

DIFFERENCE, NOT DEFICIT: NEURODIVERGENT STUDENT PERSPECTIVES ON
WELL-BEING AT AN EXPERIENTIAL THERAPEUTIC DAY SCHOOL

A thesis presented to the faculty of the Graduate School of
Western Carolina University in partial fulfillment of the
requirements for the degree of Master of Science in Experiential and Outdoor Education.

By
Julia K. Beckermeyer

Director: Dr. Andrew J. Bobilya
Professor of Experiential and Outdoor Education
College of Education and Allied Professions

Committee Members: Dr. Brad Faircloth, UNC Asheville
Dr. Patricia Bricker, WCU School of Teaching and Learning

May 2025

ACKNOWLEDGEMENTS

I want to express my deepest gratitude to my thesis chair, Dr. Andrew Bobilya, for his unwavering support and guidance, especially as I navigated the unexpected shifts in my project's focus. His encouragement and insight were instrumental in shaping this work. I am also immensely grateful to my committee members, Dr. Patricia Bricker and Dr. Brad Faircloth, for their thoughtful feedback and support. To my partner, Collin—your steadfast belief in me has been a source of strength, and I could not have done this without you. To my parents, thank you for fostering my love of learning and always standing by me. I extend my heartfelt appreciation to Trailhead Community Farm School, which welcomed me with open arms, and to Courtney Edison and Julie Butler for their trust and collaboration. Most importantly, I want to thank my participants—the incredible students at Trailhead—whose insights on their well-being have enriched this study in ways I could not have anticipated. This work is for you.

TABLE OF CONTENTS

LIST OF TABLES	v
LIST OF FIGURES	vi
LIST OF ABBREVIATIONS.....	vii
ABSTRACT.....	viii
CHAPTER ONE: INTRODUCTION.....	1
CHAPTER TWO: LITERATURE REVIEW	7
Perspectives of Well-Being.....	7
<i>Modern Well-Being in Educational Research</i>	8
What is Neurodivergence?	10
<i>Neurodiversity is a Difference, not a Deficit</i>	11
<i>Neurodiversity as a Biological Phenomenon</i>	11
<i>Neurodiversity is Binary, a Spectrum, or Universal</i>	12
Who is Neurodivergent?.....	13
Neurodivergent Well-Being in Educational Settings	14
Experiential Education and Forest Schools.....	15
Trailhead Community Farm School.....	17
CHAPTER THREE: METHODOLOGY AND METHODS	19
Researcher Reflexivity	20
Ethical Considerations.....	20
Trailhead Community Farm School.....	21
Exploratory, Concurrent Nested Mixed-Methods Design.....	21
<i>Study Participants</i>	23
<i>Data Collection</i>	24
Access and Rapport.....	40
Limitations	40
CHAPTERS 4 & 5: JOURNAL OF SCHOOL PSYCHOLOGY MANUSCRIPT	42
REFERENCES	87
APPENDIX A: SEMI-STRUCTURED INTERVIEW SCRIPT	104
APPENDIX B: CONSENT LANGUAGE	106

APPENDIX C: ASSENT LANGUAGE.....	109
APPENDIX D: PANORAMA WELL-BEING SURVEY	112
APPENDIX E: SEMI-STRUCTURED INTERVIEW QUESTIONS.....	114
APPENDIX F: IRB APPROVAL LETTER.....	115

LIST OF TABLES

Table 1: Demographic Information of Neurodivergent Students Enrolled at Trailhead Community Farm School, Fall 2024	23
Table 2: Descriptive Statistics of Positive Feelings Variable	66
Table 3: Descriptive Statistics of Challenging Feelings Variable	67
Table 4: Descriptive Statistics of Supportive Relationships Variable	68

LIST OF FIGURES

Figure 1: Panorama Student Well-Being Survey to be administered to students at TCFS....	32
Figure 2: Interview guiding questions for semi-structured interview.....	37

LIST OF ABBREVIATIONS

ADHD: Attention Deficit Hyperactivity Disorder

APA: American Psychological Association

ASD: Autism Spectrum Disorder

M: Mean

Mdn: Median

Mo: Mode

MCT: Measures of Central Tendency

NATSAP: National Association of Therapeutic Schools and Programs

SD: Standard Deviation

SWB: Subjective well-being

TCFS: Trailhead Community Farm School

ABSTRACT

DIFFERENCE, NOT DEFICIT: NEURODIVERGENT STUDENT PERSPECTIVES ON WELL-BEING AT AN EXPERIENTIAL THERAPEUTIC DAY SCHOOL

Julia K. Beckermeier

Western Carolina University (May 2025)

Director: Dr. Andrew J. Bobilya

This study explores the perceptions of neurodivergent students regarding their subjective well-being at Trailhead Community Farm School (TCFS), an experiential therapeutic day school. It compares these experiences to their previous school settings. Using qualitative methods with exploratory quantitative analysis, the findings indicate that students perceive TCFS as positively impacting their well-being. Central themes include trust and community, student autonomy, freedom of expression, and the benefits of a holistic, experiential learning approach. The study reveals that neurodivergent students at TCFS feel a strong sense of belonging and self-acceptance, contrasting with their prior experiences in traditional schools, where they often felt pressured to conform to neurotypical expectations. The research further underscores the role of small school size and close teacher-student relationships in fostering a safe and supportive learning environment. Additionally, experiential learning practices, such as nature-based activities and hands-on projects, contribute to student engagement, self-esteem, and skill development. While the findings affirm the positive influence of TCFS on student well-being, challenges remain, particularly in building trust among students and balancing teacher authority with student authenticity. The study's implications suggest that educators, administrators, and parents should prioritize relationship-building, inclusive pedagogical practices, and student-centered learning approaches to better support neurodivergent learners. Although limited by a

small sample size and short data collection period, this study provides valuable insights into alternative educational models that promote well-being. Future research should explore the long-term impacts of experiential and holistic education on neurodivergent students in diverse educational settings.

Keywords: neurodivergent, therapeutic school, experiential education, well-being, holistic pedagogy

CHAPTER ONE: INTRODUCTION

When you think of ‘school’, what do you think of? Is it a building? Is it a teacher or a classroom? Maybe you will think of homework or sports? The traditional notion of school in the United States is a room with four walls and a whiteboard, desks in rows, or, if you’re lucky, in groups. While teachers work incredibly hard to cater to all types of students in their classrooms, most do not feel confident providing instruction for neurodivergent students (Van Der Steen et al., 2020). Although public schools in the United States must provide a free and appropriate public education by law through the Individuals with Disabilities Act (Individuals with Disabilities Education Improvement Act, 2004), some students experience difficulties achieving success in these academic settings (Sam et al., 2021). Trailhead Community Farm School in Greenville, South Carolina, provides academic and therapeutic support for neurodivergent students who have struggled in other traditional academic settings.

Neurodiversity refers to a wide range of neurological variations, including attention deficit hyperactivity disorder (ADHD), autism spectrum disorder (ASD), dyslexia, dyscalculia, dysgraphia, and many other learning disabilities (Armstrong, 2017; Haney, 2018). A growing body of literature suggests that neurodivergent individuals excel in many traits such as divergent thinking, creativity, risk-taking, and spatial visualization skills (Kapp et al., 2013; Livingstone et al., 2023; Syharat et al., 2020; Taylor et al., 2020). Despite the potential for neurodivergent students to leverage these assets in academic settings, they face many challenges, difficulties, and barriers when navigating a traditional and rigid academic environment that many schools encompass (Syharat et al., 2023). These barriers often impede neurodivergent students from

succeeding in traditional academic settings, and families often will look for alternative options for their students, such as experiential and therapeutic schools.

Experiential education and therapeutic schools and programs are an ever-changing and evolving industry. From residential treatment centers to therapeutic boarding schools, wilderness therapy programs, and various day programs, these programs serve children, adolescents, and young adults to promote healthy growth, education, and personal well-being (National Association of Therapeutic Schools and Programs, 2024). Most therapeutic programs are residential and have been shown to maintain positive treatment effects (Behrens et al., 2010). There has been limited research on the approach of neurodivergent therapeutic day programs (Curtin, 2010), such as Trailhead Community Farm School, as a viable option for neurodivergent students. Throughout this chapter, I will discuss an overview of traditional therapeutic programs, Trailhead Community Farm School, and the well-being of students.

Through chapters one and two, other examples of therapeutic programs will be explored and the benefits of participating in experiential forest school, specifically regarding a neurodivergent population. Experiential Forest Schools in the United States are currently geared more toward preschool populations, potentially due to the *New York Times* article ‘Preschool Without Walls’ (James, 2018). A key misconception of the forest school is that it only teaches ‘survival’ skills, while in practice, lessons can be focused on anything from social and relationship development, science, math, and practical skills to music, drama, and more (James, 2018). Forest Schools have a wide range of benefits, such as increased confidence, positive emotional well-being, better physical fitness and social skills, increased concentration, and improvement of fine motor skills (James, 2018). The well-being benefits from Forest School involvement have been researched for neurotypical students (Harris, 2021; James & Williams,

2017). However, few studies examine the intersection of experiential outdoor schools, student well-being, and neurodivergent populations (Friedman et al., 2023). Trailhead Community Farm School includes elements of experiential forest schools in their farming practices and distinct pedagogy of experiential education following the frameworks of John Dewey and David Kolb, where students are actively engaged in the learning process (Trailhead Community Farm School, 2024c). As explained on the Trailhead Community Farm School (2024c) website, this pedagogy incorporates the elements and practices of reflection, student initiative and engagement, and designed learning experiences, allowing learners to learn from their mistakes and successes. Chapter three will go more in-depth into the experiential education pedagogy that TCFS practices.

While therapeutic schools are utilized for a variety of reasons, such as drug and substance abuse, schools dealing only with neurodivergent populations are becoming more common (Behrens et al., 2010). Private therapeutic schools, residential programs, and wilderness therapy programs aim to serve the complex needs of struggling adolescents and their families who have not been successful with outpatient therapy or other public-school options. The National Association of Therapeutic Schools and Programs (NATSAP) is the primary professional organization overseeing these independently owned programs. Most therapeutic programs currently researched are considered “wilderness therapy programs” (Behrens et al., 2010; Harper, 2017). Wilderness Therapy typically serves conditions such as substance use disorders, bipolar disorder, schizophrenia, depression, anxiety, post-traumatic stress disorder, personality disorder, and conduct disorder (Armstrong et al., 2024). Despite most research focusing on these programs, the populations served are not entirely in line with the neurodivergent populations Trailhead Community Farm School serves, although some overlap exists. Trailhead Community

Farm School serves students with diagnoses such as ADHD, autism spectrum disorder, dysgraphia, dyscalculia, anxiety, depression, or PTSD.

Research on schools and programs that specialize in neurodivergent therapeutic support with nature-based experiential education specifically are harder to find. Determining how many of these programs exist in the United States alone is difficult. The National Association of Therapeutic Schools and Programs has twenty members classified as therapeutic boarding schools and two listed as therapeutic day schools (National Association of Therapeutic Schools and Programs, 2024). However, one could speculate that those numbers could not possibly comprise the total number of therapeutic schools and programs in the United States. However, based on this data, the divide is straightforward; most therapeutic programs are residential and encompass taking children out of their everyday lives to attend school. While this style works for some students, Trailhead Community Farm School works to make a therapeutic day program with forest school elements to keep children living at home with their families.

Opening its doors in Fall 2023, Trailhead Community Farm School (TCFS) serves neurodivergent students in grades 6-8 in a private, non-profit, year-round, experiential, and specialized education day program (Trailhead Community Farm School, 2024c), with goals to support students who have had difficulty succeeding in traditional academic settings and to work with families to offer comprehensive support as an alternative to sending students to residential therapeutic boarding schools. TCFS offers year-round schooling to provide consistency and routine that are essential for neurodivergent students. Through individualized academic and emotional clinical support, TCFS ensures that all its students receive what they need to reach their full potential (Trailhead Community Farm School, 2024a). While Trailhead is a private, non-profit school with a tuition of \$19,850/year, they are an eligible school for the South

Carolina Exceptional Scholarship, which provides \$11,000/per year to families in need.. They also provide financial assistance to families in need (Trailhead Community Farm School, 2024a). Despite having these financial opportunities available to families, the school is still costly. It thus raises an equity concern for how any student could access a program such as this.

Nestled on 21 acres just outside Greenville, South Carolina, the property boasts several outdoor learning spaces such as low and high ropes courses, a thriving garden, and space for farm animals (Trailhead Community Farm School, 2024c). As a private non-profit organization, TCFS can provide more experiential and hands-on opportunities for students that are not feasible in traditional public school spaces. They can provide ample opportunities to assist visual, auditory, and kinesthetic learners, such as field trips and project-based learning structures (Trailhead Community Farm School, 2024a). TCFS follows the Common Core Standards and South Carolina State Standards. Taking advantage of their fantastic campus, the school uses a combination of indoor, outdoor, and field trip-based education, understanding that learning takes place in multiple settings. TCFS understands that educators are essential for a student's learning and growth process, but also require collaboration with therapists, family, and community members, which sets this school apart from typical residential therapeutic boarding schools. Each student is given an individualized plan combining the knowledge of educators, therapists, and parents. This plan provides holistic and realistic student growth goals and ensures students are thoroughly cared for academically and emotionally when with TCFS.

Trailhead Community Farm School (2024c) believes that schools should be places that offer more than simply education; they should address the social and emotional needs of students and facilitate the development and growth of healthy relationships. These goals align with an understanding of the importance of student well-being, referring to one's positive evaluation and

satisfaction with one's life (Klik et al., 2022). A good school environment is regularly recognized as an important factor that can either strengthen or harm student well-being (Klik et al., 2022).

While student well-being is widely researched in more traditional educational environments (Klik et al., 2022; Ling et al., 2022; Willis et al., 2019), Wilderness Therapy environments (Bowen et al., 2016; Harper & Cooley, 2007; Jong et al., 2022; Russell, 2005) Residential Therapeutic Schools (Farnfield & Onions, 2021) and in nature school environments (Largo-Wight et al., 2018), there is a lack of well-being research in experiential therapeutic day programs such as Trailhead Community Farm School. Therefore, the purpose of this study was to explore the student perceptions of well-being at Trailhead Community Farm School. The research questions framing this study were:

1. How does Trailhead Community Farm School impact student well-being, if at all? And
2. What are the students' perceptions of their well-being at Trailhead Community Farm School compared to their previous school experiences?

In the following chapter, I will explore the literature surrounding the basis and need for this research and study in greater depth.

CHAPTER TWO: LITERATURE REVIEW

In this literature review, I strive to detail the vast existing literature regarding well-being, focusing specifically on well-being in educational research. I will introduce this realm of research in detail and look in-depth at research regarding well-being, neurodivergence, and experiential education schools similar to Trailhead Community Farm School.

Perspectives of Well-Being

Well-being has been studied very thoroughly in psychology. Diener (1984) has focused on hedonic and subjective well-being (SWB). SWB is the perspective that people use to evaluate their well-being and experiences. Therefore, it is subjective to the person. SWB means a person's positive experiences are interchangeable with 'happiness'. Simplified, hedonic SWB is the maximization of one's sense of happiness. SWB is not the only way of understanding well-being (Deci & Ryan, 2008). Another perspective, referred to as Eudaimonia, argues that well-being is more than simply happiness and recognizes that if people report being happy, it doesn't necessarily correlate with being well psychologically. Watermann (1993) describes this type of well-being as living well and maximizing human potential. It is described not as an end state but as the fulfilling process of living the way one is inherently meant to live. This type of well-being can be traced to Aristotle and is in line with humanistic psychology (Deci & Ryan, 2008)

These two well-being perspectives—hedonism and eudaimonism—are based upon different views of human nature. Hedonic, as Tooby and Cosmides (1992) describe, is where humans are seen as malleable and able to gain meaning through social and cultural experiences. On the other hand, the eudaimonic perspective is that humans are not empty vessels, or without inherent knowledge, experiences, or potential, and their experiences are coded as positive or

negative, which impacts their well-being. It is believed that if one experiences eudaimonic well-being, they will, by default, experience hedonic well-being but not vice versa (Waterman et al., 2006). While well-being has a significant overlap between eudaimonia and hedonic perspectives, for the sake of this study, I will be utilizing the Aristotelian eudaimonic perspective of well-being. Ryff (1989) depicts this type of well-being as having seven characteristics: self-acceptance, personal growth, relatedness, autonomy, relationships, environmental mastery, and purpose in life. In the next section, I will unpack the characteristics I used from an educational perspective of well-being adapted from Ryff's (1989) original eudaimonic characteristics.

Modern Well-Being in Educational Research

In educational research, it is established that there is a positive relationship between student well-being and academic performance (Aspelin, 2012; Farrington et al., 2012). Well-being, as Willis et al. (2019) determine, is an umbrella term in education. They adapt Ryff's (1989) seven characteristics of eudaimonic well-being to fit the educational context. The characteristics become self-concept, identity, self-esteem, self-efficacy, motivation, self-regulation, and performance mindset. This study recognized the definitions for each of these terms from the American Psychological Association (APA) dictionary and some influence from well-known scholars in psychology. Self-concept is one's sense of identity and evaluation of oneself regarding physical and psychological characteristics (American Psychological Association, 2024c; Rosenberg et al., 1989) while identity refers to one's sense of self combining physical, psychological, and interpersonal characteristics with affiliations (e.g., ethnicity) and social roles (American Psychological Association, 2024a). Self-esteem is when one's characteristics are perceived to be positive by others and the person (American Psychological Association, 2024e; Rosenberg et al., 1989)—the more positive the perception of these qualities

and characteristics, the higher self-esteem. Self-efficacy refers to an individual's perception of confidence and competence in certain settings (American Psychological Association, 2024d; Bandura, 2011). This differs from motivation, which is the momentum someone has toward a direction and purpose. Stemming from this is the performance mindset. This is another phrasing for a growth mindset. While growth mindset is not listed in the APA dictionary, according to Dweck (2006), it is one's understanding that their learning will be improved through constant persistence and effort. Finally, self-regulation is one's ability to control their emotions and behaviors through monitoring, evaluating, and reinforcement (American Psychological Association, 2024b).

These characteristics and terms are essential for discussing and understanding well-being within the educational world. Well-being in educational contexts has been studied often. Bizumic et al. (2009) researched how positive school climate (the social environment of a school) and positive school connectedness (how students feel they belong) lead to increased student well-being. This positive school climate and good school connectedness encompasses elements of the characteristics of Willis et al. (2019) regarding educational well-being, such as self-esteem and identity. Yu et al. (2018) learned that students with positive well-being are more likely to take more risks and pursue challenges at home and school. For example, students might participate more in their classes if they have good well-being. Students with healthy peer and teacher relationships are more likely to produce problem-solving skills and more creativity, which can lead to higher academic outcomes (Fairlamb, 2020).

Overall, many studies have investigated well-being in educational contexts, but few have explicitly examined well-being in neurodivergent-focused schools like Trailhead Community

Farm School. In the next section, I will examine the relevant literature regarding neurodivergent students and their well-being.

What is Neurodivergence?

Neurodivergence is a non-medical term, concept, and identity used to describe people with brain differences, including medical disorders, learning disabilities, and other conditions (Cleveland Clinic, 2022; Livingstone et al., 2023). TCFS describes the student populations they serve as neurodivergent. I will use the same language the school has chosen when describing my study population. Neurodiversity as a concept is understood diversely. It is defined as a cultural identity and a class for non-normative ways of thinking (Chapman, 2019), a pedagogy and portmanteau (Fitzwater, 2017), a theory (Tomlinson & Newman, 2017), a paradigm (Kapp, 2020), an analytical lens (Bakan, 2014), a disability framework (Lambert et al., 2020), and even a tool of therapeutic practices (Barnhart, 2017). Neurodiversity is also the basis for neuro-equity and liberation (Graby, 2015). Some ideas about neurodiversity have been criticized for being too watered down and ignoring the real-world discrimination neurodivergent people face. These views have been called "neurodiversity lite" (Neumeier, 2018).

The term neurodivergent was coined by Australian sociologist Judy Singer in 1998 to recognize how every brain develops uniquely (Livingstone et al., 2023). While there are many different definitions assigned to the term neurodiversity, there are three key pillars most have agreed upon as defining features of the term: neurodiversity is a difference, not a deficit; neurodiversity is in the body; and neurodiversity is understood as either binary, spectrum, or universal. I will discuss these pillars in depth in the following sections.

