

Introduction

Two things should become foundational in our education system: social-emotional learning (SEL) and trauma-informed practices. As educators, we know that many of our students have been affected by adverse childhood experiences (ACEs) and that positive childhood experiences can counteract some of the resulting trauma. Social-emotional learning has the power to create some of those positive experiences. Furthermore, many of the SEL strategies overlap with those related to trauma-informed practices.

A recurring theme in this book is that every child has a story, and I hope that the information shared in the following pages will help rewrite some of those stories and reinforce others. The path for educators is clear: build relationships so students feel love and a sense of belonging; teach empathy so students feel understood and can provide understanding to others; make students self-aware so that feelings are understood; help students regulate feelings so they can attain and use prosocial skills; support students in becoming skilled in social awareness so they build an understanding of how to interact with people; teach students how to handle relationships so they can work and play with people who come from various backgrounds and cultures; and finally, teach students how to choose and make wise decisions that will affect the future.

It bears repeating: every child has a story. I have a story. I am one of those adults who grew up believing that I was not good enough, that I could not fit in (although I pretended to), let alone belong anywhere. I grew up with rules that no child should grow

up with: don't show your feelings; never, ever cry or your mom will leave you; never trust others—especially men (they will cheat and leave). I am one of every six adults who has experienced four or more ACEs during my lifetime (Centers for Disease Control and Prevention, n.d.). I know the fight-or-flight response well. As a result, my physical and mental health are at risk.

I am not sharing this information to elicit pity. Many people have had far worse experiences than mine. I did not live in poverty; I had two parents at home; I had the food, clothing, and shelter that I needed. I am sharing this information because of the two people who saved me, who literally kept me from the depression and despair hovering over me as a child, who made me realize that even though I never knew what would happen at home, I could go to the dependable, positive place that was school. Those two people were teachers. My 1st grade teacher, Miss Pauli, let me come in early to her beautiful, welcoming classroom, and she let me talk. She listened. She complimented my work and encouraged me. Fast-forward to 5th grade. Miss Williams made me feel important, that I was good enough. She is the reason, beyond any doubt, why I became a teacher. I wanted to make kids feel the way she had made me feel. She listened, she cared, she touched—gentle hugs and pats on the head or shoulder—and she checked in throughout the day to make sure we were all OK. A few other people were positive influences along the way, and I was OK until my first depressive episode in college. I eventually sought the help I needed, and I am doing well.

But I'm worried about the kids. According to John Medina (2017), humans today could live to be 115 to 122, under ideal conditions. Perhaps those conditions include healthy eating and getting enough exercise, but they must certainly also include lower levels

of stress, positive relationships, family ties (within the family you were born into or the family you create), feeling empathy for and from others, and having a sense of belonging. Social-emotional learning addresses all those conditions. Furthermore, SEL improves academic achievement by an average of 11 percent, increases appropriate social behavior, improves students' attitudes, and reduces depression and stress (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).

I have been a student of the brain since 1992. I have traveled, trained, and spoken with educational leader and author Eric Jensen, who has taught me much about the brain and how to find out more. Through my research, I have identified the connections in the brain that are related to the social-emotional learning competencies delineated by the Collaborative for Academic, Social, and Emotional Learning (CASEL): self-awareness, self-management, social awareness, relationship skills, and responsible decision making. This organization, which began as a group of educators and researchers committed to advancing social-emotional learning, has had a huge impact in this area for more than 20 years.

By following the work of Daniel Goleman, one of the cofounders of CASEL and author of the groundbreaking book *Emotional Intelligence* (1995), and the work of neuroscientists such as Bessel van der Kolk (2014), we can see how SEL affects various areas of the brain. For instance, in this book you will learn how our "gut feelings" are directly related to the decision-making areas in our brain.

In reading the work of Daniel Kahneman, author of the best-selling book *Thinking, Fast and Slow* (2011), we learn about the brain's two thinking systems. System 1 is fast, automatic,

emotional, and unconscious. System 2 is slow, effortful, and conscious. System 1 is at work when our students react *without* thinking. SEL strategies will teach students to stop and use System 2 before they respond. One of the strategies I used with my students when they needed to respond in a situation was to ask this question: "Are you checking System 2, or is System 1 in charge?" The more students practice taking a breath and giving some thought to a situation or decision, the more likely they are to respond appropriately.

From brain structures to brain chemicals, learning takes place on an emotional level. Awareness of emotions and being able to regulate those emotions lead the way to building positive relationships, successfully solving problems, and making responsible decisions. Understanding the brain helps both students and teachers rely on strategies that will activate the appropriate parts of the brain and will be suitable for whatever experience they encounter. For example, when students know that getting upset activates the *limbic* (emotional) brain and blocks the connection between the thinking brain and the emotional brain, they realize the importance of having and using strategies to calm themselves before speaking or acting.

