

Teaching Students with Adverse Childhood Experiences

Kelsey Bundrick

A Senior Thesis submitted in partial fulfillment  
of the requirements for graduation  
in the Honors Program  
Liberty University  
Fall 2023

Acceptance of Senior Honors Thesis

This Senior Honors Thesis is accepted in partial fulfillment of the requirements for graduation from the Honors Program of Liberty University.

---

Samuel Smith, Ed.D.  
Thesis Chair

---

Virginia Dow, Ph.D.  
Committee Member

---

James H. Nutter, D.A.  
Honors Director

---

Date

**Abstract**

Students in every school and at every grade level have had, or continue to have, adverse childhood experiences (ACEs), which may be considered traumatic. These experiences inevitably interfere with students' brain development and learning processes. First, it is important that teachers are informed of the effects that these experiences may have on the lives of their students. Awareness of the problem is the first step toward solving any issue. Second, with knowledge of these findings, teachers must find methods to reach these students. All students deserve an equal chance at a quality education. The purpose of this study is to examine the effects of ACEs and find the best methods to help these students learn most effectively.

### **Teaching Students with Adverse Childhood Experiences**

Adverse childhood experiences (ACEs) “describe traumatic events that occur before the age of eighteen and are categorized into three groups: abuse, family/household challenges, and neglect” (Romero et al., 2018, p. 2). The original ACE study, first conducted in 1995, further broke these categories down into “psychological, physical, or sexual abuse; violence against mother; or living with household members who were substance abusers, mentally ill or suicidal, or ever imprisoned” (Felitti et al., 1998, p. 245). The term has been expanded in more recent studies to include any other types of distressing experiences, as well, but it is consistently used to denote traumatic events. ACEs typically have many negative effects on the lives of those who experience them, including effects on learning. Thus, these effects seep into the classroom. Teachers need to be aware of ACEs, and they need to implement the most effective teaching methods that will help their students combat the effects of such trauma without detracting from the curriculum but enhancing it instead.

### **The Need for Awareness in Schools**

Various studies have found connections between a student having experienced ACEs and a student having increased academic issues; students exposed to a greater number of traumatic experiences were generally found to have a greater number of issues in school. A cross-sectional study found that students who dealt with four or more ACEs, when compared to their counterparts, had a significantly higher rate of reported school absences, lack of engagement in school, and repetition of a grade (Crouch et al., 2019). This same study found that students who were reporting these three issues were more likely to have reported ACEs than not. Another study found a positive correlation between increasing ACEs and increasing school absences (Bellis et al., 2018). The percentage of suspensions from school and low scores on standardized

tests is inflated for students with multiple ACEs, and almost one hundred percent of students with at least six ACEs have a learning disability (Romero et al., 2018). This statistic is startling. The connection between a high number of ACEs and low academic performance is undeniable.

Unfortunately, ACEs are common. A study conducted on students in Southern California reported that two-thirds of these students experienced at least one or more types of ACEs (Dombo & Sabatino, 2019). Therefore, only one-third of the students did not experience an ACE. This finding is corroborated by the similar results of another study, which focused on high school students located in Chicago; only about 35% of the students did not experience an ACE (Fletcher-Janzen & Harrington, 2021). In both areas, more students had experienced these traumatic events than not. Similarly, the Centers for Disease Control and Prevention (CDC; 2021) asserted that 61% of all adults have experienced one or more ACEs (2019). Considering the prevalence of such events, one must assume that every classroom will contain students dealing with the effects of ACEs. These detrimental effects may involve students' health, brain development, and behavior. Therefore, all teachers need to be aware of trauma and the effects it can have.

### **Trauma and Health**

Many students who have experienced ACEs suffer from resulting health problems. Poor health may certainly contribute to difficulties in school. Traumatic events can cause excessive stress, especially if the events are reoccurring, and this stress can be a source of poor health. The resulting stress caused by ACEs, termed toxic stress, is linked with chronic health issues and mental illnesses (CDC, 2021). Exposure to prolonged high stress levels has also been shown to cause a shortening in telomere length, and a shorter telomere length is positively correlated with various negative health consequences (Sciaraffa et al., 2018). Telomeres are “the specific DNA-

protein structures found at both ends of each chromosome” and they “play a vital role in preserving the information in our genome” (Shammas, 2011, p. 28). Studies show that children who have lived through two or more ACEs have significantly worse health than those with no ACEs (Mersky et al., 2013). All of the different kinds of ACEs have been positively linked to depression (Qu et al., 2022). About 50% of children and teenagers who undergo traumatic events struggle with post-traumatic stress disorder (PTSD) afterwards (Dombo & Sabatino, 2019). One study found that as the number of reported ACEs increased, the frequency of reported cases of childhood asthma, allergies, headaches, and digestive disorders also increased; with digestive issues having the highest correlation (Bellis et al., 2018). Another study discovered strong links between traumatic stress and diseases such as obesity and heart disease (Berger et al., 2020). Thus, for many, traumatic stress has a negative physical effect on the body.

Certainly, the resulting health lapses and doctor visits contribute to the high rate of school absences for students with ACEs. Students with health conditions were found to have lower grades and lower overall academic performance (Forrest et al., 2011). Poor health correlates with academic issues. These academic issues could cause further damage if they inhibit the success of traumatized students. Higher levels of education are associated with superior health in adulthood as compared to lower levels of education (Raghupathi & Raghupathi, 2020). Thus, if students with ACEs develop health conditions and are then unable to achieve high levels of education, they may be at risk for even more health issues in adulthood. Further, people with four or more ACEs, compared to those with no ACEs, have four to twelve times the risk of developing alcoholism and drug addictions, and two to four times the risk of developing a habit of smoking (Felitti et al., 1998). Students with multiple ACEs are more likely to partake in activities that put their health in even greater danger. With a higher number of ACEs, not only is there a higher

chance for poor health, but also for early death (Dombo & Sabatino, 2019). Childhood traumatic events pose a real danger to the health of children, and these issues often seep into adulthood, even involving the greater risk of an untimely death. Any possible interventions by teachers to thwart traumatic stress, if effective, would not only be helpful for students' academic performance, but also for students' life quality in general.