Neurodiversity is a Difference, not a Deficit

The movement of neurodiversity is discussed as an alternative to the pathologization and medicalization of human differences and argues that neurodivergence should be a valuable and acknowledged form of human diversity (Kapp et al., 2013). Neurodiversity advocates propose that instead of looking for ‘cures’ and idolizing the latest interventions to normalize neurodivergent populations, we should look to disability justice as a priority (Gillespie-Lynch et al., 2020) and advocate for neurodiversity to be accepted along with other forms of difference in identity such as gender, sexuality, and race (Livingstone et al., 2023).

Neurodiversity is a difference, not a deficit of being (Livingstone et al., 2023). While differences are traditionally acknowledged as challenges, those challenges stem from socially constructed barriers and marginalization that lead to differences being associated as disadvantageous (Livingstone et al., 2023). Some challenges necessitate accommodations and support for many individuals in the neurodivergent community. However, the movement’s perspective retains that difference is fundamentally positive, and any associated challenges do not limit or diminish that difference (Kapp et al., 2013).

Neurodiversity as a Biological Phenomenon

Neurodiversity is a biological phenomenon in the body (Baron-Cohen, 2017; Guest, 2020). Whether neurodiversity is discussed as a political or a scientific concept, there is an agreement that it is based on biological differences found between people. This began with Singer (1998) and Blume (1998) referring to ‘wiring’ differences between autistic and non-autistic people. Neurodiversity is now discussed in two main ways: wiring and genetics. Many authors utilize the ‘wiring’ metaphor to describe cognitive and neurological differences and refer specifically to “differently” wired brains when discussing neurodiversity as a concept and the

characterizations of the movement (Baron-Cohen, 2017; Glannon, 2007; Orsini, 2012). Many also root definitions of neurodiversity in genetics and discuss how neurodiversity is a socially constructed movement to promote neurological characteristics that are associated with natural genetic variations and certain disabilities (Fitzwater, 2017; Lewin & Akhtar, 2020). Ortega (2013) states, “Metaphors are never innocent and brain metaphors even less so.” (p. 89). Overall, descriptions and metaphors focusing on the brains and genetics of neurodiversity dominate the literature (Livingstone et al., 2023). While a complete discussion is outside the scope of this literature review, many important questions remain.

Neurodiversity is Binary, a Spectrum, or Universal

When neurodiversity is understood as a biological feature of brains, it is framed as a binary, spectrum, or universal feature. Traditionally, it is referred to as a binary concept: neurodiverse and neurotypical. Authors with this viewpoint understand that one is either neurodiverse or not (Livingstone et al., 2023). Runswick-Cole (2014), a strong critic of binary application, frames neurodiversity as a biopolitical category. This strangely leads to an understanding that neurodiversity is a political category that serves as a basis for shared identity and political organizing and the crux of the binary framing of neurodiversity (Ortega, 2013). The popular metaphor of ‘wiring’ differences leads to a common sense understanding that the two groups are mutually exclusive (Livingstone et al., 2023).

One troubling idea is that homogenizing neurodiversity as an either/or concept leads to a social rather than biological label (Strand, 2017). More recently, building upon the idea of the ‘autistic spectrum’, some scholars have held the perspective that neurodiversity exists as a spectrum on which everyone falls (Griffin & Pollak, 2009). This perspective promotes the idea that neurodiversity can be found throughout many subclinical traits across possibly all people

and can be documented as such (Brownlow & O’Dell, 2013; Haney, 2018). Haney (2018) argues that understanding subclinical traits of autism within the greater population could lead to more support for neurodiversity, push back against the socially constructed divides, and broaden the definition of what normal is. While this concept is not without critique, it does work to normalize the neurodiverse experience by removing the exceptionality (Attias, 2020).

Some scholars also understand neurodiversity as a universal feature impacting all human minds. This perspective stems from the idea that every brain is unique, shaped by a complex combination of genetics, environment, experience, and culture (Gillespie-Lynch et al., 2020). Rather than framing neurodiversity as a concept that only applies to specific diagnostic labels—like autism, ADHD, or dyslexia—this broader understanding emphasizes that variation in cognitive processing, sensory perception, attention, communication styles, and emotional regulation is a natural and expected part of the human condition. Kornblau and Robertson (2021) argue that there isn’t a single “average” brain in human society, and that these neurological differences should be seen as inherent to our species rather than deviations from a norm. This inclusive framing challenges the binary thinking that separates "neurotypical" from "neurodivergent" and instead invites reflection on how society defines, labels, and responds to cognitive difference. These differences in how neurodiversity is conceptualized naturally lead to the question: Who counts as neurodivergent, and what assumptions underlie that categorization?

Who is Neurodivergent?

The lack of agreement on whether neurodiversity is binary, a spectrum, or universal makes it challenging to understand who it encompasses when discussing it. While in theory, neurodiversity is a conceptual framework and does not refer to a group of people, most people quickly move from defining neurodiversity to establishing who should be grouped (Livingstone

et al., 2023). This has led to neurodiversity becoming a moniker for people, experiences, and diagnoses rather than a conceptual framework or theoretical concept.

Typically, the key group of people most closely aligned with neurodiversity are individuals with autism. Commonly, the terms neurodivergent and autistic are used as synonyms, as well as neurotypical, referring to both those who are non-autistic and not neurodivergent (Happe & Frith, 2020). Even literature that defines neurodiversity as ‘more than autism’ continues to center on autism (Livingstone et al., 2023). Describing neurodivergent as “autism plus” allows autism to function as the foundation of neurodiversity while still recognizing other tenets of the classification (Livingston et al., 2023, p. 90). Most typically, autism plus includes ADHD, bipolar, and dyslexia as other commonly associated forms of neurodiversity. In this study, neurodivergence is recognized as autism plus, and it is understood that neurodiversity is not only about autism but a range of characteristics and forms.

Neurodivergent Well-Being in Educational Settings

Research regarding the intersection of neurodivergent communities, educational settings, and well-being is relatively infrequent. I will discuss a few notable studies that have broached this topic of well-being for neurodivergent students, most of which are focused on higher academic settings. One recent exception is a study from Naples and Tuckwiller (2021), a pilot study of school-based well-being in young neurodivergent children. The study determined that students participating in an 8-session covitality (or strengths-based development) intervention demonstrated improvements in subjective well-being. This study recognizes how student experiences in school are integral developmentally and to their subjective well-being in young neurodivergent students (age 6-8). Naples and Tuckwiller (2021) also call for research on school-based subjective well-being with neurodiverse student populations.

Due to the ‘invisible’ nature of most neurodiverse conditions, Syharat et al. (2023) found that students are hesitant to disclose their disability to schools out of fear of not looking like a ‘typical’ student. This study discussed how neurodivergent graduate students navigated complex relational dynamics strongly impacted by the hierarchies of academia. The study found that students may struggle to meet expectations, marginalize themselves from higher academia, and decrease their subjective well-being.

The autistic and ADHD traits in university students were found to impact student mental health and well-being negatively (Garcha & Smith, 2024). Autistic college students in traditional higher education are less likely to have a sense of school connectedness and life satisfaction, which also impacts their overall well-being (Casagrande et al., 2020). Identities are complex across college students, especially when adding in neurodivergence. Some interpersonal relationships between students can be impacted when they disclose their neurodiversity with neurotypical students (Frost et al, 2019). While the majority of previous studies have looked at neurodivergent student well-being in the higher education setting, the current study focused on neurodivergent student well-being in grades 6-8 at Trailhead Community Farm School.

Experiential Education and Forest Schools

John Dewey's (1938) work has been a foundation for experiential education's values for many years. Experiential learning, hands-on learning, and learning in context are essential pillars of meaningful experiential education. At its central tenet, Dewey’s experiential education is student-centered and community-focused (Simpson, 2011). Contemporary experiential learning traditionally follows Kolb’s (1984) endlessly recurring and dynamic cycle: Concrete Experience → Reflective Observation → Abstract Conceptualization → Active Experimentation (repeat).

Following this structure recognizes that the brain physically responds well to experience and can use that experience to learn and grow (Kolb & Kolb, 2018).

Public education has shifted, especially in the United States, in the past twenty years with an emphasis on standardized test scores, influencing schools and teachers to narrow the curriculum to focus on test preparation subjects (Berliner, 2011; Faulkner, 2006; Zakharov & Carnoy, 2021). Consequently, time-intensive experiential learning that integrates subject matter in real-life contexts has been drastically de-emphasized (Erskine, 2014; Faulkner, 2014). With a shift towards test-based accountability, there are fewer school opportunities for experiential outdoor education (Faulkner, 2006). However, nature-based learning methods such as environmental education, outdoor play, and forest schools have increased in popularity as alternative styles of education after the COVID-19 pandemic (Friedman et al, 2023).

Children's mental health benefits from time in or near nature (Friedman et al., 2023). Instruction in a natural setting has also been linked to higher academic achievement in core subjects (Khan et al., 2020) and reduced behavior seen as 'off-task' (Largo-Wight et al., 2018). In a study by James & Williams (2017), school-based experiential outdoor education was proven to motivate apathetic learners and bring learning alive for those unsuccessful in a traditional classroom setting, especially those with learning disabilities. Extended time in an outdoor education program improves children's social-emotional, cognitive, linguistic, and motor skills (Yildirim & Akamca, 2017).

Although many neurodivergent students have benefited from nature-based learning opportunities, most research has focused on the neurotypical experience (Friedman et al., 2023). While limited, the existing research provides helpful insight into the benefits of nature-based learning for neurodivergent students. In one case study by Friedman and Morrison (2021),

autistic children had positive experiences when going outside at their public school. They continued to have a desire to go outdoors for lessons. Another study found that the student-perceived benefits of forest schools included relationship development, positive risk-taking, and academic success (Bradley & Male, 2017). Forest schools also appear to benefit children's well-being due to the freedom and novelty of outdoor experiences. However, well-being was also contingent on how the child felt on any particular day and how well routines were upheld (Friedman et al., 2022). While TCFS differs slightly from a traditional forest school, it incorporates elements of forest schools through outdoor learning and experiential education.

Trailhead Community Farm School

Trailhead Community Farm School's (TCFS) curriculum and academic programs are specifically designed to follow the teachings and pedagogies of John Dewey and David Kolb (Trailhead Community Farm School, 2024a). The school's pedagogical approach focuses on student connectedness and engagement to assist the learning cycle and provides excellent opportunities for relationship building and critical thinking (Trailhead Community Farm School, 2024a). With an understanding that school should be interactive and reactive with real-world experience, TCFS is utilizing nature-based and experiential education to help students put their learning into practice. In chapter three, I will discuss TCFS student demographics.

Since Trailhead Community Farm School (TCFS) has only been open since Fall 2023, no studies have been published looking specifically at this school. According to a parent testimonial from the TCFS website (Trailhead Community Farm School, 2024b), one student did very well academically in their previous school but struggled socially and emotionally. Now at TCFS, the student feels understood, accepted, and appreciated. TCFS treats their neurodiversity as a strength, not a hindrance. Another testimonial emphasizes how many positive changes they have

seen in their child, and how much healthier physically, emotionally, socially, and intellectually they are after being at TCFS for a few months. This same parent discussed how negative their child felt in traditional public schools and was constantly told to fit into a mold they could not live up to, but now, at TCFS, their child is excited about learning and going to school each day.

While these testimonials are not the results of empirical research, they speak about the important work TCFS is doing for its neurodivergent students. The well-being of the TCFS students is a critical topic for the school. It recognizes that academic achievement is unrealistic unless students feel comfortable and emotionally well (Trailhead Community Farm School, 2024). On a personal level, as a former public school special education teacher, I was curious about the perceived differences students feel in their subjective well-being pertaining to their experiences at TCFS and even in comparison to their previous schools. I was also curious about the differences in well-being seen in the testimonials and mission statement of TCFS compared to the observed impacts on well-being during this study.

Student well-being is widely researched in traditional schools (Klik et al., 2022; Ling et al., 2022; Willis et al., 2019), Wilderness Therapy environments (Bowen et al., 2016; Harper & Cooley, 2007; Jong et al., 2022; Russell, 2005) Residential Therapeutic Schools (Farnfield & Onions, 2021) and in nature schools (Largo-Wight et al., 2018). This study sought to dive further into the well-being of TCFS students due to a lack of research on student well-being in experiential therapeutic day programs for neurodivergent children. Therefore, the purpose of this study was to explore the student perceptions of well-being at Trailhead Community Farm School. In the next section, I will discuss the chosen mixed-method design (Creswell & Plano Clark, 2011; Tashakkori & Teddlie, 2003) and the qualitative and quantitative methods used to understand student well-being at TCFS.

CHAPTER THREE: METHODOLOGY AND METHODS

The purpose of this study was to explore the student perceptions of well-being at Trailhead Community Farm School. The research questions framing this study were:

1. How does Trailhead Community Farm School impact student well-being, if at all?
3. What are the students' perceptions of their well-being at Trailhead Community Farm School compared to their previous school experiences?

This exploratory concurrent nested mixed-methods design (Creswell & Plano Clark, 2011; Tashakkori & Teddlie, 2003) had two simultaneous phases that provided context for the participants' views of their well-being following participation in their school—Trailhead Community Farm School (TCFS). Qualitative data were collected through participant observations and five one-on-one semi-structured interviews. Quantitative data were collected through the Panorama Well-Being Survey (Panorama Education, 2020). Data was analyzed separately and used to better understand student perceptions of their well-being.

As discussed in chapter 2, an Aristotelian definition of well-being—living well and doing well—was adopted for this study. This understanding of well-being is an umbrella term in educational research for student self-concept, self-regulation, identity, self-esteem, self-efficacy, motivation, and performance mindset (Willis et al., 2019). A comprehensive mixed-method approach was chosen to understand the student perspective of their well-being at TCFS holistically. This approach allowed the study to explore the complex topic of well-being. It holistically gathered three different data sources to paint a picture of what the students experienced and thought about their well-being at TCFS.

Researcher Reflexivity

I am a former educator and have spent five years in public school classrooms as a science teacher and a special education teacher. While my experience in the classroom looked incredibly different from TCFS, I was aware of my biases, good or bad, toward public education and alternative education. I felt burnt out by public education during my 5 years of teaching. One driving factor for why I joined this graduate program is to push back against traditional public schooling structures and embrace more alternative and non-traditional structures. While I know the public schools are doing fantastic work and the countless teachers are working incredibly hard to provide an excellent education, I also feel that the public school setting is not adaptable for different types of learners and does not fully encourage student curiosity and learning. I accounted for these biases during this study through the many types of data generation and self-checks throughout the study. During this project, I was intensely aware of my position as not part of the neurodivergent community. I worked to allow interviews and observations to tell the story of the students and their experiences as they told me and showed me throughout the project. I recognized that as an adult, students could view me as someone with more authority, and I worked to assure them that nothing they say or do would impact their grades or time at school.

Ethical Considerations

My primary ethical consideration when working with children was to ensure they were comfortable during observations, the survey, and in the interview setting. First, I submitted this study for approval from the Western Carolina University Internal Review Board to ensure its integrity and safety. Since these students were part of the neurodivergent community, O'Reilly and Dogra (2017) suggest offering the child a choice on whether they would like an adult (parent or teacher) in the room with them during the interview. They also suggest discussing this with

parents and teachers to understand how they feel the student would do in an individual setting or with parent/teacher presence.

TCFS families were excited about this research, and the majority of families returned consent and assent forms. I ensured that my observational research and survey did not reflect their involvement for families who abstained.

Trailhead Community Farm School

The Trailhead Community Farm School (TCFS) is a private, non-profit, year-round, academic, and therapeutic experiential education day program specifically for neurodivergent students. The curriculum is focused on fostering academic growth while incorporating therapeutic support to allow students to overcome obstacles hindering their learning experience. The school focuses on more than just education; they want to provide a space that addresses social and emotional needs and develops healthy relationships with family, friends, and self. These goals are aligned with the previously mentioned definitions of well-being.

Exploratory, Concurrent Nested Mixed-Methods Design

Using multiple methods to evaluate a program often helps to understand the phenomenon better (Allegrante et al., 2018). Quantitative and qualitative methods can be intertwined to provide a more comprehensive and unique idea of special education practices than either method provides alone (Love et al., 2022). According to Creswell and Plano Clark (2018), six main mixed-method designs exist. Three are sequential—explanatory, exploratory, and transformative—and three are concurrent—triangulation, nested, and transformative. Each design has distinct uses and theoretical lenses, implementation approaches, equal and unequal data priority, and stages when data is connected (Creswell & Plano Clark, 2018). In the

concurrent nested design used in this study, data is collected in parallel, but priority is unequal. This design helps gain a broader perspective on a topic with qualitative and quantitative data while prioritizing one side of the data due to the limitations of the methods (Creswell & Plano Clark, 2011).

The exploratory, concurrent nested mixed-methods design (Creswell & Plano Clark, 2011; Tashakkori & Teddlie, 2003) in which qualitative and quantitative data generation occurs simultaneously (Creswell et al., 2003) with separate analyses, is merged with one phase as the ‘dominant’ and interpreted. While a traditional concurrent triangulation design merges and interprets data from both phases equally (Creswell et al., 2003) this quantitative data was utilized in an exploratory way to enhance the understanding of the qualitative findings, with the qualitative methods remaining dominant within the concurrent nested design (Creswell et al., 2003; Onwuegbuzie & Teddlie, 2003). The less dominant approach for the quantitative data was primarily due to the limitation of a very small sample size at Trailhead Community Farm School (n=9). Although some would choose to forgo a mixed method design with the sample size so small, together TCFS and I determined that the exploratory quantitative data brought valuable insight regarding the well-being of their students and was utilized to enhance the dominant qualitative data as well as assist with the school’s goal of understanding student well-being. TCFS has decided to utilize the Panorama Well-Being Survey regardless of this study. Additionally, the quantitative data provided a baseline from which further research and evaluation efforts can expand in future years beyond the scope of this study.

Study Participants

Trailhead Community Farm School had nine neurodivergent students enrolled in the Fall 2024, ranging in age from 11 to 14. The following table details the student ages, grades, and genders.

Table 1

Demographic Information of Neurodivergent Students Enrolled at Trailhead Community Farm School, Fall 2024

Student	Grade	Age	Gender
1	6th	11	Female
2	6th	11	Male
3	6th	12	Female
4	7th	12	Female
5	7th	12	Male
6	8th	13	Female
7	8th	14	Female
8	8th	14	Female
9	8th	14	Male

Note. This table presents de-identified demographic data of nine neurodivergent students enrolled in Fall 2024. Ages and genders are based on school records.

Students enrolled at TCFS have a variety of neurodivergent disabilities. The Fall 2024 students had one or more of the following: autism spectrum disorder, ADHD, dysgraphia, dyscalculia, anxiety, depression, or PTSD. Regarding student race demographics, two were black, 1 Hispanic, one mixed-race, and five were white.

Since the school population was so small, participant observation was done during their academic and outdoor learning classes during the school day. Consent/assent forms were emailed home to families, and the staff helped tremendously to get the forms returned by families. Only students with returned consent/assent forms were observed, interviewed, and given the survey. For the five one-on-one semi-structured interviews, I worked with TCFS teachers to determine students who could sit through a 30–45-minute interview. From this, I chose five students randomly based on grade, ensuring I had at least one student per grade (grades 6-8).

The Panorama Well-Being Survey participants were all students who had provided consent and assent, enrolled in, and attended Trailhead Community Farm School. Since the sample size was so small, obtaining as many survey answers as possible was very important.

Data Collection

The qualitative methods for this study were participant observations and 1:1 semi-structured interviews. These methods were chosen to provide insight into the personal subjective well-being of participants through observed examples, participant observation, and 1:1 semi-structured interviews. After IRB and committee approval, I began the study with participant observations on November 13th-15th and 18th and 19th, 2024. On November 20th, 2024, I administered the Panorama Well-Being Survey. I spent the rest of that week and the following week analyzing data and finalizing my interview questions. Finally, I conducted the 1:1 semi-structured interviews with five students on December 4th and 5th.

