Fall 2022

Cocreating a Strength-Based Behavioral Intervention Plan With Twice-Exceptional Students: A Youth Participatory Action Research Approach

Kristy L. Garrett
University of South Carolina - Columbia

COCREATING A STRENGTH-BASED BEHAVIORAL INTERVENTION PLAN WITH TWICE-EXCEPTIONAL STUDENTS: A YOUTH PARTICIPATORY ACTION RESEARCH APPROACH

By

Kristy L. Garrett

Bachelor of Arts
University of South Carolina, 2002

Master of Science
Walden University, 2006

Submitted in Partial Fulfillment of the Requirements

For the Degree of Doctor of Education in

Curriculum and Instruction

College of Education

University of South Carolina

2022

Accepted by:

Leigh D'Amico, Major Professor

Elizabeth Currin, Committee Member

Suha Tamim, Committee Member

Jeff Rogers, Committee Member

Cheryl L. Addy, Interim Vice Provost and Dean of the Graduate School

DEDICATION

To the loves of my life, Gary, Katie, and Isla, who encouraged me every step of the way. My love for you is as big as the universe, and you know the universe keeps going forever.

And to my twice-exceptional students, who helped me to see the world through their exceptional eyes.

ACKNOWLEDGEMENTS

I would like to thank the people who have supported me along this journey. Thank you to all my students for whom I was able to be a small part in their life. They were a big part of my life. Thank you to the educators who inspired me to be an educator and pursue my career goals: Vicki Napoli, Janet Genoble, Belinda Snow, Dr. Greg Wood, Dr. Nancy Breard, and Dr. Julie Swanson. With love in my heart, I want to thank the strong women in my family, Judith Sheehan and Betty Seitz, who showed me the value of an education. Thank you to my hiking buddies, Anita Humphries, Amy Lee, and Claire Long, for all the laughs, adventures, and keeping me on the right path in more ways than one. Thank you to my father-in-law and mother-in-law, John and Barbara Garrett, for your support and encouragement. Also thank you to my editors Ashley Staples, Ally Hartzell, and Emily Guetzoian for your time, advice, and care you gave to my dissertation. Thank you to my major professor, Dr. Leigh D'Amico, for your advice, support, and encouragement along this journey. Thank you to my committee members and professors, Dr. Leigh D'Amico, Dr. Suha Tamim, and Dr. Elizabeth Currin for stretching my thinking and shaping me into a researcher. Thank, you Dr. Jeff Rogers for serving as a committee member and listening with enthusiasm about my research. With all of my heart goes my gratitude to my husband, Gary, my daughters, Katie and Isla. Thank you for sharing me with my studies. I could always feel your love and faith in me. Last but not least, thank you to my faithful, German shepherd, Rose, who literally was by my side every minute I spent at the computer.

ABSTRACT

Twice-exceptional students are dually identified as academically gifted and talented and learning or medically disabled. These students face greater challenges to success in school and often have social and emotional issues that require accommodations and supports beyond those available in the general classroom. These students may not be receiving social and emotional supports through IEP or 504 Plans, or these supports may use a deficit rather than a strength-based approach. This study used a youth participatory action research method to empower twice-exceptional students to cocreate a strength-based, behavioral intervention plan to help them self-modulate strong emotional responses that hindered their learning. Using a constant comparative method to analyze qualitative data from observations, student journals, and student interviews, surfaced four themes emerged: (a) student's needs; (b) self-advocacy and self-awareness; (c) relationships and connections; and (d) self-modulation. Collaboration emerged as an overarching theme, resulting in positive benefits among the four themes to improve the participants' abilities to work together as coresearchers. The intervention plans were effective in helping students to self-modulate their strong emotional responses and positively impacted their academic growth.

TABLE OF CONTENTS

Dedication iii

Acknowledgements iv

Abstract v

List of Tables vii

List of Figures viii

List of Abbreviations ix

Chapter 1: Introduction 1

Chapter 2: Literature Review 28

Chapter 3: Methodology 61

Chapter 4: Presentation and Analysis of Data 84

Chapter 5: Implications 157

References 186

Appendix A: Strength-Based Intervention Plans 200

Appendix B: Initial, Mid-Study, and Final Interview Protocols 204

Appendix C: Student Behavioral Observation Protocol 207

Appendix D: Student Emotions Journal 208

Appendix E Parental Consent Form 211

LIST OF TABLES

Table 3.1 Action Research Cycles 83

Table 4.1 Findings by Student Participant 142

Table 4.2 Theme 1: Student's Needs 143

Table 4.3 Theme 2: Self-Awareness and Self-Advocacy 146

Table 4.4 Theme 3: Relationships and Connections 149

Table 4.5 Theme 4: Self-Modulation 153

LIST OF FIGURES

Figure 1.1 Theoretical Framework 27

Figure 4.1 Diagram Connecting Collaboration With Supporting Themes 156

List of Abbreviations

2e ..... Twice Exceptional

ADHD ..... Attention-Deficit/Hyperactivity Disorder

ASD ..... Autism Spectrum Disorder

G/T ..... Gifted and Talented

IDEA..... Individuals with Disabilities Education Improvement Act

IEP ..... Individualized Education Program

RTI ..... Response to Intervention

TPD ..... Theory of Positive Disintegration

YPAR ..... Youth Participatory Action Research

CHAPTER 1: INTRODUCTION

Students dually identified as academically gifted and talented (G/T) and learning or medically disabled face greater challenges to success in school. These students are considered twice exceptional (2e) and need support appropriate for their social and emotional needs and specific to their talents and disabilities. As Baum et al. (2017) explained, "Twice-exceptional learners often lack skills in emotional and social regulation, organization, stress management, and conflict management" (p. 207). Goleman (2005) agreed and argued anxiety and stress impede working memory and executive functioning abilities for 2e students. Thus, 2e students need social and emotional supports to enhance their chances of success in school.

During this study, I taught at a public elementary school in suburban South Carolina that provided educational services to 700 prekindergarten through fourth-grade students, more than 50% of whom qualified for federal free and reduced-price lunch. About 5% of the students were identified as G/T, which the South Carolina Department of Education (2018b) defined as "demonstrating high performance ability or potential in academic and/or artistic areas and [who] therefore require educational programming beyond that normally provided by the general school programming in order to achieve their potential" (p. 1). Students in South Carolina may qualify for gifted services through a combination of two out of three different domains: (a) ability, (b) achievement, and (c) intellectual assessments.

I taught two fourth-grade language arts and social studies classes. One class comprised state-identified G/T students and the other general education students. I shared these two classes with another educator who taught math and science to both classes. We provided G/T programming as outlined by the state to our G/T classroom and instruction meeting the state's fourth-grade general education standards to both classrooms.

The G/T classroom included a subset of 2e students. The National Association for Gifted Children (n.d.) defined 2e students as "gifted students with the potential for high achievement and [who] give evidence of one or more disabilities as defined by federal or state eligibility criteria" (para. 1). My problem of practice centers on the social and emotional needs of my 2e students. Baum et al. (2017) explained 2e students are at risk for social and emotional challenges due to conflict between their learning challenges and high abilities. Furthermore, Baum et al. (2017) stated, "When such internal conflict induces social–emotional problems, it inhibits talent development" (p. 237). Although a central goal of schools is to impart content knowledge and promote student learning, meeting students' social and emotional needs must take precedence.

Vignettes

The following vignettes illustrate the complexity of supporting the social and emotional needs of 2e students and highlight the problem of practice I investigated in this study. The vignettes showcase the social and emotional issues of two 2e students, Amy and James, who were in my classroom during previous school years. I changed their names to maintain confidentiality.

Amy

Amy, a 9-year-old student who loved reading, learning, and her teachers, had an IQ in the top 2% of the U.S. population and a clinically diagnosed anxiety and emotional disability. Frequently, Amy exhibited disruptive verbal and physical emotional outbursts in response to distressing internal and external stimuli. One example happened on a day I was unexpectedly absent from school. As usual, the fourth-grade students were waiting outside the classroom doors in the hallway before class began at 7:30 a.m. However, instead of being greeted by me, they were met by the substitute teacher covering my classroom for the day. At the sight of a substitute unlocking my door, Amy's anxiety rose beyond her control, and in response, she flung a book across the hall, which struck the wall. The fourth-grade morning duty monitor tried to calm her down by dialoguing with her, but Amy's response was to shout she did not have to listen to anyone and say she hated herself. Amy proceeded to wail and pound the floor with her fist, carrying on in what had become a familiar scene of behaviors she had displayed since she began attending our elementary school.

Before fourth grade, Amy did not have an official document, such as a federal individualized education program (IEP) or 504 Plan, to ensure she was provided with accommodations to support her disabilities. I undertook a quest to obtain support for Amy, first by initiating the response to intervention (RTI) process in the area of behavior, which can lead to an IEP for special education services. Through RTI, a committee of local school professionals develops a "multi-tier approach to the early identification and support of students with learning and behavior needs" (RTI Action Network, n.d., para. 1). During Amy's RTI meeting, we discussed coping strategies she could use in the

classroom and decided I would collect observational data on how these strategies impacted her ability to modulate her emotional responses that hindered her learning.

I guided Amy on how to use the coping strategies the RTI team had identified, which included (a) therapy putty, (b) a stress ball, (c) a lavender essence necklace provided by Amy's mom, and (d) leaving the classroom for a walk through the halls or calming down in the restroom. However, I noticed her outbursts often swelled so quickly I could not help her choose and implement a coping strategy in time to curtail her behavior. She frequently stormed from the classroom to go to the restroom to calm down, which caused a loud and physical disruption to the other students. Once in the restroom, her loud verbal and physical reactions caused disruptions to nearby classrooms and did not provide a calming, private atmosphere for her to return to a neutral physical state. To remedy this problem, I asked if she could use the school's sensory room, which offered a fabric swing, floor mat, exercise balls, music, and low lights, to calm down instead of the restroom. However, a former faculty member at the school told me it was not meant for "someone like her." I inferred either her age or perceived intelligence excluded her from using the sensory room. Amy was riding a rollercoaster of emotions that was physically and emotionally draining to her, and her behaviors affected other students.

With a few weeks left in the school year, we finished the RTI process to qualify her for special education services through an IEP. However, we seemed no closer to finding effective help for Amy, as we were still lacking sufficient support to meet her needs. No one at the school seemed to know how or have the resources to support her more effectively at school. For instance, the special education teacher came to check in on her at the end of each day, and I was supposed to call the special education teacher to

help Amy calm down when an episode arose. Practically, we found getting assistance from the special education teacher before Amy's emotional response rose out of control was not possible much of the time, as the teacher was often supporting other students on a preset schedule throughout the school day, and this support was therefore inadequate for Amy's needs. In the end, I had to be Amy's central support person. We needed a plan to identify external or internal triggers and resulting physical responses so Amy could choose and implement setting-appropriate coping strategies before her emotions burst out of her control.

James

Another 2e student in my classroom with issues arising from social and emotional needs was James, a highly gifted child with a clinical diagnosis of autism spectrum disorder (ASD). Fortunately, James already had an IEP when he entered my classroom, which provided accommodations the teacher or James could implement as needed (e.g., sensory breaks, a calm-down location in the classroom, independent lunch, notifications of schedule changes). However, James's emotional response increased due to stimuli including certain social situations; changes in schedule; and challenging, open-ended assignments, which heightened his physical responses. James's physical responses to social situations and changes in his schedule were strong but quiet, and they often went unnoticed by others. At these times, he withdrew from activities, stopped working, lowered his head, and cried quietly. His physical response when working on challenging, open-ended assignments was to seek continuous reassurance. He would walk up to me frequently to whisper answers to questions because he needed confirmation he was doing

the assignment correctly. At such times, James's anxiety impeded his completion of classwork and hindered his ability to learn.

James and I developed a trusting relationship, and he made great progress in dealing with his anxiety. However, he wanted to use me as his only coping strategy and source of reassurance on assignments and social situations, which became an issue during moments when I was helping other students or during lunch, when I was not with him. In these circumstances, he withdrew more, and his confidence to deal with anxiety fell. James's IEP provided him supporting accommodations; however, getting James to use these strategies on his own before his emotions were beyond his control was challenging. Amy's and James's stories illustrate common social and emotional issues that have proved to be challenging for my 2e students and inhibited their learning.

Problem Statement

Amy and James are two examples of the many 2e students who struggle with strong emotional responses intrusive to learning. Other students have exhibited fear or anxiety when confronted with insects in the classroom, fire alarms or safety drills, changes in routines, challenging material and assignments, or speaking to people. Triggers and resulting behaviors can be as varied as the students; yet, the potential for these anxieties to damage these students' self-esteem, school performance, and happiness in life is an unfortunate commonality.

Nielsen and Higgins (2012) studied effective instructional strategies for 2e students and learned a key aspect for 2e students' success was the use of social and emotional supports and interventions in the classroom. Nielsen and Higgins (2012) shared, "The emotions of twice-exceptional students can be their dominating

characteristic. Their emotional disposition influences their social behavior and in turn has a direct impact on their cognitive functioning" (p. 31). These students face greater challenges emotionally and academically due to discrepancies in their abilities, demonstrating an important connection between 2e students' emotional development and their academic success (Neihart, 2017).

Typically, students with unique needs, such as 2e students, receive support and accommodations through an IEP or 504 Plan. Unfortunately, 2e students may not be dually identified (i.e., have a gifted and disability diagnosis) or are only identified for their gift or disability (Crim et al., 2008; Foley-Nicpon et al., 2016; Probst, 2006). These students are referred to as underidentified, and the National Education Association (2006) asserted 2e students "are among the most frequently under-identified population in our schools" (p. 1). Due to underidentification, 2e students are vastly underrepresented in IEP plans (Crim et al., 2008) and may not be identified for special services because their gifts and disabilities could mask each other (Foley-Nicpon et al., 2011). Because these students do not have official diagnoses, they may not have an IEP or 504 Plan to guarantee supports they need to be successful.

Even if an identified 2e student has an IEP or 504 Plan providing for accommodations, these plans do not guarantee the accommodations will meet their social and emotional needs and promote academic growth. Cain et al. (2019) showed 2e students were not receiving adequate interventions in their schools to promote their academic growth as compared to students solely identified as having a disability, who were more likely to receive interventions that met their needs and promoted academic growth. Furthermore, for 2e students who do receive supports through an IEP or 504

Plan, the supports may focus only on the disability and not the gift. This deficit approach can further increase the social and emotional issues 2e students face (Baldwin et al., 2015; Baum et al., 2014, 2017; Trail, 2010). Trail (2008) reported intervention plans focused solely on students' deficits result in underachievement and an increase in defiant behavior. Alternatively, strength-based strategies promote talents and abilities by focusing on "advanced abilities, interests, and talents while simultaneously offering support and strategies designed to address academic, behavioral, and social challenges" (Baum et al., 2017, p. 141). Ogurlu (2021) found the use of strength-based interventions improved educational outcomes of 2e students.

My 2e students' social and emotional challenges impacted their success in school. Like the studies described previously, some of my 2e students did not have their social and emotional needs met; some did not have an IEP or 504 Plan in place to provide needed supports and accommodations. Alternatively, IEPs or 504 Plans provided did not adequately address their social and emotional needs and instead focused on their academic deficits. Students categorized as 2e have unique needs and strengths and thus warrant strength-based intervention plans in place to support their needs and a voice in creating their individual plans. To solve this problem of practice, I conducted a youth participatory action research (YPAR) study to empower 2e students to cocreate and implement a strength-based intervention plan to modulate their emotional responses.

Theoretical Framework

The theoretical framework, or lens, through which I viewed the study (Merriam & Tisdell, 2016) enabled me to involve 2e students actively in critically examining the effectiveness of a flexible intervention plan to self-modulate behaviors impacting their

learning. I viewed this study through the wider lens of critical and social constructivist theories to support a YPAR approach. Additionally, I used Dabrowski's (1967/2015) theory of positive disintegration (TPD), which addresses the impact of overexcitability on emotional development (Daniels & Piechowski, 2008). The TPD helped me frame students' reactions to internal or external stimuli as a result of overexcitability, which were viewed as strengths to build on (see Figure 1.1). In Figure 1.1, the squares represent the context or population of 2e students who participated in this study. Shown inside this population are circles representing the previously listed theories used to guide the study. These theories form a cohesive and supportive framework from which I designed supports to impact the students' abilities to self-modulate strong emotional responses positively.