### **Trauma and the Brain**

Mental illness is linked with ACEs, so these experiences can certainly have an impact on the brain. This impact can even involve the disruption of brain development. The brain develops and matures during childhood and adolescence, and this process is not complete until one is about 25 years old (Arain et al., 2013). Thus, this process continues all throughout the years that students are in school. Important developmental processes occur in the first five years of life and between the ages of 15 and 25, which are especially vulnerable to trauma; during these periods, adverse experiences can physically alter the brain and change the paths of neurons, including those that drive learning and self-regulation (Waite & Ryan, 2020). These changes can be detrimental to the formation of cognitive skills that are necessary for academic success in school (Smithgall et al., 2013). Such impacted skills may include multitasking, problem solving, information processing, decision making, and self-control (Arain et al., 2013). Trauma can stunt brain development and affect one for life.

Part of the danger of trauma is the stress it induces. Chronic stress, such as that caused by ACEs, has been shown to cause shrinking of the prefrontal cortex (McEwen, 2017). The prefrontal cortex is important for forming new goals and working towards them, and it also plays a key role in memory (Fuster, 2015). The ability to work towards a goal is important in order for students to improve, and memory is the foundation of learning, so the prefrontal cortex plays an

important piece in the learning process. The ability to remember is the most basic skill in Bloom's Taxonomy and the one from which all other skills are built (Adams, 2015). Chronic stress has also been shown to negatively affect memory and attention spans because of long-lasting high cortisol levels (Sciaraffa et al., 2018). Students who have a compromised memory are certainly at a disadvantage in school. Another effect of prolonged stress includes the impairment of the brain's ability to handle stress (Sciaraffa et al., 2018). The ability to cope with stress is an important life skill, and it is an especially applicable skill in school.

Trauma can also be associated with the damage of grey and white matter in the brain, with this damage increasing the likelihood of deficits in language, attention, and memory, as well as the likelihood of lower IQ (Wycoff & Franzese, 2019). Other research shows that the development of the right brain may be disrupted in children who are continually exposed to ACEs, and this can damage a child's ability to regulate emotions; children dealing with this developmental disruption may be more likely to continually perceive their environment as dangerous (Nicholson et al., 2018). If a student does not feel safe, this student will not easily focus on learning in school. Students who feel they are in danger often dissociate, meaning that their attention is disconnected from the lesson at hand and instead focused on past traumas (Dombo & Sabatino, 2019).

Although ACEs can have many detrimental effects on the brain, such effects are invisible and may be difficult for teachers to identify. The scars of trauma are not always outward. This imperceptibility makes it that much more important for teachers to have an awareness of ACEs. The effects on students' brains not only make learning more difficult for traumatized students, but it can also engender disruptive student behavior, which additionally distracts other students.



### **Trauma and Behavior**

ACEs can have a negative effect on students' behavior. Exposure to trauma has been linked with increased behavioral problems in children (Hickman et al., 2013). One study found that the more ACEs a child experienced, the more aggressive behaviors that child exhibited (Hunt et al., 2017). This may partly be caused by a lack of a healthy attachment style due to the stressful environment created by ACEs, and since this can make all types of relationships difficult for the child, this can lead to a child who is withdrawn or overly anxious and demanding (Howard, 2013). Trauma can also result in students who fight, run away, are unable to pay attention, and overreact to minor issues (Smithgall et al., 2013). Students who act in such a way are often labeled as disrespectful, and teachers may not realize that there is a deeper issue behind the behaviors, which involves the effects of ACEs on the brain (Koslouski & Stark, 2021). Teachers may want to simply correct the behavior, but merely correcting behavior does not resolve the root of the problem. Teachers who use specific disciplinary methods may even retraumatize students if they are accidentally triggering them (Dombo & Sabatino, 2019). Of course, it is imperative that teachers are able to manage their classrooms and stop any disruptive behavior. Behavior issues are ranked among the top five causes of teacher burnout, and it has been ranked as the second worst daily stressor for teachers (Rankin, 2022). Thus, teachers must find classroom management techniques that are effective but that are sensitive to past traumatic experiences. Also, techniques that help students feel safe, and offer them an example of secure attachment, may help to further prevent disruptive class behaviors.

### **Methods for Teaching Students with ACEs**

Awareness of adverse childhood experiences and their damaging consequences is not enough for teachers. Teachers must be armed with methods that will help them reach traumatized

students. However, these methods should not interfere with learning by taking away necessary instructional time. The goal is for teachers to enhance the learning experience for all students, including those who have not experienced ACEs. Universal methods should be applied first, while methods used for targeted students should be applied later, and only if necessary. This is in concord with the Multi-Tiered Systems of Support (MTSS) for trauma, a program implemented by many schools across the United States; tier one involves universal supports for all students, tier two involves interventions with small groups of students, and tier three involves interventions with individual students (Berger, 2019). This program was reported to be linked with improved student academic performance and behavior. Universal supports are used first and foremost, and more targeted approaches are used only when necessary.

Universal supports should be focused on building resilience in all students. Resilience is defined as “the ability to adapt successfully to disturbances that threaten development of a positive life course or the ability to resume one following periods of adversity” (Bellis et al., 2018, p. 2). Every student, and every person, will face adversity in their life. Thus, resilience is a useful skill for all, regardless of whether one has lived through an ACE or not. One study found that students with ACEs who had more resilience assets had fewer health problems and fewer absences than students with fewer assets (Bellis et al., 2018). Teachers can help to instill resilience with various methods. Creating a safe environment and teaching social-emotional skills can be a way to foster resilience in all students, whereas referral to a mental health professional may be the only way for certain students to achieve such adaptability.

