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2022

The Impact of Trauma-Responsive Voice-Centered Practice on Students with Learning Differences

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Recommended Citation

The Impact of Trauma-Responsive Voice-Centered Practice on Students with Learning Differences

**Elizabeth Marsh completed the requirements
for Honors in Education
May 2022**

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Abstract

Current literature on trauma-responsive schooling and student voice pays little attention to students with learning differences, yet there are many similarities between the challenges that students exposed to trauma and those with learning differences face. Therefore, the goal of this project was to identify a universal approach that could address both the needs of students exposed to trauma and those with learning differences. To examine the impact of trauma-responsive voice-centered practice on students with learning differences, I conducted interviews with adults involved in implementing the Trauma-Responsive Equitable Education (TREE) Project. In doing so, I found that when given the opportunity to participate in trauma-responsive voice-centered initiatives, students with learning differences made substantial gains in school. Evident in their improved relationships, academics, and success, these gains were best explained using Maslow's Hierarchy of Needs. Yet, the picture was not complete without the gains that teachers made, which ultimately laid the foundation for the improvements made by students with learning differences. Together these findings support the notion that TREE's trauma-responsive voice-centered approach may be a practical universal way of addressing both the needs of students exposed to trauma and those with learning differences.

Acknowledgements

Working on this project was an incredible experience, and I am truly grateful for all the support that I had along the way. Although there are too many to name them all, I would like to thank the following people in particular:

First, thank you, Mark, for your willingness to take me on as your thesis advisee during your sabbatical and as a TREE research assistant in the summer of 2020. This project would not have existed without you and the inspiring work you and the rest of the TREE team have done on trauma-responsive schooling in rural Maine. I am grateful for all of the Zoom Meetings we had, your thoughtful guidance, and the way in which you helped me navigate challenging times. Thank you for pushing me to grow as a student and future educator and for giving me the privilege of being your last thesis advisee.

Thank you to the entire TREE team and those members who I interviewed for my project. It was a privilege to learn more about the TREE project and how it impacted students with learning differences from those who played a prominent role on the ground. I would also like to thank my second reader Lyn for her helpful feedback and suggestions.

Thank you to my parents and family for encouraging me to explore my passions and helping me find creative ways to do so. I am truly grateful for all the support and love you have given me.

Lastly, thank you to my Colby family, especially my roommates. It has been a privilege getting to know you all over the last four years. I can not thank you enough for everything you have given me and for making Mayflower Hill my second home.

Chapter One:

Introduction

Her name is Nevaeh. Her drug-addicted mother gave her that name as a gift because, spelled backward, it reads heaven, but her life in a drug and crime-infested area is far from heaven. For the past eight years, I have had the privilege of working with children like Nevaeh and those who have special needs of all kinds. I have known children who have been abused and neglected and children with physical limitations and learning differences. In schools, far too often, these children are the ones who fall behind. They do not fall behind because they are not smart enough but instead because their schools are ill-equipped to meet their needs. These children served as the inspiration for my project.

For as long as I can remember, I have wanted to be a teacher. When I was younger, my pediatrician would ask me what I wanted to be when I grew up during my annual check-ups. I would always respond by saying that I wanted to be a teacher.   During recess in elementary school, I would insist on being the teacher whenever my friends and I played school. After school, I would watch my older brother doing homework at the kitchen table and long for the day when I, too, would have my own spelling words and math packet. Although my obsession with school supplies, especially scented markers, may have sparked my initial interest, it was not until high school that I truly knew that I wanted to be a teacher.

As soon as I was old enough, I sought out opportunities to gain experience working with children. Before starting high school, I volunteered at Leaps and Bounds Occupational Therapy Summer Camp in Washington, DC. The camp helped children ages four to ten improve their fine and gross motor skills. As a volunteer, my responsibilities included observing and tracking

the campers' progress and ensuring they stayed on task. I loved my experience and continued

volunteering there for a couple of weeks each summer in high school. In addition to the

occupational therapy camp, I helped teach reading and math at Pokesdown Primary School in

Bournemouth, England, during my summers in high school. Located in a low-income area with

a large immigrant population, many of the students at Pokesdown suffered from early exposure

to adversity. Although my time at Leaps and Bounds and Pokesdown differed greatly, through

these experiences, I discovered my interest in working with students who need additional support

in the classroom.

Early Adversity and Childhood Trauma

My passion for working with students who need additional support preceded my

understanding of the challenges that young people face as they negotiate their way through

school and society. By age 16, two out of every three children living in the United States has

experienced at least one traumatic event in their lifetime (SAMHSA, 2020). When these

children attend school, they bring their experiences of trauma with them (SAMHSA, 2014).

Childhood trauma is associated with various development problems, such as delayed speech,

trouble gaining weight, difficulty sleeping, and reduced confidence (Bartlett & Sacks, 2019;

Peterson, 2018).   Additionally, children who experience trauma at a young age are more likely

to exhibit learning or behavior problems (Burke Harris, 2019). As a result, repeated experiences

of adversity, stress, and trauma can make it hard for a child to show up at school ready to learn.

Despite this, children can overcome trauma with the proper support and interventions.

During the summer before my second year at Colby, I worked for ten weeks with

trauma-exposed children ages three to four at the Lourie Center in Rockville, Maryland. As an

intern, I helped a team of clinical psychiatrists, clinical social workers, and teachers facilitate

therapeutic play, keep the children safe, and set up activities. During my time at the Lourie

Center, I also learned about trauma-responsive care for the first time. I became aware of the

realities of trauma and learned how to recognize and respond to the signs and symptoms of

trauma. Inspired by my internship, I enrolled in Professor Mark Tappan's course on children and

adolescents in schools and society the following Spring. Through his course, I gained not only a

better understanding of the challenges that young people face but also an introduction to the

Trauma-Responsive Equitable Education (TREE) Project.

Located in Washington County, Maine, TREE is "a targeted, collaborative, place-based

response to the educational challenges that often face rural schools" (Cobscook Community

Learning Center, 2019). By promoting community engagement, meeting basic needs, supporting

the whole child, and improving instruction and leadership, TREE ultimately strives "to create

safe, empowering, and effective environments where students, teachers, and administrators have

the resources they need to support the academic success of all students" (Cobscook Community

Learning Center, 2019). As part of the Maine Rural Vitality Lab, Colby College works with

TREE to tackle issues related to youth development in rural communities (Rural Vitality Lab,

2019).

Since Summer 2020, I have worked as a research assistant for the Rural Vitality Lab. As

a research assistant, my primary focus has been on TREE's student voice initiatives. Given that

all trauma, regardless of context, involves experiences of powerlessness, TREE sought to

promote healing by building young people's sense of personal control over their environments

(Brown & Flaumenhaft, 2019). In doing so, they proposed a range of trauma-responsive

activities designed to promote student voice. These activities include a 6th Grade Leadership

Council, Somedays, Microadventures, and Art Explorations. Although I did not help design the

activities, I have analyzed interviews from parents, students, and teachers that discuss them. Therefore, I understand the importance of student voice in addressing trauma and promoting healing in rural communities.

Although trauma-responsive practices and student voice initiatives have gained popularity in recent years, much of the focus within the field of education is on urban schools and communities (Cobscook Community Learning Center, 2019). In comparison to children who live in urban areas, children in rural areas are less likely to have access to proper medical and mental health support. Access to proper medical and mental health support is essential to addressing trauma and promoting healing (SAMHSA, 2014). Thus, children who live in rural areas lacking proper health support may experience more significant and long-lasting impacts of trauma (Cobscook Community Learning Center, 2019). In these instances, alternative approaches to healing become even more critical. If increasing children's sense of control over their environment promotes healing, I would suspect that student voice initiatives would have a more significant impact in areas where students have historically had limited access to traditional support systems (Brown & Flaumenhaft, 2019). Given this reasoning and the lack of in-depth research on this topic, I hope to focus on the relationship between trauma, student voice, and healing in rural communities.

Learning Differences

Exposure to trauma is not the only challenge that youth face as they negotiate their way through school and society. Additionally, one in five children living in the United States suffers from learning and attention issues (Horowitz et al., 2017). "Learning and attention issues are brain-based difficulties in reading, writing, math, organization, focus, listening, comprehension, social skills, motor skills, or a combination of these" (Horowitz et al., 2017). Despite being just

as capable as their peers, many individuals with learning or attention issues struggle in school because they fail to get the support they need.

Although I worked with students with learning differences at both Leaps and Bounds Occupational Therapy Camp and Pokesdown Primary School, it was not until college that I considered the responsibilities of educators as they relate to teaching students who have learning differences. At Colby, I have had the opportunity to take two classes on teaching students with learning differences. During Jan Plan, my junior year, I took a course taught by visiting Professor Emanuel Pariser on educating all learners in inclusive classrooms. Through this course, I explored the psychological, philosophical, historical, and policy foundations of special education within a critical frame of disability studies. The following Spring, I furthered my knowledge in this area by taking a course taught by Professor Kate McLaughlin on disability, race, and special education. Together, these classes increased my understanding of the responsibilities that educators have when it comes to teaching students with learning differences and inspired me to search for opportunities to gain more experience within the field of special education.

Last summer, I completed a ten-week internship at The New England Center for Children (NECC) in Southborough, Massachusetts. I worked with 15- to 19-year-olds diagnosed with autism in both classroom and residential environments. I helped them become as independent as possible in all areas of their lives, including academics, communication, social skills, daily living skills, and leisure activities. After handing in my house keys and protective jacket on my last day, I knew that I wanted to pursue a career in Applied Behavior Analysis (ABA) that would allow me to work with students with autism spectrum disorder and other developmental

disabilities. This past fall, I accepted an ABA instructor position at Ivymount School, beginning after graduation.

A Culmination of Interests

Before working at NECC last summer, I viewed trauma-responsive schooling and special education as two separate entities within education. I did not see them as having anything in common besides being areas of schooling that interested me. However, after attending a training on trauma-responsive care during my first week at NECC, my perspective changed. In addition to learning general information about adversity, toxic stress, trauma, we looked at the similarities between ABA and trauma-responsive care, a topic that I had not yet considered before. ABA relies upon individually-tailored treatments that focus on targets important to the individual and the individual's family, such as building skills and increasing independence (Allen, 2020). Along the same lines, trauma-responsive care emphasizes building on the individual's strengths and including them in decisions that affect them. Together, both recognize that problem behavior serves a function for the individual and seek to teach them more adaptive ways of meeting their wants and needs. We also learned how many of the long-term effects and symptoms of trauma are also common issues faced by individuals with autism. For example, many individuals with autism have poor sleep patterns, difficulties in school, and difficulties forming relationships, yet these problems do not necessarily reflect a history of trauma (Allen, 2020). As a result, the prevalence of trauma in children and adults with autism is largely unknown. Therefore one must rely on the "universal precautions" approach, a key feature of trauma-responsive care.

As I embarked on this project at the start of the Fall, I knew that I wanted to find a way to incorporate my newfound interest in students with autism and other developmental disabilities. After conducting a general literature search on adversity, trauma, and student voice, my advisor

Mark Tappan encouraged me to find a direction within this to focus on. I took this as an opportunity to take what I learned over the summer and apply it to my research. Despite the similarities between trauma-responsive care and special education, I found that literature on trauma-responsive schooling and student voice pays little attention to students with learning differences. In hopes of bridging the gap between these two educational practices, I proposed the following research question:

> What is the impact of trauma-responsive voice-centered practice on students with learning differences?

> With this question in mind, I started looking for evidence of the presence of learning differences and the development of student voice in student, teacher, and parent interviews collected by TREE staff at West and East Elementary Schools in June 2018, December 2018, June 2019, and December 2019. After analyzing the interviews collected by TREE, I realized that none of the questions asked about students' experiences with learning differences, and very few of the student interviews were actually from students with learning differences. Therefore, I decided they would not provide sufficient data to answer my research question.