The theoretical framework described previously supports a YPAR approach, which is a type of participatory action research whereby researchers work with other stakeholders (e.g., students) to conduct research on shared problems (Scott et al., 2015). Efron and Ravid (2020) explained participatory action research is driven by social justice values and such research has the aim of promoting democratic change and equity in schools. YPAR is an extension of participatory action research used to involve youth and educators with similar aims of promoting change and equity as coresearchers (Scott et al., 2015). YPAR "praxis reveals how life experiences are malleable and subject to change, and the students possess the agency to produce changes" (Cammarota & Fine, 2008, p. 6). Participants in a YPAR study are coresearchers who collaborate to solve personal problems and to enact solutions to these problems to bring about change. Furthermore,

participants in YPAR are often marginalized or at-risk youth, such as the 2e students in this study (Cammarota & Fine, 2008).

YPAR originated as a pedagogy to support critical theory and exemplifies the ideas of social constructivist theory such as the importance of social interactions to support learning and solving real-word problems (Cammarota & Fine, 2008; Scott et al., 2015). According to Cammarota and Fine (2008), YPAR "provides young people with opportunities to study social problems affecting their lives and then determine actions to rectify these problems" (p. 22). Similarly, social constructivist theory supports the idea teachers and students cocreate or coconstruct learning through social interactions (Fosnot, 2005). Furthermore, YPAR aligns with social constructivist ideas because it begins with dialogue, accepts multiple realities, and is based in real-world problems (Scott et al., 2015).

A social constructivist theorist, Vygotsky (1978) believed learning occurs through social interactions with scaffolding or supports from the teacher through gradual release of responsibility to student independence. Critical theory poses a similar idea—critical pedagogy—which Freire (1970/2017) described as "a pedagogy which must be forged *with*, not *for*, the oppressed" (p. 22). Scott et al. (2015) indicated YPAR is based on critical theory because of the analytical, power shifting, and transformative results. Critical pedagogy, as described by Freire (1970/2017), is a tool for critical discovery through reflection as both teacher and students participate in dual roles. Ideas encompassed by social constructivist and critical theories guided this YPAR approach as the students and I coconstructed and critically examined their intervention plans.

Nested in the previously mentioned theories supporting YPAR, this study used the concept of overexcitability from Dabrowski's (1967/2015) TPD to identify and implement strategies to modulate responses to internal and external stimuli. TPD asserts people attain higher developmental levels as they struggle with tensions through inner self-reflection (Kane, 2009). These tensions result from overexcitability and an individual's response to internal and external stimuli (Tillier, 2009). Overexcitability is the "innate tendency to respond in an intensified manner to various forms of stimuli" (Daniels & Piechowski, 2008, p. 8). Dabrowski identified five types of overexcitability, which can be thought of as an abundance of energy from physical, sensual, emotional, intellectual, and imaginative responses (Piechowski, 2014; Silverman, 2016).

Gifted children frequently exhibit overexcitability. As they acquire information from their environment, they may react and respond with more intensity and for a longer duration from stimuli that may not cause a noticeable reaction in other children (Daniels & Piechowski, 2008). Dabrowski referred to overexcitability as the "tragic gift" (Tillier, 2009, p. 124) because it intensifies the highest and lowest experiences, causing more extreme emotions and responses. These extreme emotional responses can promote or inhibit development depending on the person's ability to self-modulate reactions. Overexcitability should not be seen as reactions to abolish or squelch because it promotes increased growth and learning. However, to promote intellectual and emotional development, students may need to learn to modulate their responses to overexcitability (Daniels & Piechowski, 2008). The purpose of identifying and modulating overexcitability is not to excuse the associated behaviors, if disruptive, but to understand and embrace students' tendencies to better support their learning progression. Learning

disabilities, ASD, and attention-deficit/hyperactivity disorder (ADHD) can exist along with overexcitability in 2e students (Silverman, 2016). Thus, I purposefully used the TPD with critical and social constructivist theories to guide and empower 2e students to plan, act, and reflect on the impact of their cocreated intervention plans to help them reach their potential.

This theoretical framework provided a cohesive lens for examining a dynamic, contextual, and pressing problem of practice. In this study, I worked with each 2e student participant to pose questions critically, research solutions, and reflect on results using a YPAR approach to examine the impact of an intervention plan to modulate overexcitability responses. Using the premise of TPD, along with social constructivist and critical theories, we used dialogue to build trust and reflect on the intervention plans. During the creation and revision of the intervention plans, I respected and incorporated the students' variable backgrounds, preferences, strengths, and needs. The theoretical lens supported me and the 2e students as they voiced their needs and exerted power over the intervention plans used to mitigate strong emotional responses. Additionally, the framework supported underserved 2e students as active participants in their own positive developmental growth and ability to use their empowerment to become critical examiners of intervention plans.

Purpose Statement

The purpose of this study was to examine the impact of a cocreated, strength-based intervention plan on 2e students' abilities to self-modulate behaviors that obstructed their learning. Additionally, the study provided a mechanism through which to learn how the students' abilities to identify their emotions and physical signals impacted

their ability to implement their intervention plans. Furthermore, I examined how the students engaged in choosing and implementing strategies to mitigate their emotional responses as they worked to implement their intervention plans.

Research Questions

To achieve my purpose, I was guided by the following research questions:

- **Main Research Question**: What happens to a 2e student's ability to self-modulate behaviors intrusive to learning when the student and teacher coconstruct and reflect on a flexible, individualized intervention plan? This question focused on the impact coconstructing an intervention plan through the YPAR approach had on the student's ability to self-modulate emotional responses.
- **Supporting Question 1**: How does a 2e student's ability to recognize and label emotions impact the student's choice of coping strategies to self-modulate behaviors intrusive to learning? This question accounted for the importance of being able to identify emotional changes and their signals before students could start to implement the appropriate strategy.
- **Supporting Question 2:** How do 2e students engage in identifying and applying coping strategies intended to address strong emotional responses resulting from internal or external stimuli? This question focused on the student's involvement in the process of choosing and implementing coping strategies to modulate emotional responses.

Statement of Positionality

As Efron and Ravid (2020) stated, “Research is an intentional, systematic, and purposeful inquiry” (pp. 2–3). Because research is conducted in a system, effective researchers must examine the system to determine potential conflicts that could affect validity and trustworthiness. Herr and Anderson (2015) explained action research can be conducted by practitioners in the field being studied, and accordingly, researchers are moved along a continuum of relationships and power dynamics in consideration of the study’s setting and participants. Herr and Anderson advised action researchers to reflect on who they are in relation to their study participants by exploring the layers and dynamics of power relationships present during the study. Additionally, researchers bring their backgrounds and experiences to the study, which could influence how the researchers plan and implement the research.

In this action research, I was the classroom teacher and coresearcher along with the student participants. I determined the stakeholders involved in the problem of practice were the 2e students experiencing the emotion, other students in the classroom, other teachers who interacted with the 2e students, the guidance counselor, the 2e student participants’ parents or guardians, special education teachers, and school administrators. The main interactions, and thus central relationships, in this study occurred between the 2e student participants and me as we coconstructed and reflected on the intervention plans they would use to self-modulate behaviors. However, the other stakeholders listed provided support and instruction for the students.

Examining the relationship and power dynamics between participants and researchers is important for creating a valid and trustworthy study. Regarding

connections between insiders and outsiders, Herr and Anderson (2015) stated, “Clarity about them is necessary for thinking through issues of research validity or trustworthiness, as well as research ethics” (p. 37). In the position of the classroom teacher, I was an insider to the students’ emotional responses and the effectiveness of their coping strategies in the classroom but was an outsider to the students’ responses beyond the classroom environment. Furthermore, I was an outsider to the students’ inner thoughts; thus, I needed to create an open and safe environment for the 2e students to implement the strategies and reflect on their experiences honestly.

As the classroom teacher, I had control over rules, procedures, routines, environment, and instruction, which collectively had a powerful impact on students’ emotions, use of strategies, available strategies, and desire to participate. To create a trusting environment, I developed a space in which students could feel open to trial, error, and self-reflection. The classroom environment supported risk taking in strategy use and supported honest self-reflection to inform trustworthy evaluations of the results.

As the researcher, I brought my own personal experiences with giftedness and anxiety to the study. I am the mother of two gifted students who exhibit anxiety, and I was an underidentified gifted student who experienced anxiety in school. These experiences gave me insight on navigating anxiety outside of the school setting and how anxiety continues after the early years. My background potentially brought preconceived notions about physical manifestations of emotions, preferred coping strategies, and preferences about strategy implementation. The 2e student participants and I came from different backgrounds and had a variety of personal preferences and needs. Thus, as I wanted the student participants to develop personalized intervention plans to effectively

deal with the behaviors hindering their learning, I acknowledged and valued each student's own personality, background, and culture to make the plans truly personal. Importantly, Efron and Ravid (2020) characterized action research as arising from a specific contextual problem and recognizing "every child is unique and every setting is particular" (p. 5). Action research supported inquiry into this context-specific problem in my classroom and the unique needs of my students.

Study Design

This study used a YPAR approach and qualitative methods to facilitate the cocreation of intervention plans to support 2e students in self-modulating behaviors intrusive to learning. The YPAR approach supported a critical theory emphasis on involving youth in examining problems vital to them (Herr & Anderson, 2015). Cyclical data collection and analysis is a key aspect of action research (Efron & Ravid, 2020), and this cycle also aligned with Freire's (1970/2017) critical theory idea: "Human activity is theory and practice; it is reflection and action" (p. 98). My coresearchers and I analyzed qualitative data, in the forms of individual student interviews, student reflection journals, and teacher-generated observational data of the students' behaviors, using a constant comparative method, attuned to the inductive and comparative nature of qualitative data analysis (Merriam & Tisdell, 2016). To support the cyclical ideal of action research, data analysis occurred during and at the conclusion of the collection process.

Using qualitative methods offered flexibility to meet the 2e student participants' varying social and emotional needs and the context in which their needs arose by providing an authentic and rich description of experiences (Efron & Ravid, 2020). In support of the flexible nature of this action research, Freire (1970/2017) stated, "Instead

of following predetermined plans, leaders and people, mutually identified, together create the guidelines of their action" (p. 154). The continuous collection and analysis of data in this study guided the student participants and I as we worked together to create and revise individualized intervention plans that met each student's needs.

Participants

In this study, three 2e student participants and I were coresearchers who collected and reflected on data together. Data were collected from 2e students in my fourth-grade classroom during the year of data collection who exhibited behaviors intrusive to learning. Two students had disabilities recognized by federal criteria and established 504 Plans. One student did not have a diagnosed disability but showed characteristics of twice exceptionalities (e.g., lack of age-appropriate ability to maintain focus on extended tasks, strong emotional response to physical sensations, impaired functioning in class due to anxiety). All three students met the state G/T qualification criteria in South Carolina. The sample size in this study was small because few 2e students each year exhibit continuous problems with self-modulation resulting in inhibited learning. Efron and Ravid (2020) argued qualitative action research may have a small sample size, especially if the participants are a representative sample of "the range of characteristics or behaviors in connection to the issue under investigation" (p. 68). I used data from behavioral observations, student journals, and student interviews to determine which 2e students to invite to participate in this study. After participant selection, the 2e students and I actively engaged in collecting, analyzing, and reflecting on qualitative data.

Qualitative Research Methods

This action research took a qualitative approach, focused on the meaning of experiences for the 2e students and providing a flexible framework to examine a complex issue (Efron & Ravid, 2020). The purpose of this YPAR study was to enlist 2e students as coresearchers into their own needs and desires to develop individualized and flexible intervention plans. To answer the research questions, each 2e student and I worked together to coconstruct a flexible intervention plan based on the analysis of the student's behavioral responses to stimuli before and after implementing various coping strategies. A qualitative method allowed this study to attend "to the naturalistic conditions and multiple layers of classroom life, which demands a subjective, holistic, and flexible approach" (Klehr, 2012, p. 123). The student participants in this study had varied needs, backgrounds, and responses to external and internal stimuli in their learning environment. A qualitative study supported the open-ended, personal, subjective nature of the research questions and the students' complexities (Efron & Ravid, 2020).

Data Collection and Analysis

To enhance reliability and validity, a variety of data collection tools and continuous analysis facilitated rich descriptions used to answer the research questions and support the complex and emancipatory nature of this study. The student participants and I used data from interviews, documents, and observations during one-on-one conferences. During these conferences, I shared my data analysis with the student participant to gain their insight and inform revisions. The data analysis was used to create and reflect on the impact of the intervention plans. Additionally, I kept a researcher's journal to collect and

record memos about my insights, decisions, and reflections through the action research cycles.

One-on-one conferences supported open, two-way dialogue and student engagement in creating and reflecting on intervention plans. These meetings were framed by social constructivist theory, which supports the use of conferences and positions teachers as guides and coaches rather than the sole givers of information. Conferences upheld the social constructivist tenet for students to actively create, interpret, and reorganize their knowledge in unique ways (Brooks & Brooks, 1999; Fosnot, 2005). Cocreation of and adjustments to intervention plans occurred during these conferences, informed by data gathered from interviews, student journal entries, and observations.

Prior to meeting in conferences with the 2e student participants, I collected and analyzed data from anchored interviews, behavioral observations, and student journal entries. Anchored interviews, which Merriam and Tisdell (2016) described as interviews anchored in observational data, were used to prompt the students' reflections on their strengths, needs, emotional responses, physical reactions to emotions, use of coping strategies, and impact of coping strategies on emotional responses. Interview questions were based on data collected from behavioral observations and the students' journals and designed to elicit more detailed information about the students' thought processes. Observational data offered a firsthand account of how the students were progressing in the study and applying concepts to individual, real-life experiences (Merriam & Tisdell, 2016). Student journals aided the 2e students' reflections and provided me a glimpse into the students' thoughts.

Throughout the data collection process, I kept a research journal to record my reflections, insights, and reasons for modifications to students' intervention plans. Changes to intervention plans were based on continuous, tentative coding of the data. In action research, "findings can remain tentative and open to further interrogation in response to the complex and constantly shifting factors at play in any given classroom" (Klehr, 2012, p. 125). In the research journal, I documented my process of tentative coding and category building through memoing, which is the act of recording the thoughts of the researcher and supports the process of moving between iterative and conceptual interpretations (Piantanida et al., 2004).

The collected data were initially analyzed using predetermined and emergent codes to develop patterns of categories or themes. Data were then formally analyzed at the conclusion of the study using a constant comparative method to answer the research questions. Merriam and Tisdell (2016) explained analyzing data in qualitative action research studies focuses "not only on what happens but also how it happened over the course of the ongoing action research cycle plan" (p. 235). The student participants and I analyzed data to inform our decisions to create, reflect on, and change their intervention plans. During individual conferences, I presented students with the tentative themes I developed from coding initial behavioral observations, student interviews, and journal entries. The students provided feedback on the tentative themes, and results from this process informed the cocreation of their intervention plans. As the students worked to implement their intervention plans, I collected and analyzed data via behavioral observations, interviews, and journal entries. Tentative codes formed from the first cycle were revisited and revised in light of the new data. We then held another conference to

revisit and adjust intervention plans. At the conclusion of the study, additional data from the tools mentioned were collected, coded, and compared. I analyzed the collected data using a constant comparative method to generate trustworthy interpretations of the results to determine the impact of the YPAR approach on self-modulation of behaviors.

Delimitations and Limitations of the Study

Possible delimitations and limitations to the study included the time period of data collection, constraints of the setting, and the inexperience and developmental ability of the students to identify and reflect on behaviors resulting from internal and external stimuli. Due to the constraints of the classroom setting, I narrowed the focus of the study to behaviors hindering learning in my classroom. Additionally, only behaviors that occurred during the time period of data collection received focus in this study.

A possible limitation of the data was the 2e students' abilities to give accurate, thorough, and insightful analysis of their responses to stimuli, and their ability to identify their emotions and resulting behaviors accurately. To address this limitation and support the students' metacognitive processes, I guided the students' reflections during interviews using data from their student journals and my observational notes. As recommended by Efron and Ravid (2020), this study used a variety of data sources for triangulation and thick descriptions of the participants' perspectives using the student journals and interviews to ensure the trustworthiness of this study.