Participant Observation. Marshall et al. (2022) define participant observation as a systematic description and recording of behaviors, objects, and events in the setting chosen for study. Using observation as a method allows settings to be described using the five senses (Erlandson et al., 1993) and to provide a written description of events in the setting and situation. Observations occurring in the natural setting can be used to discover complex interactions relatively unobtrusively (Marshall et al., 2022). Participant observation allows researchers to learn about the subject matter while observing and participating in the setting to various degrees (DeWalt & DeWalt, 2010). Ideally, researchers should spend a significant amount of time immersed in the setting, learning about the subject matter and allowing for learning to occur from observations as well as personal experience (Marshall et al., 2022). This method establishes rapport within a community and provides a situation where members can act naturally (Kawulich, 2005).

In this study, I used participant observation as a data collection method to provide a holistic understanding of the potential impacts Trailhead Community Farm School provided for the well-being of its students. Participant observation made the research objective more accurate to increase validity (DeWalt & DeWalt, 2010). For this study's participant observations, I joined TCFS for a week of classes, November 13th-19th, 2024. I observed how students and teachers interrelate and how interactions and classes might impact student well-being. Schensul et al. (1999) determined that participant observation can be used as a beginning step in studies to provide a researcher context for questions to be addressed with participants during interviews. I began with the week of participant observation to better understand what was happening within the program, which would assist with the interviews later and provide an in-depth understanding

from an observational standpoint of the activities and moments potentially enhancing student well-being while at TCFS.

While I was ‘participating’ as an adult community member during these observations, I am not a middle school-aged student within this program. Schensul et al. (1999) mention how not being fully part of a community can lead to a lack of trust and discomfort with an outsider. I ensured participants were as comfortable with my presence as possible by being present consistently throughout the week. I also am not someone in the neurodivergent community. Due to these limitations, I conducted this study from the “observer as a participant” stance. Gold (1958) described this stance where the researcher is allowed to participate in the group activities as desired, but their focus and goal is to collect data. The participants in the group are aware of the research being conducted. In this stance, the researcher is not a fully participating member of the group and participates only to conduct better observations to gain a holistic view of the setting. Adler and Adler (1994) point out that this stance still allows researchers to gain an insider role within the community without needing to fulfill the role of a whole group member. I chose this stance for the participant observations due to my age limitations and not being part of the neurodivergent community. It was unrealistic to assume that I could fully participate in TCFS activities in the same way the students could.

While observing, I focused my time primarily on the first research question—how does Trailhead Community Farm School impact student well-being, if at all? I focused my field notes on looking for moments where students demonstrated happiness, unhappiness, and well-being (or lack thereof). While I understood the facets of well-being detailed by Willis et al. (2019), self-concept, self-regulation, identity, self-esteem, self-efficacy, motivation, and performance mindset during my observations, I did not specifically look to identify these during the

observations. Instead, I had open-ended, handwritten two-columned notes during observations. I participated in daily activities that felt appropriate, such as when students were gardening, in shop class, or a whole group morning meeting. Observations also included looking specifically at teacher-student and student-student interaction to understand the aspects of student well-being that are being addressed during day-to-day interactions and relationships. I also mapped out the setting as Kutsche (1998) described, drawing a physical map of the setting and how it is used at different times during the day. This also included a count of participants during certain activities, a portrayal of where they were positioned, and descriptions of the activities being observed (Schensul et al., 1999). This assisted with understanding the whole situation and how the students interacted with their surroundings as an additional way to observe their well-being.

Participant Observation Data Analysis. DeWalt & DeWalt (2010) describe field notes as both data and analysis. My field notes (or participant observation notes) were not separated into the different facets of well-being. However, those were considerations when taking notes to remove extraneous information and focus the observations on the type of information needed for the study (deMunck & Sobo, 1998). Following the suggestion of deMunck & Sobo (1998), I kept a notebook with open-ended, handwritten, two-columned notes. Each page was split, and one side was dedicated to pure observations, quotes, and things seen while at TCFS. The other side was a space where I, as the researcher, could write notes I wanted to add while observations were happening. This was also a space where I could infer aspects of well-being that might fit a specific observation. For example, if a student displayed obvious regulation strategies (such as putting their hood up, walking away from overstimulating activities, or utilizing the sensory room), I would infer this as ‘self-regulation’ in my columned notes. At the end of each day, I wrote a narrative description of the well-being observed throughout that day, following the

guidelines of Kutsche (1998), aiming to construct and analyze material that reflected the data collected in the two columns.

I analyzed the participant observation data following the Creswell & Creswell (2023) steps in the analytic process listed below:

1. **Organized and prepared the data for analysis:** Reviewed field notes and narratives, and cataloged visual material.
2. **Read through the data:** This allowed me to reflect on the overall meaning. At this stage, I wrote additional notes in the margins for the beginnings of my general thoughts on the meaning.
3. **Coded the data:** Following Tesch's (1990) eight steps (listed below) for forming codes and themes.
 - 3.1. Read through transcriptions carefully
 - 3.2. Picked one document, determined each section's underlying meaning, and wrote thoughts in the margin.
 - 3.3. Repeated step 2 for all documents
 - 3.4. Went back to the data and abbreviated topics into codes.
 - 3.5. Determined the best descriptive words to describe the codes and turned them into categories. Tried to reduce the list of categories by combining topics or showing interrelationships.
 - 3.6. Made a final decision on the abbreviations for categories and alphabetized codes.
 - 3.7. Assembled all the data in each category in one place and performed a preliminary analysis. Looked for expected codes and surprising codes.
 - 3.8. Repeated and recoded as necessary.

4. **Identified themes:** Determined 5-7 themes for the significant findings in the data. These themes accounted for diverse perspectives, quotations, and evidence.
5. **Developed a storyline interpretation:** Interconnected themes into a storyline to develop the problem chronologically.
6. **Further analyzed data:** Adjusted 1:1 semi-structured interview questions as needed to convey interest in the predetermined categories and codes. This began the process of exploratory data triangulation, with the qualitative data dominant and quantitative data used exploratively (Creswell et al., 2003; Onwuegbuzie & Teddlie, 2003) to understand individual student well-being perspectives.

After five full school days of observations during the week of November 13th-19th, 2024, I administered the Panorama Well-Being Survey on Wednesday, November 20th, 2024. I then took the rest of the week to analyze the participant observation field notes and the Panorama Well-Being Survey results. Following the analysis, interview questions could be adjusted before the week of December 2nd-6th, 2024, when interviews would be conducted. I discuss the data analysis procedures for the Panorama Well-Being Survey and 1:1 semi-structured interviews in their subsequent sections.

Panorama Well-Being Survey. Since the school's population was so small, the quantitative method was utilized as an exploratory method and would not be used to generalize beyond the study sample. The quantitative method was a 19-question Panorama Well-Being Survey (Panorama Education, 2020). This survey was analyzed in an exploratory way only for measures of central tendency (MCT), and the findings were to assist with finalizing the focus of the semi-structured interview questions and drawing limited comparisons between data. The survey was administered to students by TCFS teachers, regardless of this study, for the school's knowledge.

The Panorama Well-Being Survey was developed to focus on student wellness and mental health by understanding students' perspectives on positive and negative feelings and the social support they receive and provide within their school experience (Panorama Education, 2020). This survey is separated into four groups of questions focusing on positive feelings, challenging feelings, supportive relationships, and free-response questions. Panorama Education states that schools can choose to use part or all of the survey depending on their goals for research. The survey was given to students on a printed sheet of paper, and they were given a pencil to answer the questions to the best of their ability. Working with teachers, I ensured the students were provided with any of their accommodations, such as read-aloud, extra time, designated breaks, or separate designated spaces needed to succeed when taking a survey as per their IEP/504 plans. I was not given access to the IEP/504 plans, and I relied on teacher assistance to ensure students were given their proper accommodations.

This survey helps educators understand students' feelings and how they feel supported in their relationships with teachers and friends at school (Panorama Education, 2020). This survey has been examined and assessed for reliability and validity. Reliability was assessed through

Cronbach's alpha for positive feelings and challenging feelings to observe how similarly students respond to different items within the same scale (Panorama Education, 2021). Both exhibited good reliability by exceeding the typical thresholds of their respective metrics. Positive feelings showed a value of $\alpha = .80$, and challenging feelings a value of $\alpha = .82$. The Kuder and Richardson Formula 20 was used instead of Cronbach's alpha for supportive relationships since the items are binary. Supportive relationships showed a value of .65.

Structural, convergent, and discriminant validity were carefully tested and confirmed across a large, diverse group of students from many different schools and districts. Structural validity was supported through factor analyses that showed that the different parts of the survey, such as Emotion Regulation and Sense of Belonging, were measuring what they were intended to. Convergent validity was demonstrated through strong connections between Panorama's well-being measures and other established tools like the KIPP Character Report Card and the Delaware School Climate Survey. Discriminant validity was also confirmed, meaning the survey did a good job keeping separate ideas, like emotional well-being and supportive relationships, distinct from each other. This shows that the Panorama Well-Being Survey is a solid and trustworthy way to understand how students are doing across various schools.

Panorama Education (2020) suggests a minimum sample size of 40 students to be able to run a statistical analysis. Since TCFS only had $n=9$ students, this data was only used exploratively. If TCFS ever expands to over 40 students, I suggest rerunning this survey to explore student well-being further.

Student well-being has become a critical predictor of student educational achievement, mental health, economic and relationship success, and social-emotional skills (Carroll et al.,

2023). Well-being is becoming more valued in schools, but not commonly measured (Panorama Education, 2020). Figure 1 lists the survey questions below.

Figure 1 Panorama Student Well-Being Survey

<p>For each question, answer based on your experiences at Trailhead Community Farm School. These questions will ask you about how you have been feeling recently. Please respond honestly—there are no right or wrong answers because there are no right or wrong feelings! Your answers will help us better support you and other students, and will not affect your grades or show up on your report card. You can skip any question you feel uncomfortable answering, but we encourage you to try your best to answer them all.</p>					
PART ONE:					
Question	Response Options				
During the past week, how often did you feel _____?					
Excited	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Happy	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Loved	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Safe	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Hopeful	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
During the past week, how often did you feel _____?					
Angry	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Lonely	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Sad	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Worried	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Frustrated	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>

PART TWO:		
Question	Response Options	
Do you have a teacher or other adult from school who you can count on to help you, no matter what?	YES	NO
Do you have an adult outside of school (family or someone else) who you can count on to help you, no matter what?	YES	NO
Do you have a friend at school who you can count on to help you, no matter what?	YES	NO
Do you have a teacher or other adult from school whom you can be completely yourself around?	YES	NO
Do you have an adult outside of school (family or someone else) who you can be completely yourself around?	YES	NO
Do you have a friend from school whom you can be completely yourself around?	YES	NO
PART THREE:		
Free Response Questions		
<ol style="list-style-type: none"> 1. Thinking about everything in your life right now, what makes you feel the happiest? 2. Thinking about everything in your life right now, what feels the hardest for you? 3. What can teachers and other adults do to support you better? 		

Supportive relationships with school staff, outside adults, and peers are indicators and promoters of student well-being (Carroll et al., 2023). Using this survey provided additional context for exploring the data collected through observations and interviews.

Panorama Well-Being Survey Data Analysis. The data analysis completed from the quantitative sections of this survey—positive feelings, challenging feelings, and supportive relationships—were measures of central tendency (MCT). These MCTs are single values that accurately represent the entire data set (Manikandan, 2011b). They are more commonly known as the mean (M), median (Mdn), and mode (Mo).

Most survey questions are on an ordinal (and not continuous) scale, and some are binary (yes/no). Referring to the scoring guidelines and suggestions of the Panorama Well-Being Survey, ordinal responses were converted to an integer value (beginning with “1”). In part one, higher integers represent a more positive response, such as students who report “almost always” feeling happy are assigned a numerical score of “5”. In contrast, if they were to report “almost never” feeling happy, they would be assigned a numerical score of “1”. For questions regarding “challenging feelings” such as their feelings of anger, higher numerical scores still represent the more positive response, such as students who report “almost never” feeling angry are assigned a numerical score of “5”, whereas if they were to report “almost always” feeling angry they would be assigned a numerical score of “1”. These scores were then used to conduct MCT for each question. For part two, binary responses of “yes” and “no” were converted to integer values of 1 and 0, respectively, so that MCT could be performed. Part three included three free-response questions that were analyzed qualitatively using the same analytic process steps for participant observation in the data analysis (Creswell & Creswell, 2023).

Despite only being able to produce MCTs, the data were meaningful for understanding the students' perceived well-being at TCFS and gave a starting point for future research. I will discuss the three MCTs below as described by Manikandan (2011a; 2011b). As data were collected, MCTs were produced for each set as it made sense.

1. Mean (M) uses every value in the data set and provides a good representation of the data (Manikandan, 2011b). I utilized the arithmetic mean by adding all the values in each data set and dividing by the number of observations. A disadvantage of M is that it is susceptible to extreme outliers, especially with a small sample size (Manikandan, 2011b). This is a known limitation of the use of M. The Standard Deviation was used here to assess the range of data about the M (Manikandan, 2011b).
2. Median (Mdn) is the 'positional average' and is the middle value when all observations are arranged in ascending/descending order (Manikandan, 2011a). The median is the 50th percentile. Since the sample size was odd ($n=9$), the Mdn was the actual middle of the observations. An advantage of Mdn is that outlier data do not skew it.
3. Mode (Mo) is the value that occurs the most frequently in a data set. The data set may have more than one Mo if two or more values occur with equal frequency (Manikandan, 2011a). A disadvantage of Mo is that the frequency of observation fluctuates more with a small sample size. Mo can be calculated easily, but it is not typically used in statistical analysis since it is not algebraically defined.

M was the preferred MCT to summarize data for this study (Manikandan, 2011a).. Mdn could also be preferred in extreme outliers or undetermined values, as well as with ordinal data (Manikandan, 2011a). Mo was not preferred in this case as data was not measured on a nominal scale (Manikandan, 2011a).

Following the analysis, data were used to assist in finalizing interview questions and helped lead to helpful information for TCFS to use in their programming. After the survey administration and analysis, the 1:1 semi-structured interviews were conducted from December

2nd to 6th, 2024, after students returned from Thanksgiving Break. The following section will discuss the data analysis procedures for the 1:1 semi-structured interviews.

Semi-Structured Interviews. Qualitative interviews provide insight into an aspect of life in which a participant has substantial experience, using an open-ended and in-depth research method (Roberts, 2020). Semi-structured interviews allow for interviews to be conducted in a focused manner with the added autonomy and flexibility to explore pertinent ideas that might be brought up throughout the interview to enhance the understanding of the research question (Adeoye-Olatunde & Olenik, 2021). This type of interview is preferred when the goal is to understand the participant's unique perspective and understanding of a phenomenon rather than a larger generalized perspective (Adeoye-Olatunde & Olenik, 2021). This allows the researcher to predetermine interview questions that will focus on the structure of the conversation but provides the flexibility not to allow the conversation to flow outside of the predetermined questions (Kallio et al., 2016).

The benefits of utilizing this method are that it can address more complex research questions and open a two-way conversation between the interviewee and researcher. It also allows participants to discuss topics the researcher might not have thought of or had the background to ask about (Kallio et al., 2016). During the interview process, it is assumed that participants assign meaning to their experiences based on their context, biases, and experiences in life, and this allows a researcher to understand another's perspective regarding an experience (Roberts, 2020). As the interviewer, I worked to maintain an informant-centered attitude as described by Roberts (2020), embracing the idea that the interviewee was the expert on their experience, and they alone possessed the knowledge necessary to answer the proposed research

questions. I used self-reflection regularly as a tool to question my interpretations and to maintain awareness of any subjectivity and bias.

This study's 1:1 semi-structured interviews occurred ten days after participant observation. Participant observation before a semi-structured interview can be helpful for researchers to provide additional context when conducting interviews (Schensul et al., 1999). Based on observational and survey data, I, as the researcher, could adjust interview questions to fit better the things seen and said at TCFS. For example, if one aspect of well-being, such as self-efficacy, was observed, I could adjust the questions to hone in on why that might be. The questions for my semi-structured interview were, as Charmaz (2014) suggests, broad, open-ended, open to individual interpretations of experiences, non-judgmental, and provided a baseline for open conversation about the topic being explored—well-being. The questions were aimed at each facet of well-being that Willis et al. (2019) provided, ideally to obtain a well-rounded idea of how students view their experiences at TCFS and their previous school experiences. The questions for the semi-structured interview can be found in Figure 2.

Figure 2

Interview guiding questions for the semi-structured interview

General Questions: Necessary for context for further questions	<ol style="list-style-type: none"> 1. When did you start coming to TCFS? 2. Can you tell me about your previous school? 3. Overall, how would you say TCFS and your previous school are the same? How are they different?
Well-Being Concept:	Questions:
Self-Concept	<ol style="list-style-type: none"> 1. How do you feel about your role at TCFS? Does your role at TCFS differ from your most recent school? How? 2. Do you feel that TCFS supports your personality? How? What about your previous school?
Self-Regulation	<ol style="list-style-type: none"> 1. Can you tell me about a time when you felt angry or frustrated and you needed to regulate to calm down during the school day at TCFS? Do you feel you had the tools and

	support to self-regulate? What about at your previous school?
Identity	<ol style="list-style-type: none"> 1. Who would you say you are as a person? (passions, beliefs, values) 2. Does TCFS support your interests, passions, and hobbies? How? What about your previous school?
Self-Esteem	<ol style="list-style-type: none"> 1. Do you feel like you belong at TCFS? Can you give an example? What about your previous school? 2. Can you tell me about a time when you felt proud of yourself at TCFS? At your previous school?
Self-Efficacy	<ol style="list-style-type: none"> 1. Do you feel confident in your ability to achieve your goals at TCFS? At your previous school? 2. What do you do when things get difficult?
Motivation	<ol style="list-style-type: none"> 1. How would you define success at TCFS? At your previous school? 2. What pushes you to reach your goals?
Performance Mindset	<ol style="list-style-type: none"> 1. How do you react when you make a mistake at TCFS? At your previous school? 2. Do you feel that you dwell on past performances (good or bad) when trying to accomplish a new goal?

When interviewing children aged 11-15, it is important to ensure that the amount of time spent interviewing is not overwhelming and exhaustive to the students. Following O'Reilly & Dogra's (2017) suggestion, I strived for interviews to be around 30 minutes to 45 minutes in length. I aimed to complete interviews with five students at TCFS, representing a range of student perspectives on their well-being. Working with individuals in the neurodivergent community is another consideration I have as a researcher. TCFS has an IQ requirement of 80 or above, which O'Reilly & Dogra (2017) state that children with an IQ above 50 should be able to participate in interview research. Working with the neurodivergent population at TCFS, I knew that I might need to be flexible and willing to be creative with engaging students for the interviews.

Interviews were audio recorded utilizing a simple recording setup on an iPhone. Interviews were completed on the TCFS campus in a classroom to ensure students were in a

comfortable environment that they were familiar with. While I planned for teachers, therapists, and staff to not be in the classroom during interviews, they were present on campus and available if needed. Following O'Reilly and Dogra's (2017) suggestion, before conducting interviews, student participants were asked if they would prefer an adult (parent or teacher) to be in the room during the interview, and I would honor this request. I also discussed with teachers how they felt the students would act in the room with or without a familiar adult present.

Conducting and participating in the 1:1 semi-structured interviews was a potential psychological risk. The student participants took a risk by sharing their experiences, thoughts, and feelings regarding their subjective well-being while at TCFS. I assured participants of the confidentiality of their responses and acknowledged any concerns they might have while participating. Due to the nature of 1:1 interviews, confidentiality was guaranteed unless the student opted to have a parent or teacher present, in which case there was the possibility that something might be shared by one of them. Identifying information would not be linked with participant comments in written reports or presentations.

Semi-Structured Interview Data Analysis. The 1:1 semi-structured interviews were analyzed utilizing the steps outlined for participant observation based on Creswell & Creswell's (2023) analytic process. The main difference when analyzing the transcribed audio was that I approached coding with the knowledge of some predetermined codes (Creswell & Creswell, 2023) from the previous participant observations and the survey's free-response questions. While these predetermined codes assisted with the analytic process of the semi-structured interview transcripts, I allowed for new, emerging, surprising, and unusual codes to be uncovered when analyzing the interview data.

Following this analysis, data were interpreted by summarizing the findings, comparing and triangulating the data within the study, and discussing the findings regarding pertinent literature and my personal views. Through this, I discussed limitations and calls for future research as well. The validation of the findings was incorporated through triangulation strategies between the three sets of data, utilizing rich descriptions and narratives, and a strong researcher reflexivity to understand personal bias and self-reflection.