Brain Structures and Chemicals Related to SEL

One of the simpler ways to look at the brain is from the bottom to the top. The spinal cord is connected to the *brain stem*, the lowermost part of the brain. The brain stem contains the first filtering system for information that comes into the brain via our senses. This system is called the *reticular activating system*, or

RAS; it filters out about 99 percent of incoming information. If the information entering is in some way threatening, the RAS may halt the flow of information in favor of sending out an alarm throughout the brain. When the next level, the *limbic system*, receives the alarm, many activities begin. First, the *amygdala*, the brain's second filter, examines the information. The *hypothalamus*, which is part of the limbic system, sends out chemicals to prepare the body and brain for a fight-or-flight response. Other chemicals, such as *adrenaline*, which is released from the adrenal glands, cause the heart to beat faster and increase the rate of breathing. Unless the body is in immediate danger, whatever the stressor is, the thinking brain should decide what next steps to take. But the pathway from the thinking brain (the *frontal lobe*; in particular, the *prefrontal cortex*) down to the reflexive brain (the limbic system and the brain stem) is slow. If we put all our focus on the amygdala, the limbic structure in charge of emotions, it will (along with the *hippocampus*, a structure related to memory) bring to mind all the horrors of this particular stress-inducing phenomenon. For example, if we are approaching a large German shepherd and previously had a bad experience with a similar dog, that memory will drive our brain and we will expect a repetition of the bad incident.

Emotions influence where new information is processed in the brain. For learning to become memory, it must be directed through the emotional filter (the amygdala) along the route to the reflective, higher brain—the prefrontal cortex. When this happens, the brain takes a responsible look at the situation and finds a better way to handle it. Perhaps, in the German shepherd example, the thinking brain will notice that this dog is on a leash and would be unable to reach us.

Several chemical "cocktails" run our brains. *Neurotransmitters* such as dopamine, serotonin, endorphins, and oxytocin are some of the most common. Cortisol, the stress hormone, is also involved in many situations, both positive and negative. Cortisol is released when we are a little anxious about a presentation, an interview, or meeting someone for the first time—examples of good stress. It is also released when our brains are preparing for survival. That fight, flight, or freeze situation—bad stress—prompts the release of much more cortisol.

And what is the antidote to stress? According to Foreman (2019), the antidote is trust.

I have created the word *celebrate* to define the premise of my work. *Celebrate* stands for "social-emotional learning elicits brain responses appropriate to experience." It's a lot to say, but it says a lot. Social-emotional learning should help our students choose the appropriate response in whatever situation they may find themselves. Neuroscience researchers have found areas and chemicals in the brain that respond to certain learning strategies. I want us to be able to understand why a response occurs and then create more strategies that will engage the same areas of the brain.

Don't Let Emotion Drive the Bus!

Mo Willems's book *Don't Let the Pigeon Drive the Bus!* was a favorite of my youngest granddaughter, Maeve, so I read it to her often. I also used it as the inspiration for her birthday book, which is a collection of photos from throughout the year that I usually make into some kind of story (I do one every year for each of my grandchildren). Maeve's fifth book, titled *Don't Let Maeve Drive*

the Bus!, was filled with wonderful things that Maeve could do, like playing soccer, reading, and climbing, but it conveyed the message that we would never want a 5-year-old to drive!

Along those same lines, we don't want emotions driving our lives. Adding to our lives? Yes. Driving our learning? Yes. My friend Robert Sylwester, author of *A Celebration of Neurons* (1995), tells us that "emotions drive attention, which drives learning, memory, and just about everything else" (p. 99). But we should also keep in mind Brené Brown's warning against emotion as the sole driver of learning: "If emotion is driving, where is logic and thought? In the back seat? Or worse, in the trunk!" (Jarvis, 2019).

Storytelling in the Brain

The power of storytelling can be traced to the brain and its chemical reactions. Whether reading a story or listening to one, it appears that a specific cascade of chemicals is involved in the engagement. Think of yourself listening to a story. Because it is about something unknown, your brain releases the stress hormone cortisol. This release occurs not because of fear or anger but, rather, curiosity. You are ready for the novelty and perhaps suspense. Dopamine is also released to keep you focused on what is going to happen. Because this is a novel situation (an unknown story), you must be prepared for anything and remain on task until you know the ending. Novelty engages the brain because something novel may also be dangerous. Survival first! Dopamine rewards us by keeping us alert and getting to the goal—the end of the story. When we identify with characters in the story, oxytocin is released. Oxytocin is the trust chemical, the "friending juice" in the brain. It has often been

described as the "love" or "cuddle" chemical. According to Paul Zak (2013), director of the Center for Neuroeconomics Studies and professor of economics, psychology, and management at Claremont Graduate University, experiments show that character-driven stories with emotional content result in a better understanding of key points and better recall of the information.