### **Creating a Safe Environment**

Environmental factors play an important part in resilience (Hornor, 2017). A safe and stable environment that offers emotional resources and meets physical needs can nurture

resilience and be preventative against ACEs (Waite & Ryan, 2020). Children cannot process information when they feel threatened because their pre-frontal cortexes shut down, and so children in this state struggle with focusing on school (Nicholson et al., 2018). A safe environment is important for all students, but especially for those who have experienced ACEs. Since students who have experienced trauma are more prone to hypervigilance, a safe environment is necessary for them so that they can more easily shift their focus from perceived threats to their learning tasks (Mahmud, 2022). A safe classroom that is trauma-informed also benefits the students without ACEs because these students are inevitably affected when the students with ACEs share stories of their traumatic experiences or when they simply act out as a result of their traumatic triggers (Smithgall et al., 2013). Teachers can use quite a few methods to create a safe classroom and welcoming environment. An environment is made up of multiple aspects, including the physical layout, the relationships, and even the set routines. Teachers should be aware of each aspect.

### *Physical Layout*

Perhaps the most basic part of an environment is the physical layout. The teacher can use such a simple tool as the seating arrangement to make students feel safe. For example, students with ACEs may be seated closer to the teacher so that check-ins are easier; further, teachers can create a comfortable break area, perhaps in a corner of the classroom, with tools for self-regulation like coloring books (Koslouski & Stark, 2021). Many teachers regarded these ideas as helpful when implemented in their own classrooms. Teachers may also allow students to try standing, side sitting, or sitting on the floor, instead of using traditional seating when appropriate because comfort is associated with calmness (Carrere et al., 2021). Physical therapists have

confirmed that these positions do increase calmness, and teachers have reported increased focus and decreased disruptive behaviors when tested in their classrooms.

Besides adjusting the class seating areas, teachers may also try to avoid environmental triggers for students with trauma. Triggers can involve certain smells or sounds such as fighting and yelling, and if a teacher is aware of certain students' triggers, that teacher may try to limit such triggers as much as possible (Dombo & Sabatino, 2019). Of course, teachers cannot know every trigger for every student, especially at the beginning of the year, but if certain ones become apparent, these triggers should be avoided.

Teachers may tweak their physical environment in a few other ways. Many teachers recommend that classrooms limit artificial lights, and instead use softer lights while capitalizing on natural lighting from windows; many also recommend that rugs are put in place to absorb sound, and headphones are provided so that students can work in a quiet environment when needed (Carrere et al., 2021). Students exposed to high amounts of stress may be easily overstimulated, so limiting harsh lighting and excessive noise may help to alleviate this issue.

### ***Student-Teacher Relationship***

Beyond the physical aspects of the classroom, relationship dynamics also have a major effect on the overall environment. For children, being surrounded by supportive friends and trustworthy adults is negatively correlated with health issues, such as digestive conditions (Bellis et al., 2018). Thus, relationships can even affect health. Relationships are also an important resource that promotes resilience (Waite & Ryan, 2020). Research shows that a positive relationship between a caring adult and a traumatized child can actually shield that child from some of the negative impacts of ACEs and support the child in healing (Nicholson et al., 2018). When parents cannot or do not play this role, teachers have a chance to do so because of the

many hours that students spend at school (Keane & Evans, 2022). For example, ACEs are linked with students having a resulting lack of empathy, but this link is lessened in students who have close and supportive relationships with their teachers (Stoppelbein et al., 2021). Also, one study found that although ACEs are associated with illicit drug use, positive relationships between teacher and student led to a reduced association, especially for students with many ACEs (Forster et al., 2017). To have such an effect, teachers must know how to create and maintain such positive relationships and how to make their students feel safe.

Both children and adolescents feel safe when they have connections to people who are calm and who respect and listen to them (Dombo & Sabatino, 2019). The way a teacher acts can work to either make students feel safe or unsafe. Therefore, teachers must be very mindful of the way they treat their students. For young children especially, the emotional state of the adults around them has significant impacts on their own emotional state and behavior; teachers should be aware of their own emotional triggers when dealing with frustrating student behaviors, and they should use self-regulation practices in order to stay calm (Nicholson et al., 2018). A powerful technique that teachers may use to show students that they care and are listening is to show what they notice; for example, if a teacher notices that a student has been more efficient in classwork, the teacher may comment on this, or if the teacher notices that a student did not eat lunch one day, the teacher may also mention this (Carrere et al., 2021). This technique opens up communication between the student and teacher in a positive way. Any other techniques that teachers find to strengthen relationships with students may be helpful too.

### ***Cultivating Student-Student Relationships***

Relationships between students are also very important. One study found that positive childhood experiences, such as feeling included and accepted in school and experiencing

supportive peer friendships, have a negative correlation with depression (Qu et al., 2022). The study concluded that these experiences seem to buffer the risk of depression in students with ACEs. Thus, if teachers can help foster friendships between students, they should. Of course, teachers have more power over their own relationship with students, but they certainly can find ways to influence and inspire friendships among students, too. Teachers interviewed in a study across many different school settings expressed that building a caring classroom culture plays an important part in student friendships; one teacher explained how he created a class culture in which he encouraged students to share when they were having a bad day, and as a result, the other students would be more sensitive towards that student (Koslouski & Stark, 2021). Teachers can set up certain rules and expectations in their classroom that make the culture feel safe and accepting and more conducive to forming friendships. Part of this culture should certainly make mistakes an acceptable part of the learning process. Answering questions in front of peers can be intimidating if a student is unsure of how their incorrect answers will be reacted to. They may fear teasing. Yet when teachers model themselves making mistakes and phrase them as an opportunity for learning, this makes it easier for students to feel the same (Carrere et al., 2021). This creates an accepting culture and is beneficial for both learning and formation of friendships.