Access and Rapport

Trailhead Community Farm School and I communicated with each other about expectations and access to the school before the study began. They were enthusiastic about the opportunity to work together and committed to doing whatever was necessary to assist with preparations, planning, and executing this research. During participant observations, I worked to establish trust and rapport with students and staff as I was there every day for a week of classes. Ideally, this assisted with rapport and trust with students during interviews later on and with the survey as well.

Limitations

The most pertinent limitation of this study was the small sample size. Due to TCFS's only nine students, the sample size was incredibly small for quantitative survey research. Due to this, no generalizations were made from the survey data, and only an analysis of the measures of central tendency was produced. TCFS utilized the survey regardless of the study. The pertinent information collected through the Panorama Well-Being Survey helped finalize the interview questions and understand student well-being holistically. Due to this, we chose to include the quantitative element in the research, regardless of the inability to provide generalizations.

Alternative approaches for future studies could attempt to produce a larger sample size or defer to qualitative methods.

Another limitation of this study was the time constraints. Due to the nature of a master's thesis, the data generation for this study had to occur in a small three-week time frame. Understanding the long-term well-being of neurodivergent students in an experiential therapeutic day school should occur over a more extended period. While the data generated here did give an idea of current student well-being, it could only be understood as the well-being of students within the three-week time frame of this study.

The following section is the manuscript for the selected *Journal of School Psychology*. This is instead of chapters four and five of the thesis document. The URL to submission guidelines can be found at this link: <https://www.apa.org/pubs/journals/spq>. This manuscript is intended to be submitted as a Regular Paper. It is 7,500-9,000 words in total (including abstract, text, references, tables, and figures) and double-spaced with 1-inch margins and standard 12-point Times New Roman font.

**Difference, Not Deficit: Neurodivergent Student Perspectives on Well-Being at an
Experiential Therapeutic Day School**

Abstract

This study explores the perceptions of neurodivergent students regarding their subjective well-being at Trailhead Community Farm School (TCFS), an experiential therapeutic day school. It compares these experiences to their previous school settings. Using qualitative methods with exploratory quantitative analysis, the findings indicate that students perceive TCFS as positively impacting their well-being. Central themes include trust and community, student autonomy, freedom of expression, and the benefits of a holistic, experiential learning approach. The study reveals that neurodivergent students at TCFS feel a strong sense of belonging and self-acceptance, contrasting with their prior experiences in traditional schools, where they often felt pressured to conform to neurotypical expectations. The research further underscores the role of small school size and close teacher-student relationships in fostering a safe and supportive learning environment. Additionally, experiential learning practices, such as nature-based activities and hands-on projects, contribute to student engagement, self-esteem, and skill development. While the findings affirm the positive influence of TCFS on student well-being, challenges remain, particularly in building trust among students and balancing teacher authority with student authenticity. The study's implications suggest that educators, administrators, and parents should prioritize relationship-building, inclusive pedagogical practices, and student-centered learning approaches to support neurodivergent learners better. Although limited by a small sample size and short data collection period, this study provides valuable insights into

alternative educational models that promote well-being. Future research should explore the long-term impacts of experiential and holistic education on neurodivergent students in diverse educational settings.

Keywords: neurodivergent, therapeutic school, experiential education, well-being, holistic pedagogy

Difference, Not Deficit: Neurodivergent Student Perspectives on Well-Being at an Experiential Therapeutic Day School

When you think of 'school,' you might picture a building with a teacher standing at the front of a classroom. The traditional notion of school in the United States typically involves a structured environment with four walls, a whiteboard, and desks arranged in rows or, if fortunate, in collaborative groups. While educators work tirelessly to accommodate diverse learning needs, many lack confidence in effectively instructing neurodivergent students (Van Der Steen et al., 2020). Public schools in the United States are legally required to provide free and appropriate education under the Individuals with Disabilities Education Improvement Act (2004). However, some students struggle to thrive in these academic environments (Sam et al., 2021). As a response, alternative educational models, such as Trailhead Community Farm School (TCFS) in Greenville, South Carolina, have emerged, providing both academic and therapeutic support for neurodivergent students who have faced challenges in traditional settings.

Neurodiversity encompasses a broad spectrum of cognitive differences, including attention deficit hyperactivity disorder (ADHD), autism spectrum disorder (ASD), dyslexia, dyscalculia, dysgraphia, and other learning disabilities (Armstrong, 2017; Haney, 2018). Research suggests that neurodivergent individuals possess strengths such as divergent thinking, creativity, risk-taking, and spatial visualization skills (Kapp et al., 2013; Livingstone et al., 2023; Syharat et al., 2020; Taylor et al., 2020). Despite these advantages, traditional academic environments often present rigid structures and barriers that hinder their success (Syharat et al., 2023). Consequently, families may seek alternative education models, such as experiential and therapeutic schools, to support their children's unique learning needs better.

Experiential and therapeutic education programs are constantly evolving to meet diverse student needs. These programs range from residential treatment centers and therapeutic boarding schools to wilderness therapy programs and day programs, all designed to promote students' personal growth, education, and well-being (National Association of Therapeutic Schools and Programs, 2024). Most therapeutic programs operate as residential facilities and have demonstrated positive long-term effects (Behrens et al., 2010). However, research on neurodivergent-specific therapeutic day programs—such as TCFS—remains limited (Curtin, 2010).

Although experiential outdoor education is often associated with preschool programs, it has broader applications, particularly after gaining public attention in the New York Times article "Preschool Without Walls" (James, 2018). A common misconception about forest schools is that they exclusively teach survival skills. These schools cover diverse topics, including social development, science, math, practical skills, music, and drama (James, 2018). Research has shown that forest schools enhance students' confidence, emotional well-being, physical fitness, social skills, concentration, and fine motor skills (James, 2018). While most research on forest school benefits has focused on neurotypical students (Harris, 2021; James & Williams, 2017), limited studies address their impact on neurodivergent populations (Friedman et al., 2023). Expanding this research could provide valuable insights into how nature-based learning benefits students with diverse cognitive profiles.

TCFS integrates elements of experiential outdoor education within its farming practices and adheres to the experiential learning frameworks of John Dewey and David Kolb (Trailhead Community Farm School, 2024c). As stated on its website, TCFS employs a pedagogical approach emphasizing reflection, student initiative, active engagement, and designed learning

experiences that encourage learning from mistakes and successes (Trailhead Community Farm School, 2024c). Therapeutic schools serve various student populations, including those struggling with substance abuse, behavioral challenges, and neurodivergence (Behrens et al., 2010). Private therapeutic schools, residential programs, and wilderness therapy programs often target adolescents who have not succeeded in traditional academic settings or outpatient therapy. Much of the existing research on therapeutic education focuses on wilderness therapy programs (Behrens et al., 2010; Harper, 2017).

The National Association of Therapeutic Schools and Programs (NATSAP) lists 20 member schools as therapeutic boarding schools and only two as therapeutic day schools (National Association of Therapeutic Schools and Programs, 2024). Although one could assume that this count does not represent the actual number of therapeutic schools in the United States, it highlights the predominance of residential over day programs. While residential programs may benefit some students, TCFS aims to offer a therapeutic day program incorporating farm school principles, allowing students to remain in their home environments while receiving specialized support.

Literature Review

This literature review examines how well-being is understood and supported in educational settings, particularly for neurodivergent students. It begins by exploring general and modern definitions of well-being in education, then shifts to understanding neurodivergence as a difference rather than a deficit. The review also considers who is included under *neurodivergent* and how these learners experience school well-being. Finally, it highlights the potential of experiential and nature-based learning to support neurodivergent students' well-being.

Well-Being

Well-being has been extensively studied in psychology. Diener (1984) defines subjective well-being (SWB) as a person's evaluation of their well-being based on their experiences, often equating positive experiences with happiness. This perspective focuses on maximizing happiness as a measure of well-being. However, Deci and Ryan (2006) argue that SWB is not the only way to understand well-being. As Waterman (1993) described, Eudaimonic well-being emphasizes living well and maximizing human potential. This perspective aligns with Aristotle's philosophy and humanistic psychology, viewing well-being as an ongoing process rather than a fixed state.

Hedonic and eudaimonic well-being stem from different views of human nature. The hedonic perspective sees humans as malleable, shaping their well-being through social and cultural experiences (Tooby & Cosmides, 1992). In contrast, the eudaimonic perspective asserts that well-being is shaped by experiences coded as positive or negative. Waterman et al. (2006) suggest that eudaimonic well-being inherently includes hedonic well-being but not necessarily vice versa. For this study, I adopt Ryff's (1989) eudaimonic perspective, which defines well-being through six characteristics: self-acceptance, personal growth, relatedness, autonomy, environmental mastery, and purpose in life.

Modern Well-Being in Educational Research

Educational research establishes a positive relationship between student well-being and academic performance (Aspelin, 2012; Farrington et al., 2012). Willis et al. (2019) adapted Ryff's (1989) framework for education, identifying key well-being factors such as:

1. Self-concept: how students perceive themselves, which influences their confidence in academic abilities (American Psychological Association, 2024c; Rosenberg et al., 1989).

2. Identity: a student's sense of belonging and self-awareness in an educational setting (American Psychological Association, 2024a).
3. Self-esteem: overall self-worth (American Psychological Association, 2024e; Rosenberg et al., 1989). The more positive the perception, the higher the self-esteem.
4. Self-efficacy: belief in their ability to achieve their goals (American Psychological Association, 2024d; Bandura, 2011).
5. Motivation: the momentum someone has toward a direction and purpose (American Psychological Association, 2024b).
6. Performance/Growth Mindset: how students see intelligence as fixed or malleable (Dweck, 2006).
7. Self-regulation: the ability to manage emotions, behaviors, and attention (American Psychological Association, 2024f).

These terms are essential for understanding well-being within the educational world. A positive school climate and connectedness improve student well-being and academic outcomes (Bizumic et al., 2009). Students with intense well-being are likelier to take academic risks and actively participate in school (Yu et al., 2018). Healthy peer and teacher relationships also enhance problem-solving skills and creativity, leading to higher academic success (Fairlamb, 2020). Well-being in education is often categorized into six dimensions: spiritual, psychological, physical, self, social, and academic (Ling et al., 2022).

TCFS (2024c) believes that schools should go beyond academics to foster social and emotional well-being and facilitate the development of healthy relationships. These objectives align with broader research on student well-being, emphasizing personal satisfaction and positive life evaluations (Klik et al., 2022). School environments enhance or undermine student well-

being (Klik et al., 2022). Despite extensive research on well-being in education, few studies explore well-being in neurodivergent-focused schools like TCFS.

Neurodivergence

Neurodivergence is a non-medical term describing individuals with cognitive differences, including medical disorders and learning disabilities (Cleveland Clinic, 2022; Livingstone et al., 2023). TCFS uses the term "neurodiverse," which I adopted in this study. Neurodiversity is a cultural identity, pedagogical approach, theoretical framework, paradigm, analytical lens, and therapeutic tool (Chapman, 2019; Fitzwater, 2017; Kapp, 2020). Neurodivergence forms the foundation for neuro-equity and liberation (Graby, 2015). However, some scholars critique the depoliticization of neurodiversity, referring to it as "neurodiversity lite" (Neumeier, 2018).

Judy Singer (1998) coined the term "neurodivergent" to highlight the natural variation in brain development. While definitions vary, three core principles are widely accepted: neurodiversity is a difference, not a deficit; it is in the body; and can be understood as binary, a spectrum, or universal.

Neurodiversity is a Difference, not a Deficit

Neurodiversity advocates challenge the medicalization of cognitive differences, arguing that neurodivergence should be recognized as a valuable form of human diversity (Kapp et al., 2013). Rather than seeking to "cure" neurodivergence, proponents emphasize disability justice and acceptance alongside other identity-based differences (Gillespie-Lynch et al., 2020). While neurodivergent individuals face challenges, these often result from societal barriers rather than inherent deficits (Livingstone et al., 2023). Support and accommodations can help mitigate

challenges, reinforcing the perspective that neurodivergence is not inherently disadvantageous (Kapp et al., 2013).

Who is Neurodivergent?

The lack of agreement on whether neurodiversity is binary, a spectrum, or universal complicates efforts to define neurodivergence. Some scholars argue that all human brains are unique, making neurodiversity a universal concept (Gillespie-Lynch et al., 2017; Kornblau & Robertson, 2021). However, neurodiversity is often associated with specific diagnoses, particularly autism. While the definition of "autism plus" expands neurodivergence to include ADHD, dyslexia, and bipolar disorder, autism remains central to discussions of neurodiversity (Happe & Frith, 2020; Livingstone et al., 2023). The current study adopts the "autism plus" framework, recognizing neurodivergence encompassing multiple conditions beyond autism.

Neurodivergent Well-Being in Educational Settings

Research on neurodivergent well-being in education is limited, particularly at the K-12 level. One exception is a pilot study conducted by Naples and Tuckwiller (2021) on school-based well-being interventions for young neurodivergent students. They found improvements in SWB following a strengths-based intervention and called for further research on school-based well-being among neurodiverse populations.

Neurodivergent students often hesitate to disclose their conditions due to concerns about stigma and academic expectations (Syharat et al., 2023). Navigating academic hierarchies can negatively impact well-being, particularly in higher education settings (Syharat et al., 2023). Research indicates that autistic and ADHD traits negatively affect university students' mental health and well-being (Garcha & Smith, 2024). Autistic college students report lower school

connectedness and life satisfaction (Casagrande et al., 2020), and disclosing neurodivergence can impact interpersonal relationships (Frost et al., 2019). This study focuses on neurodivergent well-being among middle school students at TCFS.

Experiential Education and Nature-Based Learning

Experiential education, championed by John Dewey (1938), emphasizes hands-on, student-centric learning (Simpson, 2011). Kolb's (1984) experiential learning cycle—Concrete Experience → Reflective Observation → Abstract Conceptualization → Active Experimentation—highlights the role of experience in learning and cognitive development (Kolb & Kolb, 2018).

In recent decades, standardized testing has reduced opportunities for experiential learning in public schools (Berliner, 2011; Zakharov & Carnoy, 2021). However, nature-based learning, including outdoor play and farm schools, has gained popularity post-COVID-19 (Friedman et al., 2023). Exposure to nature improves children's mental health and academic performance (Khan et al., 2020), reducing off-task behavior (Largo-Wight et al., 2018). Outdoor education enhances engagement, motivation, and success, particularly for students struggling in traditional classrooms (James & Williams, 2017).

While existing studies have extensively examined student well-being in traditional educational settings (Klik et al., 2022; Ling et al., 2022; Willis et al., 2019), wilderness therapy programs (Bowen et al., 2016; Harper & Cooley, 2006; Jong et al., 2022; Russell, 2005), and residential therapeutic schools (Farnfield & Onions, 2021), little research has focused on experiential therapeutic day programs such as TCFS. Given the lack of research on neurodivergent student well-being in this setting and my background as a special education

teacher in traditional public schools, I was particularly interested in how TCFS students perceive their well-being compared to their previous educational experiences. Therefore, this study aimed to explore students' perceptions of well-being at Trailhead Community Farm School.

Methods

This study aimed to explore student perceptions of well-being at Trailhead Community Farm School (TCFS). The two primary research questions guiding this investigation were:

1. How does Trailhead Community Farm School impact student well-being, if at all?
2. What are the students' perceptions of their well-being at TCFS compared to their previous school experiences?

Adopting an Aristotelian definition of well-being—"living well and doing well"—the study conceptualized well-being as a multidimensional construct. Drawing on Willis et al. (2019), well-being in this study encompasses self-concept, self-regulation, identity, self-esteem, self-efficacy, motivation, and performance/growth mindset. These dimensions served as a framework to capture a holistic picture of students' experiences at TCFS.

The study is rooted in both classical and contemporary educational theories. It combines Aristotelian notions of eudaimonia with modern educational frameworks that view well-being as essential to personal and academic flourishing. This integrated theoretical lens informed the selection of an exploratory concurrent nested mixed-methods design, allowing for the simultaneous collection of qualitative and quantitative data—with qualitative methods taking precedence due to the small sample size.

In this exploratory concurrent nested mixed-methods design (Creswell & Plano Clark, 2011; Tashakkori & Teddlie, 2003), qualitative and quantitative data were collected concurrently, though qualitative methods were dominant. This approach provided a rich, in-depth understanding of student experiences using quantitative data to triangulate and support the qualitative findings. The quantitative component, drawn from the Panorama Well-Being Survey (Panorama Education, 2020), was used primarily to establish a baseline and inform the interview protocol despite the small sample size.

Trailhead Community Farm School

Opening in Fall 2023, TCFS is a private, non-profit, year-round educational program serving neurodivergent students in grades 5–8 (Trailhead Community Farm School, 2024c). The school supports students who have struggled in conventional settings, offering an alternative to residential therapeutic boarding schools. Rooted in the pedagogical philosophies of John Dewey and David Kolb, TCFS emphasizes student engagement, relationship-building, and critical thinking through hands-on, nature-based learning experiences (Trailhead Community Farm School, 2024a). By integrating real-world applications, TCFS fosters both personal and academic growth. Its year-round schedule ensures consistency, which is crucial for neurodivergent students, while individualized academic and clinical support helps them reach their full potential.

Though TCFS is a private institution with an annual tuition of \$19,850, it is eligible for the South Carolina Exceptional Scholarship, offering financial aid of up to \$11,000 per student. Additional financial assistance is available to families in need (Trailhead Community Farm School, 2024a). However, concerns remain about equitable access to this specialized educational model despite these funding opportunities.

Located on a 21-acre property near Greenville, South Carolina, TCFS features diverse outdoor learning spaces, including ropes courses and a thriving garden (Trailhead Community Farm School, 2024c). The school provides hands-on, experiential learning opportunities, incorporating field trips and project-based methods to accommodate various learning styles (Trailhead Community Farm School, 2024a). Addressing Common Core and South Carolina State Standards, TCFS blends indoor, outdoor, and field-based education, recognizing that learning extends beyond classroom walls.

A defining aspect of TCFS is its holistic approach, which integrates teachers, therapists, families, and community members into the student learning process. Unlike traditional residential therapeutic schools, TCFS ensures each student has an individualized educational plan developed collaboratively with educators, therapists, and parents. This model provides comprehensive support tailored to students' unique needs.

Although TCFS has not yet been the subject of empirical research, parent testimonials highlight its impact. One parent shared that while their child excelled academically in traditional school, they struggled socially and emotionally. At TCFS, they feel valued and supported, and their neurodiversity is recognized as a strength. Another testimonial described significant improvements in emotional, social, physical, and intellectual well-being after just a few months at TCFS. While anecdotal, these accounts reflect the school's commitment to fostering well-being as a foundation for academic success (Trailhead Community Farm School, 2024b).

Ethical Considerations and Researcher Reflexivity

Ethical approval was obtained from the Western Carolina University Institutional Review Board. Special attention was given to working with neurodivergent students; parental consent

and student assent were secured, and all participants were assured of confidentiality and the voluntary nature of their involvement. The study was carefully coordinated with TCFS staff to ensure students received any necessary accommodations per their IEP/504 plans.

As a former educator with experience in general and special education settings, I was mindful of my biases, particularly my preference for alternative educational models after experiencing burnout in public schools. I maintained an “observer as a participant” stance throughout the study, engaging in regular self-reflection to minimize bias and ensure that the students' voices remained central to the research.

Participant Population

TCFS, a private, non-profit, year-round academic and therapeutic experiential education day program for neurodivergent students, enrolled nine participants for the Fall 2024 semester. The students, aged 11 to 14, were distributed across grades 6 to 8. In sixth grade, there were three students (two aged 11, one aged 12; two females, one male); in seventh grade, two students (both 12; one female, one male); and in eighth grade, four students (one aged 13 and three aged 14; three females, one male). Overall, six students identified as female and three as male. The student diagnoses included autism spectrum disorder, ADHD, dysgraphia, dyscalculia, anxiety, depression, and PTSD. Racially, the group consisted of two Black students, one Hispanic, one mixed-race, and five White students.

Given the small population, participant observation was conducted during academic and outdoor learning sessions. TCFS staff coordinated consent and assent forms. For the semi-structured interviews, five students were randomly selected—ensuring representation from each

grade—to participate in interviews lasting 30 to 45 minutes. All students who provided consent also participated in the Panorama Well-Being Survey.