> For my thesis, I thought it would be most helpful to conduct several additional interviews with members of TREE's on the ground team to support my analysis of how students with learning differences benefit from trauma-responsive educational activities that are designed to promote student voice in rural communities. In the following chapters, I will outline the literature that informs my project, highlight the challenges students with learning differences face, describe my interviewing and coding process in detail, and review my findings.

Chapter Two:

Literature Review

This chapter will outline relevant literature that aided in my investigation into the impact of trauma-responsive voice-centered practice on students with learning differences. In doing so, I will discuss adverse childhood experiences (ACEs), toxic stress and trauma, learning differences and trauma, trauma-responsive schooling, empowerment and student voice, and trauma-responsive voice-centered practices for students with learning differences. As a whole, this literature review will clarify not only why I proposed my primary research question but also the importance of answering it.

Adverse Childhood Experiences (ACEs)

According to former President of the American Academy of Pediatrics, Dr. Robert Block, "adverse childhood experiences are the single greatest unaddressed public health threat facing our nation today" (Burke Harris, 2015). Adverse childhood experiences or ACEs are potentially traumatic events that occur during childhood, such as experiencing violence, abuse, or neglect, witnessing violence in the home or community, or having a family member attempt or die by suicide (Center for Disease Control and Prevention, 2021). They can also include aspects of a child's environment, such as growing up in a household with substance use problems, mental health problems, or instability due to parental separation or a household member being in jail. These experiences affect people at all socioeconomic levels and can have severe, costly impacts across the lifespan (The Center on the Developing Child at Harvard University, 2020). For instance, research has revealed a link between ACEs and the leading causes of death in adults

(Burke Harris, 2015). Given this, it is essential to understand how early adversity dramatically affects health outcomes at all stages of life (Center for Disease Control and Prevention, 2021).

In the mid-1990s, the Center for Disease Control and Kaiser Permanente conducted the first study on adverse childhood experiences (Center for Disease Control and Prevention, 2021). Led by Dr. Felitti and Dr. Anda, the research team examined the relationship between early exposure to adversity and poor health outcomes (Burke Harris, 2015). Over 17,000 adults reported their experience of abuse, neglect, and household dysfunction before the age of 18 (Center for Disease Control and Prevention, 2021). Based on these responses, the researchers calculated an ACE score for each participant, allowing them to compare the number of adversity categories experienced to several measures of adult risk behavior, health status, and disease (Felitti et al., 1998). In doing so, they revealed that ACEs are incredibly common across all populations. Specifically, 67% of the participants experienced one or more, and 12.6% experienced four or more (Burke Harris, 2015). They also discovered a graded dose-response relationship between the breadth of exposure to abuse, neglect, and household dysfunction during childhood and the leading causes of death in adults (Center for Disease Control and Prevention, 2021; Felitti et al., 1998). For example, those with a higher ACE score were at a higher risk for heart disease, diabetes, obesity, depression, substance abuse, smoking, poor academic achievement, time out of work, and early death (The Center on the Developing Child at Harvard University, 2020). Together, these findings shed light on how early adversity affects health and social well-being throughout the lifespan.

A "landmark in medical research," the Center for Disease Control and Kaiser Permanente's ACE study continues to influence the day-to-day practices of providers, employers, and communities (Burke Harris, 2015; Center for Disease Control and Prevention,

2021; Cronholm et al., 2015). By defining "Conventional" ACEs and developing the ACE score concept, countless follow-up studies have repeatedly demonstrated that exposure to abuse, neglect, and household dysfunction during childhood increases one's risk of poor health outcomes later in life (Cronholm et al., 2015; The Center on the Developing Child at Harvard University, 2020). Although monumental in their findings, these initial ACE studies failed to accurately capture the level of adversity experienced by different racial and socioeconomic groups (Cronholm et al., 2015). This limitation is partly due to the lack of representation within the original ACE study's data set. The original ACE study collected data from 17,337 adults enrolled in Kaiser Permanente's Health Maintenance Organization (HMO) in San Diego, California (Center for Disease Control and Prevention, 2021). As a result, many of the participants included White, middle- to upper-class individuals who had both a college degree and health insurance. Given current racial and ethnic disparities in health care and other issues arising from differing socioeconomic conditions, one would suspect that a more diverse and minority population's exposure to adversity may differ from that of a White, middle- to upper-class population (Cronholm et al., 2015; Institute of Medicine, 2003).

More recent research on exposure to adversity has worked to fill in the gaps of earlier ACEs research. For example, Cronholm et al. (2015) conducted a study using a more socioeconomically and racially diverse urban sample. The sample included almost 2,000 adults from a community-based health survey taken in Southeast Pennsylvania. Tasked with designing a wholistic survey to study ACEs in Philadelphia, a team of local experts organized by the Institute for Safe Families created a survey that measured stressors manifesting not only within the home (i.e., Conventional ACEs) but also outside the home (i.e., Expanded ACEs). Questions about Expanded ACEs asked participants about whether they had experienced racism,

witnessed violence, lived in an unsafe neighborhood, experienced bullying, or had a history of living in foster care. The researchers found that 72.9% of participants had at least one Conventional ACE, 63.4% had at least one Expanded ACE, and 49.3% had both. Additionally, 13.9% of participants experienced only Expanded ACEs. These participants who only experienced Expanded ACEs would have gone unrecognized if the researchers had only looked at Conventional ACES. As a result, these findings support "extending the Conventional ACEs measure" in order to "more accurately represent the level of adversity experienced across various socio-demographic groups" (Cronholm et al., 2015). Together, this research and prior research on ACEs has helped medical professionals better understand the relationship between early exposure to different types of adversity and poor health outcomes across the lifetime (Burke Harris, 2015). With this better understanding, medical professionals have revealed how early exposure to adversity affects children's developing brains and bodies.

Toxic Stress and Trauma

The relationship between early adversity and negative health outcomes later in life is best understood as a function of what has been called "toxic stress" (Franke, 2014; The Center on the Developing Child at Harvard University, 2020). Although learning to deal with stress is a healthy part of development, it is only beneficial when the proper support systems are in place. For example, when an individual feels threatened, their body prepares them "to respond by increasing [their] heart rate, blood pressure, and stress hormones" (The Center on the Developing Child at Harvard University, 2020). In children, when their stress response systems are activated within a supportive environment, "these physiological effects are buffered and brought back down to baseline" (The Center on the Developing Child at Harvard University, 2020). Conversely, "if the stress response is extreme and long-lasting, and buffering relationships are

unavailable to the child," a toxic stress response will occur (The Center on the Developing Child at Harvard University, 2020). This type of stress response "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" (The Center on the Developing Child at Harvard University, 2020). These damaging effects are most prevalent in adults who experienced multiple ACEs without proper support. Therefore, medical professionals concluded that toxic stress mediates the relationship between early exposure to adversity during childhood and poor health outcomes across the lifetime.

The term "trauma" has come to represent the relationship between ACEs, toxic stress, and poor health outcomes (Jamieson, 2019). Trauma is a potential outcome of exposure to adversity (Bartlett & Sacks, 2019). It "occurs when a person perceives an event or set of circumstances as extremely frightening, harmful, or threatening—either emotionally, physically, or both" (Bartlett & Sacks, 2019). Childhood trauma is associated with various development problems, such as delayed speech, trouble gaining weight, difficulty sleeping, and reduced confidence (Bartlett & Sacks, 2019; Peterson, 2018). Despite these negative effects, traumatic experiences can be overcome with the proper support and interventions (SAMHSA, 2014).

Learning Differences and Trauma

The first step in responding to trauma involves a deep understanding of what causes traumatic experiences (Herman, 1998). As previously noted, extensive research has gone into identifying these causes, starting with the Center for Disease Control and Kaiser Permanente's ACE study (Center for Disease Control and Prevention, 2021). Even though follow-up studies, such as Cronholm et al. (2015), continue to expand the scope of this field, gaps in the literature

remain. One significant gap is the connection between trauma and students with learning differences.

Affecting one in five children living in the United States, learning differences are more common than many think (Cook-Sather, 2003; Horowitz et al., 2017). Learning differences are "brain-based difficulties in reading, writing, math, organization, focus, listening comprehension, social skills, motor skills, or a combination of these" (Horowitz et al., 2017). They can include specific learning disabilities, such as dysgraphia and dyslexia, or related disorders, such as ADHD and autism spectrum disorder that impact learning (Walden University, 2022). Without the proper support and interventions, many students with learning differences struggle academically, socially, and emotionally in school.

More often than not, students with learning differences are of average or above-average intelligence. However, there is often a "gap between [these] individuals' potential and actual achievement" ("Types of Learning Disabilities," n.d.). For example, many students with learning differences experience cognitive processing difficulties. These processing difficulties not only interfere with their ability to learn basic skills, such as reading, writing, and math, but also higher-level skills, such as organization, time planning, abstract reasoning, memory, and attention ("Types of Learning Disabilities," n.d.). As a result, many of these students struggle for reasons unrelated to their intelligence, work ethic, and motivation (Horowitz et al., 2017). Struggling more than one's peers in school can be challenging for a child to understand and may result in low self-esteem and confidence. When low self-esteem and confidence are left unaddressed, students are more likely to suffer from social isolation, bullying, disproportionate disciplinary rates, and an increased likelihood of skipping school, dropping out, and becoming involved with the criminal justice system (Horowitz et al., 2017). Therefore, teachers, educators,

administrators, and school systems must do everything in their power to prevent these negative outcomes. Unfortunately, far too often in these instances, only part of the picture is considered, whether it is trauma or learning differences.

As a whole, research on ACEs and trauma has largely ignored the challenges that students with learning differences face (Crompton et al., 2021). Instead, existing research has looked more generally at the vulnerability of children with disabilities (Crompton et al., 2021; Hershkowitz et al., 2007; Little, 2004). For example, Vervoot-Schel et al. (2018) examined the prevalence of ACEs in children with intellectual disabilities. In doing so, they found that 82.6% of the children with intellectual disabilities experienced at least one conventional ACE compared to 67.0% of the general population (Burke Harris, 2015; Vervoot-Schel et al., 2018). Based on these results, Vervoot-Schel et al. (2018) propose that conventional ACEs might be more prevalent in children with intellectual disabilities due to their executive functioning, self-regulation, communication, and attachment challenges. Along the same lines, Little (2004) found that children with communicative and learning disabilities are two to three times more likely to be victims of child abuse (in Hershkowitz et al., 2007). Given the similarities in challenges faced, it is reasonable to believe that students with learning differences may also experience ACEs differently from their peers.

Additional research suggests that children with learning differences may also be at an increased risk for expanded ACEs, such as inequality, marginalization, poverty, bullying, and other social maltreatment (Cromptom et al., 2021). For example, in a review of existing literature, Hoover and Kaufman (2018) found that 33%, 50%, and 31% of students with autism spectrum disorder reported physical, verbal, and relational school bullying, respectively. This data reveals that students with autism spectrum disorder experience bullying at a rate of three to

four times that of their peers.   As with other adverse experiences, bullying by peers negatively

impacts academic functioning and mental health symptoms. Although "bullying occurs both in

and outside of special education settings," it is "more likely in mainstream classrooms and

unstructured areas such as the school bus" (Hoover and Kaufman, 2018). Additionally, children

who have a more challenging time with social interactions are at an increased risk for bullying.

Combined with prior research on conventional ACEs, these findings suggest that students with

learning differences are more vulnerable to early exposure to different types of adversity and

thus potentially worse health outcomes across their lifetimes.

Stress associated with learning differences can happen both inside and outside of school.

Like those that occur at home or in the communities, negative experiences at school can become

traumatic, causing poor health outcomes across the lifetime. Therefore, these experiences must

be considered when identifying and addressing the causes of trauma. In addition, it is essential

that when doing so, one pays particular attention to students with learning differences as they are

more susceptible to traumatic experiences both inside and outside of school.

Trauma-Responsive Schooling

Although people can overcome traumatic experiences with the appropriate support and

interventions, most people go without these much-needed services (SAMHSA, 2014).