Teachers may also encourage positive student relationships through group work activities. One such activity is called concentric circles, where each student on an inside circle will be paired with a student on the outside circle, and then will switch to a new partner after a short set amount of time (Carrere et al., 2021). Pairs ask and answer questions, and the teacher provides structures for responses, allowing students to interact with one student at a time with a low social demand. Other group activities using the same sort of guidelines, careful not to overwhelm students socially while still giving them an opportunity to interact with others, may

be helpful. This may be more difficult to achieve when a class is being conducted over a video call through remote or hybrid instruction, but there are still options. One study investigated strategies used by teachers during the school shutdowns during COVID-19 and found that many made use of structured breakout rooms to encourage socialization (Levine et al., 2023). Structure was reported to be important, involving such tactics as conversation starters and clear expectations because without structure the breakout rooms were difficult to navigate for students, resulting in awkwardness and silence. Even with such difficult barriers, teachers can find ways to provide opportunities for students to form friendships.

### ***Predictability***

Predictability is an important calming factor for students who are used to chaos. It calms the neurological system (Carrere et al., 2021). Children who are looking for safety tend to look for predictability, so teachers should provide consistent routines and transition times and be consistent with doing what they say they will do (Dombo & Sabatino, 2019). Many children with ACEs perceive a high amount of unpredictability in their lives, and this perception is associated with various health issues (Maner et al., 2023). Students feel more comfortable when they know what they are supposed to be doing throughout the day (Koslouski & Stark, 2021). Clear and consistent expectations are thus helpful for all students, not just those who have experienced ACEs.

Suggested methods for creating predictability include having a list of class rules for all to see and starting each class with a review of the schedule for the day (Levine et al., 2023). Consistency not only involves routines, but it also involves the actions of the teacher. Students notice when a teacher punishes the same behavior inconsistently. Therefore, other methods for predictability involve set procedures for dealing with each type of behavior issue, as well as a

consistent settling procedure for when the entire class becomes disorderly (Carrere et al., 2021).

Of course, teachers will have to adapt to certain situations. They will not always be able to follow their original plan. Sometimes, a lesson can take longer than expected, or an unplanned fire drill can occur. However, if a teacher knows about a planned change in schedule, the teacher should inform the students when appropriate, and as soon as possible, to allow students to prepare themselves (Nicholson et al., 2018).

### *Student Choice*

Student choice is often encouraged because it can inspire student interest. Student interest has been shown to have the highest influence on student perception of learning (Abrantes et al., 2007). However, choice can also be especially helpful for students with ACEs. Students who have undergone trauma have felt powerless, and so giving a student some control, in accordance with what is developmentally appropriate for their age, can add to a sense of safety (Dombo & Sabatino, 2019). Teachers have found that giving students choice helps students to become more self-aware and to feel like they belong (Levine et al., 2023). Many teachers have also found that student choice leads to decreased behavioral problems and increased engagement while completing schoolwork (Erwin, 2004). An analysis of 29 studies across pre-school to college classrooms indicated that in many instances giving students the power to make choices, as opposed to not giving them choices, leads to better academic results (von Mizener & Williams, 2009). In some cases, results were equal whether choices were given or not, but in no case were the results better due to lack of choice. Therefore, there does not seem to be a risk with providing choice, and so it is worth implementing.

Some examples of choices that can be made by students include the decision to stand or sit during certain activities, or the decision to do the day's activities in their chosen order



(Dombo & Sabatino, 2019). Other decisions may include picking between several essay topics, or where to sit in class, although this choice can be overridden if students engage in too much distracting behavior as a result; students may also aid in choosing class rules at the beginning of the year (Erwin, 2004). Students may also be allowed to choose when they need to go for a water break (Carrere et al., 2021). Students should always feel that they have the power to meet their most basic needs, otherwise, it will be difficult for them to feel safe. The privilege of choice can be taken away if it is abused.

### **Social-Emotional Learning**

Creating an overall safe environment is important for students with ACEs, but teachers can implement even more specific and direct methods to help these students by explicitly teaching specific skills that foster resilience. Resiliency has been commonly found in those who are skilled at planning, maintain self-control, have confidence, and self-reflect (Hornor, 2017). Thus, sharpening these skills should be beneficial for resiliency. Students who are enduring trauma typically react more emotionally, have a harder time understanding emotions, and have low confidence (Levine et al., 2023). Research shows that students with greater numbers of ACEs struggle more with emotional regulation and social skills, which then makes receiving social support more difficult (Scott et al., 2021). These weaknesses may make resiliency more difficult, but they can be improved upon. Students with trauma may need help with doing so. Social and emotional learning (SEL) is a “process through which children and adults develop the skills, attitudes, and values necessary to acquire social and emotional competence” (Elias et al., 1997, p. 2). SEL can be an asset in building resiliency. The main skills being worked on in this process are “self-awareness, self-management, social awareness, relationship skills, and

responsible decision-making” (Frankland, 2021, p. 59). SEL can help protect students against some of the negative consequences of trauma (Parker & Hodgson, 2020).

The skills that are refined by SEL are important for success in school, careers, and healthy living (Frankland, 2021). Thus, these skills are important for one’s quality of life. A meta-analysis of 213 schools with SEL programs indicates SEL is effective in improving confidence, behavior, and academic achievement (Durlak et al., 2011). Another meta-analysis has shown that SEL is correlated with 6% fewer placements in special education, 6% more students completing high school, 11% more students finishing college, and fewer arrests and clinical disorders later in life (Taylor et al., 2017). All of these can have beneficial effects on one’s life; the meta-analysis also reported the cost benefit of high school graduation alone is estimated to be \$367,000 for each student (Taylor et al., 2017), as graduation is correlated with higher paying jobs. The beneficial effects of this analysis were consistent across diverse groups of students, including students from various school locations, racial groups, and socioeconomic statuses.