Data Collection Procedures

Data were collected concurrently over several weeks in Fall 2024, utilizing three main methods:

Participant Observations

Systematic observations were conducted during classroom sessions, outdoor learning activities, and school events. The observations focused on interactions among students, between students and teachers, and overall classroom dynamics. Detailed field notes were taken using an open-ended, two-column format—one column for raw observations and direct quotes, and the other for reflective comments and connections to the well-being dimensions.

Semi-Structured Interviews

One-on-one semi-structured interviews were conducted with five students to gain deeper insights into their experiences at TCFS and to draw comparisons with their previous school settings. The interviews were designed to be flexible yet focused on key aspects of well-being. For example, students were asked general background questions such as, “When did you start coming to TCFS, and how would you compare your experience with your previous school?” They were also prompted to reflect on their identity and self-concept with questions like, “How do you feel about your role at TCFS?” and “In what ways do you think the school supports your interests and values?” To explore self-regulation, a question such as, “Can you describe a time when you felt frustrated while at TCFS and what helped you to calm down?” was posed. These questions, among others, provided a representative sample of the interview protocol, ensuring

that the dialogue captured nuanced aspects of student well-being. All interviews were audio-recorded with consent and later transcribed verbatim for analysis.

Panorama Well-Being Survey

The quantitative component was the 19-item Panorama Well-Being Survey (Panorama Education, 2020), administered on paper. The survey measured positive emotions, challenging emotions, and supportive relationships. Ordinal responses were converted to numerical scores, e.g., “almost always” was rated as five and “rarely” as 1 for positive feelings, while “almost always” was rated as one and “rarely” as 5 for challenging feelings. The arithmetic mean and standard deviation were computed for each item to establish baseline well-being indicators.

Despite the small sample size, the survey data provided a valuable quantitative perspective that helped refine the interview questions and served as a foundation for future research.

Data Analysis

Data analysis occurred in two distinct phases corresponding to the qualitative and quantitative strands, followed by integration:

Qualitative Data Analysis

Field notes from participant observations and interview transcripts were analyzed using thematic coding. Following Creswell & Creswell’s (2023) analytic steps, the process involved organizing and preparing the data, conducting an initial read-through with margin annotations, and coding the data using Tesch’s (1990) approach. Codes were generated from the data, grouped into broader categories, and then refined into overarching themes that captured key aspects of student well-being, such as self-regulation, self-esteem, and supportive teacher-student relationships. An interpretive narrative was developed to connect these themes and provide a

holistic view of the students' experiences at TCFS. The coding process was iterative, allowing for the refinement of themes as new insights emerged.

Quantitative Data Analysis

Quantitative data from the Panorama Well-Being Survey were analyzed by calculating each survey item's arithmetic mean and standard deviation. This provided a single-value representation of student responses, highlighting trends in positive and challenging feelings and supportive relationships. The mean scores served as a baseline indicator of well-being and were used to inform the semi-structured interview protocol.

Data Integration

After the separate analyses, the qualitative themes and quantitative trends were merged during the interpretation phase. This triangulation process involved comparing narrative insights from interviews and observations with the survey data. Areas of convergence between the two data sets reinforced the study's conclusions, while divergences were examined in light of contextual factors and limitations inherent in the small sample size.

Access and Rapport

Prior to data collection, extensive communication and planning with TCFS staff facilitated smooth access to the school. My consistent presence during the observation week helped build trust with students, which proved critical during the semi-structured interviews. Despite the rich insights gained, the study's small sample size limits the generalizability of the findings. Future research with larger cohorts and longitudinal designs is recommended to explore further the impact of experiential therapeutic day programs on neurodivergent student well-being.

In summary, this study employed an exploratory concurrent nested mixed-methods design to investigate the well-being of neurodivergent students at Trailhead Community Farm School. By integrating participant observations, in-depth semi-structured interviews with sample questions that probed areas such as student identity, emotional regulation, and support systems, and the Panorama Well-Being Survey, the research offers a comprehensive, multi-faceted perspective on student well-being experiences at TCFS. The detailed methodological approach, robust ethical considerations, and reflective practices underpinning the study ensure that the findings contribute meaningfully to the discourse on neurodivergent education and well-being.

Results

This hypothetical story summarizes the meaning of the stories shared by Trailhead Students during 1:1 semi-structured interviews on December 4th and 5th, 2024.

These results tell a story of students who repeatedly tried to fit into school. Students who wanted to succeed often found themselves failing and being misunderstood by adults and their peers. It is the story of systems unavailing, and children yearning to be seen and learn. These students came to Trailhead Community Farm School as their last chance, their last-ditch effort. Some had experienced Residential Therapeutic Schools, inpatient hospital stays, four or five different public schools, and even some homeschooling in their short 10-13 years.

Little did they know that this school would be unlike any school they had been to before. For the first time, they wake up excited to go to school. They cannot wait to return to school to be with their friends on breaks. True friendships were few and far between in their previous experiences. These friends have similar stories, diagnoses, and struggles, and can understand

each other in ways other schools could not provide. They are comfortable asking for the help they need in academics and know that their teachers care for them and truly know them.

Analysis of the semi-structured interview transcripts, observational data, and the Panorama Well-Being Survey revealed three themes regarding student well-being developing across five interviews, five school days of observations, and seven survey responses: *Trust and Community*, *Holistic Pedagogical Practices*, and *Student Expression*. The results have been organized using qualitative and quantitative methods, including in-depth descriptions and representative student quotes where appropriate.

Qualitative Results

The following section presents the qualitative findings from student interviews and observations in a narrative style, allowing students' voices and experiences to take center stage. The results are organized into key themes from the data, each illustrating different aspects of students' experiences at TCFS. Direct student quotes are woven throughout to provide insight into their perspectives, while observational details offer additional context. These themes highlight the significance of trust and community, holistic pedagogical practices, and student expression in shaping students' sense of belonging and academic experience.

Trust and Community

Trust and Community were the themes discussed the most in the interviews. They were so common that it was difficult to distinguish other themes since they were woven into most comments. The students frequently discussed bonding with their classmates and finally feeling seen in a community of people. One student said that when thinking about the support at TCFS,

As often as I have been through residential and inpatient, nothing has compared to Trailhead. It is honestly...not like any other school. I get up in the morning and am excited to go to school. I know why I go to school. Even on a break, I want to go back to school because I have friends here now, and before, I barely had any friends. Trailhead has changed me. I can get along with people better. I can communicate how I feel. The other day, I asked for help, which is not like me. Everyone looked at me, said, "Let's go!" and celebrated the little things. (Female, 8th Grade)

Through observations, community care and love were evident. Pictures of students line the hallways, and the space is very welcoming and conducive to fostering community with flexible seating options and community spaces. Despite the positive results that most students have perceived regarding their community, with the introduction of new students to the school and the wide grade range of 5th- 8th graders, some students struggle with belonging and acceptance with younger/older students. A 6th-grade student said that when thinking about whether she belongs at TCFS,

I feel like I [belong] now, but at the same time, I don't because I feel like they're playing with me like I'm a doll. I was doing one thing wrong, and they said you cannot do that; stop doing that. I can boss you around; I'm the oldest...But some of my friends don't do that because they get me and don't really boss me around. (Female, 6th Grade)

Students find it hard to break into the tight-knit community built at Trailhead, but once they do find trust within the community, they feel like they belong. In response to who she is as a person, an 8th grader explains, "We're like a family here, and so it takes us a while to bring people into our family... but if you come in and be yourself and you don't act like someone else, it's easier for us to accept you" (Female, 8th Grade). Trailhead staff recognize this and

understand how the transition with new students can disrupt a close community where it's hard to trust new people. They encourage students or staff to call community meetings often; one such meeting occurred during my observations. This meeting was treated with utmost importance, and students felt supported and heard by their teachers.

Students reported failing to fit in with other students when discussing experiences at their previous schools and institutions. Students repeatedly mentioned being bullied, getting in fights, and changing their personalities to find a sense of belonging. A few singled out religious school experiences as lacking acceptance of those who shared different beliefs and exceptionalities. Due to these struggles, some students lost the confidence to put themselves out there in academic or social situations. When asked to think of a time when she felt proud of herself at a previous school, an 8th grader struggled to find an answer,

Around fifth grade, I would answer a question in math, and I would get made fun of for getting the wrong answer. So I stopped answering questions and asking for help, saying I cannot do it. Trailhead has helped me realize that I can ask for help without being made fun of. (Female, 8th Grade)

Students emphasized that their comfort with a community directly impacts their feelings about personal academic achievement. Holistic Pedagogy, including elements such as fostering community, significantly improved student trust and overall experience.

Holistic Pedagogical Practice

The Holistic Pedagogical Practice theme encompasses emotional care, small school size, and experiential learning, all strongly related to a school's pedagogical and systematic choices that define the student experience. Students overwhelmingly discussed the teachers at previous

schools' lack of understanding of their diagnoses, which commonly resulted in students being restrained and taken out of classroom spaces.

Emotional Care. An inadequacy of emotional care and regulation strategies provided to neurodivergent students in their previous schools forced them to devise strategies, such as walking around the halls or going to the bathroom to calm down when overstimulated and to avoid being forcibly removed from the classroom. One 8th grader explained, “There weren’t options; there was a therapist, but you were stuck in class. You could go into the hall and walk around, but there wasn't a space where you could go to talk to anyone about it, which was rough.” (Female, 8th Grade).

TCFS allows students to regulate themselves when they most need it and, most importantly, follow through with their promises. They provide a sensory room space where students can calm down as one option. “We can get loud sometimes, and people need to go into the sensory room, and they feel like they can get away from people. At any point, you're allowed to go in there; you don't even have to ask” (Male, 7th Grade). Students do not overutilize this option either. During my observations, students understood the sensory room’s purpose and knew not to abuse the privilege while still utilizing it for its intended purpose. Another option available to students was always having access to teachers and therapists. “It is a pretty small school, so if you're having a situation, you do have the teachers' attention. They are at school to help you” (Male, 7th Grade). With two teachers and one therapist/social worker, students can immediately access the help they need. The school understands holistically that students are, most importantly, people first and that their emotional needs must be met to begin academic learning.

Small School Size. The small school size was frequently addressed in student interviews. As a 7th-grade student commented, “There are three teachers to 10 students; you can get help in any learning, and it makes it easy to do the right thing. We’re not just numbers plugged into a system...It is much easier to advance academically or even mentally.” (Male, 7th Grade). Through observations and interviews, it was clear that students valued being seen and known by their teachers as a benefit of the small school structure. Previous school experiences with large class sizes and a strong academic focus, where all students had differing schedules, caused these neurodivergent students to feel lost and unsuccessful in their day-to-day lives. The smaller school, although at times can be loud, was pointed out to be a less stressful environment and quieter than their previous schools.

Experiential Learning. TCFS’s school structure follows the teachings of John Dewey and David Kolb (Trailhead Community Farm School, 2024a). Students found that the experiential learning style fit their learning needs better than the traditional styles in their previous school experiences. “We're not graded here or anything. It's more about participation. Moreover, we learn in different ways... Like our projects, they aren't slideshows or anything; we get to do stuff with our hands, and it's interactive” (Female, 8th Grade). During my observations, students prepared to host a winter fundraiser by creating small businesses to sell goods. When done well, activities like these provide a real-world application to learning that students felt was not available to them at previous schools. The experiential learning style hands over ownership of learning to students authentically and practically.

Student Expression

The final theme from observations and interviews was *Student Expression*. This theme encompasses comments such as student ownership, freedom of expression, and the lesser-mentioned theme of struggling to express themselves within different age ranges.

Student Ownership. In line with experiential learning (Kolb, 1984), students feel ownership over their learning and involvement with decisions. Some expressed being comfortable enough to ask for help for the first time in their academic careers. All students explained their roles at the school as leaders and community members, instilling the idea that they are part of the decision-making process at the school and a sense of shared mission. When thinking about the question, ‘How does your role differ at TCFS compared to previous schools,’ an 8th grader explained, “We are involved in community decisions. It's not like a monarchy where one person makes all the decisions without asking. It's more like our presidential stuff, where one person makes all the decisions, but they run it through multiple people” (Female, 8th Grade). The autonomy to create the learning community they want was seen as a benefit to every student I talked with.

Freedom of Expression. Most students I talked with felt they could freely express themselves within the TCFS community. As previously discussed in the theme of *Trust and Community*, students struggled to fit in at their previous schools and felt that they needed to change their personalities to fit in. At TCFS, students feel confident expressing themselves and say that the school supports their personality. An 8th grader stated in response to whether TCFS supports their personality, “[Trailhead] nurtures your personality. You can be yourself, and people do not judge you for that. I came in the first day, and I was myself, and I made a couple of good friends right away” (Female, 8th Grade). Despite most students feeling like they can

authentically express themselves, one student stood out as feeling the opposite due to the age differences in the students. In reply to who she feels she is as a person, she stated, “I like playing with [dolls] a lot... But if I bring them to [this] school... people make fun of me... that's why I don't want to bring my toys... I did bring Barbies [to my old school], and my friends seemed to like it.” (Female, 6th Grade). One of the drawbacks of having such a small school with a wide grade range is the differences in the emotional maturity of students. In my observations, there was a clear divide between younger and older students. While the older students reported feeling like they could freely express themselves, the younger students struggled with finding the safety to express their more child-like tendencies.

Quantitative Results

The Panorama Well-Being Survey (Panorama Education, 2020) was administered to 7 participating students. Responses for positive and challenging feelings were converted from an ordinal scale to an integer value. Regarding positive feelings, a score of 5 indicated that students almost always felt this way at TCFS. Students reported feeling ‘safe’ with $M = 4.14$, ‘happy’ with $M = 4.00$, and ‘loved’ with $M = 3.43$ as the highest positive feelings.

Table 2

Descriptive Statistics for Positive Feelings Variables

Positive Feelings Variable	M	SD
Excited	2.71	1.00
Happy	4.00	0.53
Loved	3.43	0.73
Safe	4.14	1.12
Hopeful	2.86	1.12

Note. M = mean; SD = standard deviation.

Regarding challenging feelings, a score of 5 indicated that students rarely felt this way at TCFS. Students reported feeling ‘lonely’ with $M = 3.57$, ‘sad’ with $M = 3.43$, and ‘worried’ with $M = 3.14$.

Table 3

Descriptive Statistics for Challenging Feelings Variables

Challenging Feelings Variable	M	SD
Angry	3.00	0.53
Lonely	3.57	0.49
Sad	3.43	1.05
Worried	3.14	1.12
Frustrated	2.71	1.16

Note. M = mean; SD = standard deviation

Regarding supportive relationships, a score of 1 indicated students answered ‘yes’ while a score of 0 indicated students answered ‘no’ to the corresponding question. All participating students answered ‘yes’ to having a friend at school with whom they can count on to help them no matter what. Most students also felt that they had a teacher or other adult with whom they could count on no matter what and that they had a friend at school with whom they could be ultimately themselves, with $M = 0.86$ for both variables.

Table 4

Descriptive Statistics for Supportive Relationships Variable

Supportive Relationships Variable	M	SD
Do you have a teacher or other adult from school who you can count on to help you, no matter what?	0.86	0.35
Do you have a friend at school who you can count on to help you, no matter what?	1	0
Do you have a teacher or other adult from school whom you can be completely yourself around?	0.57	0.49
Do you have a friend from school who you can be completely yourself around?	0.86	0.35

Note. M = mean; SD = standard deviation.

These quantitative results indicate that students generally reported high positive feelings, exceptionally safe and happy, while their challenging feelings were moderately low.

Additionally, supportive relationships were strong, with nearly all students affirming the presence of reliable peers and adults in their school environment. Overall, these findings provide a promising, exploratory baseline for understanding student well-being at TCFS and support the qualitative insights gathered in the study.

Qualitative and Quantitative Results

This study's qualitative and quantitative findings provided complementary perspectives on students' experiences at TCFS. While the small sample size limited the ability to draw definitive conclusions, the data suggested potential relationships between students' perceptions of trust, community, and pedagogical practices and their reported well-being.

For instance, students' narratives frequently highlighted the role of trust and community in shaping their sense of belonging, and the quantitative data indicated that feelings of safety ($M = 4.14$) and happiness ($M = 4.00$) were among the most commonly reported positive emotions. Additionally, many students described strong peer and teacher relationships as central to their school experience, which aligned with survey responses showing that all participants reported having at least one friend they could count on. However, some students also expressed challenges related to belonging, particularly when transitioning into the school community, which may have been related to the moderate levels of loneliness ($M = 3.57$) and sadness ($M = 3.43$) reported in the survey.

Students also described the benefits of a holistic pedagogical approach, including small class sizes, emotional support, and experiential learning. In interviews, all five students mentioned the feeling that teachers supported their passions and that they could be themselves around them. However, the survey results presented a more divided perspective, with only a little over half of the students ($M = 0.57$) indicating they felt they could ultimately be themselves around a teacher or other adult at school. This contrast raised questions about how students perceived their relationships with teachers. One student acknowledged the balance teachers struck between being supportive and maintaining authority, explaining, "I think the teachers did an excellent job of having an authoritative role, but they could still interact with students as if you're friends while maintaining that authority; you've got to be really good at your job to do that!" (Male, 7th Grade). It was possible that while students appreciated the encouragement teachers provided, some may have felt that the authoritative role of educators created a boundary that prevented them from fully expressing themselves.

While these qualitative and quantitative patterns provided valuable insights, they should be interpreted cautiously due to the small sample size. Further research is needed to explore these trends in a broader population.

Discussion

This study explored neurodivergent student perceptions of subjective well-being at Trailhead Community Farm School (TCFS), focusing on the school's impact and comparisons to past experiences. Findings suggest that students perceive TCFS as significantly improving their well-being, with trust, community, friendships, and relationships playing a crucial role. These findings align with well-being theory and existing research emphasizing the importance of social belonging for adolescents (Arslan, 2018; Bizumic et al., 2009; Klik et al., 2023). Bizumic et al. (2009) highlight the direct relationship between social identification in school settings and positive well-being. Syharat et al. (2023) also discuss neurodivergent students' pressure to conform to neurotypical traits in traditional schools. In contrast, most TCFS students frequently reported feeling free to be themselves without judgment.

The theme of *Trust and Community* relates to self-esteem, as positive perceptions by self and others contribute to well-being. Bizumic et al. (2009) suggest that school identification strengthens self-esteem, a connection mirrored in this study. However, an unexpected finding was students' struggles with trusting new peers. This aligns with Cresswell et al. (2019), who found trust-building a key challenge for neurodivergent adolescents. Despite initial hesitation, TCFS students indicated that authenticity fosters community belonging.

Holistic pedagogy is central to TCFS's approach and significantly impacts student well-being (Arslan, 2017). Rooted in the work of Steiner, Dewey, and Montessori, holistic education

emphasizes intellectual, emotional, physical, and social development (Miller, 2004; Johnson, 2023). It integrates real-life experiences, interpersonal relationships, and a transpersonal perspective—connecting individuals to themselves, others, and the world. Though TCFS does not explicitly identify as a holistic school, observations suggest that its experiential learning structure aligns with holistic education principles.

Students reported that prior schools offered limited emotional support, despite some teachers attempting regulation strategies. TCFS provides resources that support neurodivergent students' emotional regulation, helping them thrive. This aligns with Willis et al. (2019), who highlight tensions between traditional school student well-being and academic pressures. Teachers in public schools often recognize the need for student support but struggle with time constraints and systemic demands.

The smaller school size at TCFS facilitates strong relationships between peers and teachers, reinforcing well-being. Amitay and Rahav (2018) found that intimate school environments foster emotional growth, echoed in this study. TCFS students emphasized how smaller class sizes enabled educators to provide individualized support. Additionally, research by Frost et al. (2019) suggests that neurodivergent students benefit from a sense of belonging in specialized school settings, which TCFS provides through close peer connections and attentive teachers. One younger student initially felt ostracized due to age differences, but later found a sense of belonging once trust was established. These findings underscore how a close-knit environment fosters well-being, ensuring student needs are met.

TCFS's experiential learning model is a cornerstone of its positive impact on student well-being. The school emphasizes hands-on, nature-based activities such as farming, outdoor projects, and real-world academic applications. James and Williams (2017) assert that

experiential learning benefits all students, particularly those with learning disabilities, by enhancing leadership skills and engagement. Johnson (2023) further supports this, arguing that experiential learning integrates critical thinking with emotional and social development. TCFS students reported that this approach built their self-esteem and academic confidence.