As noted in the positionality statement, I attended to the power dynamics in relationships among the teacher, teacher as researcher, and 2e student participants in this study (Herr & Anderson, 2015). As the teacher and researcher, I worked to build a trusting relationship with the students to ensure reflective and accurate information was

collected. Cyclical data collection and analysis provided frequent opportunities for incorporating the students' voices and perspectives to ensure the students were active participants in creating self-knowledge. Freire (1970/2017) argued students involved in recreating the knowledge of their reality "attain this knowledge of reality through common reflection and action, [and] they discover themselves as its permanent re-creators" (p. 43). This YPAR study supported the students' development of self-modulation by empowering them to reflect on their needs and abilities to modulate emotional responses and then take action based on these reflections.

Summary of Findings

The purpose of this YPAR study was to determine the impact of a cocreated, strength-based intervention plan on 2e students' abilities to self-modulate the strong emotional responses hindering their learning. The three 2e students in this study successfully self-modulated their strong emotional responses, which enhanced their learning and growth in the classroom. Through the action research cycles, the 2e students and I worked collaboratively to create and revise their intervention plans and ensure the students' voices were incorporated. Each plan was individualized to build on the students' strengths to support their social and emotional needs. Continuously collecting, coding, and analyzing data provided answers to the research questions. Four themes emerged from the data analysis process: (a) student's needs, (b) self-advocacy and self-awareness, (c) relationships and connections, and (d) self-modulation. Collaboration emerged as an overarching theme connecting these four themes, and I theorized our collaboration had reciprocal benefits on the other four themes. Specifically, as a YPAR

study, our collaboration was essential to creating and revising effective, individualized, strength-based intervention plans.

Significance

The skills the student participants developed in my classroom during this study, including the ability to be reflective and implement coping strategies independently, are ones they will be able to build upon as they navigate the world outside the classroom. These foundational abilities respond to data from Pesce's (2019) interviews with new college graduates identified as autistic, in which several interviewees reported anxiety about writing a résumé, undergoing an interview process, or navigating social norms at the work site as reasons they had struggled to find jobs. Demonstrating complementary information, a study from A. J. Drexel Autism Institute (Roux et al., 2017) revealed 85% of college graduates with ASD were unemployed compared to the 4.5% national unemployment rate. Anxiety for people with ASD continues to have effects past elementary school, demonstrating a need for schools to do more work with students with ASD to prepare them for life after school, such as social and emotional skill development. This study provided an avenue for these 2e students to develop their social and emotional skills.

Although my problem of practice focused on 2e students in my classroom, implications of the findings are important beyond my classroom. Students with ASD and anxiety exists in other classrooms and may face similar issues with uncontrolled emotions. The Centers for Disease Control and Prevention estimated 1 in 44 8-year-old children had ASD in 2018 (Maenner et al., 2021). Rai et al. (2018) found children with ASD, or showing autistic traits, had higher depression scores on the Short Mood and

Feelings Questionnaire than the general population at age 10 and continued to have higher scores through age 18. Additionally, the National Institute of Mental Health (n.d.) identified anxiety as an issue 1 in 3 adolescents will face by age 18. Negative effects of unmodulated emotions arising from unsupported social and emotional needs of students with anxiety and ASD occur in other classrooms and may hinder learning in these classrooms as well.

Due to the significance of this problem of practice in my specific context, an action research approach better met the needs of this study than traditional educational research, in which the researcher is an outsider to the context and seeks to establish generalizable theory (Efron & Ravid, 2020). As Herr and Anderson (2015) clarified, action research "addresses the immediate needs of people in a specific setting" (p. 6). Although traditional educational research generates new knowledge for application to new situations, my research began with a need in a specific context with a specific population. Thus, action research allowed me to adjust the research as needed to fit my evolving problem. At the onset of this research, I was unable to anticipate all of my students' needs or how they would respond to and reflect on the intervention plans. Thus, my action research began "with a clear direction but with the anticipation that as data gathering and analysis proceed, the process will continue to be crafted" (Herr & Anderson, 2015, p. 87). For this action research study, I began with a framework for an intervention plan and, using individual student input, we created and revised the details of the plan to meet the student participants' changing needs so that they were able to self-modulate strong emotional responses that hindered their learning. The creation of and

revisions to the intervention plans occurred at the end of each action research cycle so to build upon what we learned during that cycle.

YPAR was an ideal approach for this study because it empowered the students to independently select and implement coping strategies based on their unique strengths and contexts. Caraballo et al. (2017) defined YPAR as a research method based on the "conception of teaching and learning through collaborative and transformative inquiry" (p. 313). To fit the 2e students' needs, I designed this study with myself as the students' guide through a reflective process as we collaborated to identify effective strategies in a specific classroom context. McIntyre (2000) argued YPAR empowers students because they engage "in a process that positions youth as agents of inquiry and as 'experts' about their own lives" (p. 126). Students are the insiders to their emotions and, with guidance through collaboration, can reflect on the outcomes of strategies put in place to cope with strong emotions and change as needed to fit their dynamic situations.

Organization of Study

Chapter 2 presents a review of literature related to the theoretical framework and constructs in this study, including (a) 2e students, (b) social and emotional needs and strategies, (c) overexcitability, (d) the YPAR method, and (e) social constructivist and critical theories. Chapter 3 provides a description of the qualitative YPAR research design, qualitative data tools, analysis methods, study participants, and procedures. Chapter 4 describes participants' progress through the action research cycles, examples of coded data, and how the themes answered the research questions. Chapter 5 summarizes the conclusions of the study, connections to the literature, and includes implications for future studies and practice.

Definitions of Terms

Gifted and talented students: The South Carolina Department of Education (2018b) defined gifted and talented students as "demonstrating high performance ability or potential in academic and/or artistic areas and [who] therefore require educational programming beyond that normally provided by the general school programming in order to achieve their potential" (p. 1). I used this definition for this study because it applied directly to the study's setting.

Overexcitability: Overexcitability is the "innate tendency to respond in an intensified manner to various forms of stimuli" (Daniels & Piechowski, 2008, p. 8). Dabrowski (1967/2015) identified five types of overexcitability: psychomotor, sensual, emotional, intellectual, and imaginational (as cited in Silverman, 2016).

Self-modulate behaviors: Students who self-modulate behaviors are able to "regulate or adjust, alter or adapt according to circumstance, or to change or vary pitch" (Daniels & Meckstroth, 2008, p. 36) of their emotional responses. Coping strategies are used to modulate or vary the pitch of emotional responses to stimuli.

Strength-based strategies: Strength-based strategies, also called talent-focused strategies, promote talents and abilities by focusing on "advanced abilities, interests, and talents while simultaneously offering support and strategies designed to address academic, behavioral, and social challenges" (Baum et al., 2017, p. 141).

Twice-exceptional (2e) students: The National Association for Gifted Children (n.d.) defined 2e students as "gifted students with the potential for high achievement and [who] give evidence of one or more disabilities as defined by federal or state eligibility criteria" (para. 1).

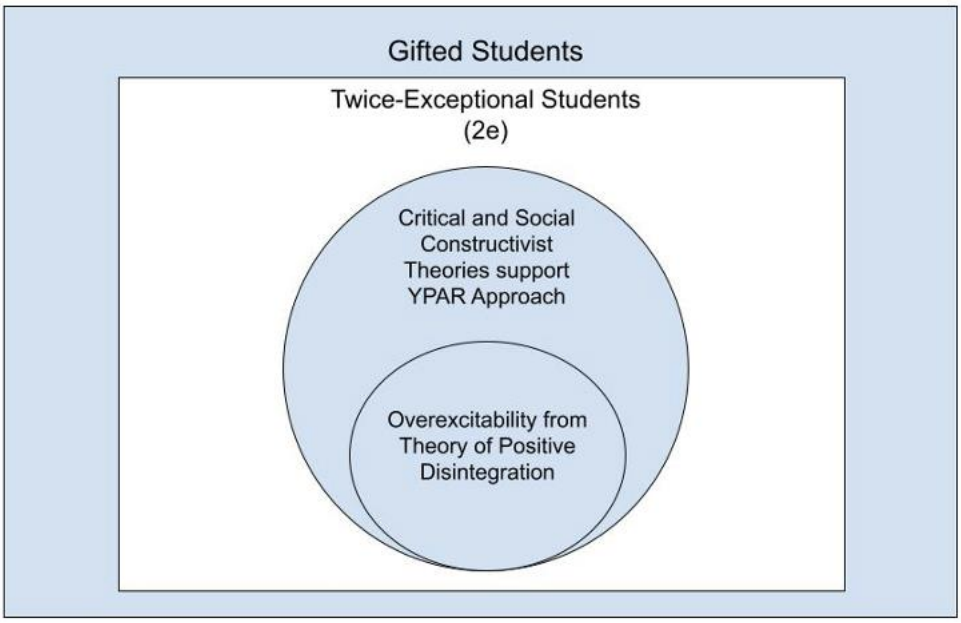


Figure 1.1 *Theoretical Framework*

CHAPTER 2: LITERATURE REVIEW

Students who are academically gifted and talented (G/T) and have a disability are referred to as twice exceptional (2e; National Association for Gifted Children, n.d.). Due to their disabilities, 2e students can exhibit behaviors not typical for G/T students without disabilities, such as increased intensity of behaviors and inhibition or emergence of new behaviors (Reis et al., 2014). These students have unique social and emotional needs that may arise from the lack of support for their gifts, disabilities, or combination of exceptionalities (Baum et al., 2017; Foley-Nicpon et al., 2016; Fonseca, 2015; Trail, 2010). Social and emotional needs may also arise from the emotional intensity of G/T students, which presents as overexcitability or an overabundance of sensory reactions to stimuli (Daniels & Piechowski, 2008; Fonseca, 2015; Mendaglio, 2008). Overexcitability is positively correlated with the exceptional intellectual growth in gifted children; however, if emotional responses to overexcitability cannot be modulated, development can stall or reverse (Daniels & Piechowski, 2008). The emotional intensity 2e students experience presents unique challenges for schools to navigate.

Typically, students who have unique needs and require supports beyond what regular classrooms offer receive accommodations through individualized education programs (IEPs) or 504 Plans. Unfortunately, educators may not identify or recognize 2e students' gifts or disabilities, which results in a lack of services offered to them (Crim et al., 2008; Foley-Nicpon et al., 2016; Probst, 2006). Additionally, when educators identify 2e students, supports provided by educators may focus only on the 2e students'

disabilities and not their gifts. This deficit approach can further increase 2e students' social and emotional issues (Baldwin et al., 2015; Baum et al., 2014, 2017; Trail, 2010). The unique social and emotional needs of 2e students must be met so these students can continue to grow academically.

Problem Statement

Each year, my fourth-grade language arts and social studies class of G/T students includes 2e students who either do not receive special services outside the regular classroom or receive services focused only on the students' academic needs and not their social and emotional needs. These 2e students need social and emotional supports that meet their specific backgrounds and contexts to succeed in school. The combination of emotional struggles from giftedness and frustrations from navigating a disability impact these students' learning. The problem I wanted to solve was how to empower my 2e students with the ability to self-modulate the emotional responses inhibiting their learning and personal growth.

Purpose Statement

To solve this problem of practice, I used a youth participatory action research (YPAR) approach. Student participants and I first coconstructed personalized intervention plans and then critically examined the impact of the intervention plans on their learning. Intervention plans included coping strategies the students could independently implement to support self-modulation of behaviors from internal or external stimuli. The goal of the study was to determine the impact of cocreating behavioral intervention plans on the students' abilities to self-modulate emotional responses. The following research questions drove this study:

- **Main Research Question**: What happens to a 2e student's ability to self-modulate behaviors intrusive to learning when the student and the teacher coconstruct and reflect on a flexible, individualized intervention plan?
- **Supporting Question 1:** How does a 2e student's ability to recognize and label emotions impact the student's choice of coping strategies to self-modulate behaviors intrusive to learning?
- **Supporting Question 2:** How do 2e students engage in identifying and applying coping strategies intended to address strong emotional responses resulting from internal or external stimuli?

Chapter Organization

This chapter provides a synthesis of the literature that (a) supports the purpose of this action research, (b) supports the theoretical framework, (c) supports the interventions used to solve the problem of practice, and (d) places this action research among similar studies. I first synthesize literature on the theoretical framework of the study and provide a historical overview of twice exceptionality. Subsequently, I explore the study's constructs, which include emotional intelligence, 2e students' social and emotional needs, overexcitability in gifted children, social and emotional coping strategies, strength-based strategies, intervention plans or response to intervention (RTI) plans, and benefits of a YPAR. The chapter concludes with an overview of current research related to this study.

Literature Review Methodology

To begin my search for relevant literature, I examined professional books on twice exceptionality and the theory of positive disintegration (TPD) listed on the following organizations' websites with specialized content about G/T and 2e students:

National Association of Gifted Children, Davidson Institute, Supporting Emotional Needs of the Gifted, and Prufrock Press. I expanded the search by locating cited sources from texts found on these sites. Additionally, I used Taylor and Francis, SAGE Publications, JSTOR, PyschInfo, and EBSCO databases to locate peer-reviewed journal articles and sources of information on related research. I scanned the sources for relevant information to guide the study's approach, support the theoretical framework, provide interventions to solve the problem of practice, and provide a rationale for the study.

Theoretical Framework

The theoretical framework of this study supported the involvement of 2e students in critically examining the effectiveness of flexible intervention plans to self-modulate behaviors impacting their learning. I structured this study using Dewey's (1929/2017, 1938) social constructivist theory, Vygotsky's (1978) sociocultural theory, Freire's (1970/2017) critical pedagogy, and Dabrowski's (1967/2015) TPD. The following sections synthesize literature on these four theories.

Social Constructivism

Dewey's (1938) social constructivist theory posits learning is, at its heart, the interaction of psychological and sociological processes and must begin with the child's needs and interests. Learning is a social activity, and education is an important part of a child's social and moral development. Education should focus on the whole child, including intellectual, social, emotional, physical, and spiritual development. Dewey (1948) argued the development of the whole child should not take a less critical role in schools than academic subjects. Additionally, Dewey believed students should be active participants in their learning, and this learning should occur or be connected to real, lived

experiences. Brooks and Brooks (1999) presented several descriptors of social constructivist teaching behaviors, including (a) promoting student autonomy, (b) lessons driven and adapted based on student responses, (c) determining the student's prior knowledge, (d) student inquiry, and (e) engaging the student in discussions. This action research incorporated the key ideas of social constructivism by starting with students' prior knowledge, interests, needs, and abilities and then promoting student inquiry into real-world problems impacting the students.

Sociocultural Theory

As Fosnot (2005) explained, Vygotsky expanded on social constructivist ideas to include the effect of language, social interaction, and culture on learning. Vygotsky's (1978) sociocultural theory shared commonalities with Dewey's (1938) social constructivist theory, such as beginning with the child's prior knowledge and teaching and learning centered around social interactions (Brooks & Brooks, 1999; Vygotsky, 1978), but also focused on how a child moves from spontaneous, naturally developed concepts to scientific concepts (i.e., formal, abstract ideas presented in a structured classroom; Fosnot, 2005). Vygotsky (1978) developed a sociocultural theory that proposed cultural tools (e.g., traditions, language, text, media, signs, and symbols) used through dialogue are essential to children's construction of knowledge. Emanating from this idea was the zone of proximal development, or the point where scientific and spontaneous concepts meet and the child learns. In this zone, a student's prior knowledge meets classroom knowledge and results in a developmental gain. For students to succeed, instruction should occur in the zone of proximal development (Fosnot, 2005).

Scaffolding is an instructional tool used to assist children working in the zone of proximal development. To scaffold a learning experience successfully, the teacher should determine students' knowledge, relate new content to what is already known, break large tasks into smaller tasks, model the tasks, and use visual and verbal cues (Silver, 2011; Wood et al., 1976). Wood and Middleton (1975) conducted a study in which mothers provided varied types of assistance to their children as the children were building a tower. They found type of assistance played less of a role than basing the assistance on the child's needs and prior knowledge. Key aspects of sociocultural theory informed this study, including (a) focusing on dialogue, (b) encouraging social interactions, (c) scaffolding the learner, (d) fostering development of the whole child, and (e) promoting inquiry and reflection among the coresearchers.