However, the effects of SEL are not isolated to just students. Studies show that teachers who implement SEL report less emotional exhaustion as a result of the improved student behavior associated with the program (Kim et al., 2021). When a teacher takes the time to help students learn to better regulate themselves, that teacher can then spend less time overtly managing distracting behaviors, leading to decreased stress. Teachers may do this by modeling social and emotional skills, actively teaching these skills, and working with the strengths that students already have in these areas.

***Modeling Social and Emotional Skills***

Modeling is an important process when teaching any skill. Students must see the skill being practiced successfully so they can then copy and eventually learn the process for themselves. Students naturally learn by imitation (Haston, 2007). When followed by explicit teaching, this implicit way of teaching can be very effective. This method can even apply to skills that are not overtly academic but have to do with social and emotional skills, which then aid students in performing better academically. Researchers suggest that teachers should model social and emotional skills in a healthy manner, for this can help both children and adolescents who are still developing in these areas (Scott et al., 2021). Some students may not have any other adults in their lives who are modeling these skills in a healthy way.

One method in which teachers may model is by monitoring their emotional reaction when responding to disruptive student behaviors and making sure that they are responding appropriately, while being emotionally sensitive to what students are communicating through their actions (Dombo & Sabatino, 2019). By doing so, teachers model self-control and awareness of the emotions of those around them, showing both emotional and social intelligence. Teachers may also add commentary to explain and draw attention to their own regulation of emotions. For example, one interviewed teacher recalled how she commonly told students when she had taken a deep breath as a calming technique during stressful situations (Koslouski & Stark, 2021). Many students may not have noticed her calming strategy, but a quick comment allowed her to use it as a teaching moment. Other teachers explained how they modeled emotional regulation on Zoom during the COVID-19 pandemic, expressing their frustration over technology issues in a controlled and calm manner (Levine et al., 2023). They communicated the need for a quick break, due to stress, showing students how to make use of short respites. By doing this, the

teachers also created a safe environment that allowed for a range of emotions and understanding of these emotions, making students feel more comfortable in copying these regulatory behaviors. It is important that teachers implementing SEL avoid judging or minimizing students' feelings (Sciaraffa et al., 2018). Students should know that it is acceptable to have strong emotions, but they must learn how to react to them appropriately. Students also need to see how teachers handle social and emotional problems so that when teachers do give them tools to work with, they will know how to use them.

### ***Actively Teaching Social and Emotional Skills***

Most of the time spent in class should be spent focused on academics. However, taking time to actively teach social and emotional skills can, in the long term, make academic time more effective. Traumatized students especially have a need for SEL since many lack the skills to self-regulate and may need aid from the teacher (Frankland, 2021). Children need to have an adult show them how to recognize and control their emotions (Sciaraffa et al., 2018). Some students with trauma may not have access to such an adult, aside from a teacher. Yet all students need to learn self-regulation, emotional literacy, and friendship skills regardless of their having past trauma or not, so teachers should teach these skills universally (Nicholson et al., 2018). These SEL lessons can be integrated into lessons that are simultaneously academic and meet state standards.

Some ways that SEL can be integrated into class are in journal prompts, feelings surveys, and reflections on the emotions of characters in a book or video (Levine et al., 2023). SEL lessons can also be taught during breaks so that they do not take away from academics (Mahmud, 2022). Some strategies include stretches and quiet time, as well as having students count their steps as they walk to help them learn to feel present in the moment (Koslouski &

Stark, 2021). Mindfulness activities, such as listening to breathing and focusing closely on the senses, may be implemented during transitions between classes or activities (Dombo & Sabatino, 2019). In order to aid students in their self-management of emotions, breathing exercises may be taught and cool down spots assigned (Romero et al., 2018). Physical exercise should also be included in appropriate activities and promoted as a way to reduce stress (Scott et al., 2021). One teacher who was surveyed even taught her students to recognize emotions on people wearing masks (Levine et al., 2023). SEL can clearly be adapted to the times, even during a pandemic.

All of these methods can be applied for the whole class. However, these skills can also be taught individually when extra support is needed. One suggested time to teach SEL is when a student is emotionally dysregulated and behaves inappropriately; the teacher may calmly ask the student to identify their feelings and become reflective of the cause of their behavior (Dombo & Sabatino, 2019). Such a strategy seems to also work as a type of class management, teaching students for the next time their emotions become turbulent. It is important to remember that different regulation strategies will work for different students, and it is helpful to keep track of these strategies (Sciaraffa et al., 2018). Overall, teaching social and emotional skills should include some explicit teaching and opportunities to practice the skill, just as any other instruction does, in order to be the most effective.

### ***Teaching SEL to the Strengths of Students***

One important aspect of teaching SEL involves working with the existing strengths of students. Just as students have different amounts of background knowledge and experience with any topic, it is no different with SEL. Each student will be adept at certain social and emotional skills, while also needing to work on others. Research on SEL shows that it is especially important that teachers recognize and work with the strengths of traumatized students. Focusing

on strengths is part of being trauma-informed, and the emphasis on resiliency and on positive feedback is more encouraging for the students (Scott et al., 2021). It can be discouraging when a teacher only ever mentions problem behaviors that need to be fixed instead of noticing good behaviors that can be further enhanced. Emphasizing student strengths has also been found to improve the confidence of traumatized students (Frankland, 2021). Traumatized students are more likely to struggle with confidence, and an increase in confidence can be useful for their learning. Research shows that greater confidence in one's ability to learn leads to students investing more into their learning (Fischer & Sliwka, 2018). Students have more motivation if they feel that their work will have a real effect. Focusing on strengths can also help students to become more adaptive (Dombo & Sabatino, 2019). A practical strategy is to note when a student's behavior is not challenging, and to then observe the strengths and needs of that specific student (Nicholson et al., 2018). It is useful to record when a student demonstrates good behavior during what might be to others a challenging situation, as this can grant insight into their strengths in SEL.