A key finding of this study is the role of student ownership in decision-making at TCFS. Students described feeling empowered in shaping their educational experiences, reinforcing Bizumic et al.'s (2009) assertion that school involvement strengthens self-esteem. The ability to contribute to school decisions fosters a sense of responsibility. It deepens students' connection to their community, aligning with Klik et al. (2022), who found active participation enhances student well-being.

Freedom of expression emerged as another crucial factor in student well-being. TCFS cultivates an environment where neurodivergent students feel encouraged to express their thoughts, emotions, and creative ideas. This validation contributes to self-confidence and belonging. However, one younger student noted that age differences sometimes hindered their freedom of expression. Allen (1989) found that age mixing in schools can influence peer dynamics, potentially leading to social adjustment challenges. Nonetheless, holistic pedagogy's emphasis on transpersonal connections (Johnson, 2023) may help mitigate these challenges by fostering a sense of unity and self-acceptance.

Qualitative and quantitative data findings suggest that student well-being at TCFS is intense, with students feeling safe, supported, and valued by their community. However, there was some complexity in teacher-student relationships. While students appreciated their teachers' support, survey results indicated mixed feelings about full self-expression with teachers. This may stem from the authority teachers maintain despite the community-oriented environment.

Amitay and Rahav (2018) emphasize that informal teacher-student interactions foster student authenticity. While TCFS broadly supports student well-being, further exploration is needed to balance authority with student autonomy.

Limitations

A primary limitation of this study is the small sample size. With only nine students at TCFS, the survey data were not generalizable beyond this setting. Instead, the survey served as an exploratory tool to complement qualitative findings. Future studies could expand the sample size or focus solely on qualitative research to deepen insights.

Another limitation is the short data collection period. Long-term studies are needed to understand the sustained impact of experiential therapeutic education on neurodivergent students. This study offers a snapshot of current student well-being, but future research should track these dynamics over extended periods.

Implications for Research

Future research should examine the long-term effects of experiential therapeutic education on neurodivergent students through longitudinal studies at TCFS and similar institutions. Tracking well-being over time could clarify the sustainability of holistic pedagogical benefits. Comparative studies with traditional schools would also help pinpoint specific factors that foster self-esteem, trust, and community belonging in neurodivergent students.

Further research should also explore trust-building among neurodivergent students, as this study revealed difficulties forming new peer relationships. Understanding these challenges could inform strategies for social integration in neurodivergent-focused schools. Additionally, teacher-student dynamics warrant deeper investigation. While students at TCFS appreciate

teacher support, some still feel a divide due to teacher authority. Research on balancing guidance with student autonomy could enhance school practices.

Another key area for future research is the impact of age diversity in small school environments. While TCFS fosters community, younger students noted challenges with peer relationships. Exploring mentorship programs or structured peer interactions could support younger students' integration. Additional research on neurodivergent student well-being, therapeutic schools, and their impacts on academic success could enhance school practices. Finally, research should examine how experiential learning models can be adapted for larger schools while preserving their benefits. Investigating how holistic pedagogy influences academic achievement and executive functioning in neurodivergent students could refine educational strategies promoting well-being and success.

Implications for Practice

Findings from this study provide several key takeaways for educators, administrators, and parents supporting neurodivergent students. Implementing a holistic, experiential learning model similar to TCFS for school administrators could enhance student well-being by prioritizing trust, community, and self-expression. Schools could consider smaller learning environments or cohort-based models within larger institutions to foster stronger relationships among students and educators. Additionally, professional development in holistic and trauma-informed teaching strategies would better equip teachers to address neurodivergent students' needs.

For teachers, the study highlights the importance of balancing authority with fostering student autonomy. Implementing student-led decision-making and flexible classroom structures can empower neurodivergent learners, strengthening their sense of ownership and belonging.

Teachers should also prioritize trust-building strategies, particularly for students who have faced challenges in prior school settings. Incorporating experiential learning can further engage students and reinforce real-world connections.

For parents, the study underscores the significance of choosing environments where neurodivergent students feel accepted and supported. Advocating for all schools emphasizing social belonging, emotional regulation, and individualized learning can positively impact neurodivergent student well-being. Parents can also collaborate with educators to reinforce self-esteem and trust-building strategies at home, ensuring continuity between school and family support systems.

Conclusion

This study demonstrates the positive impact of holistic, experiential education on neurodivergent student well-being at Trailhead Community Farm School. Trust, community, and student autonomy foster a strong sense of belonging and self-confidence, often lacking in traditional school settings. While the study's small sample size and time constraints limit generalizability, findings suggest that prioritizing relationship-building, experiential learning, and student-led decision-making can enhance emotional well-being and success for neurodivergent learners. Moving forward, educators, administrators, and parents should explore these approaches to create more inclusive and supportive educational environments that empower all students to thrive.

References

- Allen, J. P. (1989). Social impact of age mixing and age segregation in school: A context-sensitive investigation. *Journal of Educational Psychology*, 81(3), 408–416. <https://doi.org/10.1037/0022-0663.81.3.408>
- American Psychological Association (2024a). *Identity*. <https://dictionary.apa.org/identity>
- American Psychological Association (2024b). *Motivation*. <https://dictionary.apa.org/motivation>
- American Psychological Association (2024c). *Self-concept*. <https://dictionary.apa.org/self-concept>
- American Psychological Association (2024d). *Self-efficacy*. <https://dictionary.apa.org/self-efficacy>
- American Psychological Association (2024e). *Self-esteem*. <https://dictionary.apa.org/self-esteem>
- American Psychological Association (2024f). *Self-regulation*. <https://dictionary.apa.org/self-regulation>
- Amitay, G. & Rahav, G. (2018). Attachment and pedagogically relevant practices as elements of a successful alternative school through the narratives of its students. *Psychology in the Schools*, 55(10), 1239-1258. <https://doi.org/10.1002/pits.22200>
- Armstrong, T. (2017). Neurodiversity: The future of special education? *Association for Supervision and Curriculum Development*, 74(7), 10–16.
- Arslan, G. (2018). Exploring the Association between School Belonging and Emotional Health among Adolescents. *International Journal of Educational Psychology*, 7(1), 21–41. <https://doi.org/10.17583/ijep.2018.3117>

- Arslan, G. (2017). School-Based Social Exclusion, Affective Wellbeing, and Mental Health Problems in Adolescents: A Study of Mediator and Moderator Role of Academic Self-Regulation. *Child Indicators Research*, 11(3), 963–980. <https://doi.org/10.1007/s12187-017-9486-3>
- Aspelin, J. (2012). How do relationships influence student achievement? *International Studies in Sociology of Education*, 22(1), 41–56. <https://doi.org/10.1080/09620214.2012.680327>
- Bandura, A. (2011). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, 38(1), 9–44. <https://doi.org/10.1177/0149206311410606>
- Behrens, E., Santa, J., & Gass, M.(2010). The evidence base for private therapeutic schools, residential programs, and wilderness therapy programs. *Journal of Therapeutic Schools and Programs*, 4(1), 106-117. <https://doi.org/10.19157/JTSP.issue.04.01.05>
- Berliner, D. (2011). Rational responses to high stakes testing: The case of curriculum narrowing and the harm that follows. *Cambridge Journal of Education*, 41, 287-301. <http://dx.doi.org/10.1080/0305764X.2011.607151>
- Bizumic, B., Reynolds, K., Turner, J. C., Bromhead, D., & Subasic, E. (2009). The role of the group in individual functioning: School identification and the psychological well-being of staff and students. *Applied Psychology*, 58, 171–192. <https://doi.org/10.1111/j.1464-0597.2008.00387.x>
- Bowen, D. J., Neill, J. T., & Crisp, S. J. R. (2016). Wilderness adventure therapy effects on the mental health of youth participants. *Evaluation and Program Planning*, 58, 49-59. <https://doi.org/10.1016/j.evalprogplan.2016.05.005>

- Casagrande, K., Frost, K. M., Bailey, K. M., & Ingersoll, B. R. (2020). Positive predictors of life satisfaction for autistic college students and their neurotypical peers. *Autism in Adulthood*, 2(2), 163-170. <https://doi.org/10.1089/aut.2019.0050>
- Chapman, R. (2019). Neurodiversity theory and its discontents: autism, schizophrenia, and the social model of disability. In S. Tekin and R. Bluhm (Eds.), *The Bloomsbury companion to philosophy of psychiatry* (pp. 371-390). Bloomsbury.
- Cleveland Clinic. (2022). *Neurodivergent*. Cleveland Clinic. <https://my.clevelandclinic.org/health/symptoms/23154-neurodivergent>
- Curtin, K. A. (2010). Developing a therapeutic community for students with emotional disturbance: Guidelines for practice. *Journal of Therapeutic Schools and Programs*, 4(1), 134-146.
- Cresswell, L., Hinch, R., & Cage, E. (2019). The experiences of peer relationships amongst autistic adolescents: A systematic review of the qualitative evidence. *Research in Autism Spectrum Disorders*, 61, 45-60. <https://doi.org/10.1016/j.rasd.2019.01.003>
- Creswell, J. W. & Creswell, J. D. (2023). *Research design: Qualitative, quantitative and mixed methods approaches*. Sage.
- Creswell, J. W. & Plano Clark, V. L. (2011). *Designing and conducting mixed-methods research*. Sage.
- Deci, E. L. & Ryan, R. M. (2006). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, 9, 1-11. <https://doi.org/10.1007/s10902-006-9018-1>
- Dewey, J. (1938). *Experience & Education*. Free Press.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95(3), 542-575.

<https://doi.org/10.1037/0033-2909.95.3.542>

Dweck, C. (2006). *Mindset: The new psychology of success*. Random House.

Fairlamb, S. (2020). We need to talk about self-esteem: the effect of contingent self-worth on student achievement and well-being. *Scholarship of Teaching and Learning in Psychology*, 8(1), 45-57.

<https://doi.org/10.1037/stl0000205>

Farnfield, S. & Onions, C. (2021). The role of affect regulation in developmental trauma: An empirical study of children in residential care. *Journal of Child Psychotherapy*, 47(3),

470-490. <https://doi.org/10.1080/0075417X.2021.2015421>

Farrington, C. A., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T. S., Johnson, D. W., & Beechum, N. O. (2012). *Teaching adolescents to become learners: The role of noncognitive factors in shaping school performance*. University of Chicago Consortium on Chicago School Research.

<https://consortium.uchicago.edu/publications/teaching-adolescents-become-learners-role-noncognitive-factors-shaping-school>

Fitzwater, L.J. (2017). Theory and practice in art & design education and dyslexia: The emancipatory potentials of a neurodiversity framework. *Humana.Mente* (pp. 121–143).

Friedman, S., James, M., Brocklebank, J., Cox, S., & Morrison, S. (2023). Facilitating nature-based learning with autistic students. *Childhood Education*, 99(4), 14-23.

<https://doi.org/10.1080/00094056.2023.2232275>

- Frost, K. M., Bailey, K. M., & Ingersoll, B. R. (2019). “I just want them to see me as...me”: Identity, community, and disclosure practices among college students on the autism spectrum. *Autism in Adulthood, 1*(4), 268-275. <https://doi.org/10.1089/aut.2019.0050>
- Graby, S. (2015). Neurodiversity: Bridging the gap between the disabled people’s movement and the mental health system survivors’ movement? In H. Spandler, J. Anderson, and B. Sapey (Eds.), *Madness, distress, and the politics of disablement*. Policy Press, (pp. 231–244).
- Garcha, J. & Smith, A. P. (2024). Associations between autistic and ADHD traits and the well-being and mental health of university students. *Healthcare, 12*(1), 14. <https://doi.org/10.3390/healthcare12010014>
- Gillespie-Lynch, K., Kapp, S. K., Brooks, P. J., Pickens, J., & Schwartzman, B. (2017). Whose expertise is it? Evidence for autistic adults as critical autism experts. *Frontiers in Psychology 8*(438). <https://doi.org/10.3389/fpsyg.2017.00438>
- Haney, J. L. (2018). Reconceptualizing autism: An alternative paradigm for social work practice. *Journal of Progressive Human Services, 29*(1), 61-80. <https://doi.org/10.1080/10428232.2017.1394689>
- Happé, F. & Frith, U. (2020). Annual research review: Looking back to look forward changes in the concept of autism and implications for future research. *The Journal of Child Psychology and Psychiatry, 61*(3), 218–232. <https://doi.org/10.1111/jcpp.13176>
- Harper, N. & Cooley, R. (2006). Parental reports of adolescent and family well-being following a wilderness therapy intervention: An exploratory look at systemic change. *Journal of Experiential Education, 29*(3), 393-396. <https://doi.org/10.1177/105382590702900314>

Harris, F. (2021) Developing a relationship with nature and place: The potential role of forest school. *Environmental Education Research*, 27(8), 1214-1228.

<https://doi.org/10.1080/13504622.2021.1896679>

Individuals with Disabilities Education Improvement Act, H.R. 1350, 108th Cong. (2004)

<https://www.congress.gov/bill/108th-congress/house-bill/1350>

James, J. K., & Williams, T. (2017). School-Based Experiential Outdoor Education: A Neglected Necessity. *Journal of Experiential Education*, 40(1), 58-71.

<https://doi.org/10.1177/1053825916676190>

James, M. (2018). *Forest school and Autism: A practical guide*. Jessica Kingsley.

Johnson, A. (2023). Holistic Learning Theory: More than a Philosophy. *Journal of*

Contemplative and Holistic Education, 1(2). <https://doi.org/10.25035/jche.01.02.03>

Jong, M. C., Stub, T., Mulder, E., & Jong, M. (2022). The development and acceptability of a wilderness programme to support the health and well-being of adolescent and young adult cancer survivors: The WAYA programme. *International Journal of Environmental Research and Public Health*, 19(19), 12012. <https://doi.org/10.3390/ijerph191912012>

Kapp, S.K. (Ed.) (2020). *Autistic community and the neurodiversity movement stories from the frontline*. Palgrave Macmillan. <https://doi.org/10.1007/978-981-13-8437-0>

Kapp, S.K., Gillespie-Lynch, K., Sherman, L.E. et al. (2013). Deficit, difference, or both? Autism and neurodiversity. *Developmental Psychology* 49(1), 59–71.

<https://doi.org/10.1037/a0028353>

- Khan, M., McGeown, S., & Bell, S. (2020). Can an outdoor learning environment improve children's academic attainment? A quasi-experimental mixed methods study in Bangladesh. *Environment and Behavior*, 52(10), 1079–1104.
<https://doi.org/10.1177/0013916519860868>
- Klik, K. A., Cardenas, D., & Reynolds, K. J. (2022). School climate, school identification and student outcomes: A longitudinal investigation of student well-being. *British Journal of Educational Psychology*, 93(3), 806-824. <https://doi.org/10.1111/bjep.12597>
- Kolb, A., & Kolb, D. (2018). Eight important things to know about the Experiential Learning Cycle. *Australian Educational Leader*, 40(3), 8-14.
- Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development*. Pearson Education.
- Kornblau, B.L. & Robertson, S.M. (2021). Special issue on occupational therapy with neurodivergent people. *American Journal of Occupational Therapy* 75(3).
<https://doi.org/10.5014/ajot.2021.753001>
- Largo-Wight, E., Guardino, C., Wludyka, P. S., Hall, K. W., Wight, J. T., & Merten, J. W. (2018). Nature contact at school: The impact of an outdoor classroom on children's well-being. *International Journal of Environmental Health Research*, 28(6), 653-666.
<https://doi.org/10.1080/09603123.2018.1502415>
- Livingstone, B., Gibson, M. F., Douglas, P., Leo, S., & Gruson-Wood, J. (2023). Weighing in: Academic writers on neurodiversity. *International Journal of Disability and Social Justice*, 3(3), 73-98. <https://doi.org/10.13169/intljofdissocjus.3.3.0072>

- Ling, X., Chen, J., Chow, D.H., Xu, W., & Li, Y. (2022). The “trade-off” of student well-being and academic achievement: A perspective of multidimensional student well-being. *Frontiers in Psychology, 13*. <https://doi.org/10.3389/fpsyg.2022.772653>
- Naples, L. H. & Tuckwiller, E. D. (2021). Taking students on a strengths safari: A multidimensional pilot study of school-based well-being for young neurodiverse children. *International Journal of Environmental Research and Public Health, 18*(13), 6947. <https://doi.org/10.3390/ijerph18136947>
- National Association of Therapeutic Schools and Programs (2024). *Program/School Membership Directory*. <https://members.natsap.org/program-school-directory>
- Neumeier, S.M. (2018). “To Siri with love” and the problem with neurodiversity lite. *Rewire News Group*. <https://rewirenewsgroup.com/article/2018/02/09/siri-love-problem-neurodiversity-lite/>
- Panorama Education (2020). *Panorama well-being survey user guide*. <https://go.panoramaed.com/hubfs/Panorama%20Well-Being%20User%20Guide.pdf>
- Rosenberg, M., Schooler, C., & Schoenbach, C. (1989). Self-esteem and adolescent problems: Modeling reciprocal effects. *American Sociological Review, 54*(6), 1004-1018. <https://doi.org/10.2307/2095720>
- Russell, K. C. (2005). Two years later: A qualitative assessment of youth well-being and the role of aftercare in outdoor behavioral healthcare treatment. *Child & Youth Care Forum, 34*(3), 209-239. <https://doi.org/10.1007/s10566-005-3470-7>

- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081. <http://dx.doi.org/10.1037/0022-3514.57.6.1069>
- Sam, A. M., Odom, S. L., Tomaszewski, B., Perkins, Y., & Cox, A. W. (2020). Employing Evidence-Based Practices for Children with Autism in Elementary Schools. *Journal of Autism and Developmental Disorders*, 51, 2308-2323. <https://doi.org/10.1007/s10803-020-04706-x>
- Singer, J. (1998). *NeuroDiversity the birth of an idea*. Bolton.
- Syharat, C. M., Hain, A., & Zaghi, A. E. (2020). *Diversifying the engineering pipeline through early engagement of neurodiverse learners* [Conference presentation]. ASEE Virtual Annual Conference, United States. <https://strategy.asee.org/34470>
- Syharat, C. M., Hain, A., Zaghi, A. E., Gabriel, R., & Berdanier, C. G. P. (2023). Experiences of neurodivergent students in graduate STEM programs. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1149068>
- Tashakkori A. & Teddlie C. (Eds.). (2003). *Handbook of mixed methods in social & behavioral research*. Sage.
- Taylor, C. I., Esmaili Zaghi, A., Kaufman, J. C., Reis, S. M., & Renzulli, J. S. (2020). Divergent thinking and academic performance of students with attention deficit hyperactivity disorder characteristics in engineering. *Journal of Engineering Education*, 109(1), 213-229. <http://dx.doi.org/10.1002/jee.20310>
- Tesch, R. (1990). *Qualitative research: analysis types and software tools*. Falmer.

Tooby, J. & Cosmides, L. (1992). The psychological foundations of culture. In J. H. Barklow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture* (pp. 19-136). Oxford University..

Trailhead Community Farm School (2024a). *Academic approach*.

<https://www.trailheadcfs.org/approach>

Trailhead Community Farm School (2024b). *Hear from our students and parents*.

<https://www.trailheadcfs.org/testimonials>

Trailhead Community Farm School (2024c). *Welcome*. <https://www.trailheadcfs.org/>

Van Der Steen, S., Geveke, C. H., Steenbakkens, A. T., & Steenbeek, H. W. (2020). Teaching students with autism spectrum disorders: What are the needs of educational professionals? *Teaching and Teacher Education*, *90*, 103036.

