attend school. Thus, school is the one place where we are guaranteed access to our trauma-affected children. Our students need us to create a trauma-sensitive learning environment for them.

## Reflective Questions

1. Exploration of trauma sometimes launches a "nature versus nurture" debate. Why do you suppose some children are more strongly affected by certain events than others are? What does this suggest for us as professionals?
2. What are your initial responses to the prevalence of trauma? Are you surprised? Why or why not?
3. Review the original ACE Study's list of stressors. What might you add to that list? What do you see significantly affecting our students?
4. Given the information above, how might you shift your approach in working with these vulnerable children?
5. What steps can you take to bring this important topic into your professional conversations? How might that provide an avenue to better support our students?



# Five Critical Steps to Implementing a Trauma-Informed School

Adapted from “The Trauma Informed School” by Jim Sporleder and Heather T. Forbes

CONCEPT	MANTRA	STRATEGY
1. The stress is coming from outside of school.	<i>It's not about me.</i>	Drop your personal mirror.
2. Allow the student to de-escalate and regulate before solving the issue.	<i>Problem solving and solutions can't be worked through while "in the moment."</i>	Designate a quiet place(s) where students can feel safe to de-escalate.
3. It's never about the issue at hand. It goes much deeper.	<i>What's really driving this child's behavior?</i>	Be the one who listens and values the student's voice... Ask how you can help. Explore the underlying issue behind the behavior.
4. It's a brain issue, not a behavioral issue.	<i>My job is to help this student regulate, not simply behave.</i>	Incorporate regulatory activities into the culture of the classroom and support students in the ability to learn how to self-regulate.
5. Discipline is to teach, not to punish.	<i>Discipline should happen through the context of relationship.</i>	Use consequences that keep students in school and foster the building of trust and safety with caring adults.

## Responding Versus Reacting

*In the left-hand column are some of the traditional reactions matched up with a new loving trauma-informed response in the right-hand column.*

Traditional Reactions	Trauma-Informed Responses
"Go to the principal's office."	"I'm here. You're not in trouble."
"Stop crying."	"It's okay to feel."
"Stop acting like a baby."	"That really set you back, didn't it?"
"Detention is waiting for you."	"Sit with me."
"Don't you talk to an adult like that."	"You're allowed to have a voice. Let's talk together."
"You're old enough to handle this on your own."	"Let's handle this together."
"Stop whining."	"I want to understand you better. If I know how you feel, I'll be able to help you better. Use your voice so I can really understand."
"It's not that difficult."	"I need to know how hard this is for you."
"You should never have acted like that."	"Sometimes life just gets too big, doesn't it?"
"Act your age."	"This is too big to keep to yourself."
"I can't help you with this issue. I've got 30 other children in the classroom."	"We'll get through this together. Every single student in this classroom is important."
"I'm calling your parents. Wait until they find out."	"Let's get everyone involved to support you. You're not in trouble. I want your parents involved so we can all find a way to make this better."
"Nobody is going to like you if you keep misbehaving."	"I know you want to be well liked, so let's make that happen."
"You need to take ownership."	"I'm sorry this is so hard."

From Sporleder, J., & Forbes, H. (2016). *The Trauma-Informed School*. Boulder, CO: Beyond Consequences Institute: p. 167

## Classroom Strategies

STRATEGIES		
GOAL	ELEMENTARY STRATEGIES	SECONDARY STRATEGIES
BUILD RELATIONSHIP	<ul style="list-style-type: none"> <li>• Leave a note on the student's desk</li> <li>• Have a struggling Billy come to the classroom before school</li> <li>• Lunch with the principal</li> </ul>	<ul style="list-style-type: none"> <li>• Connect with student during passing time</li> <li>• Assign mentor to Billy's who need extra attention</li> <li>• Lunch with principal</li> </ul>
BUILD SELF-ESTEEM	<ul style="list-style-type: none"> <li>• Affirmations</li> <li>• Story time</li> </ul>	<ul style="list-style-type: none"> <li>• Affirmations</li> </ul>
CREATE A CALM CLASSROOM	<ul style="list-style-type: none"> <li>• Warm lighting</li> <li>• Increase natural lighting if possible</li> <li>• Sound machine</li> <li>• Animals</li> <li>• Decrease wall hangings</li> </ul>	<ul style="list-style-type: none"> <li>• Warm lighting</li> <li>• Increase natural lighting if possible</li> <li>• Sound machine</li> <li>• Animals</li> <li>• Decrease wall hangings</li> </ul>
CREATE A "FAMILY" IN THE CLASSROOM	<ul style="list-style-type: none"> <li>• Pictures of each student on posterboard</li> <li>• Welcome each student by his/her name</li> <li>• Chart with "School Hierarchy"</li> </ul>	<ul style="list-style-type: none"> <li>• Welcome each student by his/her name</li> <li>• Chart with "School Hierarchy"</li> </ul>
FOCUS ON BREATHING	<ul style="list-style-type: none"> <li>• 2 min. meditation</li> <li>• Balloons</li> <li>• Bubbles</li> <li>• Pinwheels</li> <li>• Ring the Singing Bowl</li> <li>• Gonoodle.com</li> </ul>	<ul style="list-style-type: none"> <li>• 10-15 min. meditation</li> <li>• Ring the Singing Bowl</li> <li>• Gonoodle.com</li> <li>• Pinwheels</li> </ul>
FOCUS ON SAFETY	<ul style="list-style-type: none"> <li>• SafeZone in the classroom</li> <li>• Mantras</li> </ul>	<ul style="list-style-type: none"> <li>• SafeZone in the classroom</li> <li>• Mantras</li> <li>• In School Suspension Room</li> </ul>