### **Individual Interventions**

For some traumatized students, universal supports are not enough to help them build resilience. Some students need individual intervention. In certain instances, teachers may provide individual supports. Differentiation can be a useful technique to do so. Differentiation involves meeting the unique needs of students by providing different aids and using different methods in presenting information (Doubet & Hockett, 2015). However, some students may be so affected by ACEs that they need help that is beyond what a teacher can offer. If a teacher tries to help such a student, that teacher may be constantly pulled away from all the other students and their needs. One teacher explained how her other students noticed the extra attention she was giving to

students with ACEs and expressed jealousy over it (Koslouski & Stark, 2021). Though students with trauma may need more attention, it should not be such a distinct amount more that it takes away from the learning of others.

Teachers may at times have to refer students with ACEs to the help of mental health professionals. Such a professional may include school social workers, who can act as very useful resources. School social workers can aid students in the trauma healing process with a variety of interventions; these workers are especially helpful for students who have little access to mental health services elsewhere due to lack of funds and transportation (Dombo & Sabatino, 2019). This is not always an option, as not all schools have social workers. Even those that do may offer limited services depending on the budget of the school. Beyond this, some students may feel that there is a stigma attached to mental health services, and they may avoid seeking out help because of a fear of judgment. Studies show, however, that when provided information about mental health and available services, people's attitude can change to become more positive towards mental health issues, and listeners can become more willing to seek out therapy (Saporito et al., 2011). Thus, if a teacher conveys a positive attitude toward mental health services and teaches about them, students are more likely feel that it is acceptable to seek out treatment. In general, mental health treatment can be very helpful because it provides a relationship for students in which the students' needs alone are considered, which can be corrective of past relationships in which adults have had unrealistic expectations of the student of meeting their needs (Dombo & Sabatino, 2019). Many different treatments have been developed to help people with trauma, but research shows that the most effective treatments include attachment and biobehavioral catch-up, trauma-focused cognitive behavioral therapy, parent-child interaction therapy, and child-parent psychotherapy (Thompson & Kaufman, 2019). Of all these, the cognitive behavioral therapy has

been studied the most, and research has shown that it can largely decrease symptoms of PTSD. Teachers should encourage traumatized students to try therapy, perhaps one of those most supported by research; it will help students in life and in school.

If teachers notice signs that any student trauma is due to a student being abused, the teacher must report it, as teachers are mandated reporters. Teachers legally must report to child protective services; further, intervening when a student is experiencing such trauma promotes resilience and can help that student to gain access to necessary resources and treatment (Hornor, 2017). If the root of the problem, the continuing trauma, can be addressed, then students have a better chance of escaping the negative effects of ACEs. ACEs are conditions that can be changed, and any attempt to mitigate these experiences can be helpful and improve the health of affected individuals (Mersky et al., 2013). In many of these individual interventions, teachers do not have much power beyond pointing students toward useful resources or reporting to CPS, but these are important steps on the way to helping that student escape trauma and its effects.

### **Mixture of Methods**

Teachers may find that they will need to implement a variety of the mentioned methods to best help students with ACEs. Different methods will help different students and their unique needs, and teachers will have to experiment to see which work best in their own classrooms. Using a mixture of methods is certainly advisable, for many of the methods complement each other. If one method is successful and creates the intended effect, this method may work to make some of the other methods more effective. For example, both teacher and student relationships, part of the safe environment method, overlap with SEL in a number of ways. First, relationship skills are part of what is learned in SEL (Frankland, 2021). Thus, teachers seeking to create a safe environment will benefit from the overt teaching of relationship skills taught in SEL.



Inversely, teachers who have created a safe environment and established a good relationship with students will more easily be able to identify students' specific social and emotional needs and be able to teach SEL more effectively (Levine et al., 2023). Teachers can differentiate their SEL lessons more accurately when they know their students well. Teachers who have created a healthy attachment with their students may also help them to co-regulate their emotions, and eventually the students can grow towards self-regulation (Howard, 2013). Thus, a safe environment combined with SEL can lead to greater effectiveness for both methods.

Individual interventions also benefit from the use of universal supports like SEL and the creation of a safe environment. One school counselor noted that her work with targeted students was made much easier because of the universal supports implemented in her school, for these supports were connected to the work she was doing (Smithgall et al., 2013). Universal supports can provide a foundation that is built upon in individual settings. It can provide familiarity with certain practices, which make for a smoother transition into individual interventions.

### **Conclusion**

Students with ACEs often suffer greatly, and issues arise from trauma that hinders student learning. Since teachers are concerned with the learning of all students, these issues must also concern teachers. Additionally, students spend so much of their day in school that teachers have the unique opportunity to positively affect their students in significant ways. There are various methods that teachers can use to help students with ACEs to achieve resilience and academic achievement. These methods have been reviewed, and their practical application within the classroom discussed. Teachers may assess the given research and decide, based on their unique classrooms, which methods to apply and how. Teachers may implement universal

supports such as SEL and safe environment factors, and when these supports are not enough, they may refer students to more intensive interventions that focus on the individual student. Teachers should seek to find a way to implement universal supports in such a way that the supports aid the learning of all students and enhance academic instruction instead of taking away from it. Every student and every classroom of students is different, so it is useful to have a selection of thoroughly researched methods to choose from. The provided research offers an array of promising techniques, but certainly as more research continues to be documented, teachers should seek to update their teaching methods in order to be the most effective.

Teachers should consistently stay informed on research involving ACEs, and they should continually contemplate the adverse effects such events have on their students. They should seek to find the best teaching methods that will enhance the learning of all students, for those who have experienced trauma and those who have not.