Unaddressed childhood trauma dramatically increases one's risk of developing a substance use

disorder or chronic physical disease later in life. Therefore, in instances when trauma has

already occurred or cannot be prevented, a child must receive the appropriate support and

interventions to help mitigate the potentially negative effects. Addressing trauma is not an

individual issue for which families should be solely responsible (The Center on the Developing

Child at Harvard University, 2020). This is in part because "trauma does not occur in a vacuum"

(SAMHSA, 2014). Instead, it happens in the "community, whether the community is defined geographically as in neighborhoods; virtually as in shared identity, ethnicity, or experience; or organizationally, as in a place of work, learning, or worship" (SAMHSA, 2014). As a result, how a community "responds to individual trauma sets the foundation for the impact of the traumatic event, experience, and effect" (SAMHSA, 2014).

Each year children spend approximately 180 days in school (Brixey, 2020).   Given that this is almost half of the days in a calendar year, schools play an important role in a child's development, starting as early as pre-school and continuing through adolescents (Gomes, 2019). When children attend school, they bring their experiences of trauma with them such that children who have ACEs scores of 4 or more are 32 times more likely to have learning or behavior problems than children with no or lower ACEs scores (Burke Harris, 2019; SAMHSA, 2014). Conversely, for some students with learning differences, their experiences of trauma occur at school, exacerbating existing academic, social, and emotional challenges. Therefore, regardless of where it happens, repeated experiences of adversity, stress, and trauma compromise a child's ability to succeed in school (Burke Harris, 2019). Thus, educators, administrators, and school systems must play a role in preventing and helping children recover from adversity.

In order to assist teachers and members of the school community with their role in preventing and helping children recover from adversity, the Substance Abuse and Mental Health Services Administration developed a framework for trauma and proposed a trauma-responsive approach (SAMHSA, 2014). SAMHSA's trauma-repsonsive approach is grounded in six key principles: (1) safety, (2) trustworthiness and transparency, (3) peer support, (4) collaboration and mutuality, (5) empowerment, voice, and choice, and (6) cultural, historical, and gender issues. The first key principle, safety, argues that all students must "feel physically and psychologically

safe" (SAMHSA, 2014). Although safety is defined by those served, it most often involves maximizing one's control over their own life (SAMHSA, 2018).   The second key principle, trustworthiness and transparency, ensures that "organizational operations and decisions are conducted with transparency with the goal of building and maintaining trust" between students, caregivers, staff, and others involved in the school (SAMHSA, 2018). Ensuring trustworthiness and transparency may take the form of making people's options apparent, maintaining authenticity, or addressing limits to confidentiality. The third key principle, peer support, works to "[establish] safety and hope, [build] trust, [enhance] collaboration, and [utilize] their stories and lived experience to promote recovery and healing" (SAMHSA, 2014). For peer support to promote healing, relationships must be voluntary, non-judgemental, respectful, reciprocal, and empathetic (SAMHSA, 2018). The fourth key principle, collaboration and mutuality, emphasizes the importance of leveling "power differences between staff and [students]" and between staff and faculty at all levels of teaching and administration (SAMHSA, 2018). In doing so, this principle creates a framework for trauma-responsiveness in the school context. The fifth key principle, empowerment, voice, and choice, states that "throughout the [school] and among [students], individuals' strengths and experiences are recognized and built upon" (SAMHSA, 2014). Lastly, the sixth key principle, cultural, historical, and gender issues, argues that the school must "actively move past cultural stereotypes and biases, offer gender-responsive services, leverage the healing value of traditional cultural connections, and recognize and address historical trauma" (SAMHSA, 2018). Together, these principles create a framework that guides schools in becoming trauma-responsive.

Empowerment and Student Voice

Empowerment is a particularly important aspect of trauma-responsive schooling. This is in part because "trauma robs the victim of a sense of power and control over [his or] her life" (Herman, 1998). Therefore, by focusing recovery on empowerment, voice, and choice, it "restores power and control to the survivor" (Herman, 1998). For instance, in schools, "if students feel empowered, and if they experience opportunities to know what they know and feel what they feel through the pleasure of completed action, then they will experience school as more safe, trustworthy, relationally responsive, and equitable" (Brown & Flaumenhaft, 2019). Unfortunately, far too often, "many benevolent and well-intentioned attempts to assist the survivor founder because this fundamental principle of empowerment is not observed" (Herman, 1998).

Failed attempts to promote successful recovery from trauma are not foreign in schools. Although these attempts may be well-intentioned, the way in which the school handles underperformance and discipline as a whole may be responsible for its failure (Tough, 2016). For example, "when children run into trouble in school, either academically or in the realm of behavior, most schools respond by imposing more control on them, not less, further diminishing their fragile sense of autonomy" (Tough, 2016). As they fall behind their peers both academically and socially, these students will continue to feel less and less competent. Along the same lines, their relationship with their teacher is more likely to become "wary" and "contentious," preventing them from experiencing the necessary relatedness to promote recovery (Tough, 2016). Thus, in order to become genuinely trauma-responsive, schools must overcome their old ways of thinking and stop pushing students "toward more external control, fewer feelings of competence, and less positive connections with teachers" (Tough, 2016).

"No intervention that takes power away from the survivor can possibly foster [his or] her recovery, no matter how much it appears to be in [his or] her immediate best interest" (Herman, 1998). Given this, any successful attempt to establish a "genuinely trauma-responsive culture must engage children and youth as full and active partners in school and community transformation" (Brown et al., 2022). In the early 2000s, "student voice" emerged as a potential strategy for improving the success of trauma-responsive schooling efforts (Mitra, 2004). Student voice initiatives encourage teachers, factually, and other school staff to listen to students, take them seriously, and promote their agency, control, and empowerment (Brown, Biddle, & Tappan, 2022). In doing so, student voice not only addresses adversity, toxic stress, and trauma but also encourages healing.

The development of student voice aligns with a youth development perspective in that it encourages teachers and other adults to focus on youth as assets rather than as problems (Mitra, 2004; Mitra & Serriere, 2012; Brown & Flaumenhaft, 2019). This is in part because "student voice activities can create meaningful experiences for youth that help to meet fundamental developmental needs especially for students who otherwise do not find meaning in their school experiences" (Mitra, 2004). For example, Mitra (2004) conducted a study examining youth experiences in student voice efforts. From her observations, she identified patterns of growth in students' agency, belonging, and competence (Mitra, 2004). In partnership with Stephanie Serriere, Mitra conducted a follow-up study identifying two additional dimensions of student voice – discourse and (civic) efficacy (2012). Based on past and current research on student voice initiatives, Mitra and Serriere proposed the ABCDEs of youth development.

The concept of *agency* in a youth development context "indicates the ability to exert influence and power in a given situation" (Mitra, 2004). It implies "a sense of confidence, a

sense of self-worth, and the belief that one can do something" in service to a specific situation or society at large (Mitra, 2004). Additionally, agency "can be a source of social capital for youth that can yield opportunities for further education, employment, and other enrichment opportunities" (Mitra, 2012). Mitra (2004) identified three instances in which students most commonly demonstrate a growth in agency. First, she found that students developed a sense of agency when given a chance to articulate their opinions and feel heard. For example, "in their first attempt at a student focused-activity, pairs of students took teachers on tours of their neighborhood" (Mitra, 2004). This student-focused activity helped "to reduce tension between teachers and students, increase informality, and help teachers and students identify one another as persons rather than stereotypes" (Mitra, 2004). In addition to being heard and respected, Mitra (2004) found that when given a chance to exert agency, students developed new identities as change-makers and fostered new sources of support. For instance, students engaged in reform conversations and provided feedback on teacher-developed initiatives. Lastly, she found that student voice efforts that promoted agency caused students to develop leadership skills and instilled an increased sense of responsibility to help others in need. For example, these individuals spoke up for those without a voice and worked to improve their school culture. As a whole, these findings allude to the success that student voice efforts can have on the growth of agency in students.

In a youth development frame, the term *belonging* includes "developing relationships consisting of supportive, positive interaction with adults and peers and of opportunities to learn from one another" (Mitra, 2004). When students form meaningful relationships with their teachers and classmates, they develop a sense of ownership and attachment to their school community (Mitra, 2004). Thus, they begin to feel that they matter to others and in their

community. Mitra (2004) identified three instances in which students most commonly demonstrate a growth belonging. First, she found that students developed a sense of belonging when they built connections with caring adults. For example, some students mentioned how they developed a strong connection to their advisor Hector Sanchez who worked part-time as a self-entitled advocate for Latinx students. By establishing trust and developing mentoring relationships, Hector worked hard to serve as a resource and support mechanism for his students. In addition to building connections with caring adults, Mitra (2004) found that improving interactions with teachers help to foster student belonging. For instance, through student-teacher partnerships, students began to feel more "comfortable speaking to teachers in the hallway and approaching them if they had a concern in class" (Mitra, 2004). As a result, "the students began to understand the perspectives of teachers more, and the teachers began to understand the experiences of students" (Mitra, 2004).   Lastly, she found that student voice efforts that promoted belonging allowed students to gain more respect and attachment to the school. For example, as students became involved in their school, they developed a growing sense of pride and attachment. Together, these findings allude to the success that student voice efforts can have on the growth of belonging in students.

Within a youth development context, *competence* "consists of the need for youth to develop new skills and abilities, to actively solve problems, and to be appreciated for one's talents" (Mitra, 2004). When students take on responsibilities and make decisions that have repercussions for themselves and others, students gain "a broad set of competencies that [help] them prepare for adulthood" (Mitra, 2004). Mitra (2004) identified four instances in which students most commonly demonstrate a growth competence. First, she found that students gain a greater sense of competence through critiquing the environment. For example, "one activity that

particularly enhanced the development of critique was the creation of a schoolwide conversation about [their school's] reputation as a ghetto school" (Mitra, 2004). This activity allowed students to openly discuss the school's negative image and how it impacted their own identities. Beyond developing skills to critique their environment, Mitra (2004) found that "students also learned skills to try to address the problems that they identified." For instance, given the high percentage of ELA students at the school, a group of students developed a tutoring and translation program to help with language barriers. By offering tutoring services and assisting administrators with translating material, students demonstrated a greater competence in their abilities. Next, Mitra (2004) found that cooperating and negotiating with others also helped to increase students' competence. For example, through group work and collaborative activities, students learned to overcome personal biases and respect others. Lastly, Mitra (2004), "in addition to getting along with others, nearly all students in both groups enthusiastically described their growth in confidence when speaking publicly." For instance, many of the students mentioned how they felt uncomfortable or afraid to speak before, but having the opportunity to make and give multiple presentations gave them the confidence to overcome their initial fears.   As a whole, these findings allude to the success that student voice efforts can have on the growth of competence in students.

Discourse in a youth development context includes "learning how to engage with a difference of opinions as well as differences in backgrounds, working styles, and cultures" (Mitra & Serriere, 2012).   It also involves the formation of ongoing dialogue and social cooperation. Mitra and Serriere (2012) identified four instances in which students most commonly demonstrate a growth in discourse. First, they found that students are more likely to develop discourse when provided with the opportunity to work as a team. For example, the Salad Girls

learned how to work collectively as a team through their project. In doing so, they learned how to work with "a wide range of backgrounds, beliefs, ethnicities, and experiences" (Mitra & Serriere, 2012). Along the same lines, Mitra and Serriere (2012) found that the Salad Girls developed discourse in instances when they realized that working together creates "synergy of needs and talents that cannot occur alone." For instance, in their reflection, the Salad Girls mentioned how "the range of academic abilities, background, and experiences helped them to see the different ways in which people can contribute to group tasks" (Mitra & Serriere, 2012). Mitra and Serriere (2012) found that valuing connectivity with others also helped increase students' discourse. For example, "the girls originally began their campaign due to their own needs, but came to realize that they were representing the needs of something much bigger than themselves" (Mitra & Serriere, 2012). Thus, the Salad Girls gained a better understanding of how their needs related to the larger needs of the community. Lastly, Mitra and Serriere (2012) found that the Salad Girls developed discourse through learning to communicate with those in power. For instance, to present their idea of the new salad options, the girls had "to devise a process of communicating their message to those in power" (Mitra & Serriere, 2012). One way in which they achieved this goal was through conducting a school survey which strengthened their position. Together, these findings allude to the success that student voice efforts can have on the growth of discourse in students.