Critical Pedagogy

As Kincheloe (2004) explained, critical pedagogy arose from critical theory. Critical theorists seek to examine the distribution of power, including the control of knowledge. From this ideology came critical pedagogy. Freire (1970/2017), who established critical pedagogy, argued teachers and students should participate in co-intentional education where both groups play a role in unveiling reality through critical reflection. Teachers help students pose problems from their world and jointly explore solutions. This process is continuous because people are incomplete beings who change through critical thinking. Kanpol (1999) explained critical pedagogy seeks to liberate the oppressed by uniting people in a common language of critique, struggle, and hope to solve problems in the oppressed person's life. Because the voices of 2e students are often absent as plans or interventions are put in place to support their social and emotional

needs, this study incorporated a key idea from critical pedagogy, which stated action should "be forged *with*, not *for*, the oppressed" (Freire, 1970/2017, p. 22). This study continued a trend grounded in critical theory to highlight the lack of equitable identification and services for 2e students' gifts, talents, and needs (Castellano, 2003).

TPD

Dabrowski (1967/2015) posited a personality development theory called the TPD, which reexamined the role of emotions in psychological development. The theory suggests periods of disintegration, or negative emotional experiences, are necessary for advanced psychological growth. Dabrowski believed intelligence alone was not enough to advance a person's psychological development (Mendaglio, 2008). Emotions play a key role in personality development, including struggles with negative emotional responses, which ultimately cause a person to rebuild ideas and lead to inner growth (Daniels & Piechowski, 2008; Piechowski, 2014; Tillier, 2009). Dabrowski placed importance on emotional growth and personality development and proposed schools that fail to educate students on social and emotional aspects are engaged in training rather than educating students (Rankel, 2008). The TPD places students' social and emotional development as a crucial aspect for schools to address.

The theoretical framework supported the use of a YPAR approach to this study because it empowered 2e students to coconstruct and critically examine intervention plans to support their efforts to self-modulate behaviors hindering their learning. To self-modulate behaviors, students work to "regulate or adjust, alter or adapt according to circumstance, or to change or vary pitch" (Daniels & Meckstroth, 2008, p. 36) of their emotional responses to stimuli. This action research valued the development of social and

emotional skills for 2e students. Furthermore, scaffolding supports from the teacher along with inquiry, dialogue, and social interaction assisted the students in creating their intervention plans. Because the students were empowered and played a central role in creating and implementing their plans, their prior knowledge, interests, and needs were essential to this action research. This YPAR study empowered 2e students, whom schools have often underserved in schools, as leaders in addressing their needs and interests.

Historical Perspective on Twice Exceptionality

This section reviews how identification of and services for 2e students have gained attention as the definitions of gifted and special education have changed and broadened (Trail, 2010). Baldwin et al. (2015) explained how identifying G/T students and recognizing the subpopulation of 2e students has changed as experts have grappled with a practical definition of 2e, which has impacted services and accommodations offered to these students. Additionally, recognizing the 2e population emerged from the histories of gifted and special education.

Gifted and Special Education

In the early 1920s, Hollingworth studied a population of children who were outside the norms. Hollingworth (1923) described children with high abilities and deficits in school subject areas and argued these students needed individualized instruction and methods beyond those normally offered in schools to reach their full academic growth potential. In the 1940s, Hans Asperger first described an aspect of what came to be known as autism spectrum disorder (ASD): Some children have high intelligence, demonstrate deficits in social interactions and communication, and exhibit repetitive behaviors or interests (Baldwin et al., 2015; Baum et al., 2017). Later, Strauss and

Lehtinen (1947) noted children could struggle to learn in traditional ways, regardless of intelligence. Despite evidence of high abilities and disabilities during this time, "the fields of special education and education for the gifted and talented continued to develop separately" (Baum et al., 2017, p. 10).

In the 1970s, identification of and services offered for students with high abilities and disabilities changed significantly. In 1975, the Education for All Handicapped Children Act mandated free appropriate education for all children, and in 1978, the Gifted and Talented Children's Education Act identified areas of giftedness and stated these students should receive specialized services (Baldwin et al., 2015; Baum et al., 2017). However, these federal laws did not specify students could be identified and receive services under both laws simultaneously (Baum et al., 2017).

Twice Exceptionality

In 2004, revisions to the Individuals with Disabilities Education Improvement Act (IDEA) rectified the issue of dual identification and specified students could be identified as G/T and have a disability. Federal research funds brought attention to 2e students (Baldwin et al., 2015; Baum et al., 2017). However, without a clear, contextual definition of twice exceptionality, some critics have argued the 2e student population does not exist (Lovett & Lewandowski, 2006), yet some research has proven this population is present in schools and requires special services that meet both their gifts and disabilities (Cain et al., 2019; Foley-Nicpon et al., 2011).

The National Education Association (2006) estimated there was a population of 360,000 2e students in schools during the 2000–2001 school year. However, Foley-Nicpon et al. (2011) argued the exact number cannot be known because there is no

system for tracking 2e students and no common identification practices for giftedness or twice exceptionality, and some 2e students may be able to meet grade-level expectations, resulting in misidentification. In 2012, the National Association of Gifted Children convened a special committee to work with stakeholders on a shared definition of twice exceptionality and emphasized the need for more research on the needs, services, and identification of 2e students (Baldwin et al., 2015; Foley-Nicpon et al., 2011).

This work established a common definition of twice exceptionality and highlighted the need for more research on strategies and practices to support 2e students. The spotlight has moved to supporting the social and emotional needs of 2e students. Recent studies and professional articles have focused on the challenges related to the social and emotional needs of 2e students and what their twice exceptionality means to them (Baum et al., 2017; Cain et al., 2019; Foley-Nicpon et al., 2016; Fonseca, 2015; Nielsen & Higgins, 2012; Trail, 2010).

Social and Emotional Needs of 2e Students

In this section, I synthesize existing literature to demonstrate that 2e students have specific social and emotional needs. I explore the importance of emotional intelligence and addressing students' social and emotional needs in school. Next, I show how schools are not adequately addressing 2e students' social and emotional needs. Finally, I review 2e students' social and emotional needs (including autism and anxiety), discrepancies between gifts and disabilities, and presentation of overexcitability.

The Importance of Emotional Intelligence

Goleman (2005) framed emotional intelligence as a meta-ability essential for a person to possess to use other skills and intelligence effectively. Goleman explained

emotions are impulses to act that travel quickly to the brain. The limbic system senses an emergency and takes over the brain before rational thought, located in the neocortex, has begun to form. This evolutionary ability allows humans to make quick decisions based on previous emotional experiences and increases their chances of survival. Goleman (2005) said humans have:

> Two minds and two different kinds of intelligence: rational and emotional. How we do in life is determined by both—it is not just IQ, but emotional intelligence that matters. Indeed, intellect cannot work at its best without emotional intelligence. (p. 28)

Salovey and Mayer (1990) defined emotional intelligence as "the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional intellectual growth" (p. 5). Additionally, Piechowski (2014) argued emotional intelligence—the ability to know, examine, and express feelings—is an essential aspect of a well-adjusted, productive person.

Dewey (1948) recognized the need for schools to focus on students' moral and social development. As part of the TPD, Dabrowski (1967/2015) believed schools should offer authentic education that goes beyond intelligence and focuses on how intelligence is used for personal growth (Rankel, 2008). Neihart (2017) argued students' social and emotional needs must be met so they can experience success and reach their potential and noted 2e students' success is connected to their social and emotional development. In this action research, I supported 2e students with specialized social and emotional needs as they explored how best to meet their own unique needs.

Unmet Social and Emotional Needs

With the reauthorization of IDEA in 2004, 2e students were guaranteed interventions equitable to other children with special needs and gifts (Coleman & Gallagher, 2015). However, 2e students' gifts may hide their disability, or their disability may hide their gifts, referred to as *masking*. The masking effect can result in 2e students not being identified for special services, including services to support their social and emotional needs (Foley-Nicpon et al., 2011, 2016; Trail, 2010). Fonseca (2015) noted diagnoses from schools and resulting intervention plans often exclude 2e students' social and emotional needs. Unfortunately, as Baum et al. (2017) explained, differences between ability and performance can increase for 2e students over time if their social and emotional needs are not met, which can increase their struggles with social and emotional issues. The purpose of this action research was to improve my ability to meet the social and emotional needs of 2e students.

Autism and Anxiety

Twice-exceptional students may have social and emotional deficits due to autism spectrum or anxiety disorders (Baum et al., 2017; Foley-Nicpon et al., 2011, 2016; Trail, 2010). Twice-exceptional students who exhibit traits on the autistic spectrum may have issues communicating and recognizing feelings, inhibiting emotion regulation (Burchi & Hollander, 2018). Interoception is a person's ability to identify or name emotions and physical signals of emotional change (Mahler, 2015). When a student lacks interoception, choosing a strategy or intervention to modulate a response becomes a challenge (Goleman, 2005).

In addition to ASD, anxiety is a disability identified under IDEA that requires specialized social and emotional interventions (Baldwin et al., 2015). Social and emotional issues may arise from anxiety disorder, including withdrawal, avoiding situations that require risk-taking, increased likelihood of seeing minor events as threatening, and fear of future events with negative results (Huverty, 2010). Students may also experience anxiety disorder in conjunction with ASD; in fact, anxiety disorders are the most common disorders with autism. This occurrence may be especially true for high-functioning autism or high intelligence because students with these traits tend to have insights beyond their communication skills (Burchi & Hollander, 2018). Through this action research, I sought to support students with dual diagnoses of anxiety or ASD and G/T abilities. As Baum et al. (2017) explained, these students have special social and emotional needs impacting their success in school.

Discrepancies Between Gifts and Disabilities

Another cause of social and emotional challenges for 2e students is the intersection of gifts and disabilities. Twice-exceptional students struggle to reconcile gifts and disabilities; though they recognize their high potential capabilities, a disability can impede their potential, which may cause anxiety, low self-esteem, lack of motivation, and strong emotional responses that are challenging to control (Baum et al., 2017; Foley-Nicpon et al., 2016; Neihart, 2017; Trail, 2010). Some social and emotional issues 2e students experience are risk avoidance, fear of failure, anger about task avoidance, low self-esteem, and frustration about high-performance expectations (Probst, 2006). Additionally, intervention plans for 2e students tend to focus on fixing or correcting the disability. When schools ignore 2e students' strengths and direct resources solely at the

disability, 2e students' social and emotional issues can increase (Baum et al., 2014, 2017; Probst, 2006). According to Trail (2010), focusing on the behavior instead of the triggering event leads to interventions that target the outcome instead of the cause. Through this action research, 2e student participants had intervention plans built on their strengths to support their needs.

Overexcitability and Modulation of Overexcitability

Another contributor to 2e students' social and emotional needs could be the prevalence of overexcitability or intense experiences. Gifted students have more intense reactions to internal and external stimuli (Beduna & Perrone-McGovern, 2016; Daniels & Meckstroth, 2008; Daniels & Piechowski, 2008; Fonseca, 2015; Limont et al., 2014; Silverman, 2008). For 2e students, intense emotions can be their dominating characteristic and influence their social interactions and cognitive functioning (Nielsen & Higgins, 2012). Fonseca (2015) explained these students require social and emotional interventions based on an understanding of their giftedness and emotional intensity.

As one explanation for this emotional intensity, Dabrowski's (1967/2015) TPD described overexcitability, or the intense emotional experiences and responses some people have toward internal or external stimuli (Daniels & Piechowski, 2008; Mendaglio, 2008; Piechowski, 2014; Silverman, 2016; Tillier, 2009). Five identified types of overexcitability—psychomotor, sensual, emotional, intellectual, and imaginative—explain variations in the manifestation of people's intense reactions to their environments (Piechowski, 2014).

Overexcitability can promote exceptional abilities because a person with overexcitability experiences emotions, thoughts, or physical sensations in an intense

manner, which, with other developmental factors, causes internal conflicts. When the person experiencing the overexcitability resolves these internal conflicts, personality development occurs. Furthermore, these intense experiences begin early in life and are common in intellectually gifted and creative people as they navigate the world with intense experiences (Daniels & Piechowski, 2008; Piechowski, 2014; Silverman, 2008). Using formally developed diagnostic tools, multiple studies have shown a strong and positive correlation between talented individuals' giftedness and creativity and levels of overexcitability expression (Beduna & Perrone-McGovern, 2016; Limont et al., 2014; Piechowski, 2014; Silverman, 2016; Winkler & Voight, 2016).

Daniels and Meckstroth (2008) stated, "Overexcitability permeates a gifted person's existence" (p. 34). Overexcitability may manifest as a behavior resulting from an intense emotional response, and this intensity is part of what promotes development and talents in gifted individuals (Daniels & Piechowski, 2008; Piechowski, 2014). Importantly, Silverman (2016) argued the goal of an overexcitability intervention should not be to extinguish students' overexcitability responses but to modulate the responses so development can occur. Dabrowski (1967/2015) further argued manifestations of overexcitability often considered psychoneuroses (e.g., anxiety, phobias, depression) may not be signs of mental illness but instead signs of development. These scholars have positioned overexcitability as an innate strength that leads to development and helps actualize developmental potential.

Overexcitability has been seen as a possible cause for misdiagnosis of G/T children with disabilities (Fonseca, 2015; Tieso, 2007). Attention-deficit/hyperactivity disorder (ADHD), characterized by impulsiveness and excessive activity, has similarities

to psychomotor overexcitability, which can result in needing to move frequently and displaying excessive energy (Fonseca, 2015). A person with strong overexcitability characterized by intense psychomotor movements who is experiencing stress may demonstrate nervous habits, frequent movements, or acting out destructively (Piechowski, 2014). Silverman (2016) maintained students can exhibit overexcitability responses and have a disability, but overexcitability is not the result or symptom of a disability. Silverman advised examining other possible causes of behavioral responses and not simply attributing behaviors to overexcitability.

Changing the mindset from attributing having strong emotional reactions to stimuli as negative to attributing these reactions as manifestations of developmental potential can change how students who exhibit overexcitability see themselves and how educators support these students. Daniels and Meckstroth (2008) proposed students learn strategies for self-modulation that vary by their context and overexcitability expression to control their responses. Mendaglio (2008) explained overexcitability expression should not be extinguished in gifted children because intelligence is not enough to develop personality. This action research viewed overexcitability as a tool to develop students' talents and gifts and a way 2e students experience their world.

Openness to Experience

Some researchers have argued overexcitability is similar to the concept of *openness to experience* from the five-factor model of personality (Limont et al., 2014; McCrae, 2010; Piechowski, 2014; Vuyk et al., 2016), a widely accepted personality theory comprising five factors that influence personality development (McCrae & John, 1992). One of the five factors is openness to experience, which describes a person's

openness to being creative, curious, or imaginative and has six facets or dimensions: (a) active imagination, (b) aesthetic sensitivity, (c) attentiveness to inner feelings, (d) preference for variety, (e) intellectual curiosity, and (f) challenging authority.

McCrae (2010) argued empirical data support openness to experience as providing a more sound explanation for personality development than the TPD. However, Vuyk et al. (2016) found a statistically significant correlation among five of the six facets of openness to experience and the five overexcitabilities and concluded, "Openness to experience and overexcitabilities seem to represent largely the same construct" (p. 198). Additionally, this alignment across the five types of overexcitability and five facets of openness to experience is stronger among the identified high-intelligence and highly creative populations than the general population (Limont et al., 2014; McCrae, 2010; Vuyk et al., 2016). Through an extensive research review, Gallagher (2013) found overexcitability and openness to experience both played a part in how G/T children differed from non-G/T children. Overexcitability can be seen as "the biological foundation of openness to experience, and consequently a much wider range of experiencing" (Piechowski, 2014, p. 40). In light of these studies, this action research used the overexcitability construct from TPD instead of openness to experience to identify potential social and emotional supports or coping strategies for the student participants.

Gifted children, especially 2e children, have unique social and emotional needs, just as they have unique and varying strengths, disabilities, interests, and backgrounds (Baum et al., 2017; Probst, 2006; Trail, 2008). Social and emotional supports and interventions are critical to 2e students' success (Coleman & Gallagher, 2015; Neihart,

2017). Often, 2e students do not receive equitable modifications or interventions as compared to students solely identified as having a disability (Cain et al., 2019; Crim et al., 2008). Critical theory, as Castellano (2003) discussed, brings attention to the need for schools to not allow differences in gender, culture, ethnicity, poverty, geography, sexual orientation, or disability impact the identification and services offered to gifted students.