<https://doi.org/10.1016/j.tate.2020.103036>

Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaemonia) and hedonic enjoyment. *Journal of Personality and Social Psychology*, *64*, 678-691. <http://dx.doi.org/10.1037/0022-3514.64.4.678>

Waterman, A. S., Schwartz, S. J., & Conti, R. (2006). The implications of two conceptions of happiness (hedonic enjoyment and eudaimonia) for the understanding of intrinsic motivation. *Journal of Happiness Studies*, *9*, 41-79. <https://doi.org/10.1007/s10902-006-9020-7>

Willis, A., Hyde, M., & Black, A. (2019). Juggling with both hands tied behind my back: Teachers' views and experiences of the tensions between student well-being concerns and

academic performance improvement agendas. *American Education Research Journal*, 56(6), 2644-2673. <https://doi.org/10.3102/0002831219849877>

Yu, L., Shek, D. T. L., and Zhu, X. (2018). The influence of personal well-being on learning achievement in university students over time: mediating or moderating effects of internal and external university engagement. *Frontiers in Psychology*, 8, 2287. <https://doi.org/10.3389/fpsyg.2017.02287>

Zakharov, A., & Carnoy, M. (2021). Does teaching to the test improve student learning? *International Journal of Educational Development*, 84, 102422. <https://doi.org/10.1016/j.ijedudev.2021.102422>

REFERENCES

- Adeoye-Olatunde, O. A. & Olenik, N. L. (2021). Research and scholarly methods: Semi-structured interviews. *Journal of the American College of Clinical Pharmacy*, 4(10), 1358-1367. <https://doi.org/10.1002/jac5.1441>
- Adler, P. A. & Adler, P. (1994). Observation techniques. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp.377-392). Sage.
- Allegrante, J. P., Hyden, C. & Kristjansson, A. L. (2018). Research approaches of education, applied psychology, and behavioral science and their application to behavioral medicine. In E. B. Fisher, L. D. Cameron, A. J. Christensen, U. Ehlert, Y. Guo, B. Oldenburg, & F. J. Snoek (Eds.). *Principles and concepts of behavioral medicine* (pp. 137-179). Springer. <https://doi.org/10.1007/978-0-387-93826-4>
- American Psychological Association (2024a). *Identity*. <https://dictionary.apa.org/identity>
- American Psychological Association (2024b). *Motivation*. <https://dictionary.apa.org/motivation>
- American Psychological Association (2024c). *Self-concept*. <https://dictionary.apa.org/self-concept>
- American Psychological Association (2024d). *Self-efficacy*. <https://dictionary.apa.org/self-efficacy>
- American Psychological Association (2024e). *Self-esteem*. <https://dictionary.apa.org/self-esteem>
- American Psychological Association (2024f). *Self-regulation*. <https://dictionary.apa.org/self-regulation>

- Amitay, G. & Rahav, G. (2018). Attachment and pedagogical relevant practices as elements of a successful alternative school through the narratives of its students. *Psychology in the Schools*, 55(10), 1239-1258. <https://doi.org/10.1002/pits.22200>
- Armstrong, L., Generes, W. M., Regan, J., Thomas, S., Kelley, R., Fuller, K., & Ackermann, K. (2024). Wilderness therapy: Benefits, activities and wilderness rehab near me. *American Addiction Centers*.
- Armstrong, T. (2017). Neurodiversity: The future of special education? *Association for Supervision and Curriculum Development*, 74(7), 10–16.
- Arslan, G. (2018). Exploring the Association between School Belonging and Emotional Health among Adolescents. *International Journal of Educational Psychology*, 7(1), 21-41. <https://doi.org/10.17583/ijep.2018.3117>
- Arslan, G. (2017). School-Based Social Exclusion, Affective Wellbeing, and Mental Health Problems in Adolescents: A Study of Mediator and Moderator Role of Academic Self-Regulation. *Child Indicators Research*, 11(3), 963-980. <https://doi.org/10.1007/s12187-017-9486-3>
- Aspelin, J. (2012). How do relationships influence student achievement? *International Studies in Sociology of Education*, 22(1), 41-56. <https://doi.org/10.1080/09620214.2012.680327>
- Attias, M. (2020). Exploring the implications of Melanie Yergeau’s neuroqueer for art education. *Visual Arts Research*, 46(1), 78–91. <https://doi.org/10.5406/visuartsrese.46.1.0078>
- Bakan, M.B. (2014). The musicality of stimming: Promoting neurodiversity in the ethnomusicology of autism. *MUSICultures* 41(2), 133–161.

Bandura, A. (2011). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, 38(1), 9-44. <https://doi.org/10.1177/0149206311410606>

Barnhart, G. (2017). Clinical perspectives of adult high-functioning autism support groups' use of neurodiversity concept. *Journal of Neurology and Neurological Disorders* 3(1), 106. <https://doi.org/10.15744/2454-4981.3.106>

Baron-Cohen, S. (2017). Editorial perspective: Neurodiversity – a revolutionary concept for autism and psychiatry. *Journal of Child Psychology and Psychiatry*, 58(6), 744–747. <https://doi.org/10.1111/jcpp.12703>

Behrens, E., Santa, J., & Gass, M.(2010). The evidence base for private therapeutic schools, residential programs, and wilderness therapy programs. *Journal of Therapeutic Schools and Programs*, 4(1), 106-117. <https://doi.org/10.19157/JTSP.issue.04.01.05>

Berliner, D. (2011). Rational responses to high stakes testing: The case of curriculum narrowing and the harm that follows. *Cambridge Journal of Education*, 41, 287-301. <http://dx.doi.org/10.1080/0305764X.2011.607151>

Bizumic, B., Reynolds, K., Turner, J. C., Bromhead, D., & Subasic, E. (2009). The role of the group in individual functioning: School identification and the psychological well-being of staff and students. *Applied Psychology*, 58, 171–192. <https://doi.org/10.1111/j.1464-0597.2008.00387.x>

Blume, H. (1998). Neurodiversity On the neurological underpinnings of geekdom. *The Atlantic*. <https://www.theatlantic.com/magazine/archive/1998/09/neurodiversity/305909/>

- Bowen, D. J., Neillbar, J. T., & Crisp, S. J. R. (2016). Wilderness adventure therapy effects on the mental health of youth participants. *Evaluation and Program Planning*, 58, 49-59. <https://doi.org/10.1016/j.evalprogplan.2016.05.005>
- Bradley, K., & Male, D. (2017). 'Forest School is muddy and I like it': Perspectives of young children with autism spectrum disorders, their parents and educational professionals. *Educational and Child Psychology*, 34, 80-96. <http://dx.doi.org/10.53841/bpsecp.2017.34.2.80>
- Brownlow, C. & O'Dell, L. (2013). Autism as a form of biological citizenship. In J. Davidson and M. Orsini (Eds.), *Worlds of autism: Across the spectrum of neurological difference*. University of Minnesota, (pp. 97-114).
- Carroll, K., Patel, P., Lambert, E., & King, M. S. (2023). *Students speak: A snapshot of youth well-being in the District of Columbia*. https://bellwether.org/wp-content/uploads/2023/04/StudentsSpeak_Bellwether_April2023.pdf
- Casagrande, K., Frost, K. M., Bailey, K. M., & Ingersoll, B. R. (2020). Positive predictors of life satisfaction for autistic college students and their neurotypical peers. *Autism in Adulthood*, 2(2), 163-170. <https://doi.org/10.1089/aut.2019.0050>
- Chapman, R. (2019). Neurodiversity theory and its discontents: autism, schizophrenia, and the social model of disability. In S. Tekin and R. Bluhm (Eds.), *The Bloomsbury companion to philosophy of psychiatry* (pp. 371-390). Bloomsbury.
- Charmaz, K. (2014). *Constructing grounded theory*. Sage.

Cleveland Clinic. (2022). *Neurodivergent*. Cleveland Clinic.

<https://my.clevelandclinic.org/health/symptoms/23154-neurodivergent>

Curtin, K. A. (2010). Developing a therapeutic community for students with emotional disturbance: Guidelines for practice. *Journal of Therapeutic Schools and Programs*, 4(1), 134-146.

Cresswell, L., Hinch, R., & Cage, E. (2019). The experiences of peer relationships amongst autistic adolescents: A systematic review of the qualitative evidence. *Research in Autism Spectrum Disorders*, 61, 45-60. <https://doi.org/10.1016/j.rasd.2019.01.003>

Creswell, J. W. & Creswell, J. D. (2023). *Research design: Qualitative, quantitative and mixed methods approaches*. Sage.

Creswell, J. W. & Plano Clark, V. L. (2011). *Designing and conducting mixed-methods research*. Sage.

Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced mixed methods research designs. In A. Tashakkori & C. Teddlie (Eds.) *Handbook of mixed methods in social & behavioral research* (pp. 209-240). Sage.

Deci, E. L. & Ryan, R. M. (2006). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, 9, 1-11. <https://doi.org/10.1007/s10902-006-9018-1>

deMunck, V. C. & Sobo, E. J. (Eds). (1998). *Using methods in the field: a practical introduction and casebook*. AltaMira.

DeWalt, K. M. & DeWalt, B. R. (2010). *Participant observation: A guide for fieldworkers*. Social Science.

Dewey, J. (1938). *Experience & Education*. Free Press.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95(3), 542-575.

<https://doi.org/10.1037/0033-2909.95.3.542>

Dweck, C. (2006). *Mindset: The new psychology of success*. Random House.

Erlanson, D. A., Harris, E. L., Skipper, B. L., & Allen, S. D. (1993). *Doing naturalistic inquiry: A guide to methods*. Sage.

Erskine, J. L. (2014). It changes how teachers teach: How testing is corrupting our classrooms and student learning. *Multicultural Education*, 21(2), 38-40.

Fairlamb, S. (2020). We need to talk about self-esteem: the effect of contingent self-worth on student achievement and well-being. *Scholarship of Teaching and Learning in Psychology*, 8(1), 45-57. <https://doi.org/10.1037/stl0000205>

Farnfield, S. & Onions, C. (2021). The role of affect regulation in developmental trauma: An empirical study of children in residential care. *Journal of Child Psychotherapy*, 47(3), 470-490. <https://doi.org/10.1080/0075417X.2021.2015421>

Farrington, C. A., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T. S., Johnson, D. W., & Beechum, N. O. (2012). *Teaching adolescents to become learners: The role of noncognitive factors in shaping school performance*. University of Chicago Consortium on Chicago School Research. <https://consortium.uchicago.edu/publications/teaching-adolescents-become-learners-role-noncognitive-factors-shaping-school>

- Faukner, S. A. (2006). Testing vs. teaching: The perceived impact of assessment demands on middle grades instructional practices. *Research in Middle Level Education*, 29(7), 1-13. <http://doi.org/10.1080/19404476.2006.11462030>
- Fitzwater, L.J. (2017). Theory and practice in art & design education and dyslexia: The emancipatory potentials of a neurodiversity framework. *Humana.Mente* (pp. 121–143).
- Friedman, S., Gibson, J., Jones, C., & Hughes, C. (2024). ‘A new adventure’: a case study of autistic children at Forest School. *Journal of Adventure Education and Outdoor Learning*, 24(2), 202-218. <https://doi.org/10.1080/14729679.2022.2115522>
- Friedman, S., James, M., Brocklebank, J., Cox, S., & Morrison, S. (2023). Facilitating nature-based learning with autistic students. *Childhood Education*, 99(4), 14-23. <https://doi.org/10.1080/00094056.2023.2232275>
- Friedman, S., & Morrison, S. (2021). ‘I just want to stay out there all day’: A case study of two special educators and five autistic children learning outside at school. *Frontiers in Education*, 6. <https://doi.org/10.3389/feduc.2021.668991>
- Frost, K. M., Bailey, K. M., & Ingersoll, B. R. (2019). “I just want them to see me as...me”: Identity, community, and disclosure practices among college students on the autism spectrum. *Autism in Adulthood*, 1(4), 268-275. <https://doi.org/10.1089/aut.2019.0050>
- Graby, S. (2015). Neurodiversity: bridging the gap between the disabled people’s movement and the mental health system survivors’ movement? In H. Spandler, J. Anderson, and B. Sapey (Eds.), *Madness, distress, and the politics of disablement*. Policy Press, (pp. 231–244).

- Garcha, J. & Smith, A. P. (2024). Associations between autistic and ADHD traits and the well-being and mental health of university students. *Healthcare*, 12(1), 14.
<https://doi.org/10.3390/healthcare12010014>
- Glannon, W. (2007). Neurodiversity. *Journal of Ethics in Mental Health*, 2(2), 1–5.
- Gillespie-Lynch, K., Kapp, S. K., Brooks, P. J., Pickens, J., & Schwartzman, B. (2017). Whose expertise is it? Evidence for autistic adults as critical autism experts. *Frontiers in Psychology* 8(438). <https://doi.org/10.3389%2Ffpsyg.2017.00438>
- Gold, R. L. (1958). Roles in sociological field observations. *Social Forces*, 36(3), 217-223.
<https://doi.org/10.2307/2573808>
- Griffin, E. & Pollak, D. (2009). Student experiences of neurodiversity in higher education: Insights from the BRAINHE project. *Dyslexia*, 15(1), 23–41.
<https://doi.org/10.1002/dys.383>
- Guest, E. (2020). Autism from different points of view: Two sides of the same coin. *Disability & Society*, 35(1), 156–162. <https://doi.org/10.1080/09687599.2019.1596199>
- Haney, J. L. (2018). Reconceptualizing autism: An alternative paradigm for social work practice. *Journal of Progressive Human Services*, 29(1), 61-80.
<https://doi.org/10.1080/10428232.2017.1394689>
- Happé, F. & Frith, U. (2020). Annual research review: Looking back to look forward changes in the concept of autism and implications for future research. *The Journal of Child Psychology and Psychiatry*, 61(3), 218–232. <https://doi.org/10.1111/jcpp.13176>

- Harper, N. & Cooley, R. (2006). Parental reports of adolescent and family well-being following a wilderness therapy intervention: An exploratory look at systemic change. *Journal of Experiential Education*, 29(3), 393-396. <https://doi.org/10.1177/105382590702900314>
- Harris, F. (2021) Developing a relationship with nature and place: The potential role of forest school. *Environmental Education Research*, 27(8), 1214-1228. <https://doi.org/10.1080/13504622.2021.1896679>
- Individuals with Disabilities Education Improvement Act, H.R. 1350, 108th Cong. (2004) <https://www.congress.gov/bill/108th-congress/house-bill/1350>
- James, J. K., & Williams, T. (2017). School-Based Experiential Outdoor Education: A Neglected Necessity. *Journal of Experiential Education*, 40(1), 58-71. <https://doi.org/10.1177/1053825916676190>
- James, M. (2018). *Forest school and Autism: A practical guide*. Jessica Kingsley.
- Johnson, A. (2023). Holistic Learning Theory: More than a Philosophy. *Journal of Contemplative and Holistic Education*, 1(2). <https://doi.org/10.25035/jche.01.02.03>
- Jong, M. C., Stub, T., Mulder, E., & Jong, M. (2022). The development and acceptability of a wilderness programme to support the health and well-being of adolescent and young adult cancer survivors: The WAYA programme. *International Journal of Environmental Research and Public Health*, 19(19), 12012. <https://doi.org/10.3390/ijerph191912012>
- Kallio, H., Pietila, A. M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing*, 72(12), 2954-2965. <https://doi.org/10.1111/jan.13031>

- Kapp, S.K. (Ed.) (2020). *Autistic community and the neurodiversity movement stories from the frontline*. Palgrave Macmillan. <https://doi.org/10.1007/978-981-13-8437-0>
- Kapp, S.K., Gillespie-Lynch, K., Sherman, L.E. et al. (2013). Deficit, difference, or both? Autism and neurodiversity. *Developmental Psychology* 49(1), 59–71.
<https://doi.org/10.1037/a0028353>
- Kawulich, B. B. (2005). Participant observation as a data collection method. *Forum: Qualitative Social Research*, 6(2), 43.
- Khan, M., McGeown, S., & Bell, S. (2020). Can an outdoor learning environment improve children’s academic attainment? A quasi-experimental mixed methods study in Bangladesh. *Environment and Behavior*, 52(10), 1079–1104.
<https://doi.org/10.1177/0013916519860868>
- Klik, K. A., Cardenas, D., & Reynolds, K. J. (2022). School climate, school identification and student outcomes: A longitudinal investigation of student well-being. *British Journal of Educational Psychology*, 93(3), 806-824. <https://doi.org/10.1111/bjep.12597>
- Kolb, A., & Kolb, D. (2018). Eight important things to know about the Experiential Learning Cycle. *Australian Educational Leader*, 40(3), 8-14.
- Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development*. Pearson Education.
- Kornblau, B.L. & Robertson, S.M. (2021). Special issue on occupational therapy with neurodivergent people. *American Journal of Occupational Therapy* 75(3).
<https://doi.org/10.5014/ajot.2021.753001>

- Kutsche, P. (1998). *Field ethnography: a manual for doing cultural anthropology*. Prentice Hall.
- Lambert, R., Sugita, T., Yeh, C et al. (2020). Documenting increased participation of a student with autism in the standards for mathematical practice. *Journal of Educational Psychology*, 112(3), 494–513. <http://dx.doi.org/10.1037/edu0000425>
- Largo-Wight, E., Guardino, C., Wludyka, P. S., Hall, K. W., Wight, J. T., & Merten, J. W. (2018). Nature contact at school: The impact of an outdoor classroom on children’s well-being. *International Journal of Environmental Health Research*, 28(6), 653-666. <https://doi.org/10.1080/09603123.2018.1502415>
- Lewin, N. & Akhtar, N. (2020). Neurodiversity and deficit perspectives in The Washington Post’s coverage of autism. *Disability & Society*, 36(5), 812–833. <https://psycnet.apa.org/doi/10.1080/09687599.2020.1751073>
- Livingstone, B., Gibson, M. F., Douglas, P., Leo, S., & Gruson-Wood, J. (2023). Weighing in: Academic writers on neurodiversity. *International Journal of Disability and Social Justice*, 3(3), 73-98. <https://doi.org/10.13169/intljofdissocjus.3.3.0072>
- Love, H. R., Cook, B. G., & Cook, L. (2022). Mixed-methods approaches in special education research. *Learning Disabilities Research & Practice*, 37(4), 314-323. <https://doi.org/10.1111/ldrp.12295>
- Ling, X., Chen, J., Chow, D.H., Xu, W., & Li, Y. (2022). The “trade-off” of student well-being and academic achievement: A perspective of multidimensional student well-being. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.772653>

- Manikandan, S. (2011a). Measures of central tendency: Median and mode. *Journal of Pharmacology & Pharmacotherapeutics*, 2(3), 214-215. <https://doi.org/10.4103/0976-500X.83300>
- Manikandan, S. (2011b). Measures of central tendency: The mean. *Journal of Pharmacology & Pharmacotherapeutics*, 2(2), 140-142. <https://doi.org/10.4103/0976-500X.81920>
- Marshall, C., Rossman, G. B., & Blanco, G. L. (2022). *Designing qualitative research*. Sage.
- Michalos, A. C. (2017). *Connecting the quality of life theory to health, wellbeing and education*. Springer International. <https://doi.org/10.1007/978-3-319-51161-0>
- Miller, R. (2004). Educational Alternatives: A Map of the Territory. *Paths of Learning*, 20.
- Naples, L. H. & Tuckwiller, E. D. (2021). Taking students on a strengths safari: A multidimensional pilot study of school-based well-being for young neurodiverse children. *International Journal of Environmental Research and Public Health*, 18(13), 6947. <https://doi.org/10.3390/ijerph18136947>
- National Association of Therapeutic Schools and Programs (2024). *Program/School Membership Directory*. <https://members.natsap.org/program-school-directory>
- Neumeier, S.M. (2018). “To Siri with love” and the problem with neurodiversity lite. *Rewire News Group*. <https://rewirenewsgroup.com/article/2018/02/09/siri-love-problem-neurodiversity-lite/>
- Onwuegbuzie, A. J. & Teddlie, C. (2003). A framework for analyzing data in mixed methods research. In A. Tashakkori & C. Teddlie (Eds.) *Handbook of mixed methods in social & behavioral research* (pp. 351-383). Sage.

O'Reilly, M. & Dogra, N. (2017). *Interviewing children and young people for research*. Sage.

<https://doi.org/10.4135/9781526419439>

Orsini, M. (2012). Autism, neurodiversity and the welfare state: The challenges of accommodating neurological difference. *Canadian Journal of Political Science*, 45(4), 805–827.

<https://doi.org/10.1017/S000842391200100X>

Ortega, F. (2013). Cerebralizing autism within the neurodiversity movement: Autism as a form of biological citizenship. In J. Davidson and M. Orsini (Eds.), *Worlds of autism: Across the spectrum of neurological difference*. University of Minnesota, (pp. 73–96).

Panorama Education (2020). *Panorama well-being survey user guide*.

<https://go.panoramaed.com/hubfs/Panorama%20Well-Being%20User%20Guide.pdf>

Panorama Education (2021). *Reliability and validity of the Panorama Well-Being Survey*.