### References

- Abrantes, J. L., Seabra, C., & Lages, L. F. (2007). Pedagogical affect, student interest, and learning performance. *Journal of Business Research*, *60*(9), 960-964.  
<https://doi.org/10.1016/j.jbusres.2006.10.026>
- Adams, N. E. (2015). Bloom's taxonomy of cognitive learning objectives. *Journal of the Medical Library Association*, *103*(3), 152–153. <https://doi.org/10.3163/1536-5050.103.3.010>
- Arain, M., Haque, M., Johal, L., Mathur, P., Nel, W., Rais, A., Sandhu, R., & Sharma, S. (2013). Maturation of the adolescent brain. *Neuropsychiatric Disease and Treatment*, *9*, 449–461.  
<https://doi.org/10.2147/NDT.S39776>
- Bellis, M. A., Hughes, K., Ford, K., Hardcastle, K. A., Sharp, C. A., Wood, S., Homolova, L., & Davies, A. (2018). Adverse childhood experiences and sources of childhood resilience: A retrospective study of their combined relationships with child health and educational attendance. *BMC Public Health*, *18*(1), 792-803. <https://doi.org/10.1186/s12889-018-5699-8>
- Berger, E. (2019). Multi-tiered approaches to trauma-informed care in schools: A systematic review. *School Mental Health*, *11*(4), 650–664. <https://doi.org/10.1007/s12310-019-09326-0>
- Berger, E., Martin, K., & Phal, A. (2020). Dealing with student trauma: Exploring school leadership experiences and impact. *Leadership and Policy in Schools*, *21*(4), 780-790.  
<https://doi.org/10.1080/15700763.2020.1836231>
- Carrere, D. L., Kinder, W., & Sadin, M. (2021). *The re-set process: Trauma-informed behavior strategies*. Brookes Publishing.

Centers for Disease Control and Prevention. (2021). *Vital signs: Adverse childhood experiences*

(ACEs). Retrieved October 10, 2023 from

<https://www.cdc.gov/vitalsigns/aces/index.html#:~:text=Overview,the%20body%20respon,nds%20to%20stress>

Crouch, E., Radcliff, E., Hung, P., & Bennett, K. (2019). Challenges to school success and the role of adverse childhood experiences. *Academic Pediatrics, 19*(8), 899-907.

<https://doi.org/10.1016/j.acap.2019.08.006>

Dombo, E. A., & Sabatino, C. A. (2019). *Creating trauma-informed schools: A guide for school social workers and educators*. Oxford University Press.

Doubet, K., & Hockett, J. A. (2015). *Differentiation in middle and high school: Strategies to engage all learners*. Association for Supervision and Curriculum Development.

Durlak, J. A., Dymnicki, A. B., Taylor, R. D., Weissberg, R. P., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405-432.

<https://doi.org/10.1111/j.1467-8624.2010.01564.x>

Elias, M. J., Zins, J. E., Weissberg, R. P., Frey, K. S., Greenberg, M. T., Haynes, N. M., Kessler, R., Schwab-Stone, M. E., & Shriver, T. P. (1997). *Promoting social and emotional learning: Guidelines for educators*. Association for Supervision and Curriculum Development.

Erwin, J. C. (2004). *The classroom of choice: Giving students what they need and getting what you want*. Association for Supervision and Curriculum Development.

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction

- to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventative Medicine*, 14(4), 245-258.  
[https://doi.org/10.1016/S0749-3797\(98\)00017-8](https://doi.org/10.1016/S0749-3797(98)00017-8).
- Fischer, M., & Sliwka, D. (2018). Confidence in knowledge or confidence in the ability to learn: An experiment on the causal effects of beliefs on motivation. *Games and Economic Behavior*, 111, 122-142. <https://doi.org/10.1016/j.geb.2018.02.005>
- Fletcher-Janzen, E., & Harrington, E. (2021). Translating ACE research into multi-tiered systems of supports for at-risk high-school students. *Journal of Pediatric Neuropsychology*, 7(3), 89-101. <https://doi.org/10.1007/s40817-020-00093-4>
- Forrest, C. B., Bevans, K. B., Riley, A. W., Crespo, R., & Louis, T. A. (2011). School outcomes of children with special health care needs. *Pediatrics*, 128(2), 303–312.  
<https://doi.org/10.1542/peds.2010-3347>
- Forster, M., Gower, A. L., Borowsky, I., W., & McMorris, B. J. (2017). Associations between adverse childhood experiences, student-teacher relationships, and non-medical use of prescription medications among adolescents. *Addictive Behaviors*, 68, 30-34.  
<https://doi.org/10.1016/j.addbeh.2017.01.004>
- Frankland, M. (2021). Meeting students where they are: Trauma-informed approaches in rural schools. *The Rural Educator*, 42(2), 51-71. <https://doi.org/10.35608/ruraled.v42i2.1243>
- Fuster, J. M. (2015). *The prefrontal cortex* (5th ed.). Elsevier Science.
- Haston, W. (2007). Teacher modeling as an effective teaching strategy. *Music Educators Journal*, 93(4), 26-30.
- Hickman, L. J., Jaycox, L. H., Setodji, C. M., Kofner, A., Schultz, D., Barnes-Proby, D., & Harris, R. (2013). How much does ‘how much’ matter? Assessing the relationship