Interventions and Supports

Students are unique and have varying strengths, needs, and interests. Following social constructivist theory, interventions should be flexible to meet students' needs and support the social nature of learning (Dewey, 1929/2017; Fosnot, 2005; Vygotsky, 1978). The following section synthesizes the literature on interventions for 2e students, including emotional intelligence, coping strategies, overexcitability modulation, and supports for students with autism and anxiety.

Interventions to Support Emotional Intelligence

Goleman (2005) explained the ability to manage emotions begins with self-awareness, recognition of emotions, and physical signs. Being able to identify stressors causing intense emotional responses promotes a student's ability to mitigate resulting behaviors (Baum et al., 2017). Fonseca (2015) suggested using common emotional language with students to support an increase in emotional intelligence and advocated teaching students the term spinning, which means being stuck in a negative emotion, so students have the vocabulary to share when they need help. To assist students in identifying emotions, a teacher can have students reflect on their physical responses to an intense moment of a movie or book. The same physical responses are often present during strong emotional responses in other situations.

VanTassel-Baska (2009) presented a similar technique in which a student relates their emotional responses to art, poetry, or music to emotional responses in the real world. Additionally, students can express different emotions in artistic forms to share with each other to build a repertoire of emotional language and accompanying physical responses. Mindful Schools (2019) suggested promoting emotional intelligence using children's books to directly discuss feelings and to discuss the characters' emotions and physical responses. In a study conducted by Olton-Weber et al. (2020), students effectively regulated emotions when they were able to notice and accept the emotions without placing judgment. Thus, students focused on modulating their responses to emotions versus judging or critiquing them.

Another aspect of improving emotional intelligence is helping 2e students understand their disability and strengths, which promotes self-acceptance (King, 2005). Gaesser (2018) proposed teaching G/T students about characteristics of G/T people, such as the ability to assimilate and consume more information, may help them relax when they feel overwhelmed by emotional experiences through their understanding of why they may be feeling overwhelmed. Through a case study, Dole (2001) discovered 2e students felt empowered after learning their academic struggles were not a result of low intellect or ability. Students were also more likely to advocate for themselves and their needs. When 2e students know more about their strengths and needs, they can choose coping strategies for intense emotional responses that fit their learning style, overexcitability expression, strengths, and needs (Baum et al., 2014, 2017; Fonseca, 2015; Trail, 2010).

Interventions to Support Coping Strategies

Students may not be able to control where or when emotions arise, but they can learn to control the length of their emotional response using *coping strategies* (Goleman, 2005)—thoughts and behaviors used to modulate internal and external emotional responses to stimuli (Folkman & Moskowitz, 2004). As Gaesser (2018) explained, the sooner a physiological stress is reduced, the sooner a student can begin to manage anxiety. Goleman (2005) referred to this timeframe as the window of opportunity and advised the person feeling intense emotional stress likely to cause an adverse behavioral reaction to move the body or mind from the trigger. This movement could be accomplished by leaving the location of a stressor, deep breathing to calm the mind, or recording thoughts as they occur. However, Goleman emphasized the mind should not be left to ruminate or repeatedly think about the stressor. Similarly, Kaplan (1990) suggested strategies for stress management, including changing the source of the stress, talking to someone, planning strategies to remove the stress from future situations, doing an activity of interest, and physically letting out some energy.

Reframing perceptions is one way to detach the mind from the stressor (Kaplan, 1990). Baum et al. (2017) suggested teaching the skill of using the word "yet." For example, instead of a child saying, "I am not able to do this," the child can say, "I am not able to do this yet," and finish the statement with what would help them accomplish the task. Gaesser (2018) recommended students apply pressure to acupressure points on their hands while using self-talk to name the emotion being experienced and making positive statements about their ability to modulate the emotion. Fonseca (2015) recommended creating a menu or list of possible coping strategies from which students can choose.

Essential to students' success choosing and using coping strategies is practicing these strategies regularly and not just at the moment of intense emotional reaction (Gaesser, 2018; Goleman, 2005). Additionally, Baum et al. (2017) suggested teaching these strategies to the whole class versus singling out a 2e student because all students will benefit, and doing so will create a more inclusive environment. In this study, I modified these strategies for the classroom to fit the 2e student participants' needs.

Interventions for Overexcitability Modulation

Twice-exceptional students may also need supports in modulating their overexcitability expressions. Overexcitability can trigger intense emotional responses to external or internal stimuli, often expressed with behaviors disruptive to learning and growth (Fonseca, 2015; Piechowski, 2014). However, this intensity is part of what promotes gifted individuals' development and talents (Daniels & Piechowski, 2008; Piechowski, 2014). Forcibly suppressing an emotional response, just delays the inevitable explosion, and each explosion reinforces a child's perception of being unable to control their responses (Fonseca, 2015). The goal of overexcitability interventions is not to extinguish but instead to modulate the response (Silverman, 2016), and the intervention strategy should fit the expressed overexcitability (Fonseca, 2015).

People can exhibit any combination of the five types of overexcitability—psychomotor, sensual, emotional, intellectual, and imaginative—which have been identified to describe ways a person can experience the world more intensely and how they manifest these experiences in a more pronounced way (Daniels & Meckstroth, 2008; Daniels & Piechowski, 2008, 2014). Daniels and Meckstroth (2008) provided the

following descriptions and intervention recommendations for the five types of overexcitability:

- *Psychomotor overexcitability* may be seen as frequent body movements, rapid speech, and boundless energy. Students with psychomotor overexcitability should be allowed to move often, when possible, experience instruction that incorporates movement, and learn relaxation techniques.
- Students with a strong *sensual overexcitability* may exhibit increased sensitivity to smell, touch, sight, and sound such as aversions or intense interests in foods or tactile sensations or focus on visuals. These students could benefit from options when a sensation causes an annoyance or being allowed to have input in the learning environment. Using sensory items for relaxation may also prove useful.
- *Intellectual overexcitability* may appear as a strong need to learn and ask questions about a topic and could be modulated with independent inquiry or interactions with peers with similar interests.
- Students with a strong *imaginative overexcitability* are creative and develop complex fantasies. They may face anxiety over imagining what may happen and could use support in identifying real and imaginary events. These students would benefit from opportunities to use their creative talents in the classroom.
- E*motional overexcitability* can appear in children with a strong sense of empathy and intense emotional responses to stimuli, which can be positive or negative. These students benefit from having their emotions acknowledged, having assistance in labeling feelings, and anticipating triggers.

Students with any of the five types of overexcitability will benefit from an environment in which positive aspects of overexcitability are accepted and acknowledged. When possible, Piechowski (2014) suggested adapting the environment to support overexcitability modulation and promote students' development and talents. Furthermore, Daniels and Meckstroth (2008) and Tieso (2007) recommended educating children about overexcitability presentation, positive aspects, and possible interventions to improve their ability modulate responses. The intervention plans cocreated in this action research incorporated overexcitability modulation supports.

Interventions to Support Students With Autism and Anxiety

As Foley-Nicpon et al. (2011) showed, students can have disabilities such as anxiety or ASD and be intellectually gifted. Several studies have shown how this population of students would benefit from interventions targeted to their needs (Baldwin et al., 2015; Baum et al., 2017; National Autistic Society, 2020; Trail, 2010). Interoception, the ability of the brain to make sense of physical messages from the body such as signaling changes in emotions, can be weaker in children with autism (Mahler, 2015, 2016). The interventions explained previously for improving emotional intelligence and coping strategies can also support interoception skills. Additionally, the National Autistic Society (2020) suggested using visuals, creating structured environments, building on strengths, showing empathy for the student's perspective, and creating low-arousal environments as supportive interventions for students with autism.

Interventions to support students with anxiety include all previously mentioned interventions in addition to other supports. Huverty (2010) suggested teaching and supporting students by breaking tasks into smaller units, providing opportunities for

rehearsal and practice, presenting clear evaluation criteria and expectations, maintaining consistent routines, offering relaxation time as needed, and reducing or avoiding unexpected situations. Anxiety may manifest through avoidance of a situation or task. King (2005) advised teachers to consider why the child might be avoiding a task versus just working on mediating the behavioral response to the stimulus. Students with autism and anxiety presented special considerations for the intervention plans in this study.

These supports and coping strategies provided ways to individualize intervention plans for the 2e students in this study. The 2e student participants were empowered to be coresearchers who created, enacted, analyzed, and changed their intervention plans. In the next section, I synthesize literature on creating intervention plans.

Creating an Intervention Plan

Crim et al. (2008) found 2e students to be vastly underrepresented in IEPs. Foley-Nicpon et al. (2011) noted 2e students may not be identified for special services because their gifts and disabilities could mask each other. For 2e students to experience success in school, intervention plans should focus on social, emotional, and academic needs (Probst, 2006; Reis et al., 2014). Twice-exceptional students not formally identified through school or medical diagnosis or who have IEPs solely focused on academic issues could face challenges in school if their social and emotional needs are not supported. This section reviews literature on methods for creating strength-based intervention plans for implementation in the classroom that could extend to an official IEP including strength-based strategies, RTI plans, and a YPAR approach.

Strength-Based Strategies

In their definition of giftedness, The National Association for Gifted Children (2010) recognized, "The development of ability or talent is a lifelong process. . . . Various factors can either enhance or inhibit the development and expression of abilities" (para. 2). Strength-based strategies promote talents and abilities by focusing on "advanced abilities, interests, and talents while simultaneously offering support and strategies designed to address academic, behavioral, and social challenges" (Baum et al., 2017, p. 141). Baum et al. (2014) found designing instruction and supports for 2e students that incorporate the whole child had positive effects on social, emotional, and cognitive challenges. Conversely, Trail (2008) reported intervention plans that focused on the students' deficits resulted in underachievement and defiant behavior. Key characteristics of strength-based plans are incorporating students' talents, supporting a challenging curriculum, differentiating instruction and accommodations, bolstering social and emotional support, and targeting remediation (Baum et al., 2017). Additionally, successful strength-based strategies use data to determine strengths and talents instead of just collecting data on deficits. They also address student deficits in context, enabling students to apply and transfer skills in authentic ways (Baum et al., 2014).

Baum et al. (2017) brought attention to protections and services the authorization of IDEA provided for 2e students. The best and least restrictive learning model places the child with their agemates; however, some students will need interventions and supports beyond the regular classroom. The RTI process can facilitate developing the interventions and supports some students need to be academically, socially, and emotionally successful in school. RTI is a "multi-tier approach to the early identification and support of students

with learning and behavior needs" (RTI Action Network, n.d., para. 1) and can identify effective supports for 2e students. The RTI approach incorporates cycles of formal and informal assessments and interventions. This process can start in the classroom with interventions implemented through teacher supported strategies, such as those discussed previously in this chapter (Trail, 2010).

Teachers are not alone in developing an RTI plan; other stakeholders also play a part, such as special education teachers, G/T teachers, regular education teachers, school psychologists, and administrators. The student is also a stakeholder in the RTI process because the student has knowledge of their own needs, interests, and desires (Baum et al., 2014, 2017; Coleman & Gallagher, 2015; Trail, 2010). This action research centered the students as the designers of their intervention plans by using a YPAR approach.

YPAR

A YPAR method that supported my 2e students' central role in developing, testing, and revising their intervention plans. Scott et al. (2015) described YPAR as a type of participatory action research in which stakeholders work together to investigate shared problems. Participants in a YPAR study are coresearchers who collaborate to solve personal problems and enact solutions to these problems to bring about change (Cammarota & Fine, 2008). YPAR empowers students by engaging them "in a process that positions youth as agents of inquiry and as 'experts' about their own lives" (McIntyre, 2000, p. 126). This approach supports the social constructivist ideas of inquiry, whole-child focus, social interaction, and real-world application (Brooks & Brooks, 1999; Dewey, 1948; Fosnot, 2005; Vygotsky, 1978). Additionally, Scott et al.

(2015) contended YPAR is based on critical theory due to the analytical, power-shifting, and transformative results.

Using a YPAR approach with the 2e student participants in this study supported the students' power over the content and implementation of intervention plans to meet their unique social and emotional needs. Twice-exceptional students have insights into their own needs and strengths, which can be investigated and supported with the teacher's guidance. In keeping with social constructivist and critical pedagogy, I served as a guide and coach in the YPAR approach (Brooks & Brooks, 1999; Fosnot, 2005; Freire, 1970/2017). *Coaching*, as explained by Fonseca (2015), is when a teacher directs the student on how to think but not what to think, and is effective with gifted students because it uses the strength of their cognitive abilities.

Coaching is a strategy from sociocultural theory that supports knowledge building through dialogue and promotes individual students' needs (Brooks & Brooks, 1999; Wood et al., 1976; Wood & Middleton, 1975). Successful coaching techniques include modeling to show a strategy, prompting or cueing, supporting student reflection, and scaffolding (Brooks & Brooks, 1999; Fonseca, 2015). Scaffolding creates immediate results and increases independence. To facilitate successful scaffolding, the teacher determines the student's previous knowledge and experiences, relates new content to what is already known, breaks a large task into smaller and more manageable tasks, and uses verbal cues and prompts (Silver, 2011). This study incorporated effective coaching techniques as the students and I cocreated intervention plans to support them in self-modulating strong emotional responses.

Several aspects are important for creating and implementing a successful intervention plan. When students have an intense emotional reaction, having prepared the intervention plan with the student beforehand enables quick enaction (Trail, 2010). The planned intervention should be based on data collected systematically from a variety of sources, which might include observations; cognitive or behavioral assessments; and interviews with parents, students, and other teachers. As summarized, Trail recommended the following steps:

1. Anticipate the problem and look for triggers.
2. Plan a coping strategy.
3. Implement the coping strategy quickly.
4. Reflect on the event with the student and coach the student on self-regulation.

Shortly after a strong emotional response, once the student has calmed, is the best time to reflect with the student through a one-on-one discussion. During the reflection process, the teacher should (a) coach the student to help them understand the events but not tell the child what happened or why; (b) let the child speak first; (c) share honest observations; (d) allow the child to disagree; and (e) discuss consequences, including preferred behavior. Fonseca (2015) suggested questions to prompt the student's reflection during the discussion, such as:

1. What did you think happened?
2. What were you feeling when it happened?
3. When did you feel like you were losing control?
4. Did you try to de-escalate? What strategies did you try? Were they effective? (p. 93)

Trail (2010) recommended teaching a planned intervention strategy to the whole class and providing individual coaching for students who need more supports so the plan meets individual needs. As life experiences and biological forces shape people's responses to emotions, each student will require different supports to be successful (Goleman, 2005). The information reviewed previously about creating strength-based intervention plans informed how the 2e student participants and I implemented the YPAR approach in this study. Recent related research supported the use of a YPAR approach to address the unique social and emotional needs of the 2e students in this study.

Related Research

This action research was supported by previous studies that illustrated the need to explore supports and interventions for 2e students. Alabbasi et al. (2020) completed a meta-analysis to understand the relationship between emotional intelligence and giftedness, which included published and unpublished studies in English and Arabic from 1990 to 2018. Using 21 studies, the authors demonstrated a small .226 overall effect size and a slightly greater effect size between gifted and nongifted male students (.316). However, although this study showed that gifted students significantly outperformed nongifted students on emotional intelligence, it did not indicate that gifted students have an increased ability to cope with their social and emotional issues compared to nongifted students. They found gifted students were more optimistic and happier but scored lower than nongifted students on stress management and intrapersonal skill measures. The researchers recommended intervention programs in emotional intelligence for gifted students.

To address limitations from the Alabbasi et al. (2020) study, Ogurlu (2021) completed a similar study, using a meta-analysis to compare results from previous studies using multilevel analysis. Seventeen published studies reached a sample size of 6,914 individuals, of which 2,217 were gifted and 4,697 were nongifted. Results showed gifted individuals had higher scores on emotional intelligence than nongifted peers. The effect size was small but demonstrated gifted people are not emotionally dysfunctional and are emotionally competent. Gifted people showed higher emotional intelligence on ability tests versus self-reporting tests. Recommendations for further research encouraged an examination of the contributing factors that assist gifted people in self-actualization. Ogurlu emphasized the importance of addressing social–emotional development of gifted people and supported a strength-based approach to capitalize on possible emotional intelligence strengths.