In a youth development frame, the term *(civic) efficacy* involves "a sense of confidence, a sense of self-worth, and the belief that one can," as part of a team, produce changes that are meaningful to others and oneself (Mitra & Serriere, 2012). It encompasses "the cognitive belief that one can make a difference in the world, and has the responsibility to do so" (Mitra & Serriere, 2012). Mitra and Serriere (2012) identified four instances in which students most

commonly demonstrate a growth (civic) efficacy. First, they found that students are likely to develop (civic) efficacy when they gain "social consciousness" or the "sense of awareness of the needs of the broader school" (Mitra & Serriere, 2012). For example, the Salad girls "began their quest to change the school menu due to self-interests, but as they began to work together, they developed a collective sense of social consciousness or sense of awareness of the needs of the broader school" (Mitra & Serriere, 2012). In addition to an increase in social consciousness and a sense of awareness of the needs of the broader school, they found that an increase in social responsibility was also associated with increases in (civic) efficacy in students. For instance, as the girls continued on their quest, they "not only became aware of an injustice, but they developed responsibility to remedy the situation" (Mitra & Serriere, 2012). Lastly, they found that the students experienced an "a-ha moment when civic efficacy [became] a conscious process" (Mitra & Serriere, 2012). Although this moment differed for each of the girls, all of them described this moment as one in which they observed civic efficacy developing in themselves. As a whole, these findings allude to the success that student voice efforts can have on the growth of (civic) efficacy in students.

Trauma-Responsive Voice-Centered Practices for Students with Learning Differences

The concept of student voice is not unique to trauma-responsive schooling efforts. Increasingly, educators are recognizing the power of listening to students beyond that of responding to childhood adversity and trauma (DeFur & Korinek, 2010). For instance, many disability studies scholars argue that "listening to experiences of individuals with dis/abilities" is essential for promoting "inclusive, anti-hierarchical democratic dialogue" in schools (Pazey & DeMatthews, 2019). In doing so, many of these student voice initiatives focus on addressing issues, such as identity, power, and inclusivity, that are central to the disability studies

perspective (Peter, 2010). For example, Prunty et al. (2012) examined students' views on schooling by listening to the voices of students with special educational needs. Through interviews and focus groups, these students reflected constructively on their own schooling experience, providing valuable insights on how teachers can better support their learning and success in the classroom. Therefore, as a whole, this study reveals the importance of listening to the voices of students with special needs as it has the potential to challenge and inform existing policy and practice. Along the same lines, Pazey and DeMatthews (2019) conducted a study highlighting the perspectives of students with disabilities to gain greater insight into the impact that a set of accountability reform efforts had on students' high school experience. The findings of this study reinforce the value of providing students "who have been historically silenced or marginalized" in educational settings with the opportunity to be heard (Pazey & DeMatthews, 2019). Although these and other similar voice initiatives benefit students with learning differences, their primary goal is to inform educational practice, legislation, and policy decisions (Pazey & DeMatthews, 2019; Prunty et al., 2012). As a result, they are less focused on fostering student agency, control, and empowerment and more on creating structural change within disability studies and special education fields.

Full and active engagement in school and community transformation is essential in creating a "genuinely trauma-responsive culture" that promotes healing (Brown, Biddle, Tappan, 2022). By not prioritizing agency, control, and empowerment, current voice initiatives for students with learning differences fail to "engage [these individuals] as full and active partners in school and community transformation" (Brown, Biddle, & Tappan, 2022). Therefore, one could argue that solely listening to the experiences of students with learning differences is not enough. Additionally, although research on trauma-responsive schooling hints at the vulnerability of

students with learning differences, it does not explore the potential parallels between their experience and those of students with one or more ACE. As a result, literature thus far has yet to consider having a learning difference in school as a traumatic experience in itself.

Even though learning difference-centered and trauma-responsive student voice initiatives are fruitful on their own, they can be more successful together. For example, imagine a student who is struggling more than their peers in school and, as a result, develops low self-esteem and confidence. After school, this student also works at a grocery store to help support his single mother, who has a substance use problem. Although his teacher notices his low self-esteem and confidence, she assumes it relates to an unaddressed learning difference, recommending that he get tested to qualify for an IEP. The testing reveals a specific learning disability, and the student is given additional support in the classroom, yet the teacher notices no difference. In this scenario, the teacher fails to address the entire picture by not considering the student's exposure to ACEs outside of school. Therefore, this example alludes to the potential danger of thinking about ACEs, learning differences, and trauma as separate entities, paving the way for this project's investigation into the impact of trauma-responsive voice-centered practices on students with learning differences.

Chapter Three:

Method

This section will outline my interviewing and coding process in detail and its logic. In doing so, I will describe the context from which I collected data, who I interviewed and what questions I asked, and how I coded for the presence of gains in students with learning differences and organized them into major themes. Together, these processes will help to support the findings and conclusions from my research.

Data Collection Context

The context in which I collected my data was that of the Trauma-Responsive Equitable Education (TREE) Project. Located in Washington County, Maine, TREE is "a whole-child, voice-centered, equitable trauma-responsive approach" focused on addressing those challenges faced by rural schools and communities (Brown, Biddle, & Tappan, 2022). In addressing inequalities in access to basic needs, supporting the whole child, and improving trauma-responsive efforts, TREE strives to create safe, empowering, and effective educational environments for all students.

Having worked as a research assistant for the Rural Vitality Lab for two years starting in Summer 2020, I was already familiar with the TREE Project when beginning my project. As a research assistant, my primary focus was on TREE's student voice initiatives. The main project that I worked on as a research assistant involved looking at and coding approximately 30 student, teacher, and parent interviews collected by TREE staff at Milbridge and East Elementary School in June 2018 and 2019 and December 2018 and 2019. With the help of the other research assistants at the time, I coded these interviews for examples of student voice, using Mitra's

ABCDEs of youth development (Agency, Belonging, Competence, Discourse, Efficiency) (Mitra & Serriere, 2012). Each example of student voice also received a TREE practice code (6th Grade Leadership, Art Explorations, Basic Needs Support, Mental Health Support, Microadventures, School Staff, Somedays, TREE Staff). Through this project and my time as a research assistant for the Rural Vitality Lab, I learned more about the importance of student voice in addressing trauma and promoting healing in rural communities, thus laying the foundation for my own research on the impact of trauma-responsive voice-centered practice on students with learning differences.

Interview Process

After selecting the Trauma-Responsive Equitable Education (TREE) Project as the context in which I would collect my data, I brainstormed who I would interview and what questions I would ask. In doing so, I selected four adults who played a prominent role in implementing and evaluating the TREE project on the ground: Bethany Snow, Nora Allen, Rachael Kelly, and Cass Greenlaw. As resource coaches at East and West Elementary School, Bethany Snow and Rachael Kelly served as the bridge between the research team, their partner school, and the community. Together, they ensured that "all aspects of the TREE program [were] integrated smoothly, sensitively, and efficiently into the life of the schools" (Cobscook Community Learning Center, 2019). As TREE's mental therapist at West Elementary School, Nora Allen provided in-school mental health services to children and families who otherwise would not have access to them due to a lack of insurance or transportation (Cobscook Community Learning Center, 2019). Lastly, 2020 Colby alum, Cass Greenlaw joined TREE's on the ground team as AmeriCorps VISTA following her graduation. In her new role at West, she

worked with Rachael to provide additional support to students in the classroom, helping to facilitate TREE's initiatives.[1]

In preparing for my interviews, I developed six interview questions related to my research question (see Table 1 for interview questions). Although I kept them relatively broad and open-ended, each included several follow-up questions to encourage further elaboration. Interviews were conducted over the phone (1) or on Zoom (3) and recorded for transcription. Together, these interviews served as the data from which I determined the impact of trauma-responsive voice-centered practices on students with learning differences.

Table 1:

Interview Questions

1. Could you tell me about the work that you did with the TREE Project and the ways in which you interacted with students with learning differences.

2. Do you think students with learning differences benefited from TREE's trauma-responsive curriculum? If so, in what ways did they benefit? Did they benefit differently from students who were not identified as having learning differences?

3. Do you think students with learning differences benefited from specifically TREE's student voice activities? If so, in what ways did they benefit? Did they benefit differently from students who were not identified as having learning differences?

4. While working on my thesis, I have found that students with learning differences are more likely to experience toxic stress. Did you find that this was the case at your school ? In what ways was this stress debilitating for these students? Did you notice any patterns in the ways in which these children with learning differences did or did not cope with this stress?

5. Are there any students who come to mind that were active in the TREE Project who had learning differences? How were they impacted by it?

6. Is there anything else related to the TREE Project and its impact on students with learning differences that you think it would be helpful for me to know?

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[1] Pseudonyms for all interviewees from Brown, Biddle, & Tappan (2022).

Thematic Analysis

I conducted a thematic analysis to organize the qualitative data I collected from my interviews. In doing so, I closely followed the six phases of thematic analysis outlined in Braun and Clarke (2006) to guide my process. These six phases include "(1) familiarizing yourself with your data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report" (Braun & Clarke, 2006). Through this method of study, I was able to identify, analyze, and report patterns and themes in rich detail (Braun & Clarke, 2006).

Phase one, familiarizing yourself with your data, involves "transcribing data, reading and re-reading the data, [and] noting the initial ideas" (Braun & Clarke, 2006). After transcribing them using Rev.com, I printed each interview and read and reread it at least twice. In doing so, I jotted notes and key phrases in the margins and highlighted potential places in which TREE's trauma-responsive voice-centered practice impacted students with learning differences.

After completing phase one, I moved on to phase two of Braun and Clarke's (2006) thematic analysis process. Phase two, generating initial codes, entails "coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code" (Braun & Clarke, 2006). To do so, I generated a list of initial ideas and themes, color-coding them according to whether they directly or indirectly, through teachers or parents, impacted students with learning differences.

Following phase two, I proceeded to phase three, searching for themes that involved "collating codes into potential themes [and] gathering all data relevant to each potential theme" (Braun & Clarke, 2006). To achieve this phase's goals, I created an excel document to organize the data into potential themes related to my primary research question. These preliminary themes

included communication with parents, student access, relationships, changing students' mindsets, and a miscellaneous category.

Next, phase four, reviewing themes, entailed "checking if the themes work[ed] in relation to the coded extracts and the entire data set, generating a thematic map of the analysis" (Braun & Clarke, 2006). During this phase of the thematic analysis process, I further revised my themes. In doing so, I eliminated my first theme regarding communication with parents and the miscellaneous theme as they did not directly relate to my research question.

After phase four, I moved on to phase five of the thematic analysis process, defining and naming themes. This phase involves "ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme" (Braun & Clarke, 2006). To achieve this phase's goals, I solidified my four current themes: relationships, academics, success, teachers, and their sub-themes. From here, I moved on to the final stage, producing the report.

Chapter Four:

Results

In this chapter, I will identify two broad categories that capture important changes resulting from the TREE project and its trauma-responsive voice-centered initiatives: students and teachers (see Table 2 for themes and subthemes). For students, I will address three themes related to their experiences in school. These three student themes focus on relationships, academics, and success, respectively. For teachers, their one theme relates to the ways in which TREE's initiatives impacted how they viewed their students.

Table 2:

Categories, Themes, and Sub-Themes

Category	Theme	Sub-Theme
Student	Relationship Experience	Building Trust
		Increasing Connection
		Fostering Belonging
	Academic Experience	Empowering Support
		Increasing Access
		Promoting Engagement
	Understanding of Success	Fostering Competency
		Redefining Success
Teachers	Impact on Teachers	Seeing Students in a New Light
		Supporting the Whole Child

Student Relationship Experience

In a trauma-responsive voice-centered frame, "relationship" refers to the positive bonds that students with learning differences create with their teachers, classmates, and other members of the school community. ACEs and learning differences can compromise a child's ability to enter into meaningful relationships (Herman, 1998). Thus, opportunities to develop these relationships at school have become an increasingly important need for these students. Based on the data collected during my adult interviews, I identified three ways that the trauma-responsive voice-centered approach promoted relationship gains in students with learning differences: (1) building trust with caring adults, (2) increasing connection with one's peers, and (3) fostering a sense of belonging at school.