- between children's lifetime exposure to violence and trauma symptoms, behavior problems, and parenting stress. *Journal of Interpersonal Violence*, 28(6), 1338-1362. <https://doi.org/10.1177/0886260512468239>
- Honor, G. (2017). Resilience. *Journal of Pediatric Health Care*, 31(3), 384-390. <https://doi.org/10.1016/j.pedhc.2016.09.005>
- Howard, J. A. (2013). *Distressed or deliberately defiant?: Managing challenging student behaviour due to trauma and disorganised attachment*. Australian Academic Press.
- Hunt, T. K. A., Slack, K. S., & Berger, L. M. (2017). Adverse childhood experiences and behavioral problems in middle childhood. *Child Abuse & Neglect*, 67, 391-402. <https://doi.org/10.1016/j.chiabu.2016.11.005>
- Keane, K., & Evans, R. R. (2022). The potential for teacher-student relationships and the whole school, whole community, whole child model to mitigate adverse childhood experiences. *The Journal of School Health*, 92(5), 504-513. <https://doi.org/10.1111/josh.13154>
- Kim, S., Crooks, C. V., Bax, K., & Shokoohi, M. (2021). Impact of trauma-informed training and mindfulness-based social-emotional learning program on teacher attitudes and burnout: A mixed-methods study. *School Mental Health*, 13(1), 55-68. <https://doi.org/10.1007/s12310-020-09406-6>
- Koslouski, J. B., & Stark, K. (2021). Promoting learning for students experiencing adversity and trauma. *Elementary School Journal*, 121(3), 430-453. <https://doi.org/10.1086/712606>
- Levine, R. S., Lim, R. J., & Bintliff, A. V. (2023). Social and emotional learning during pandemic-related remote and hybrid instruction: Teacher strategies in response to trauma. *Education Sciences*, 13(4), Article 411. <http://doi.org/10.3390/educsci13040411>

Mahmud, S. (2022). A case study addressing trauma needs during COVID-19 remote learning from an ecological systems theory framework. *BMC Psychology*, *10*(1).

<https://doi.org/10.1186/s40359-022-00848-y>

Maner, J. K., Hasty, C. R., Martinez, J. L., Ehrlich, K. B., & Gerend, M. A. (2023). The role of childhood unpredictability in adult health. *Journal of Behavioral Medicine*, *46*(3), 417–428. <https://doi.org/10.1007/s10865-022-00373-8>

McEwen, B. S. (2017). Allostasis and the epigenetics of brain and body health over the life course. *JAMA Psychiatry*, *74*(6), 551-552.

<https://doi.org/10.1001/jamapsychiatry.2017.0270>

Mersky, J. P., Topitzes, J., & Reynolds, A. J. (2013). Impacts of adverse childhood experiences on health, mental health, and substance use in early adulthood: A cohort study of an urban, minority sample in the U.S. *Child Abuse & Neglect*, *37*(11), 917-925.

<https://doi.org/10.1016/j.chiabu.2013.07.011>

Nicholson, J., Kurtz, J., & Perez, L. (2018). *Trauma-informed practices for early childhood educators*. Routledge.

Parker, R., & Hodgson, D. (2020). ‘One size does not fit all’: Engaging students who have experienced trauma. *Issues in Educational Research*, *30*(1), 245-259.

Qu, G., Ma, S., Liu, H., Tiantian, H., Zhang, H., Ding, X., Sun, L., Qin., Q., Chen, M., & Sun, Y. (2022). Positive childhood experiences can moderate the impact of adverse childhood experiences on adolescent depression and anxiety: Results from a cross-sectional survey. *Child Abuse & Neglect*, *125*, Article 105511.

<https://doi.org/10.1016/j.chiabu.2022.105511>

- Raghupathi, V., & Raghupathi, W. (2020). The influence of education on health: An empirical assessment of OECD countries for the period 1995–2015. *Archives of Public Health*, 78(20), Article 20. <https://doi.org/10.1186/s13690-020-00402-5>
- Rankin, J. G. (2022). *First aid for teacher burnout: How you can find peace and success* (2nd ed.). Routledge.
- Romero, V. E., Robertson, R., & Warner, A. N. (2018). *Building resilience in students impacted by adverse childhood experiences: A whole-staff approach*. Corwin Press.
- Saporito, J. M., Ryan, C., & Teachman, B. A. (2011). Reducing stigma toward seeking mental health treatment among adolescents. *Stigma Research and Action*, 1(2), 9–21. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839682/>
- Sciaraffa, M. A., Zeanah, P. D. & Zeanah, C. H. (2018). Understanding and promoting resilience in the context of adverse childhood experiences. *Early Childhood Education Journal*, 46, 343-353. <https://doi.org/10.1007/s10643-017-0869-3>
- Scott, J., Jaber, L. S., & Rinaldi, C. M. (2021). Trauma-informed school strategies for SEL and ACE concerns during COVID-19. *Education Sciences*, 11(12), Article 796. <https://doi.org/10.3390/educsci11120796>
- Shammas, M. A. (2011). Telomeres, lifestyle, cancer, and aging. *Current Opinion in Clinical Nutrition and Metabolic Care*, 14(1), 28-34.
- Smithgall, C., Cusick, G., & Griffin, G. (2013). Responding to students affected by trauma: Collaboration across public systems. *Family Court Review*, 51(3), 401-408. <https://doi.org/10.1111/fcre.12036>



- Stoppelbein, L., McRae, E. & Smith, S. (2021). Examining student-teacher relationship and callous-unemotional traits in children with adverse childhood experiences. *School Mental Health* 13(1), 129–142. <https://doi.org/10.1007/s12310-020-09397-4>
- Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: A meta-analysis of follow-up effects. *Child Development*, 88(4), 1156-1171. <https://doi.org/10.1111/cdev.12864>
- Thompson, E., & Kaufman, J. (2019). *Prevention, intervention, and policy strategies to reduce the individual and societal costs associated with adverse childhood experiences (ACEs) for children in Baltimore city*. Abell Foundation. <https://files.eric.ed.gov/fulltext/ED601987.pdf>
- von Mizener, B. H., & Williams, R. L. (2009). The effects of student choices on academic performance. *Journal of Positive Behavior*, 11(2), 110-128. <https://doi.org/10.1177/1098300708323372>
- Waite, R., & Ryan, R. A. (2020). *Adverse childhood experiences: What students and health professionals need to know*. Routledge.
- Wycoff, K. L., & Franzese, B. (2019). *Essentials of trauma-informed assessment and intervention in school and community settings*. John Wiley & Sons.