Olton-Weber et al. (2020) examined the effect of a mindfulness intervention program on reducing the levels of perfectionism in 42 G/T middle school students. Olton-Weber et al. used a quasi-experimental design to assess changes in self-ratings from pre-, post-, and follow-up surveys during the 6-week implementation. Their results showed perfectionism decreased, as did the results in the follow-up survey. The researchers concluded the students' learning to notice and accept cognition, emotions, and somatic experiences without judgment improved their abilities to mediate perfectionistic cognition and thus recommended implementing mindfulness intervention strategies with students struggling with maladjusted perfectionism.

To discover how learning outcomes of gifted students with autism changed over time, Cain et al. (2019) conducted a secondary data analysis. The datasets were

longitudinal, derived from the same participants over time through the U.S. Department of Education's data on students receiving special services. Results indicated differences in services used and effectiveness of services. Nongifted students received more services than 2e students, and 2e students were more likely to use mental health services and medication. The study's sample size was inadequate to determine benefits of individual services. Additionally, Cain et al. found most 2e students who scored in the top 10% on an IQ test were not in G/T programs. The researchers recommended educators have more training on identifying 2e students and how to meet their needs and called for more studies focused on how 2e students use services and the effects of individual services.

Anyon et al. (2018) completed a systematic review of YPAR studies to synthesize findings and outcomes. Coding the studies for principles and characteristics of YPAR methods, Anyon et al. found most YPAR studies were qualitative and used data triangulation. Most outcomes of interest among the YPAR studies related to agency and leadership, with fewer studies focused on academic, career, social, interpersonal, and cognitive outcomes. Because YPAR studies recognize multiple ways of knowing in context, determining magnitude of effect was beyond the researchers' abilities. Studies that show a causal impact of YPAR on youth outcomes could lend it credence as an evidence-based program. Existing YPAR studies show outcomes for leadership and agency. Youth development related to social and emotional learning programs is also documented in YPAR studies; however, none of the studies in this review reported on emotional outcomes of such programs.

The literature presented in this section highlights some of the current research related to this YPAR study on the social and emotional needs of 2e students. Alabbasi et

al. (2020) and Ogurlu (2021) showed gifted students had equal and sometimes greater competencies related to emotional intelligence. Gifted students showed higher application of emotional intelligence skills but struggled with stress management and intrapersonal skills. Both studies recommended intervention programs and emotional intelligence skill development for gifted students. Ogurlu (2021) emphasized the use of strength-based interventions. This current study focused on developing the social and emotional skills of gifted students, specifically students who showed a need for these skills, and used individualized plans built from students' strengths.

Cain et al. (2019) showed 2e students, specifically students with autism, were underrepresented in gifted programs and more often received special services for mental health and medication. Their study suggests that gifted programs may not meet 2e students' needs, especially in terms of social and emotional supports. Finally, the Anyon et al. (2018) study showed the YPAR approach has the potential to impact social and emotional outcomes but conclusive evidence is lacking. The present YPAR study sought to determine the impact of the YPAR approach on the social and emotional needs of 2e students empowered to investigate, reflect, and change their own intervention plans to meet their needs and strengths.

Summary

The 2e students in my classroom needed social and emotional supports matched to their specific backgrounds and context to succeed in school. The literature and existing research synthesized in this chapter showed this problem of practice to be significant and pervasive. Findings from this synthesis supported the use of the YPAR approach to coconstruct and critically examine the impact of an intervention plan. Reflecting critical

pedagogy, intervention plans in this study were cocreated with students to empower them to make changes and solve problems important to them. Because learning is constructed in an inquiry-based, social environment designed with the whole child in mind, intervention plans should focus on individual students' strengths and needs with the teacher positioned as a coach and guide.

The 2e students and I, as coresearchers, created, critically examined, and revised intervention plans during an inquiry process. The resulting plans met the 2e students' individual needs; thus, coping strategies employed in the intervention plans came from strategies identified in this chapter as appropriate for the students' needs and strengths so they could implement self-modulating behaviors independently. The following chapter reviews the qualitative methods used to conduct this study, including the data collection tools, action research cycles, procedures for data collection and storage, participant selection and description, and data analysis plan.

CHAPTER 3: METHODOLOGY

To succeed in school, the twice-exceptional (2e) students in my classroom needed social and emotional supports that met their specific backgrounds and context. To solve this problem of practice, I used a youth participatory action research (YPAR) approach. Three student participants and I coconstructed and critically examined the impact of an individual intervention plan. Intervention plans included coping strategies the students could independently implement to support self-modulating behaviors hindering their learning.

The purpose of this study was significant because it supported the social and emotional needs of identified 2e students to promote their learning and emotional growth. Students identified as 2e are intellectually gifted and have a learning or medical disability. Twice-exceptional students are more prone to have social and emotional problems hinder their learning and cannot be expected to learn if they are not psychologically safe because extreme stress negatively impacts brain functioning (Baum et al., 2017). Fonseca (2015) stipulated gifted students may be prone to emotional struggles due to their inherent intense nature, which is a part of their giftedness. Using the theory of positive disintegration (TPD), Dabrowski (1967/2015) argued gifted children have heightened responses to internal and external stimuli, referred to as overexcitability. Overexcitability could be a factor that leads to exceptional intellectual growth in gifted children; however, if students cannot modulate their emotional responses to overexcitability, the opposite effect can occur (Daniels & Piechowski, 2008). The

purpose of this study was to help 2e students self-modulate their emotional responses to stimuli but not extinguish the overexcitability.

The 2e students in my classroom faced the combined emotional struggles of giftedness with frustrations resulting from learning inhibited by a disability. I wanted to find a solution that would empower my 2e students with the ability to self-modulate the emotional responses hindering their learning and personal growth. To solve this problem of practice, the 2e student participants and I coconstructed personalized intervention plans with applicable coping strategies to self-modulate behaviors obstructive to learning. Intervention plans needed to support the students' ability to independently implement coping strategies in the classroom setting. The goal of this YPAR study was to determine the impact of cocreating individualized intervention plans on students' abilities to self-modulate emotional responses. The following research questions directed the study:

- **Main Research Question**: What happens to a 2e student's ability to self-modulate behaviors intrusive to learning when the student and the teacher coconstruct and reflect on a flexible, individualized intervention plan?
- **Supporting Question 1:** How does a 2e student's ability to recognize and label emotions impact the student's choice of coping strategies to self-modulate behaviors intrusive to learning?
- **Supporting Question 2:** How do 2e students engage in identifying and applying coping strategies intended to address strong emotional responses resulting from internal or external stimuli?

Research Design

This study used a YPAR approach along with qualitative methods to facilitate the cocreation of intervention plans and to determine the impact of the plans on students' abilities to self-modulate behaviors intrusive to learning. YPAR emerged from action research and shares similar aims and processes. As Efron and Ravid (2020) explained, action research is conducted to solve a practical problem of practice in a specific context. Furthermore, action research occurs in cycles of planning, taking actions, collecting and analyzing data, and reflection that informs the next cycle. Herr and Anderson (2015) described action research as the implementation of interventions to solve a problem in context through a series of action cycles.

YPAR holds these same qualities and involves youth in solving problems directly impacting them. YPAR "provides young people with opportunities to study social problems affecting their lives and then determine actions to rectify these problems" (Cammarota & Fine, 2008, p. 22). The YPAR approach was best suited for this study because the 2e student participants were empowered to cocreate intervention plans to support their self-modulation of emotional responses hindering their learning. Social constructivist theory supported our cocreating or constructing learning together through social interactions (Fosnot, 2005). Because 2e students' voices are often unheard by educators when plans or interventions are put in place to support their social and emotional needs, this study incorporated ideas from critical theory, which theorized action should "be forged *with*, not *for*, the oppressed" (Freire, 1970/2017, p. 22).

Intervention

To positively impact my 2e students' abilities to self-modulate emotional responses, the student participants and I cocreated intervention plans that empowered each student to implement effective coping strategies independently (see Appendix A). I implemented a YPAR approach to co-study, with the 2e student participants, which coping strategies were effectively meeting their needs. Coping strategies deemed effective constituted the intervention plans. The data informing the creation of and adjustments to the intervention plans came from qualitative sources: behavioral observations of the students, semistructured student interviews, one-on-one conferences, and student journal entries. Continuous collection and analysis of qualitative data to inform further steps aligned with Herr and Anderson's (2015) idea of action research; they stated, "Interventions constitute a spiral of action cycles" (p. 5). In this study, the student participants and I collaboratively created intervention plans and adjusted the plans through several action cycles.

The cocreation of and adjustments to intervention plans occurred during one-on-one student–teacher conferences. During these conferences, I guided and coached students in choosing, implementing, analyzing, and reflecting on coping strategies to self-modulate emotional responses. To support the cyclical nature of action research, conferences happened twice during the data collection period. Multiple conferences provided opportunities to adjust and reflect on intervention plans in light of newly collected data from interviews, observations, and students' journals. Ideally, action researchers document and analyze "what happens but also how it happens over the course of the ongoing action research cycle of plan, act, observe, reflect" (Merriam & Tisdell,

2016, p. 235). The use of conferences in this study aligned with ideas from critical and social constructivist theories. Critical theory supported this study's use of conferences because they provided the setting for using Freire's (1970/2017) critical pedagogy to be used as a tool for critical discovery through reflection as both teacher and students participated in dual roles. Social constructivist theory also supported the use of conferences because it positions teachers as guides and coaches to students who are actively creating, interpreting, and reorganizing knowledge in individual ways (Brooks & Brooks, 1999; Fosnot, 2005). Conferences were the settings in which the coresearchers worked together to create and adjust intervention plans as needed.

The purpose of cocreating intervention plans was to establish effective coping strategies to modulate the 2e students' emotional responses from overexcitability. The purpose was not to extinguish the overexcitability because, as Daniels and Piechowski (2008) argued, internal growth occurs because individuals struggle through internal conflict to rise to a higher level of understanding and function. Overexcitability is how some individuals experience the world and "tends to exaggerate an individual's experience of life; Dabrowski called it 'the tragic gift' because it amplifies both the high, happy, and joyful moments as well as the lowest and saddest life events" (Tillier, 2009, p. 124). Gifted children experience the world more intensely and do so in different ways. Daniels and Meckstroth (2008) described the uniqueness of gifted children, stating:

> While the qualities of intensity and sensitivity greatly characterize gifted children's emotional development, we must also keep in mind that diversity describes and defines them. In many instances, gifted children differ from one

> another more than they resemble each other. If you choose any quality that might describe one gifted child, the opposite will define another. (pp. 33–34)

Because gifted and talented (G/T) students vary in their strengths and needs, intervention plans with the included coping strategies created in this study needed to allow for variance in the student participants' strengths and needs.

Fonseca (2015) suggested employing coping strategies from an understanding of "the typical intensity inherent in gifted individuals" (p. 10). Twice-exceptional students possess the emotional intensity of gifted students and stresses from asynchronous development due to their disability. Baum et al. (2017) explained 2e students may lack skills in emotional and social regulation and need a supportive environment that explicitly teaches skills of social and emotional intelligence. Thus, coping strategies used for the intervention plans were not intended to extinguish students' overexcitability but to modulate responses to stimuli inhibiting students' personal growth and learning. By involving students as coresearchers using a YPAR approach to develop their intervention plans, the students were empowered to shape and form the intervention plans to meet their needs.

Qualitative methods supported the YPAR approach of this study, conducive to a process of inquiry that emerges during the research (Herr & Anderson, 2015). In this study, I collaborated with 2e student participants to discover solutions to problems directly affecting them. To determine the impact of intervention plans, qualitative data tools and ongoing analysis revealed how the students interpreted, constructed, and attributed meaning to their experiences (Merriam & Tisdell, 2016). Efron and Ravid (2020) described qualitative data as a means to find answers to open-ended questions by

discovering subjective meanings an individual assigned to actions and experiences. Through collecting and analyzing qualitative data, the 2e student participants and I created a rich, holistic picture of the students' interactions, implementation, and impact of their cocreated intervention plans.

Research Setting and Participants

The classroom setting of this study was an elementary school serving approximately 700 students in prekindergarten through fourth grade. More than 50% of students qualified for federal free and reduced-price lunch, and 5% of students in third and fourth grades were identified as G/T based on South Carolina state criteria. At this school, students identified as G/T in third and fourth grade received G/T programming from their classroom teachers, who had the G/T endorsement added to their South Carolina state teaching license. Students in G/T classrooms received instruction in the general education curriculum based on South Carolina's math, language arts, science, and social studies academic standards and G/T curriculum as outlined in the South Carolina Department of Gifted and Education Curriculum and Instruction (2018a).

The study took place in one of my two fourth-grade classes, which I shared with another educator to provide the full curriculum. For half of the school day, I taught one of the two groups language arts and social studies while the other teacher provided instruction in math and science to the other students. For the second half of the day, we switched students, and I taught the next group.

One of the two classes comprised state-identified G/T students (i.e., the G/T classroom) and the other class comprised general education students. The math and science teacher and I provided G/T programming as outlined by the state to our G/T

classrooms along with instruction meeting the state's fourth-grade general education standards. The G/T class comprised 21 students identified as academically G/T by the South Carolina State Department of Education (2018b) criteria. In my population of state-identified G/T students was a subset of identified and underidentified 2e students.

In my G/T classroom, I identified some students as 2e because they had a clinical diagnosis through a medical doctor or instructional diagnosis through a school psychologist. However, other students in the G/T classroom did not have a diagnosed medical or learning disability but had shown characteristics of these disabilities; I considered these students underidentified 2e students. I selected participants from identified and underidentified 2e students in my fourth-grade G/T classroom.

Purposeful sampling ensured a sample that would lead to the most insight on the phenomenon (Merriam & Tisdell, 2016). I enlisted a sample of students identified as 2e or underidentified but showing similar characteristics of identified students and struggling to mitigate their emotional responses. The potential sample size of 2e students challenged to modulate their emotional responses was relatively small because only two to four students each year exhibited continuous problems with self-modulation that severely inhibited their learning. However, according to Efron and Ravid (2020), qualitative action research may have a small sample size if those included are a typical sample who exhibit "the range of characteristics or behaviors in connection to the issue under investigation" (p. 68). I used initial observational data from the G/T classroom to identify potential student participants. During observations, I looked for patterns of strong emotional response incidents consistently impacting students' daily routines, ability to gain knowledge, or capacity to demonstrate learning.

Initially, I identified five students for potential inclusion in this study. Upon further consideration, I excluded two of those five students based on my observations and their needs. One student was identified as having depression and received services from a psychiatrist and therapist who visited him at school every other day. I chose not to include him in this study because trained professionals were meeting his intense emotional needs. I excluded a second student because her emotional responses were happening at home rather than in the classroom. She would become anxious, and her physical responses affected her attendance, but her emotional responses were not observably hindering her learning, and she had shown significant improvement in her ability to apply coping strategies as we progressed through whole-class social and emotional lessons.

I invited the three remaining 2e students who exhibited strong emotional reactions that hindered their learning in the classroom to participate in this study and selected pseudonyms to protect their identities. Marie, a 10-year-old White girl, had an IEP plan to support her medical diagnoses of attention-deficit/hyperactivity disorder (ADHD) and general anxiety. Anxiety about classwork and strong mental fixations on topics and puzzles distracted her from being able to complete her classwork and impacted her grades. Her IEP plan allowed her more time to complete assignments, preferential seating, modified notes, and teacher checks and assistance on the organization of her binder and notebooks. However, these supports were not meeting her needs effectively, and I anticipated she would benefit from participation in this study.

Jeff, a 9-year-old Black boy, did not have an official school or medical diagnosis for a disability but had shown similar characteristics of anxiety and autism spectrum

disorder (ASD). He had received services with the guidance counselor for anxiety and stress since he was in kindergarten. Physical pain and anxiety about his home life triggered Jeff's strong emotional responses. He had fallen behind on class assignments because he was unable to focus on his work due to his intense emotional responses.

The final participant was Henry, a 9-year-old White boy, who started the school year in my general education classroom with a medical diagnosis of ADHD and anxiety. I noticed a few days into the school year Henry exhibited G/T characteristics. His testing data showed he was very close to meeting the cutoff for identification. A couple of months into the school year, I talked with the principal and G/T coordinator to have him moved into the G/T classroom, as I thought this setting would best meet his needs. Midway through the year, he did meet the state criteria for G/T and had a 504 Plan created for him based on his medical diagnosis and status as a 2e student. Although Henry had started receiving supports through his 504 Plan, such as extended time and preferential seating, he needed more support to be successful. His emotional responses not only hindered his learning, but also disrupted the learning of the other students at times. His vocal and physical emotional responses were triggered by anxiety from writing assignments. All three students had been exhibiting strong emotional responses that were hindering their learning in the classroom and could benefit from a cocreated intervention plan to address their unique needs.