Building Trust

Trust is a crucial building block in developing supportive, mutual relationships (Brown, 2014). It can take time, patience, and effort, especially with students who have experienced trauma or have a learning difference. Despite this, student voice initiatives can help facilitate this trust-building process between students and teachers (Cook-Sather, 2002). For example, in my interview with AmeriCorps VISTA member Cass Greenlaw, she described a time when she witnessed an increase in this essential relationship-building element in response to a voice-centering activity:

> So I would arrive around 7:30 and eat breakfast with students in their classrooms..that would be like a big-time for connection, and typically students with learning differences were seeking that connection more so than neurotypical students. A lot of times that was just a time when we would chat about things,..play a little game, [or] do an activity. I noticed a lot of consistent needs for connection first thing in the morning and like some

sense of anxiety around starting the day because I think learning differences can do that.

It just takes a lot more to be at school and be present in that space and regulate and

co-regulate your emotions when you have this additional challenge on top of any trauma

that you're bringing with you.

The simple act of arriving early and eating breakfast in one's classroom provided students with the opportunity to feel heard and listened to first thing in the morning. In doing so, school became a place where their voice was recognized and encouraged. Thus, allowing students to let their guards down and build trusting relationships with caring adults at school.

As Cass noted, feelings of uncertainty and apprehension were often high for students with learning differences at the start of the school day. If left unaddressed, this anxiety could have negatively impacted these students' ability to learn. Therefore, creating a safe environment for autonomy and connection first thing in the morning was essential for helping students with learning differences succeed. It enabled teachers to address these feelings of uncertainty and apprehension and prepare their students for the day of learning ahead (Burke Harris, 2019). Additionally, these initial moments of connection served as context points for later in the school day, allowing teachers and students with learning differences to persevere through setbacks. For instance, in her interview, resource coach Rachael Kelly expanded upon the benefit of promoting voice and establishing trust early on for students with learning differences:

When you are a sixth-grader, and you have difficulty accessing language, it can be really

difficult to say how I feel...If my frustration comes out, as I hate you, or I hate this or any

sort of negativity towards peers or teachers, the response to that is typically, you know,

negative. And you, you need to say kind words, you need to say nice things and without

the sort of probing questions that say, well, what is it that you really dislike? What is it

that is really hard in this moment? Instead of just taking those statements at face value and then, you know, punishing those statements in whatever sort of way and really giving students a space to, you know, sit with [their teacher or another adult who cared about them at the school].

As evident above, the initial trust built in the morning helped students, teachers, and other caring adults navigate challenging moments later in the school day. Without this foundation, research has shown that teachers tend not to look beyond face value and punish their students' behavior for what it is (Brown, 2014). In doing so, they compromise their students' trust, which can ultimately jeopardize an entire relationship.

When teachers promoted student autonomy and established trust early on, they had the tools to help students overcome roadblocks throughout the day. They better understood each student's needs, allowing them to work through tricky situations and support students'' emotions effectively. Teachers ultimately achieved this goal by centering students' voices and creating a safe and empowering space for students to open up and become more vulnerable. Conversely, students learned that they could ask for help and express their emotions without facing repercussions. Therefore, as a whole, TREE's trauma-responsive voice-centered approach provided students with learning differences the opportunity to build trust with caring adults throughout the school day, thus laying the foundation for supportive, mutual relationships.

Increasing Connection

Healthy social connections are essential for young people as they help them maintain a sense of well-being, lower feelings of anxiety and depression (Youth Network of Tasmania, 2020). In addition to building trusting relationships with caring adults, TREE's trauma-responsive voice-centered approach created new opportunities for students with learning

differences to connect with their peers. Thus, allowing them to develop meaningful relationships with their classmates at school. For example, in her interview, resource coach Bethany Snow focused on how one of TREE's voice centered activities achieved this goal:

> The Somedays...were really impactful for some of those students [with learning differences].   Like I can think off the top of my head of one student in particular with autism who was kind of at a loss with peers in a way, not really knowing how to connect and having trouble really navigating that social aspect...I think back on his actual someday of he wanted to give everybody ice cream that for his someday, that was his thing. And so, for him having those social interactions, going into classrooms, giving all those kids their ice creams, and having conversations was really huge. And that same student getting invited by another classmate for her someday of getting up on stage and singing and like he's up there, he's just having the best time. So I just think that those two instances were opportunities that would have never happened in a quote-on-quote normal type of educational environment. And it just gave him something a little extra.

TREE designed Somedays to give students the "chance to be recognized, listened to, and taken seriously" (Brown, Biddle, & Tappan, 2022). Students selected one wish for this voice-centered activity that they hoped to experience before the summer break. Every student's wish was granted, thus offering them the opportunity to be heard and feel like they were listened to at school.

 As Bethany noted in her interview, Somedays provided students with learning differences "a little something extra." Students with learning differences often experience social problems due to cognitive processing difficulties, organization issues, language retrieval problems, and confidence issues (Shenfield, 2019). In the case of the student with autism, his

"little something extra" was the opportunity to connect with peers. Like many other students with learning differences, this student was "at a loss with peers." His Someday allowed him to communicate his desire for increased social interaction with classmates. The impact of his Someday wish extended beyond that of just the day in which it occurred. It gave him the opportunity to connect with his peers and begin forming meaningful relationships, such as the one he made with the girl who invited him to participate in her Someday. Given this, somedays and other trauma-responsive voice-centered activities established by TREE were ultimately able to help pave the way for further connection with peers for students with learning differences.

Fostering Belonging

Belonging enables children to "develop a sense of ownership and attachment to the organization in which they are involved" (Mitra & Serrier, 2012). At school, belonging is "positively related to academic success and motivation" (Mitra & Serrier, 2012). Therefore, Mitra (2004) deemed belonging an essential "asset that youth need to succeed in school and in their lives." When TREE's trauma-responsive voice-centered approach provided students with learning differences the opportunity to feel heard and listened to, these students formed meaningful relationships with peers, teachers, and other caring adults, thus promoting a greater sense of belonging at school. For example, in her interview, Bethany Snow mentioned one way in which centering voices helped these students foster a sense of belonging at school:

> And for I think for resource room students because the curriculum is already difficult to
> access it can already push them outside trauma-responsive voice-centered approach of the
> sort of sense of belonging in a classroom and in a school. Especially when the result of
> that IEP is pull out instruction for a good part of the day. So what classroom do you
> belong to? Do you still feel like you belong to fourth grade when you haven't been with

them for half the day, or you come back, and they're talking about the book that they're reading, and you're not reading that book? And so now you can't contribute to this conversation or share about the activity they just did that they were really excited about, and you didn't get to do that activity. And so I think listening to their feedback and a lot of these things and including them and being intentional about the way they're included in conversations. And I can think of one particular group, and some of this is sort of interwoven with just typical challenges of being a middle schooler and growing up and figuring yourself out and how you fit into the world and how you fit in with your peers—and just working with them to begin to articulate or give them a space to begin to articulate their thought process.

TREE's student voice initiatives took a variety of forms. They occurred both inside and outside the classroom. Some were more structured activities, whereas others were more subtle practices. Regardless of their shape, each initiative focused on "listening to student voices, taking students seriously, and seeking to promote their agency, control, and empowerment" (Brown, Biddle, and Tappan, 2022).

As Bethany noted, students with learning differences often felt like they did not belong in their classroom or school. Teachers helped foster a sense of belonging in students with learning differences by intentionally listening to their feedback and including them in-class conversations. In doing so, students with learning differences started feeling like their voices truly mattered. They finally felt included and became more confident. As a result, these students became more connected to their teachers, classmates, and eventually school as a whole.

By building trust with caring adults, increasing connections with one's peers, and fostering a sense of belonging at school, TREE's trauma-responsive voice-centered approach

enabled students with learning differences to form meaningful relationships with their teachers, peers, and other members of the school community. Establishing these relationships was the first step in helping these students succeed.

Student Academic Experience

In a trauma-responsive voice-centered context, "academics" refers to the educational progress and gains that students with learning differences make in school. Many students with learning differences struggle in school for reasons unrelated to their intelligence, work ethic, and motivation due to processing difficulties (Horowitz et al., 2017; "Types of Learning Disabilities," n.d.). Struggling in school is often challenging for a child to understand, which can cause high levels of frustration. The data I collected during my adult interviews demonstrated several ways in which a trauma-responsive voice approach helped students with learning differences prosper academically. Specifically, I found that it (1) empowered students to seek support, (2) increased access to the curriculum, and (3) promoted further engagement in school.

Empowering Support

Many students are reluctant to ask for help in school out of fear of judgment from their peers (Good & Shaw, 2021). Although IEPs and 504 plans can support students with learning differences, they often fail to meet all of their needs. As a result, students with learning differences must seek out additional support on their own. In these instances, initiatives that center students' voices can reduce their fears and empower them to ask for help. For example, in my interview with Cass Greenlaw, she explained one way in which her position as an AmeriCorps VISTA memeber helped encourage students with learning differences to voice their needs:

[Part of my job involved] leading activities, a lot of one on one or small group support and a lot of work around transition and finding stability and feeling confident in that stability, and feeling like there was a plan in place for them to access people and access their basic needs...I would see them through to dismissal and then sometimes occasionally work after school with students, but a lot of times, it was being present in their programming throughout the day and after school to have as much familiarity and trust built in there as possible.

By being present in their programming, Cass provided students with a greater sense of stability. At the same time, one-on-one and small group settings gave them the opportunity to voice their needs and gain confidence in their ability to do so. Thus, together, these supports removed some of the barriers and stigma around asking for help.

As Cass explained above, students with learning differences found comfort in having a "plan in place for them to access people and..their basic needs." It targeted their desire for stability and, eventually, their confidence in this stability. When students do not have these supports or trust in their availability, they often shy away from asking for help. By allowing these students to practice voicing their needs in one-on-one and small group settings, they later gained the ability to do so in larger group settings. Therefore, in providing them with the opportunity to do so, student voice initiatives empowered students with learning differences to seek support, enabling them to make further progress and academic gains in school.

Increasing Access

With the proper support and effective instruction, students with learning differences can achieve high levels of academic success at school, yet far too often, lesson planning "is done with the 'typical' student in mind" ('Types of Learning Disabilities," n.d.; Parrish, 2019). Given

this, schools and teachers must provide these students the chance to prosper academically. Of the adults interviewed, all four emphasized the power of voice in helping students with learning differences access the curriculum. Specifically, in her interview, Cass Greenlaw described how microadventures gave these students this opportunity:

> Microadventures...are set up...to access knowledge in different ways. And so a lot of times when you have knowledge that presents itself in different ways that a neurotypical student, the microadventures were really an area that provided a lot of opportunity for students with learning differences to showcase their strengths or to practice skills in a way that met their needs differently. Like if you need a lot of sensory input building geometry shapes out of tape, or like going and collecting samples at outdoor school is so much more engaging than reading a textbook and filling out a worksheet about it. And I think that's true for all students, but for students who have so many additional challenges or barriers to overcome with accessing that kind of neurotypical knowledge, I think the microadventures and the add programming around student voice were really useful.

Microadventures are "small, low-cost, easy-to-run expeditions focused on getting students outside, regardless of socioeconomic class, location, skills, and abilities" (Brown & Flaumenhalf, 2019). TREE designed these expeditions in "response to students' expressed desire to to get outdoors and experience their classrooms and school grounds as a living, moving learning environment" (Brown & Flaumenhalf, 2019). In doing so, they also targeted the academic concepts and material that students struggled with most.