One of the primary questions I have sought to answer in this book is this: because storytelling is so powerful and memorable, what other strategies will cause the release of the same chemicals to provide lasting memories and good feelings? One answer that is addressed in this book is role-playing.

Chapter Overview

As I discovered which brain structures and chemicals were involved in the SEL competencies mentioned previously, the next step was to find strategies that would activate the brain in the same way. Explanations of those strategies make up much of the content of this book. However, in addition to incorporating SEL strategies into their instruction, teachers need to examine the SEL competencies for themselves. As I worked on each chapter, I asked myself questions such as these: *How self-aware am I? Can I name and tame my emotions? Do I make sure I am aware of my students' perspectives? How can I teach students to handle relationships with others if I may be having relationship issues myself? Do I make responsible decisions when I am interacting at school?* Here is an overview of the chapters that follow.

Chapter 1: Building Teacher-Student

The teacher-student relationship is the primary component of and precursor to a true social-emotional learning environment. In this chapter, I discuss building relationships with students and share various strategies. The mantra of many teachers who are interested in SEL and want to begin to implement trauma-informed practices is "Maslow before Bloom," a concept whose essence is the idea that dealing with students' needs first will allow us to remove some possible barriers to learning.

Chapter 2: Empathy

According to experts, empathy is a major problem for today's students (Borba, 2016). In this chapter, I define different types of empathy and describe how, throughout brain development, we can see where activity related to empathy is located and which chemicals are released during empathic episodes. Some neuroscientists believe that empathy leads us to compassion, and these two ideas are considered. I share examples of what empathic students do and how empathy can be modeled, as well as strategies to teach empathy and compassion to all students.

Chapter 3: Self-Awareness

In this chapter, I define and discuss the first SEL competency as delineated by CASEL: self-awareness. Recognizing our own emotions is vital to the SEL process; identifying emotions in ourselves allows us to recognize those emotions in others. In addition, teaching students to recognize and name their own emotions leads them to the ability to manage those emotions.

Which emotions are innate and which are learned is also a focus of this chapter. Finally, I present strategies for teaching and modeling self-awareness.

Chapter 4: Self-Management

One of teachers' greatest concerns is dealing with behavior issues. Research supports the belief that students' ability to manage their own emotions is key to changing some undesirable behaviors. In this chapter, I identify areas of the brain related to self-management and discuss the struggles between brain structures. I also address stress and ways to manage it, as well as the importance of classroom rituals and routines pertaining to managing and eliciting brain states with stories and examples. Strategies for teaching self-management skills, from the "CBS method" to the "break-up letter," cover all grade levels.

Chapter 5: Social Awareness

From self-management we move into social awareness—helping students become more sensitive to the feelings of others. In this chapter, I explain that once students can recognize and manage their own emotions, they are ready to interact with others in an emotionally intelligent way. An examination of areas in the brain related to social awareness leads to a discussion of social pain and the ways that bullying can affect others. As students gain empathy skills, we can teach and practice social awareness strategies.

Chapter 6: Relationship Skills

The focus in [Chapter 1](#) was on building our relationships with our students. In this chapter, the focus is on teaching students how to handle their own relationships. Beginning with finding which areas of the brain are active when handling relationships in an empathic way and then focusing on brain states and peer pressure, the discussion concludes with strategies that we can use every day to build this important SEL competency.

Chapter 7: Responsible Decision Making

As the prefrontal cortex continues to grow and develop, making responsible decisions should become easier for students. That development is dependent on how often they are offered the opportunity to make decisions. This chapter focuses on helping students identify their values and beliefs for decision making. With the other competencies addressed, students will be able to understand how their decisions affect others in the present and the future. Teaching students how to be a role model for others in this arena includes modeling our own decision-making process, offering choices and discussing possible outcomes, and providing group work to further the applications and results of good decision making.

Chapter 8: People, Not Programs: The Positive Impact of SEL

According to Bruce Perry, child psychiatrist and senior fellow of the Child Trauma Academy in Houston, Texas, programs don't

change people—*people* change people! With this in mind, this chapter addresses how to promote the use of SEL every day for teachers and for students. It also emphasizes the need for positive childhood experiences to counterbalance adverse childhood experiences. All students can benefit from schools that implement SEL and trauma-informed practices. At a minimum, schools using SEL need to be aware of and sensitive to the effects of trauma. This chapter also provides resources for digging deeper into these topics.

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