<https://go.panoramaed.com/hubfs/WellBeing-Reliability-Validity-Report.pdf>

Psychology Today (2024). *Growth mindset*. <https://www.psychologytoday.com/us/basics/growth-mindset>

Roberts, R. E. (2020). Qualitative interview questions: Guidance for novice researchers. *The*

Qualitative Report, 25(9), 3185-3203. <https://doi.org/10.46743/2160-3715/2020.4640>

Rosenberg, M., Schooler, C., & Schoenbach, C. (1989). Self-esteem and adolescent problems:

Modeling reciprocal effects. *American Sociological Review*, 54(6), 1004-1018.

<https://doi.org/10.2307/2095720>

- Russell, K. C. (2005). Two years later: A qualitative assessment of youth well-being and the role of aftercare in outdoor behavioral healthcare treatment. *Child & Youth Care Forum*, 34(3), 209-239. <https://doi.org/10.1007/s10566-005-3470-7>
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081. <http://dx.doi.org/10.1037/0022-3514.57.6.1069>
- Sam, A. M., Odom, S. L., Tomaszewski, B., Perkins, Y., & Cox, A. W. (2020). Employing Evidence-Based Practices for Children with Autism in Elementary Schools. *Journal of Autism and Developmental Disorders*, 51, 2308-2323. <https://doi.org/10.1007/s10803-020-04706-x>
- Schensul, S. L., Schensul, J. J. & LeCompte, M. D. (1999). *Essential ethnographic methods: observations, interviews, and questionnaires*. AltaMira.
- Simpson, S. (2011). *Re-discovering Dewey: A reflection on independent thinking*. WoodNBarnes.
- Singer, J. (1998). *NeuroDiversity the birth of an idea*. Bolton.
- Strand, L.R. (2017). Charting relations between intersectionality theory and the neurodiversity paradigm. *Disability Studies Quarterly* 37(2). <http://dx.doi.org/10.18061/dsq.v37i2.5374>
- Syharat, C. M., Hain, A., & Zaghi, A. E. (2020). *Diversifying the engineering pipeline through early engagement of neurodiverse learners* [Conference presentation]. ASEE Virtual Annual Conference, United States. <https://strategy.asee.org/34470>

- Syharat, C. M., Hain, A., Zaghi, A. E., Gabriel, R., & Berdanier, C. G. P. (2023). Experiences of neurodivergent students in graduate STEM programs. *Frontiers in Psychology, 14*.
<https://doi.org/10.3389/fpsyg.2023.1149068>
- Tashakkori A. & Teddlie C. (Eds.). (2003). *Handbook of mixed methods in social & behavioral research*. Sage.
- Taylor, C. I., Esmaili Zaghi, A., Kaufman, J. C., Reis, S. M., & Renzulli, J. S. (2020). Divergent thinking and academic performance of students with attention deficit hyperactivity disorder characteristics in engineering. *Journal of Engineering Education, 109*(1), 213-229. <http://dx.doi.org/10.1002/jee.20310>
- Tesch, R. (1990). *Qualitative research: analysis types and software tools*. Falmer.
- Tomlinson, E. & Newman, S. (2017). Valuing writers from a neurodiversity perspective: Integrating new research on autism spectrum disorder into composition pedagogy. *Composition Studies 45*(2), 91–112. <https://doi.org/107.142.252.93>
- Tooby, J. & Cosmides, L. (1992). The psychological foundations of culture. In J. H. Barklow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture* (pp. 19-136). Oxford University.
- Trailhead Community Farm School (2024a). *Academic approach*.
<https://www.trailheadcfs.org/approach>
- Trailhead Community Farm School (2024b). *Hear from our students and parents*.
<https://www.trailheadcfs.org/testimonials>
- Trailhead Community Farm School (2024c). *Welcome*. <https://www.trailheadcfs.org/>

- Van Der Steen, S., Geveke, C. H., Steenbakkens, A. T., & Steenbeek, H. W. (2020). Teaching students with autism spectrum disorders: What are the needs of educational professionals? *Teaching and Teacher Education, 90*, 103036. <https://doi.org/10.1016/j.tate.2020.103036>
- Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaemonia) and hedonic enjoyment. *Journal of Personality and Social Psychology, 64*, 678-691. <http://dx.doi.org/10.1037/0022-3514.64.4.678>
- Waterman, A. S., Schwartz, S. J., & Conti, R. (2006). The implications of two conceptions of happiness (hedonic enjoyment and eudaimonia) for the understanding of intrinsic motivation. *Journal of Happiness Studies, 9*, 41-79. <https://doi.org/10.1007/s10902-006-9020-7>
- Willis, A., Hyde, M., & Black, A. (2019). Juggling with both hands tied behind my back: Teachers' views and experiences of the tensions between student well-being concerns and academic performance improvement agendas. *American Education Research Journal, 56*(6), 2644-2673. <https://doi.org/10.3102/0002831219849877>
- Yıldırım, G., & Akamca, G. Ö. (2017). The effect of outdoor learning activities on the development of preschool children. *South African Journal of Education, 37*(2).
- Yu, L., Shek, D. T. L., and Zhu, X. (2018). The influence of personal well-being on learning achievement in university students over time: mediating or moderating effects of internal and external university engagement. *Frontiers in Psychology, 8*, 2287. <https://doi.org/10.3389/fpsyg.2017.02287>

Zakharov, A., & Carnoy, M. (2021). Does teaching to the test improve student learning?

International Journal of Educational Development, 84, 102422.

<https://doi.org/10.1016/j.ijedudev.2021.102422>

APPENDIX A: SEMI-STRUCTURED INTERVIEW SCRIPT

Introduction

- Thank you all for being here today and thank you for allowing me to hang out with you a few times throughout the semester. It was great to get to know you and be a part of your great school.
- Thank you for your commitment to sharing your perspective of your well-being while being enrolled at TCFS. I am interested in learning about and better understanding the experiences and perspective you had of your own well-being while being and participating at TCFS.
- We are going to visit for about 30 minutes, during which time you will be asked to share your perspective using your previously answered survey. I will then ask you various follow up questions regarding your responses.
- Your responses will be recorded using an audio recorder.
- It is important for you to know that **everything that you say will be confidential**. We plan to prepare a report based on our research, but a fake name will be used to identify your responses.
- Your stories and responses based on your experience and perspective will provide invaluable reflection for you as well as create feedback and information for the school.
- It is also important to know that your participation and responses in this interview session do not affect your grades at school. You are volunteering to participate in this study.
- Do you have any questions or concerns?
- **Assent:** I would now like for you to share that you agree to this study verbally along with your name, or you have the opportunity to leave now if you wish.

The student will share their name and verbally say that they agree to the study.

- Let's get started!
- Please take a moment to share your story of coming to TCFS. How long have you been a student here? Can you tell me about your previous school and in what ways would you say TCFS and your previous school are the same and different?

Student will share their answers to the above questions

Follow up questions separated by well-being concept:

Well-Being Concept:	Questions:
Self-Concept	How do you feel about your role at TCFS? Does your role differ at TCFS than at your most recent school? How?2. Do you feel that TCFS supports your personality? How? What about your previous school?
Self-Regulation	1. Can you tell me about a time where you felt that your emotions were high and you needed to regulate to calm down during the school day at TCFS? Do you feel you had the tools and support to self-regulate? What about at your previous school?
Identity	1. Who would you say you are as a person? (passions, beliefs, values) 2. Does TCFS support your interests, passions, and hobbies? How? What about your previous school?
Self-Esteem	1. Do you feel like you belong at TCFS? Can you give an example? What about your previous school? 2. Can you tell me about a time where you felt proud of yourself at TCFS? At your previous school?
Self-Efficacy	1. Do you feel confident in your ability to achieve your goals at TCFS? At your previous school? 2. What do you do when things get difficult?
Motivation	1. How would you define success at TCFS? At your previous school? 2. What pushes you to reach your goals?
Performance Mindset	1. How do you react when you make a mistake at TCFS? At your previous school? 2. Do you feel that you dwell on past performances (good or bad) when trying to accomplish a new goal? In what ways does TCFS help you with this?

Final thoughts

- Thanks again for your participation and willingness to share about your experience and perspective.
- If you think of anything else you didn't have a chance to share or any questions, please feel free to reach out and contact me!

APPENDIX B: CONSENT LANGUAGE

Western Carolina University

Consent Form Language to Participate in a Research Study

Below is the informed consent information which will be presented to the parent/guardian through a WCU Qualtrics survey. By clicking a button labeled [Consent to Participate] at the end of the form, parents/guardians will indicate their consent.

Project Title: Difference not Deficit: Neurodivergent Student Perspectives on Well-Being at an Experiential Therapeutic Day School

This study is being conducted by:

<i>Julia Beckermeyer</i> Graduate Student Experiential and Outdoor Education Western Carolina University (720) 217-1253 jkbeckermeyer1@catamount.wcu.edu	<i>Andrew J. Bobilya, Ph. D.</i> Professor and Program Director, Experiential and Outdoor Education Western Carolina University ajbobilya@wcu.edu
---	--

Description and Purpose of the Research: The purpose of this mixed-method study is to understand student’s perspective on personal well-being while enrolled at Trailhead Community Farm School (TCFS). The data for this study will be collected primarily through participant observation and 1:1 semi-structured interviews, along with the Panorama Well-Being Survey to understand student well-being at the school. Your student is being invited to participate in a research study about their personal well-being while enrolled at TCFS. By doing this study, we hope to learn more about the well-being of students at TCFS and the long-term opportunities it provides for its students over the course of the semester.

What your student will be asked to do:

Part 1: First, one of the researchers will spend a few days with the students, observing and occasionally participating during classes to better understand the experience and overall well-being of students at TCFS and take participant observation notes. Their notes will focus on

different elements of well-being that they see: self-concept, self-regulation, identity, self-esteem, self-efficacy, motivation, and performance mindset.

Part 2: Second, all students will take the short Panorama Well-Being Survey during school hours.

Part 3: Finally, your student may be invited to participate in a 1:1 semi-structured interview (3-5 students will be chosen of the nine enrolled) lasting no more than 1 hour. They will have a chance to describe their perspective on the differences between TCFS and their previous school. They will also be able to answer follow-up questions designed to understand their personal well-being. 1:1 interview data will be audio recorded. Following the interviews, the recordings will be transcribed and then destroyed. The transcribed text will be coded for themes and representative quotes. The quotes will be used to further describe the themes.

You do not have to agree to be recorded to participate in parts 1 & 2 of this study.

Risks and Discomforts: There is the potential for psychological risk when participating in 1:1 interviews. The students will be taking a risk by sharing their experiences, thoughts, and feelings of the differences of their previous school and TCFS as well as how they feel they are doing. We assure the confidentiality of the interview and will not share any identifiable student's responses outside of the interview.

Benefits: This study could benefit your student by providing them an opportunity for reflection of their unique middle school experience at TCFS and provide a space to process their personal well-being while being a student at TCFS.

Privacy/Confidentiality/Data Security:

Collected Confidential Data

The data collected in this research study will be kept confidential. Participation in research may involve some loss of privacy. We will do our best to make sure that the information about your students is kept confidential, but we cannot guarantee total confidentiality. Your student's personal information may be viewed by individuals involved in the research. We will share only the minimum necessary information to conduct the research. Your student's personal information may also be given out if required by law, such as under a court order. While the information and data resulting from this study may be presented at scientific meetings or published in a scientific journal, **your student's name or other identifying, personal information will not be revealed.** Your child's information will not be used or distributed for future research studies.

We will collect your student's information through audio recordings and their Panorama Well-Being Survey as well as any pertinent observation notes. This information will be stored in an encrypted cloud-based system. When the audio recordings are converted to text, only **the researchers will see the individual corresponding names with the quotes.** After recordings are transcribed, they will be destroyed.

Voluntary Participation: Participation is voluntary, and your student has the right to discontinue participation at any time without penalty. If they choose not to participate or decide to withdraw, there will be no impact on their grades/academic standing at TCFS.

Contact Information: For questions about this study, please contact Julia Beckermeyer at (720) 217-1253 or jkbeckermeyer1@catamount.wcu.edu. You may also contact Dr. Andrew Bobilya the principal investigator and faculty advisor for this project, at ajbobilya@email.wcu.edu.

If you have questions or concerns about your student’s treatment as a participant in this study, you may contact the Western Carolina University Institutional Review Board through the Office of Research Administration by calling 828-227-7212 or emailing irb@wcu.edu. All reports or correspondence will be kept confidential to the extent possible.

By clicking “Consent to Participate” I _____ (Parent/Guardian Name) give consent for my child, _____ (Full Name of Child), to participate in this study. I understand what is expected of my child and that their participation is voluntary.

By clicking “yes” or “no” indicate if it ok for your child to be audio recorded if they are one of the 3-5 students chosen for a 1:1 interview. Recordings will be destroyed immediately after they are transcribed. They will still be able to participate in parts 1 & 2 if you choose for them to not be audio recorded.

APPENDIX C: ASSENT LANGUAGE

**Western Carolina University
Assent Form Language to Participate in a Research Study**

Below is the informed assent information which will be presented to the student through a WCU Qualtrics survey after their parent has given their consent. By clicking a button labeled [Assent to Participate] at the end of the form, students will indicate their assent.

Title: Difference not Deficit: Neurodivergent Student Perspectives on Well-Being at an Experiential Therapeutic Day School

This study is being conducted by:

<i>Julia Beckermeyer</i> Graduate Student Experiential and Outdoor Education Western Carolina University (720) 217-1253 jkbeckermeyer1@catamount.wcu.edu	<i>Andrew J. Bobilya, Ph. D.</i> Professor and Program Director, Experiential and Outdoor Education Western Carolina University ajbobilya@wcu.edu
---	--

People at Western Carolina University study ways to make people’s lives better. These studies are called research. This research is trying to find out your perspective on your well-being (happiness) while you are a student at Trailhead Community Farm School (TCFS).

Your parent(s) have given permission for you to be in this research. You do not have to be in this research if you don’t want to, even if your parent(s) has already given permission.

You may stop being in the study at any time. No one will be angry or upset with you if you decide to stop.

Why are you doing this research study?

The reason for doing this research is to learn more about your well-being (happiness) at Trailhead and to understand the impacts Trailhead has on your well-being.

Why am I being asked to be in this research study?

We are asking you to take part in this research because you are one of the amazing students at Trailhead and we would like to know if Trailhead is impacting your well-being!

How many people will take part in this study?

If you decide to participate in this research, you will be one of about nine people (your other classmates) taking part in it.

What will happen during this study?

1. The researcher will visit your school for one week and observe your classes.
 - They will take notes on different elements of well-being that they observe: self-concept, self-regulation, identity, self-esteem, self-efficacy, motivation, and performance mindset.
2. You will take a short survey during school hours to learn more about your well-being.
3. You might be asked to do an interview with the researcher, lasting only one hour, during school.
 - This interview will be audio recorded. This recording will simply be used to transcribe (write out) the interview after it is over, and then the recording will be destroyed.
 - You do not have to agree to be recorded to participate in parts 1 & 2 of this study.

This study will take place at Trailhead Community Farm School and last three weeks.

Who will be told the things we learn about you in this study?

Only the researchers involved in the study will have access to what we learn about you. Your parents and teachers will not be told anything we learn about you in this study. If your safety becomes a concern, the researchers must tell the proper authorities to ensure your safety.

What are the good things that might happen?

Sometimes, good things happen to people who take part in research; these are called “benefits.” There is a chance you will benefit from this research! You might benefit from this study by giving yourself a chance to reflect on your well-being as a student at Trailhead. Reflection is a very powerful tool for understanding how we are doing on a deeper level.

What are the bad things that might happen?

Sometimes, things we may not like happen to people in research studies. These things may even make them feel bad. These are called “risks.” The risk in this study is that you might have

uncomfortable feelings brought up by thinking about your well-being or previous schools you have attended. You may or may not have these things happen to you. Things may also happen that the researchers do not know about right now. You should report any problems to your parents, teachers, and to the researcher.

Who should you ask if you have any questions?

If you have questions about the research, you should ask the people listed above. If you have other questions about your rights while in this research study, call the Institutional Review Board at 828-272-2921 or irb@wcu.edu.

By clicking “Assent to Participate” I, _____ (student’s full name printed), give assent to participate in this study. I understand what is expected of me and that my participation is voluntary.

By clicking “yes” or “no” please indicate whether it is ok to be audio recorded if you are chosen for an interview. Audio recordings will be destroyed immediately after they are written out (transcribed).

APPENDIX D: PANORAMA WELL-BEING SURVEY

For each question, answer based on your experiences at Trailhead Community Farm School. These questions will ask you about how you have been recently feeling. Please respond honestly—there are no right or wrong answers because there are no right or wrong feelings! Your answers will help us better support you and other students, and will not affect your grades or show up on your report card. You can skip any question you do not feel comfortable answering, but we encourage you to try your best to answer them all.

PART ONE:

Question	Response Options				
During the past week, how often did you feel _____?					
Excited	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Happy	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Loved	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Safe	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Hopeful	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
During the past week, how often did you feel _____?					
Angry	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Lonely	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Sad	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Worried	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>
Frustrated	<i>Almost never</i>	<i>Once in a while</i>	<i>Sometimes</i>	<i>Frequently</i>	<i>Almost Always</i>

PART TWO:

Question	Response Options
----------	------------------

Do you have a teacher or other adult from school who you can count on to help you, no matter what?	YES	NO
Do you have an adult outside of school (family or someone else) who you can count on to help you, no matter what?	YES	NO
Do you have a friend at school who you can count on to help you, no matter what?	YES	NO
Do you have a teacher or other adult from school who you can be completely yourself around?	YES	NO
Do you have an adult outside of school (family or someone else) who you can be completely yourself around?	YES	NO
Do you have a friend from school who you can be completely yourself around?	YES	NO
PART THREE:		
Free Response Questions		
<ol style="list-style-type: none"> 1. Thinking about everything in your life right now, what makes you feel the happiest? 2. Thinking about everything in your life right now, what feels the hardest for you? 3. What can teachers and other adults do to better support you? 		

APPENDIX E: SEMI-STRUCTURED INTERVIEW QUESTIONS

General Questions: Necessary for context for further questions	<ul style="list-style-type: none"> • When did you start coming to TCFS? • Can you tell me about your previous school? • Overall, how would you say TCFS and your previous school are the same? How are they different?
Well-Being Concept:	Questions:
Self-Concept	<ul style="list-style-type: none"> • How do you feel about your role at TCFS? Does your role differ at TCFS than at your most recent school? How? • Do you feel that TCFS supports your personality? How? What about your previous school?
Self-Regulation	<ul style="list-style-type: none"> • Can you tell me about a time where you felt that your emotions were high and you needed to regulate to calm down during the school day at TCFS? Do you feel you had the tools and support to self-regulate? What about at your previous school?
Identity	<ul style="list-style-type: none"> • Who would you say you are as a person? (passions, beliefs, values) • Does TCFS support your interests, passions, and hobbies? How? What about your previous school?
Self-Esteem	<ul style="list-style-type: none"> • Do you feel like you belong at TCFS? Can you give an example? What about your previous school? • Can you tell me about a time where you felt proud of yourself at TCFS? At your previous school?
Self-Efficacy	<ul style="list-style-type: none"> • Do you feel confident in your ability to achieve your goals at TCFS? At your previous school? • What do you do when things get difficult?
Motivation	<ul style="list-style-type: none"> • How would you define success at TCFS? At your previous school? • What pushes you to reach your goals?
Performance Mindset	<ul style="list-style-type: none"> • How do you react when you make a mistake at TCFS? At your previous school? • Do you feel that you dwell on past performances (good or bad) when trying to accomplish a new goal?

APPENDIX F: IRB APPROVAL LETTER



DATE: 25-Oct-2024

TO: Andrew Bobilya
FROM: IRB

PROJECT TITLE: 2024-09-17-01, Difference not Deficit: Neurodivergent Student Perspectives on Well-Being at an Experiential Therapeutic Day School
SUBMISSION TYPE: IRB Request for Initial Review of Research

ACTION: APPROVED
APPROVAL DATE: 25-Oct-2024
EXPIRATION DATE: 31-Mar-2025
REVIEW TYPE: Expedited Review

REVIEW CATEGORY: Expedited Review Category 6~Category 7

Thank you for your submission of IRB Request for Initial Review of Research materials for this project. The IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on applicable federal regulations.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others (UPIRSOs) and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. Please use the appropriate reporting forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact the Institutional Review Board at 828-227-7212 or irb@wcu.edu. Please include your protocol number and project title in all correspondence with this committee.