Agency is "the exertion of influence and power in a given situation, which can be a source of social capital for youth that can yield opportunities for further education, employment, and other enrichment opportunities" (Mitra & Serriere, 2012). As Cass noted, microadventures

provided students with learning differences a new way of accessing knowledge, often better meeting their needs. In doing so, they targeted their learning gaps while also making them agents of their learning. Therefore, this voice initiative ultimately gave students with learning differences the power to exert influence over their academic journey, thus providing them with a new source of social capital.

Promoting Engagement

Engaging students in school is fundamental to promoting their academic success (Reeve et al., 2004). It serves as a motivator and contributes to subsequent learning and development. Thus, "predicting students' achievement and eventual school completion" (Reeve et al., 2004). Although engaging all students in school is essential, it is especially so for those already at risk for underachieving or dropping out, such as students with learning differences. For instance, in her interview, Cass explained how TREE's trauma-responsive voice-centered approach fostering student engagement benefited these students:

A lot of times kids who are really quiet and reserved or anxious in class about sharing

came to life [at the Maine Outdoor School] where they could show the same skills that

they would do in class like reading math, writing, observation drawing, but when it was

in the context or applied to the outdoor space where they felt really confident and felt

really good about themselves, it was useful. And supportive of them… So I found the

change of setting was really helpful [and] the opportunities to have their voice [for]

people who were able to focus specifically on voice. Whereas I think voice comes in in

the classroom, but if we have to teach this math lesson, then there's a certain amount of

built-in constriction..or prescriptiveness that wasn't so much there when this space was

dedicated to student voice and kind of meeting students where they were. There [was]

less pressure I think to meet certain academic criteria and more space to hear them and take the time to really find the voice and the ways that they are accessing it.

When schools provide students with the opportunity to participate in meaningful activities that promote autonomy and foster confidence, students become more engaged, allowing them to better master skills and learn the material (Pino-James, 2015). As evident above, when students with learning differences were in an applied context, such as the Maine Outdoor School, they became more engaged in their learning. It allowed them to better take in information and master skills. Thus, as a whole, this student voice initiative gave them the confidence to share their knowledge with their peers and teachers.

By empowering them to seek support, increasing their access to the curriculum, and promoting their engagement in school, TREE's trauma-responsive voice-centered approach helped further the progress and gains of students with learning differences. Therefore, by empowering them to seek support, increasing their access to the curriculum, and promoting their engagement in school, TREE's trauma-responsive voice-centered approach ultimately provided a context for which these students could later feel success.

Student Understanding of Success

"Success" in a trauma-responsive voice-centered frame refers to the feelings of achievement and confidence experienced by students with learning differences. Students with learning differences are more likely to develop low self-esteem and confidence as a result of struggling more than their peers in school. When these feelings are left unaddressed, these students are more likely to suffer from social isolation, bullying, disproportionate and disciplinary rates (Horowitz et al., 2017). They are also at an increased risk for skipping school, dropping out, and becoming involved in the criminal justice system. Given this, schools must do

everything to prevent these negative outcomes and foster success in these students. Based on the data collected during my interviews, I identified two ways in which a trauma-responsive voice-centered approach promoted these feelings in students with learning differences: (1) fostering feelings of competency and (2) redefining what success means at school.

Fostering Competency

As mentioned previously, teachers often ignore the needs of students with learning differences when planning traditional classroom lessons ("Types of Learning Disabilities," n.d.; Parrish, 2019). Therefore, these lessons often include fewer opportunities for these students to feel competent in their abilities and ultimately experience success. However, during her interview, when asked how TREE's student voice initiatives benefited students with learning differences, Bethany Snow replied:

> I definitely feel like...their competency, for sure. Just...because they were picking something...that they wanted or that they really liked or that they were interested in. And so [somedays] gave them that feeling of, I know what I'm doing...I think of a kiddo that wanted to bring in his wrestling figures and him being the expert on that and him telling his teachers...different things about wrestling and things like that. So giving them that sense of...I am of value [and] I do have things to add to this world.

As noted before, somedays provided students with the "chance to be recognized, listened to, and taken seriously" (Brown, Biddle, & Tappan, 2022). Therefore, benefiting both students with and without learning differences. In this example, Bethany focused on a specific student who had an identified learning difference and how his someday impacted him.

In the field of youth development, competence refers to a child's need "to develop new skills and abilities, actively solve problems, and be appreciated for one's talents" (Mitra &

Serrier, 2012). As evident above, in fulfilling this student's wish to bring his wrestling figures into school, somedays allowed him to feel competent in his abilities. These positive effects were not unique to this student's experience as somedays fostered competence in many students with learning differences. They enabled them to showcase their expertise and feel valued for their abilities. Therefore, as a whole, this trauma-responsive voice-centered initiative ultimately provided students with learning differences the chance to feel successful at school.

Redefining Success

Although it is important to give students with learning differences opportunities to feel successful, it is equally important that they understand that success is less about proving you are smart and more about learning and stretching yourself in new ways (Dweck, 2006). It can be challenging for students with learning differences who struggle more than their peers in school to develop this growth mindset. Despite this, in her interview, Rachael Kelly explained how TREE's trauma-responsive voice-centered approach helped students with learning differences achieve this goal:

> It wasn't about his inability to learn these things, but his inability to be in a place where he was able to access that and learn…it doesn't mean you're not an intelligent student, or you're not a capable student. There are just, there are things that make learning a little bit harder for you. But that alone can do a lot to a student's self-esteem and self-image when they feel like they're just not good at something because that's a reflection..on them as a person..Some of this sort of touches a little bit on the idea..of growth mindset too, like just wanting..to see students [and] wanting to help students see [that] where they are sort of in relation to other students in their classroom is not a fixed place. Like you're not always not gonna be able to do this well, you're not always gonna feel like, you know, a

kid's responses, just not good at this..I'm not smart enough, I'm not good

enough…Tackling [this self-talk helped] students overall be able to navigate those things

better…it change[d] the definition..for kids so that they [could] then see themselves

included in what it means to be a good student.

As Rachael mentioned above, voice initiatives both inside and outside the classroom shifted the

definition of a successful student for students with learning differences. Not needing help,

getting all As, and knowing all the correct answers were no longer requirements for being a

"good student." Instead, they saw succeeding in school as asking for help, not giving up when

something is hard, and understanding what resources are available to help you when you do get

stuck. This shift in perspective enabled students with learning differences to develop growth

mindsets. Developing a growth mindset is essential in achieving success in school. It helps each

student grow as a learner by understanding that all students can succeed with effort and

perseverance (Dweck, 2006). As a result, TREE's voice initiatives ultimately allowed students

with learning differences to continue experiencing success in school by shifting their mindsets.

Impact on Teachers

In a trauma-responsive voice-centered context, "teachers" refers to how this approach

benefited teachers who in turn helped students. After parents, "teachers are the single most

influential agents of change in a child's life" (Jones, 2022). Thus, "their understanding and

mastery of pedagogy and subject matter, together with their ability to apply effective teaching

practices, are key to learning for all students, but especially for those with learning differences"

(Jones, 2022). The data I collected during my adult interviews demonstrated several ways in

which a trauma-responsive voice-centered approach benefited teachers who helped students.

Specifically, I found that it (1) enabled teachers to see students in a new light and (2) to support the whole child and their needs.

Seeing Students in a New Light

In my interview with mental health therapist Nora Allen, she explained how teachers often misinterpret students with learning differences, especially those who do not have an official diagnosis. For example, she recalled a time when she overheard a teacher referring to a student as "naughty" and "badly behaved," when in reality, this student was struggling due to an unidentified learning difference. This stigmatization and labeling of students with learning differences are not unique to Nora's experience. A survey conducted by the National Center for Learning Disabilities revealed that "33% of educators say that sometimes what people call a learning or attention issue is really just laziness" ("Types of Learning Disabilities," n.d.). Despite this, TREE's trauma-responsive voice-centered approach has successfully enabled teachers to look beyond students' bad behavior or outward appearance. For example, in Rachael Kelly's interview, she explained how its student voice initiatives achieved this feat**:**

> We found ways to sort of identify the strengths that were bubbling up as they participated in [microadventures and someday,] and then find..ways to connect them with classroom teachers to say, here's maybe a way you didn't see a student before. A lot of times, thankfully, teachers were able to see this already. They could see behaviors they hadn't seen before, and these were good behaviors..or skills they hadn't seen exercised before. Or just students' ability to explain it's like, if you wanted me to explain how to put this together, I can do that.

Given that "the success of students with learning disabilities rests on well-prepared, highly effective teachers," it is incredibly important that teachers do not form misconceptions or

stereotype these students (Jones, 2022). These misconceptions and stereotypes about students with learning differences can be detrimental to both student-teacher relationships and a student's success.

As Rachael noted above, microadventures, somedays, and other voice-centered activities helped teachers see students with learning differences in a new light. It gave these students a voice to share their experiences with their teachers. In doing so, teachers better understood how learning differences, trauma, and a combination of the two could complicate a student's ability to learn and be present in school. Therefore, as a whole, TREE's student voice initiatives prevented stigmatization and labeling of these students, thus allowing teachers to see them in a new light.

Supporting the Whole Child

Taking into consideration learning difference specific needs is crucial in promoting these students' success in school. Yet, they are often ineffective if a teacher does not consider the whole child's other needs. Supporting the whole child involves empowering students while promoting social, emotional, ethical, and identity development (Cobscook Community Learning Center, 2019). Student voice is one way in which a teacher can consider and support the whole child. For example, in her interview, Rachael Kelly explains how TREE's trauma-responsive voice-centered approach and its initiatives accomplished this goal:

> When you think about, you know, wanting the work that we do with students to really take into account the whole child, not just the language skills they're having struggles with, but the impact of that struggle on all of the other areas of their life as a student. Cuz it's not there are just gaps, right? If all I'm doing is looking at here are some strategies that will help you do this better and the strategies are, you know, whatever this practice skill, and that's what we do together that does very little to help you navigate what it's

like to be a student who has this learning difficulty, all this is doing is helping hopefully

to mediate this difficulty or improve your skills to help you be more successful.

Trauma as well as other adversities, complicate the experiences of a student with learning

differences. Therefore, teachers must not only consider a student's learning difference but also

look beyond it, thus, supporting the whole student. In order to help the whole child, one must

empower students while also promoting their social, emotional, ethical, and identity development

(Cobscook Community Learning Center, 2019). As evident above, through TREE's student

voice initiatives, teachers were ultimately able to help the whole child, thus mediating their

difficulties and pushing them to be more successful.

Chapter Five:

Discussion

According to the informants interviewed for this project, when given the opportunity to participate in trauma-responsive voice-centered initiatives designed by TREE, students with learning differences, as predicted, made substantial gains in school. They were also able to form positive bonds with their teachers and classmates, progress academically, and gain more confidence in their abilities by redefining their understanding of success. These initiatives also benefited teachers, by helping them to see students in a new light and more effectively support the whole child, which further aided in the progress made by students with learning differences.

One can best understand the success of TREE's trauma-responsive voice-centered initiatives and its impact on students with learning differences using Maslow's Hierarchy of Needs (Burleson & Thoron, 2014). Humans behave in ways that best satisfy their needs (Burleson & Thoron, 2014; Schunk, 2012). In 1943, American psychologist Abraham Maslow argued that these needs are hierarchical in nature, outlining what is now known as Maslow's Hierarchy of Needs. Maslow's Hierarchy addresses the following five needs in ascending order: physiological needs, safety needs, love and belongingness needs, esteem needs, and self-actualization needs. (Burleson & Thoron, 2014; Schunk, 2012). Categorized as deprivation needs, teachers, educators, and administrators mainly deal with the first four of these needs (Burleson & Thoron, 2014). When these individuals directly address these needs at school, students' abilities to learn and achieve success at school improve greatly. As a result, Maslow's Hierarchy of Needs serves as a valuable guide for understanding behavior and ultimately

explaining the impact of TREE's trauma-responsive voice-centered approach on students with learning differences.