Researcher Positionality

In this YPAR study, I was the classroom teacher and coresearcher along with the 2e student participants. My role as a general education and G/T teacher was to provide instruction on South Carolina's fourth-grade English language arts and social studies

academic standards and provide G/T services, such as acceleration, enrichment, and social and emotional instruction, based on students' talents and needs. As the classroom teacher, I had control over rules, procedures, routines, environment, and instruction, which collectively impacted students' emotions, use of strategies, available strategies, and desire to participate. Thus, I had the role of providing a supportive and trusting environment to promote collaboration with the student participants.

Data Collection Methods

Qualitative data tools enabled me to "uncover meaning, develop understanding, and discover insights relevant to the [my] problem" (Merriam & Tisdell, 2016, p. 106). The student participants and I used data from semistructured interviews, student-generated artifacts in the form of journals, and teacher-conducted behavioral observations to create and measure the effectiveness of their intervention plans. I recorded my thought processes in a researcher's journal to document how I arrived at my interpretation of the data. Prior to conferences with the student participants, I collected and analyzed data from the various sources and presented the information to the coresearchers for their feedback. The qualitative data tools used in this study promoted validity by allowing me to create a rich, descriptive picture of the students' progress throughout the study.

Student Interviews

This study used anchored interview questions in a semistructured format, including questions anchored in observation data to prompt students' reflections on their behavioral responses (Merriam & Tisdell, 2016; see Appendix B). Data from behavioral observations and the students' journals informed the questions, and a semistructured interview format allowed me "to respond to the situation at hand, to the emerging

worldview of the respondent, and to new ideas on the topic" (Merriam & Tisdell, 2016, p. 111). Because the 2e students and I were both researchers and participants in this study, interview questions needed to be flexible to adapt to our thoughts, insights, and reflections.

I conducted an initial interview with the students to collect data at the beginning of the action research cycle. In this interview, I based questions on informal behavioral observations in the classroom. Interview questions collected information on how students felt during their strong emotional responses, what students thought caused their emotional responses, what students would have wanted to happen, and what supports students may have wanted to help them mitigate their responses. These initial interviews enabled me to gain more detailed information on the students' thought processes and needs.

Analysis of these initial interviews informed the cocreation of the intervention plans. After I analyzed data from the interviews, observations, and student journals, I created draft intervention plans for each student. I met with each student individually in a conference to discuss their plan, elicit their input to make additions and changes, and answer their questions. During each conference, I instructed and guided the student through their intervention plan, and the student provided feedback. Based on the student's feedback, I made changes to the plan during the conference. After the conference, a new action research cycle began.

Observations and students' journal entries during the subsequent action research cycles informed follow-up interviews. I designed questions to elicit students' thoughts and reflections about behavioral responses, the impact of coping strategies implemented from the intervention plans, and what changes might be necessary to better meet their

needs. I shared my analysis of interviews with the students during their respective one-on-one conferences, and we used the information to revise their intervention plans. Sharing my data analysis with the students during the conferences centered the students as collaborators and supported the study's credibility (Creswell & Miller, 2000; Merriam & Tisdell, 2016).

I conducted a final interview with the 2e students to "capture the process as well as the final findings" (Merriam & Tisdell, 2016, p. 235). Formatted as a semistructured interview, questions guided students to reflect on the need for any adjustments to their intervention plans. The students also reflected on personal growth in their ability to identify emotions and independently implement coping strategies.

Interviews and conferences occurred in the back of the classroom at a small-group table while other students in the classroom worked independently. Each meeting took place at the end of the school day during the response to intervention (RTI) time set aside by the school; classroom teachers, special education teachers, and math and reading interventionists were assigned times by grade level to meet with students who needed more intensive supports. Although this time was usually focused on the students' academic needs, the 2e student participants and I repurposed it for our one-on-one conferences and interviews about their social and emotional needs.

Each interview lasted 10–15 minutes and was recorded using the Otter application on my cell phone. I began each interview with a list of potential questions from the interview protocol, but questions changed depending on the students' responses, in line with the semistructured interview protocol. At the end of the school day, I uploaded the automated transcript created by Otter into a Google document. I then listened to the

recording and made changes to the automated transcript to ensure the text was accurate before uploading the revised transcript into Quirkos, digital qualitative data analysis software. Next, I coded the transcripts and compared the codes to previous data analysis.

Behavioral Observations

I used behavioral observations to better understand the implementation and usefulness of participants' intervention plans in the classroom environment. Efron and Ravid (2020) described observations as "looking at a setting purposely" (p. 91). Observations allowed me to gain firsthand accounts of the students' behavioral responses to stimuli and how the students had been implementing their intervention plans. I used structured observation protocols to collect data on specific behavior (Merriam & Tisdell, 2016; see Appendix C). Observations yielded data on the students' use of coping strategies and the impact of the strategies on their emotional responses to stimuli. Observations occurred during events or times the students had previously experienced a strong emotional response. I did not predetermine when to conduct an observation but used the observational protocol when I noticed a student participant experiencing a strong emotional reaction or implementing their intervention plan.

During observations, I looked for the stimulus, observed the student's physical reaction to the stimulus, checked for the student's use of a coping strategy, and analyzed the impact of the coping strategy. Because I was the classroom teacher and researcher in this study, I stepped in to assist students when needed or asked. I took quick, shorthand notes during or immediately after observations. When students had left the classroom for the day, I revisited my observation notes to expand on what I had witnessed and included notes on my impressions and future topics to discuss with the students. I also entered the

notes into Quirkos and coded them with the other qualitative data. I used member checking or gathered participants' input by sharing my analysis of the observations with the students so they could provide input (Creswell & Miller, 2000). I shared data analysis from observations with the students during conferences and informed the initial cocreation of intervention plans and further adjustments to the plans.

Student Journal Entries

Students' journal entries aided their reflections on their progress implementing their intervention plans and provided me with a glimpse into their thought processes. I built time for individual reflection into our regular classroom routine. Students completed journals individually to record their thoughts and reflections on learning and feelings during the school day. I uploaded data from the 2e student participants' journal entries into Quirkos and analyzed it prior to their individual conferences. As with the data analysis from the observations, I shared the analysis with the students to elicit their input on my interpretation, which enhanced the credibility of the data analysis.

I created a Google Form, disseminated through our online learning management system, that all students in my classroom completed two to three times per week at the end of the school day. The form had multiple-choice and short-answer questions (see Appendix D). In addition to the times, I required the whole class to complete the Google Form, students had ongoing access to the form and the option to complete it more often if

they wanted to do so. I converted all responses to a Google Sheet and uploaded responses from the 2e student participants into Quirkos for coding and comparison to previous data.

Researcher Journal

To collect data on my thought processes during the study, I kept a researcher's journal with my reflections, insights, and reasons for modifications to students' intervention plans. In support of continuous reflection on data in action research, Klehr (2012) stated, "Findings can remain tentative and open to further interrogation in response to the complex and constantly shifting factors at play in any given classroom" (p. 125). In the journal, I reflected on initial data from behavioral observations to identify study participants, their needs and strengths, and their abilities to identify emotions and use coping strategies. My journal served as a tool to track my thinking, decisions, and reflections based on data from observations, interviews, and students' journals. A researcher's journal is useful to record "the process of conducting the research as it is being undertaken" (Merriam & Tisdell, 2016, p. 253). I used memos to track my analysis process in my researcher's journal. Piantanida et al. (2004) promoted the use of memos as a way for researchers to focus on the internal process of creating meaning from data during analysis. The journal provided a picture of my thought processes as the students progressed through the action research cycles. I used a Google document for my researcher's journal, and at the end of each action research cycle, I uploaded the journal to Quirkos to code the contents and compare them to other data sources.

Research Procedure

Prior to beginning this study, I identified potential student participants and taught the whole class social and emotional lessons related to self-modulation. These lessons

provided all students with foundational knowledge and skills they could use to self-modulate strong emotions. These lessons occurred once a week for 30 minutes and addressed topics including (a) naming emotions and responses; (b) choosing appropriate coping strategies; and (c) practicing coping strategies like journaling, positive self-talk, deep breathing, or movement. Children's trade books and passages served as discussion starters for how others could or did use coping strategies. During this time, I observed students to identify potential participants who needed supports beyond these whole-class social and emotional lessons to self-modulate strong emotional responses. Once I identified the three student participants, I sent parental consent forms home with the students (see Appendix E). Before sending the forms home, I contacted the students' parents to discuss the study, explain the concept of twice-exceptionality, and gain their input on their children's social and emotional needs. I also spoke individually to each student about the study to seek their verbal consent.

This YPAR study had three action research cycles referred to as the initial cycle, Cycle 1, and Cycle 2 over a period of 8 weeks (see Table 3.1). The initial cycle occurred during Weeks 1 and 2 of the study. During this cycle, I collected data from observations, students' journals, and interviews at the end of Week 2. Semistructured interviews provided the students' perspectives about their strengths, needs, and insights on data from observations and the students' journal entries. From this data, I drafted a framework intervention plan to build upon with the students. At the beginning of Week 3, I met with each student for a one-on-one conference to share the results of my data analysis and the draft of their intervention plan. During this 15- to 20-minute conference, I explained to students we would engage in this study as coresearchers to discover their needs and what

works for them, and I emphasized that we would use trial and error along with the data to revise the plans to support their self-modulation. As I reviewed the draft plan with the students, I answered their questions, elicited their input, and jotted down changes the students and I suggested during the conference. After the conference, I retyped the plan with the updates and gave a printed copy to the students. I taped a shortened version of the implementation steps to the students' laptops for quick reference.

Cycle 1 occurred during Weeks 3–5. During this time, students enacted their intervention plans and completed their journal entries. I collected data through observations and conducted another student interview at the end of Week 5 to gain students' input. Cycle 2 occurred during Weeks 6–8. This cycle began with another conference about 10 to 15 minutes in length with individual students to discuss changes to their intervention plans based on results from the previous action research cycles and student input. The students implemented their adjusted plans, and I collected and analyzed data using the same tools. The study concluded with a final interview with each student to elicit their input and perspectives on the data collected throughout the action research, discuss future plans for addressing the students' needs, and make any other adjustments to the intervention plans.

Data Analysis

Cammarota and Fine (2008) argued YPAR "praxis reveals how life experiences are malleable and subject to change, and the students possess the agency to produce changes" (p. 6). As coresearchers, the students and I collected and analyzed data throughout the study to support the YPAR approach. Predetermined and emergent codes

yielded patterns of categories or themes that support valid and reliable interpretation of the data to answer the research questions.

To learn about how students' intervention plans impacted their abilities to self-modulate and how the students' needs were changing during this YPAR study, I continuously analyzed data using a combination of predetermined and emergent coding. Predetermined codes derived from the research questions and literature review (Efron & Ravid, 2020) included: identifying emotions, stimuli, physical response, overexcitability, strengths, coping strategies, and self-modulate. Although I coded the data using the predetermined codes, I remained open to additional codes that emerged from the data. I coded each data source in the same manner, comparing and combining codes from multiple data sources to create axial codes. As Merriam and Tisdell (2016) explained, patterns that emerged from the coding form the categories or themes. These categories or themes constituted answers to the research questions.

Because students were coresearchers, they offered input and insights into the data analysis process. During initial individual conferences, I presented the students with tentative themes I had developed from coding behavioral observations, interviews, and students' journal entries. To gain the students' insights and inform creation of and adjustments to intervention plans, the students provided feedback on the tentative themes. As the students implemented their intervention plans, I collected and analyzed data from additional behavioral observations, interviews, and journal entries. I revisited and revised the tentative codes and themes formed from the first cycle. Then I held individual conferences with the students to revisit and adjust their intervention plans based on the revised codes and themes. At the conclusion of the study, I coded and compared

additional data I had collected. My constant comparative method (Straus & Corbin, 2015) enabled me to generate trustworthy interpretations of the results and determine the impact of the YPAR approach on self-modulation of behaviors.

According to Merriam and Tisdell (2016), analyzing data in qualitative action research (e.g., YPAR) focuses "not only on what happens but also how it happened over the course of the ongoing action research cycle plan" (p. 235). The student participants and I analyzed data to create, reflect on, and change their intervention plans. Then I analyzed, interpreted, and arranged the data into themes that provided answers the research questions.

Validity and Reliability

This study answered the research questions by generating trustworthy knowledge to solve my specific problem of practice. Herr and Anderson (2015) described five criteria for qualitative action research validity, which I used as a guide to generate trustworthy results. First, this study provided outcome validity, as actions based on data analysis throughout the study promoted students' abilities to self-modulate. Second, I designed the study so my coresearchers and I engaged in frequent data analysis to ensure process validity. Data from the students' journals, interviews, and behavioral observations facilitated triangulation. Third, I attended to democratic validity by including the students as essential participants and coresearchers in data collection and analysis. Fourth, I ensured catalytic validity because the student participants assisted in cocreating their intervention plans to support self-modulation of behaviors and promote learning. Finally, the study met dialogic validity criteria through the review of the research by peers from the university and colleagues at the study site. These criteria for

trustworthy action research supported the "workability, change, and empowerment" (Herr & Anderson, 2015, p. 72) standards this study sought to meet in finding solutions to the problem of practice.

Ethical Considerations

For this study, I followed the ethical guidelines described by Efron and Ravid (2020) for practitioners who conduct research in their own settings. After obtaining institutional review board approval through my university, I sought and gained permission from my school building administrator and received approval through my school district's educational research committee to conduct the study in my classroom. I notified parents and students of the study's purpose and how I would collect data, so they could give or deny informed consent. Additionally, I kept student data confidential and further anonymized using pseudonyms. Data were stored digitally on my computer and protected with passwords. Some of the data collected with the student participants were used during IEP or 504 Plan meetings, but the use of these data in this context met federal and state guidelines.

Summary

The 2e student participants identified in my classroom needed social and emotional supports that met their specific backgrounds and context to succeed in school. To solve this problem of practice and answer my research questions, I used a YPAR approach with qualitative data collection methods to coconstruct and critically examine the impact of an intervention plan. I used behavioral observations, student interviews, and student journals as data sources and analyzed the data using predetermined and emergent codes throughout the study to inform the creation of and revisions to intervention plans.

The next chapter includes a presentation of the data analysis, including how each student progressed through the research cycles, codes, examples of coded data, themes, and answers to the research questions.

Table 3.1 *Action Research Cycles*

Cycle	Time frame	Teacher researcher actions	Student participant actions
Initial	Weeks 1–2	Observe students' behavior in class	Complete emotion journal entries
		End with initial student interviews	Participate in interview
1	Weeks 3–5	Begin with student conferences	Participate in conference
		Observe students' behavior and use of coping strategies	Complete emotion journal entries
			Implement intervention plan
		End with student interviews	Participate in interview
2	Weeks 6–8	Begin with student conferences	Participate in conference
		Observe students' behavior and use of coping strategies	Complete emotion journal entries
			Implement intervention plan
		Conduct final student interviews	Participate in final interview

CHAPTER 4: PRESENTATION AND ANALYSIS OF DATA

The goal of this qualitative study was to explore the impact of a cocreated intervention plan on twice-exceptional (2e) students' abilities to self-modulate strong emotional responses that hindered learning. Students with 2e abilities possess high abilities—along with disabilities—that can impact their behaviors, including increased intensity, inhibition, or new emergence of behaviors (Reis et al., 2014). These 2e students need support for their talents and disabilities that address their social and emotional needs. Baum et al. (2017) explained, "Twice-exceptional learners often lack skills in emotional and social regulation, organization, stress management, and conflict management" (p. 207). Typically, students with unique needs, who require supports beyond those already offered in the regular classroom, would receive accommodations through 504 Plans or individualized education program (IEP) plans. Unfortunately, because schools do not often identify 2e students or only identify 2e students for their gift or disability, schools do not offer 2e students the services they need to succeed in the classroom (Crim et al., 2008; Foley-Nicpon et al., 2016; Probst, 2006).