STRATEGIES		
GOAL	ELEMENTARY STRATEGIES	SECONDARY STRATEGIES
FOCUS ON REGULATION VS. DYSREGULATION	<ul style="list-style-type: none"> <li>• Window of Stress Tolerance Worksheet</li> <li>• “Safe Keeper System”</li> <li>• Time-In</li> <li>• Before School</li> <li>• Anger Catcher</li> <li>• Calm Down Bottles</li> <li>• “Paint Chip” Plan</li> <li>• Picture</li> <li>• Phone call home</li> <li>• Coloring books</li> <li>• Listen to music</li> <li>• Stuffed animals</li> </ul>	<ul style="list-style-type: none"> <li>• Teach Window of Stress Tolerance</li> <li>• Teach the Brain Science and the impact of trauma on the brain</li> <li>• Time-In</li> <li>• Knitting</li> <li>• Calm Down Bottles</li> <li>• “Paint Chip” Plan</li> <li>• Picture</li> <li>• Phone call or text home</li> <li>• Coloring books</li> <li>• Listen to music</li> </ul>
PROVIDE MOVEMENT OPPORTUNITIES	<ul style="list-style-type: none"> <li>• Swinging</li> <li>• Rocking</li> <li>• Merry-go-round</li> <li>• Brain Gym ® exercises</li> <li>• Running</li> <li>• Gonoodle.com</li> </ul>	<ul style="list-style-type: none"> <li>• Taped Pacing Area</li> <li>• Rocking</li> <li>• “Walk, Talk, and Regulate”</li> <li>• Brain Gym ® exercises</li> <li>• Running</li> <li>• Gonoodle.com</li> </ul>
PROVIDE PURPOSE	<ul style="list-style-type: none"> <li>• Before School</li> </ul>	<ul style="list-style-type: none"> <li>• Before School</li> </ul>
PROVIDE NOURISHMENT	<ul style="list-style-type: none"> <li>• Have snacks and water available at all times</li> </ul>	<ul style="list-style-type: none"> <li>• Have snacks and water available at all times</li> </ul>
PROVIDE STRUCTURE	<ul style="list-style-type: none"> <li>• Be consistent</li> <li>• Keep Daily Schedule Visible</li> <li>• Create traditions</li> </ul>	<ul style="list-style-type: none"> <li>• Be consistent</li> <li>• Keep Daily Schedule Visible</li> <li>• Create traditions</li> </ul>
SUPPORT TRANSITIONING	<ul style="list-style-type: none"> <li>• Play soft music before the bell rings</li> <li>• Ringing the Singing Bowl to STOP</li> </ul>	<ul style="list-style-type: none"> <li>• Have staff present in the hallways during passing time</li> <li>• Ringing the Singing Bowl to STOP</li> </ul>
TEACH EMOTIONAL EXPRESSION	<ul style="list-style-type: none"> <li>• Basic Feeling Words</li> <li>• Story Time</li> </ul>	<ul style="list-style-type: none"> <li>• Basic Feeling Words</li> <li>• Character Analysis</li> </ul>

STRATEGIES		
GOAL	ELEMENTARY STRATEGIES	SECONDARY STRATEGIES
TEACH HOW TO IDENTIFY STRESS	<ul style="list-style-type: none"> <li>• <i>Stress Indicator Form</i></li> <li>• Identify Visceral Reactions to Stress</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Stress Indicator Form</i></li> <li>• Identify Visceral Reactions to Stress</li> </ul>
TEACH PROBLEM SOLVING SKILLS AND CRITICAL THINKING SKILLS	<ul style="list-style-type: none"> <li>• <i>Linguisystems</i></li> <li>• Character Analysis</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Linguisystems</i></li> <li>• Character Analysis</li> </ul>
TEACH SOCIAL SKILLS	<ul style="list-style-type: none"> <li>• <i>Linguisystems</i></li> <li>• Group Sessions with Guidance Counselor</li> <li>• Use Autism resources</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Linguisystems</i></li> <li>• Group Sessions with Guidance Counselor</li> <li>• Use Autism resources</li> </ul>

Sporleder, J., & Forbes, H. (2016). *The Trauma-Informed School*. Boulder, CO: Beyond Consequences Institute: pages 180-182.