Physiological Needs

At the bottom of Maslow's Hierarchy are physiological needs, such as air, food, water, shelter, clothing, and sleep (Burleson & Thoron, 2014). According to him, one must achieve these survival-related needs before moving on to others. Although not directly addressed through student voice efforts, TREE found alternative ways to ensure these needs were satisfied. In doing so, they set the stage for their trauma-responsive voice-centered initiatives to tackle other unmet higher-order needs in students with learning differences.

Safety Needs

After physiological needs, Maslow argued that safety needs are the second most important (Burleson & Thoron, 2014). Generally concerned with the environment, these needs encompass one's desire for security and freedom from anxiety and fear (Burleson & Thoron, 2014; Dunlap, 2002). Feelings of safety can also come from having a predictable and undisrupted routine (Burleson & Thoron, 2014). When students do not feel safe in school, they have trouble completing work and learning material because safety is their primary concern. Therefore, ensuring students' physiological and emotional safety in school is essential. In promoting gains in students with learning differences, TREE's trauma-responsive voice-centered approach addressed their needs for safety in three distinct ways.

The first way in which TREE's initiatives addressed the safety needs of students with learning differences was by providing opportunities for them to build trusting relationships with their teachers and other caring adults at school. As one of the three student relationship gains, establishing trust enabled students with learning differences to feel less uncertain and

apprehensive. In turn, these students felt more emotionally secure and supported in their learning environment. TREE's trauma-responsive voice-centered initiatives also empowered students with learning differences to seek support, thus furthering their academic experiences. When students do not feel psychologically or emotionally safe at a school, asking for help in front of their peers can be a daunting task (Burleson & Thoron, 2014). By introducing new and accessible ways for students to voice their needs, TREE removed some of the barriers and stigma surrounding these moments for students with learning differences. In doing so, they addressed their need for security at school. Along the same lines as empowering support, TREE's trauma-responsive voice-centered initiatives promoted another student academic gain by increasing curriculum access for those with learning differences. In doing so, they implemented new ways of learning and targeting academic concepts. These efforts, in turn, gave students with learning differences more control and power at school, increasing their overall sense of stability. By helping students with learning differences build trusting relationships with teachers and caring adults, feel empowered to seek support, and gain increased access to the curriculum, TREE's trauma-responsive voiced-centered approach ultimately satisfied these students' safety needs. Therefore, allowing them to move on to addressing other higher-order needs.

Love and Belongingness Needs

According to Maslow, once physiological and safety needs are adequately met, one can focus on meeting their need for love and belongingness (Burleson & Thoron, 2014). Satisfying these needs involves forming "intimate relationships, belonging to groups, and having close friends and acquaintances" (Schunk, 2012). Although often overlooked in schools, meeting this need is vital given that "children who feel detached typically do not learn well" (Burleson & Thoron, 2014; Schunk, 2012). Additionally, when students do not feel loved or cared about by

their teachers and peers, they are "more likely to behave aggressively and become depressed" (Dunlap, 2002). Therefore, teachers and school systems must do everything in their power to address these needs. Through their trauma and student voice efforts, TREE ultimately targeted the love and belongingness needs of students with learning differences.

Of all TREE's trauma-responsive voice-centered initiatives, two student relationship experiences specifically addressed the love and belongingness needs of students with learning differences. The first way they targeted these students' need for love and belongingness was by increasing opportunities for connections with their peers. Positive peer interactions and socialization "influence children's attitudes toward school and learning" (Dunlap, 2002). By providing opportunities for affection, intimacy, companionship, and support, TREE enabled students with learning differences to not only connect with but also form meaningful relationships with their peers. In turn, these relationships promoted a greater sense of belonging for students with learning differences. Efforts to intentionally include them in conversations and foster their ownership also helped strengthen their overall attachment to school. Thus, in creating opportunities for students with learning differences to connect with their peers and foster belonging at school, TREE's trauma-responsive voice-centered approach helped satisfy these students' needs for love and belongingness, allowing them to move on to addressing their need for esteem.

Esteem Needs

Maslow argued that the next set of needs that must be satisfied after love and belongingness is esteem (Burleson & Thoron, 2014). Divided into two groups, esteems needs involve both one's need for self-esteem and esteem from others (Schunk, 2012). Therefore, to meet this need, one must foster "a satisfactory sense, achievement, competence, and

independence, as well as..recognition and respect from others" (Dunlap, 2002). Children who have difficulty learning and those who are frequently mocked or bullied by their peers often struggle to develop esteem. Therefore, they often benefit from support systems that help them feel valued, set appropriate goals, and acknowledge their success (Dunlap, 2002). TREE's trauma-responsive voice-centered approach ultimately provided students with learning differences with these support systems, targeting their needs for esteem.
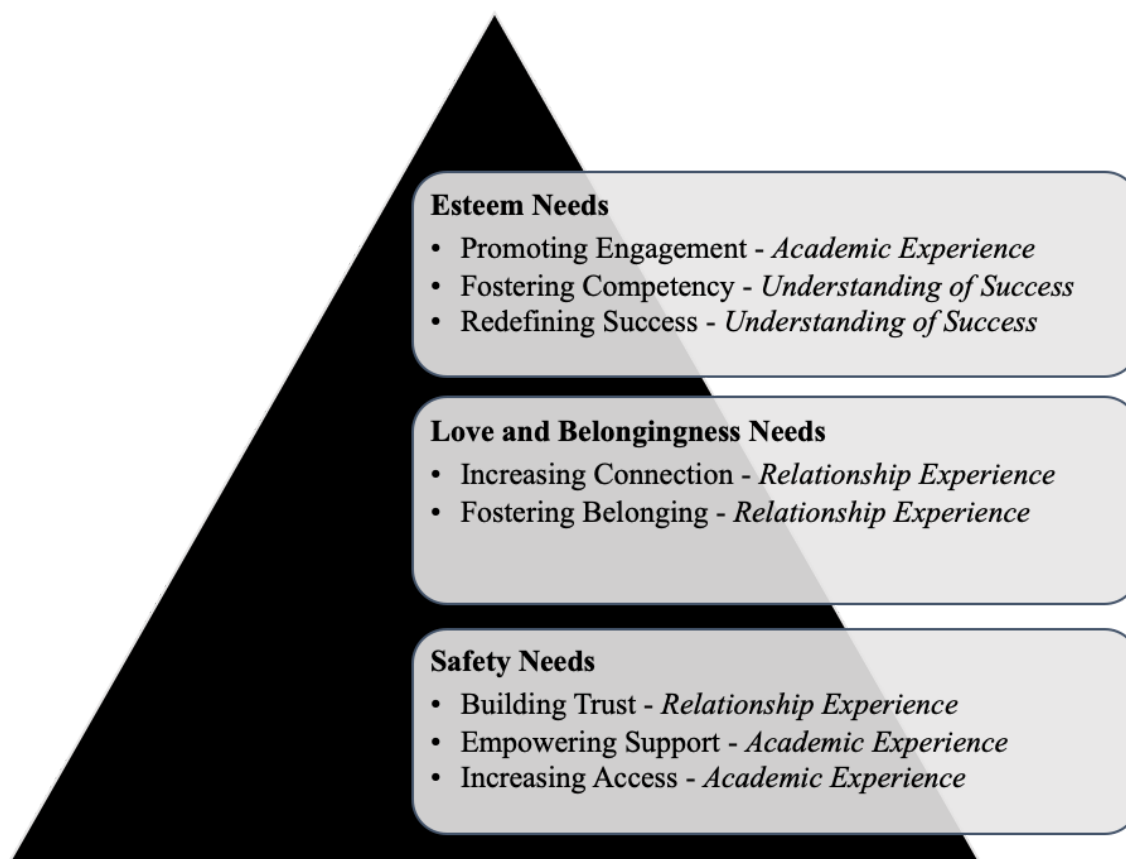
In addressing students' experiences of trauma and promoting their voices, TREE's initiatives helped students with learning differences meet their needs for esteem in three distinct ways: one a student academic experiences and the other two a student understanding of success. The first way they targeted these students' need for esteem was by increasing their engagement in school. Engagement often serves as a motivator for students and is fundamental in promoting their academic success. By cultivating new and applied ways of teaching, TREE's initiatives increased engagement in students with learning differences, allowing them to master skills and learn the material better. In doing so, they provided these students with more opportunities to feel successful at school. TREE's trauma-responsive voice-centered approach also helped foster a sense of competence in students with learning differences, yet again aiding their need for esteem. They ultimately did so by providing them with the opportunity to develop new skills and abilities, solve problems, and be appreciated for one's talents. Thus, increasing their feeling of competence and achievement. Although somewhat different from the first two ways, the last way TREE's initiatives targeted the needs of students with learning differences for esteem was by redefining what success looks like at school. In shifting their ideas about what it means to be a "good student," they helped these students develop a growth mindset approach to learning and school. Thus, allowing them to find success in asking for help, not giving up when something is

hard, and understanding what resources are available to assist them. By promoting engagement, fostering competency, and redefining success in students with learning differences, TREE's trauma-responsive voiced-centered initiatives ultimately satisfied these students' need for esteem, fulfilling the last deprivation need in Maslow's Hierarchy.

The Foundational Role of Teachers

In addition to students, TREE's trauma-responsive voice-centered initiatives promoted gains in teachers. Specifically, they enabled them to see students in a new light and support the child and their needs. Although these teacher gains did not directly address one of Maslow's deprivation needs, they formed the foundation from which students with learning differences met all four of them. Given this, one could argue that the success of TREE's trauma-responsive voice-centered approach and its impact on students with learning differences would not have been as significant without the teachers' willingness to adapt and learn new ways to meet their students' needs. Therefore, it is crucial not to forget the important role teachers play in a child's development and, ultimately, the success of universal approaches, such as this one.

With teachers' willingness to adapt and learn new ways to meet their students' needs serving as the foundation, Figure 1 summarizes the success of TREE''s trauma-responsive voice-centered approach and its impact on students with learning differences. It notes the areas in which students made gains and how they targeted those needs outlined in Maslow's Hierarchy. In doing so, it alludes to the success of TREE's trauma-responsive voice-centered approach as a universal way of addressing both the needs of students exposed to trauma and those with learning differences.

Figure 1:

Maslow's Hierarchy of Needs

Esteem Needs
- Promoting Engagement - *Academic Experience*
- Fostering Competency - *Understanding of Success*
- Redefining Success - *Understanding of Success*

Love and Belongingness Needs
- Increasing Connection - *Relationship Experience*
- Fostering Belonging - *Relationship Experience*

Safety Needs
- Building Trust - *Relationship Experience*
- Empowering Support - *Academic Experience*
- Increasing Access - *Academic Experience*

Limitations

Although this project provides valuable insight into the impact of trauma-responsive voice-centered practices on students with learning differences, it remains a preliminary analysis. It did not address every challenge or need faced by students with learning differences. Therefore, in building upon this study and its limitations, future researchers may be able to expand its scope and address additional challenges and needs experienced by students with learning differences.

Despite being unavoidable at the time, many of this project's limitations relate to the Covid-19 Pandemic and the impact that it has had and continues to have on education and school

systems. Given this, the first limitation of my study was that I was unable to interview students with learning differences who participated in TREE's trauma-responsive voice-centered initiatives. Although all the adults I interviewed in my study played a prominent role in implementing and evaluating the success of TREE's initiatives on the ground, they were ultimately not the ones directly benefiting from its success. Therefore, all my analyses of the impact of trauma-responsive voice-centered practices on students with learning differences came from second-hand accounts. Future research should ensure that both adults and students are given the opportunity to share their experiences and how they benefit from the specific initiatives and the approach as a whole. In doing so, one would emphasize the importance of promoting students' voices not only in schools but also in the research process.

Another limitation of this study was the delay between when TREE implemented their trauma-responsive voice-centered approach and when I conducted my interviews with those adults involved on the ground. In the two years that elapsed, they may have forgotten certain instances or outcomes that involved students with learning differences. Given this limitation, future researchers should reduce this gap between implementation and data collection to increase the accuracy of their findings.

Lastly, since the start of the Covid-19 Pandemic in March 2020, students, teachers, administrators, and school systems have been forced to adapt to constantly changing protocols and health conditions. Although the degree to which is still unknown, it is evident that the pandemic negatively affected students and their ability to learn. Future researchers should ensure that their initiatives address any needs furthered or created by the pandemic as well as those that existed before the pandemic in students with learning differences.

Concluding Thoughts

"Trauma and its impact on education are so valid..Learning differences and their impact on how

you approach education is [also] so valid..There is this huge venn diagram [where there are]

students who have a ton of trauma and a learning difference. And it is like, do you have trauma

because you have a learning difference or do you have a learning difference because you have

trauma? They can be mutually exclusive, but they never are." – Cass Greenlaw

Current literature on trauma-responsive schooling and student voice pays little attention to students with learning differences, yet there are many similarities between the challenges that students exposed to trauma and those with learning differences face. These challenges often make it hard for them to come to school ready to learn, and therefore they are at a greater risk of falling behind. Students exposed to trauma and those with learning differences do not fall behind because they are not smart enough but because their schools are not well-equipped to meet their needs. Thus, by examining the impact of trauma-responsive voice-centered practice on students with learning differences, the goal of this project was to identify a universal approach that could address both the needs of students exposed to trauma and those with learning differences.

From the interviews I conducted with adults involved in TREE's implementation on the ground, I found that when given the opportunity to participate in trauma-responsive voice-centered initiatives, students with learning differences made substantial gains in school. Evident in their improved relationships, academics, and success, these gains are best explained using Maslow's Hierarchy of Needs. In doing so, one can attribute the positive impact of the TREE's trauma-responsive voice-centered approach and its initiatives to its ability to target needs for safety, love and belongingness, and esteem in students with learning differences. Yet, the picture is not complete without the gains that teachers made, which ultimately laid the

foundation for the improvements made by students with learning differences. Together, these findings suggest that TREE's trauma-responsive voice-centered approach may be a practical universal way for addressing both the needs of students exposed to trauma and those with learning differences.

References

Allen, K. (2020). Trauma Informed Care and. ABA . Southborough; NECC .

Bartlett, J. D., & Sacks, V. (2019). Adverse childhood experiences are different than child

    trauma, and it's critical to understand why. Child Trends. Retrieved January 11, 2022,

    from

    https://www.childtrends.org/blog/adverse-childhood-experiences-different-than-child-trau

    ma-critical-to-understand-why

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in*

    Psychology, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brixey, E. (2020). *50-state comparison: Instructional time policies*. Education Commission of

    the States (ECS). Retrieved January 12, 2022, from

    https://www.ecs.org/50-state-comparison-instructional-time-policies/

Brown, L. K. (2014). *The importance of trust*. Teach For All. Retrieved April 22, 2022, from

    https://teachforall.org/news/importance-trust

Brown, L. M., & Flaumenhaft, J. (2019). Student-empowered curricular change. *Phi Delta*

    Kappan, *100*(6), 13–19. https://doi.org/10.1177/0031721719834023

Brown, L. M., Biddle, C., & Tappan, M. (2022). *Trauma-Responsive Schooling: Centering*

    Student Voice and Healing. Harvard Education Press.

Burke Harris, N. [Nadine Burke Harris]. (2015). How childhood trauma affects health across the

    lifetime [Video]. https://www.youtube.com/watch?v=95ovIJ3dsNk

Burke Harris, N. (2019). *The deepest well: Healing the long-term effects of childhood adversity*.

    Marriner.

Burleson, S. E., & Thoron, A. C. (2014). Maslow's Hierarchy of Needs and Its Relation to

    Learning and Achievement. Gainesville; UF/IFAS Extension.

Centers for Disease Control and Prevention. (2021). *Violence Prevention* . Centers for Disease

    Control and Prevention. Retrieved May 7, 2021, from

    https://www.cdc.gov/violenceprevention/aces/about.html?CDC_AA_refVal=https%3A%

    2F%2Fwww.cdc.gov%2Fviolenceprevention%2Facestudy%2Fabout.html

Cobscook Community Learning Center. (2019). Transforming Rural Experience in Education:

    2019-2020 Prospectus. Trescott.

Cook-Sather, A. (2002). Authorizing students' perspectives: Toward trust, dialogue, and change

    in Education. *Educational Researcher*, *31*(4), 3–14.

    https://doi.org/10.3102/0013189x031004003

Cook-Sather, A. (2003). Listening to students about learning differences. *TEACHING*

    Exceptional Children, *35*(4), 22–26. https://doi.org/10.1177/004005990303500404

Crompton, C., Duncan, B., & Simpson-Adkins, G. (2021). A systematic review of adverse

    childhood experiences (aces) with people with intellectual disabilities: An unsafe gap in

    the literature. *Advances in Mental Health and Intellectual Disabilities*, *15*(5), 158–170.

    https://doi.org/10.1108/amhid-10-2020-0024

Cronholm, P. F., Forke, C. M., Wade, R., Bair-Merritt, M. H., Davis, M., Harkins-Schwarz, M.,

    Pachter, L. M., & Fein, J. A. (2015). Adverse childhood experiences. *American Journal*

    of Preventive Medicine, *49*(3), 354–361. https://doi.org/10.1016/j.amepre.2015.02.001

DeFur, S. H., & Korinek, L. (2010). Listening to Student Voices. *The Clearing House*, *83*(1),

    15–19.

Dunlap, L. L. (2002). *What all children need: Theory and application*. University Press of America.

Dweck, C. S. (2006). *Mindset: The New Psychology of Success*. Ballantine Books.

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. *American Journal of Preventive Medicine*, *14*(4), 245–258. https://doi.org/10.1016/s0749-3797(98)00017-8

Franke, H. A. (2014). Toxic stress: Effects, prevention and treatment. *Children*, *1*(3), 390–402. https://doi.org/10.3390/children1030390

Gomes, J. (2019). *Role of school in child development*. Schools of Dehradun . Retrieved January 12, 2022, from https://www.schoolsofdehradun.com/schools/role-of-school-in-ch

Good, K., & Shaw, A. (2021). Being versus appearing smart: Children's developing intuitions about how reputational motives guide behavior. *Child Development*, *93*(2), 418–436. https://doi.org/10.1111/cdev.13711

The Center on the Developing Child at Harvard University. (2020). *A guide to toxic stress*. Harvard University. Retrieved January 11, 2022, from https://developingchild.harvard.edu/guide/a-guide-to-toxic-stress/

Herman, J. L. (1998). Recovery from psychological trauma. *Psychiatry and Clinical Neurosciences*, *52*(S1). https://doi.org/10.1046/j.1440-1819.1998.0520s5s145.x

Hershkowitz, I., Lamb, M. E., & Horowitz, D. (2007). Victimization of Children with Disabilities. *American Journal of Orthopsychiatry*, *77*(4), 629–635. https://doi.org/https://doi.org/10.1037/0002-9432.77.4.629

Hoover, D. W., & Kaufman, J. (2018). Adverse childhood experiences in children with autism spectrum disorder. *Current Opinion in Psychiatry*, *31*(2), 128–132. https://doi.org/10.1097/yco.0000000000000390

Horowitz, S. H., Rawe, J., & Whittaker, M. C. (2017). The State of Learning Disabilities: Understanding the 1 in 5. New York; National Center for Learning Disabilities.

Institute of Medicine (US) Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care, Smedley, B. D., Stith, A. Y., & Nelson, A. R. (Eds.). (2003). Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. National Academies Press (US).

Jamieson, K. (2019). *The power of language: Aces and trauma*. Center for Child Counseling. Retrieved January 25, 2022, from https://www.centerforchildcounseling.org/the-power-of-language-aces-and-trauma/

Jones , L. E. (2022). Issue Brief: Effective Teachers . Washington DC; National Center for Learning Disabilities .

Little, L. (2004). Victimization of Children with Disabilities . In *Health consequences of abuse in the family: A clinical guide for evidence-based practice* (pp. 95–108). essay, American Psychological Association.

Mitra, D. L. (2004). The significance of students: Can increasing "student voice" in schools lead to gains in youth development? *Teachers College Record*, *106*(4), 651–688. https://doi.org/10.1111/j.1467-9620.2004.00354.x

Mitra, D. L., & Serriere, S. C. (2012). Student voice in elementary-school reform: Examining youth development in fifth graders. *American Educational Research Journal*, *49*(4), 743–774. https://doi.org/10.3102/0002831212443079

Parrish, N. (2019). *Ensuring that instruction is inclusive for diverse learners*. Edutopia.

    Retrieved April 21, 2022, from

    https://www.edutopia.org/article/ensuring-instruction-inclusive-diverse-learners

Pazey, B. L., & DeMatthews, D. (2019). Student Voice from a turnaround urban high school: An

    account of students with and without DIS/Abilities Leading Resistance Against

    Accountability Reform. *Urban Education*, *54*(7), 919–956.

    https://doi.org/10.1177/0042085916666930

Peters, S. J. (2010). The Heterodoxy of Student Voice: Challenges to identity in the sociology of

    disability and Education. *British Journal of Sociology of Education*, *31*(5), 591–602.

    https://doi.org/10.1080/01425692.2010.500092

Peterson, S. (2018). Effects. NCTSN. Retrieved January 11, 2022, from

    https://www.nctsn.org/what-is-child-trauma/trauma-types/early-childhood-trauma/effects

Pino-James Nicolás. (2015). *Student engagement in Modern Foreign Languages: A pedagogical*

    model (thesis).

Prevent Child Abuse America. (2021). Adverse childhood experiences study: Child abuse and

    public health. Prevent Child Abuse America. Retrieved January 4, 2022, from

    https://preventchildabuse.org/resources/adverse-childhood-experiences-robert-anda/

Reeve, J., Jang, H., Carrell, D., Jeon, S., & Barch, J. (2004). Enhancing students' engagement by

    increasing teachers' autonomy support. *Motivation and Emotion*, *28*(2), 147–169.

    https://doi.org/10.1023/b:moem.0000032312.95499.6f

Rural Vitality Lab. (2019). Current Projects . Rural Vitality Lab. Retrieved May 8, 2021, from

    https://ruralvitalitylab.wordpress.com/current-projects/

SAMHSA. (2014). SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach. Washington DC.

SAMHSA. (2018). SAMHSA's Trauma-Informed Approach: Key Assumptions & Principles. Rockville .

SAMSHA. (2020). Understanding Child Trauma. SAMHSA: Substance Abuse and Mental Health Services Administration . Retrieved May 5, 2021, from https://www.samhsa.gov/child-trauma/understanding-child-trauma

Schunk, D. H. (2012). *Learning Theories: An Educational Perspective* (6th ed.). Pearson.

Shenfield, T. (2021). *Understanding the social challenges faced by children with learning difficulties*. Child Psychology Resources by Dr. Tali Shenfield. Retrieved April 20, 2022, from https://www.psy-ed.com/wpblog/social-challenges-children-with-ld/

Tough, P. (2016). *Helping Children Succeed*. Houghton Mifflin Harcourt.

Types of Learning Disabilities. Learning Disabilities Association of America. (n.d.). Retrieved April 20, 2022, from https://ldaamerica.org/types-of-learning-disabilities/

Vervoort-Schel, J., Mercera, G., Wissink, I., Mink, E., van der Helm, P., Lindauer, R., & Moonen, X. (2018). Adverse childhood experiences in children with intellectual disabilities: An exploratory case-file study in Dutch Residential Care. *International Journal of Environmental Research and Public Health*, *15*(10), 2136. https://doi.org/10.3390/ijerph15102136

Walden University. (2022). *Seven Learning Disabilities Every Psychology Professional Should Study*. Walden University. Retrieved April 20, 2022, from https://www.waldenu.edu/online-masters-programs/ms-in-psychology/resource/seven-learning-disabilities-every-psychology-professional-should-study

Youth Network of Tasimania. (2020). *Why social connections are important for young people*.

Healthy Kids. Retrieved April 20, 2022, from

https://doh.health.tas.gov.au/healthykids/blog/why_social_connections_are_important_fo

r_young_people