Overview of the Study

The 2e students in my classroom needed supports that met their unique needs and could be applied independently. To solve this problem of practice, I used a youth participatory action research (YPAR) approach. With this approach, the 2e student participants and I cocreated and revised a strength-based, behavioral intervention plan. The plan involved applying coping strategies to examine the students' abilities to self-

modulate strong emotional responses that hindered learning. The YPAR approach supported the purpose of solving a problem of practice in a specific context (Efron & Ravid, 2020). Furthermore, the YPAR approach empowered the 2e students and recognized their agency as coresearchers (Cammarota & Fine, 2008). Over a period of 8 weeks, I collected data using qualitative methods including individual student interviews, student emotion journals, and observations. I continuously analyzed the data using a constant comparative method to explore the impact of the intervention plan and answer the research questions. The research questions that guided this study were:

- **Main Research Question:** What happens to a 2e student's ability to self-modulate behaviors intrusive to learning when the student and the teacher coconstruct and reflect on a flexible, individualized intervention plan?
- **Supporting Question 1:** How will a 2e student's ability to recognize and label emotions impact the student's choice of coping strategies to self-modulate behaviors intrusive to learning?
- **Supporting Question 2:** How do 2e students engage in identifying and applying coping strategies intended to address strong emotional responses resulting from internal or external stimuli?

Sample Characteristics

This YPAR study occurred at a public elementary school in South Carolina that served about 700 students in kindergarten through fourth grade. I conducted the study in my fourth-grade language arts and social studies class, which served 21 gifted and talented (G/T) students identified by the South Carolina state criteria. Of those students, I

selected three 2e students to participate in this study who exhibited strong emotional reactions that hindered their learning in the classroom.

At the time of the study, Marie was a 10-year-old, White girl who had an IEP Plan to support her medical diagnosis of attention-deficit/hyperactivity disorder (ADHD), fine motor skills disability, and visual impairment. Jeff was a 9-year-old, Black boy who did not have an official school or medical diagnosis for a disability; however, he had shown characteristics similar to those of anxiety and autism spectrum disorder (ASD). He started receiving services with the guidance counselor for anxiety and stress in kindergarten. The final participant, Henry, was a 9-year-old, White boy who started the school year in my general education language arts and social studies classroom with a medical diagnosis of ADHD, visual impairment, and generalized anxiety; however, he did not have a 504 Plan. Several months into the school year, he was identified as a G/T student by me and school administration moved him into the G/T classroom. Later in the year, he met the state criteria for G/T identification. Midway through the year, a school administrator, Henry's parents, a special education teacher, and myself met to create a 504 Plan for Henry based on his medical diagnosis. All three students were exhibiting strong emotional responses that hindered their learning in the classroom; thus, they needed a cocreated intervention plan to address their unique needs.

Intervention

To support the students' abilities to self-modulate strong emotional responses, we cocreated and revised individualized, strength-based intervention plans. The intervention plans included coping strategies that would meet the unique needs and strengths of each student. Over the course of this study, the students and I revised the intervention plans

based on my analysis of the qualitative data. Three action research cycles occurred during this study.

During the initial cycle, I collected and analyzed data from student observations, student emotion journals, and interviews with the students to create a draft of an intervention plan. Then, I met with the students during one-on-one conferences to share my analysis of the data and the draft of the plan. During the conferences, I sought the students' input and questions to revise the plan. Over the next 3 weeks, I continued to collect and analyze data using the same data collection tools and then met with the students for another conference to gain their input and make changes to the plan. Another 3-week cycle of data collection occurred, followed by a final interview to reflect on the impact of the plan and make any other needed changes.

Findings by Student Participant

To answer the research questions of this qualitative YPAR study, I used interviews, observations, and student journals to gather information about how the three student participants engaged with and were impacted by the cocreated intervention plans. I coded the data using predetermined and emergent codes and then revised them using axial coding to develop tentative themes or categories. Throughout the action research cycles, I employed a constant comparative method to compare the coded data from each participant individually and among the three participants collectively to identify common categories or themes. Using this data analysis method, I discovered four themes: (a) student's needs, (b) self-awareness and self-advocacy, (c) relationships and connections, and (d) self-modulation. Collaboration was an overarching theme. As the students and I progressed through the research cycles, our ability to collaborate improved, which

positively impacted the students' implementation of the intervention plans and academic achievement, highlighting the important contribution of collaboration to the other themes. The following sections present summaries of how each student participant progressed through the action research cycles (see Table 4.1).

Marie

Marie's strengths and overexcitabilities were visual and mathematical problem-solving, sense of humor, creativity, and intense desire to learn more about her passions. She enjoyed playing with Legos and Rubik's cubes, reading nonfiction books, manipulating items with her hands, and independent time to explore her passions. Marie took Taekwondo lessons and loved to talk about her recent achievement of being able to break two boards. Her intense focus on her current passions distracted her from her school work, and she would impulsively stop working on her assignments to focus on her passions. These distractions resulted in many incomplete assignments, which impacted her grades and academic growth. Marie also felt embarrassed because she was often behind other students in completing her work and her confidence in her abilities was decreasing.

I provided Marie extra time in class to complete assignments, and her parents and I had worked out additional time for her at home as well. As a result, Marie felt frustrated that she was unable to spend more time on her passions in school and at home. Additionally, she felt anxious that she would not get correct answers to challenging questions. At these times, her anxiety impeded her focus on the assignment and she was unable to complete her work.

Marie wanted to be able to modulate her impulsivity and anxiousness so she could complete her assignments in a timely manner. She also wanted time to focus on her passions. She had a 504 Plan to provide accommodations for her ADHD and visual impairment, including preferential seating, teacher assistance with organization, printed copies of notes, and extended time to complete assignments. Despite these accommodations, her needs and strengths were not fully addressed; thus, she could not self-modulate the strong emotional responses that hindered her learning.

Initial Cycle

During her initial interview, Marie and I talked about her desire for and intense focus on learning more about topics of interest to her, solving problems such as Rubik's cubes, and manipulating objects like Legos. She pulled several Lego figurines and Rubik's cubes from her jacket pockets, and said she likes to keep them "stashed" to play with during the school day. As her teacher, I observed her spend so much time playing with these items that she was unable to complete her assigned work, and I would prompt her to put them away and return to her classwork. Marie shared she wished she had more time to explore her interests because when she learned about a new topic, she felt consumed with wanting to know more about it. She shared learning more about a topic of interest on the computer through YouTube and Epic (i.e., a digital catalogue of children's books) was an enjoyable activity.

During an initial observation, I noted Marie sneaking onto YouTube to watch videos about how to solve a Rubik's cube when she was supposed to be working on an independent assignment. Over the course of a school week, repeated instances of this behavior caused her to get behind on her class work and she would have several

assignments she had not completed. Her mother would have Marie take the assignments home to complete over the weekend, which left Marie less time to spend on her passions. For example, Marie shared in her journal she was thinking so much about going home to practice on her skateboard that she could not get her classwork done.

In the interview, I asked Marie about how she felt when these distractions occurred. Her first response was, "I don't know." We continued to talk about how her intense focus on Legos and Rubik's cubes were keeping her from completing assignments and some specific instances of this behavior pattern. I asked her again how she felt during these times, and she said, "Sort of like, angry, a tiny bit. Like, honestly, a tiny bit angry. I feel a tiny bit confused." I asked her about what she was thinking "inside her head" and what her physical responses were at these times. Marie said:

> I feel like I should do my classwork. "No, you should do this [classwork]." It's like one part of my brain is thinking one thing and the other is thinking another. They're fighting against each other. Sometimes when I'm tired, I just grab [a Lego or Rubik's cube] slowly and [play with the object]. I'm trying to be sneaky sometimes with it.

In the interview, Marie mentioned her desire to be able to modulate this response so she could complete her required work and have more time for her passions. One day in her journal, Marie wrote she was happy because she completed all her work that day. In the initial interview, she expressed this goal:

> For my work to be actually finished so I can actually do that. Like, go on Epic and see the books and stuff, and learn to do things. And then, when I get home, to be able to do them.

I asked Marie what would have helped her to complete her assigned work on time on the days she was unsuccessful. She said, "Maybe being able to have some time to do that. Like reading on Epic, some more." I also asked her how she handled strong emotions. She responded, "Sometimes, if I find a good thing to doing the work. If I find something fun in doing it, it's easier for me to do it." She also said she handled strong emotions by doing something she enjoys, such as playing with Legos, skateboarding, or solving a Rubik's cube.

Using the data from the initial cycle, I identified Marie's impulsivity and its impact on her ability to complete classwork as an area we could work to improve. Her impulsivity caused a distraction from her school work and resulted in her getting behind on her assignments, which led to her feeling frustration about not having enough time to spend on her passions. I noted her strengths were problem-solving and intense desire to learn more about her passions. With this information in mind, I drafted an intervention plan that built on Marie's strengths to support a behavior goal of self-modulating impulsivity.

Cycle 1

To begin Cycle 1, Marie and I had a one-on-one conference to talk about her draft intervention plan (see Appendix A) and elicit her input about possible revisions. We discussed the sections of the plan in order, making sure to start with her strengths and preferences before continuing to the other intervention plan components (i.e., stimuli, current behavior/reaction, goal behavior, strategies to use, how to get help, steps to implement strategies). To begin, I shared with her my summaries of the strengths, preferences, stimuli, physical responses, and behavior goals I identified from the initial

interview, emotion journals, and observations. She affirmed each of these items and did not have revisions or questions at this point.

Next, I shared with Marie and sought her input on the strategies she would implement to modulate her emotional response. To draw on Marie's strengths and interests, I suggested Marie take short breaks as needed during independent work time and focus on a passion before resuming her classwork. I thought moving her passion items out of her proximity and setting a timer to limit her time spent taking a break would be helpful, which Marie agreed to, sharing, "I feel the same way you said, that I am going to reach down and grab it." We decided she would take a timed break in a different location than her normal seat in class. We worked together on the format of the breaks and determined Marie would go to the rocking chair in the classroom, set a 1- or 2-minute hourglass timer, and choose her activity during this time. She might choose to spend the time with a Rubik's cube, Legos, or other item to manipulate, or spend time looking at books on Epic.

After discussing the process for taking a break as a coping strategy, we reviewed how Marie could get help from me when she needed it, such as sending me an email or using our classroom routine of placing a sticky note with a written message on the whiteboard. Finally, we practiced the sequence of steps Marie would take when she first noticed her physical symptoms: (a) take a deep breath, (b) notice and accept the emotion, (c) take a break if needed, and (d) meet with me later to discuss how the process worked. We taped a small notecard with the steps to her computer for her to easily look back over when she felt a physical response begin.

During this discussion, I often asked if Marie had questions or ideas to add. Her responses were mostly affirmative noises. I noted in my researcher's journal she was very quiet during the conference and I had hoped she would feel more open to sharing her ideas about the plan in the future. I asked her what she liked or wanted to change, and she replied:

> I like it all. Sounds good. I like being able to take a break and do what I want to for a minute and be able to go back and be able to focus because I have that off my mind.

Marie felt motivated to implement this plan because she had ownership in its creation and it built on her strengths to support her needs.

With the plan in place, Marie started independently implementing it the following day. The first instance I observed her using the intervention plan, she independently decided to walk to the rocking chair with her computer, turn the 1-minute hourglass timer over, look on Epic for a minute, and then return to her seat to complete her work. Later in the day, I talked to her during a transition period to see how the break went. Marie responded positively, and said the break was "great." She explained that, even though she only had a minute to browse some books on Epic, it was enough time, and she was able to complete her schoolwork afterward.

Marie's emotion journal during Cycle 1 showed several times she was feeling successful and able to complete work. It also showed one instance where she was worried about needing to take more than one break in a short period of time. On another day, she took a 2-minute break, but it was not enough time to allow her to self-modulate. Once, she asked in the emotion journal if we could talk about her need to take two breaks, and

we met the following day. Marie explained she was concerned she had to take two breaks; the first one did not work, but she felt better after the second break. I praised her for noticing this point about herself and said we could add needing a longer break or more than one break to her plan. Through dialogue, we were able to work toward a solution.

A few days later, I noted Marie was struggling with a different stimulus than impulsivity to focus on her interests. This stimulus seemed to cause anxiety because she did not know the correct answer to a question; however, like her impulsivity, the stimulus resulted in her not being able to complete classwork. Marie had watched a video and was taking a multiple-choice quiz online about it. She was clicking the same key over and over on her computer, but was stuck on one question. I walked over to her to see if she needed help and prompted her to start her intervention plan. She told me she was taking a break and was using her computer timer. However, I did not see the timer on her computer screen. Thus, I reminded her the break might work better if she moved to the rocking chair and used the hourglass timer there. She did not take the suggestion, and a few minutes later, I walked over again to see if I could help because she still appeared to be on the same assignment. She said she could not figure out the answer to one question, and I suggested she go to another assignment and then come back, which she did. After sitting for a few more minutes trying to figure out the same question she was stuck on earlier, she asked to go to the restroom. When she returned, we were moving from independent work to a whole-class activity, which left that work unfinished for the day. The stimulus in this case did not seem to be an intense focus on her passion; rather, it was anxiety about answering a question correctly.

Having identified successes and areas to improve upon, Maria and I started the Cycle 1 interview. Marie explained she thought the plan was working well, saying, “It just gives me a second to just calm down. Get that off my mind. Also, when I know I’m able to do that if I get upset, I’m not feeling so tense and stuff now.” She said knowing she can take a break if she needs it helped her not feel as upset about the work. However, Marie also stated, “If I get really tense, I can go and do it. It just makes me feel calmer that I know I have something to do.” She was able to talk clearly about the stimulus, her physical responses, and her resulting emotions. Marie said, “I started to feel myself tighten up sometimes, and my eyes start going crazy, and I know when I’m having a strong emotion.” Furthermore, she was able to articulate that some emotions are stronger than others and might be harder to self-modulate. She said, “I think sometimes when I am stressed, I just don’t want to do my work. [The break] doesn’t work when I’m like, having a rough day or something and I don’t want to do this.”

I asked Marie about the incident when she chose not to take a break even after I prompted her. She stated, “Sometimes, when I haven’t chosen to take a break, like, I was there. I just felt, like, why should I just get up and go to the rocking chair when I am already sitting around the room?” I responded, “Sometimes that activity of getting up and moving can make you feel better. That extra movement, of just walking away from the problem, can make you feel a little bit better.” I wanted Marie to move to a new location and set a timer to ensure the break was of limited time and in a separate space so it promoted completion of work and did not hinder learning. I appreciated Marie’s willingness to express her thoughts about the plan, such as her question about why she

should move to a new location to take a break, so I had the opportunity to address those concerns and promote collaboration.

To encourage further collaboration, I sought Marie's perspective during the interview about the possibility she was experiencing anxiety about answering questions, which was a different stimulus than the intense focus on her passions we had previously identified. I said:

> I was wondering, as we were talking about triggers from stimuli, the things that causes it. I kind of wonder if sometimes there might be another stimulus. I've noticed, you said, sometimes you didn't understand how to do work or you got stuck on something that was challenging. I'm wondering are they the same thing or different stimulus?

Marie responded, "They're sort of different. Now, I'm understanding it's not so much me wanting to do something else. It's like, with the work, it's just, I don't want to do this. And I get all frustrated with myself." Marie's insistence that she did not answer the question because she did not want to do it, as opposed to perceiving it as challenging, was interesting. At this point, she did not see a connection between not knowing the correct answer and not wanting to do the assignment. I decided to keep my perception of these ideas as connected issues to myself, and planned to bring it up later if I saw another incident where anxiety about getting the correct answer was an issue for her.

Next, I wanted to focus on improvements to Marie's plan. I pointed out the instances in which Marie was able to take a break, return to her work, and complete assignments. Over the prior 3 weeks, she had completed most of her assignments on time. I asked Marie what she thought was working for her, and she mentioned her ability to

decide for herself what she needs. She said she takes deep breaths and then decides if she needs a break because she sometimes does not need one after taking deep breaths. I praised her for this awareness and for making decisions based on what she needs.

To address the issue Marie was having with some breaks not calming her down adequately, I presented the idea of choosing a strategy to fit the strength of the emotional response. I suggested we add an emotional rating system to the steps to help her decide what her response should be based on the strength of the emotion. For example, if her emotions are a higher level, she might need a longer break or more breaks. However, an emotional response at a lower number might need deep breathing and no break. Marie liked the idea and decided to give it a try. I reflected our growing understanding of Marie's needs and strengths with revisions to the intervention plan.

Cycle 2

To begin Cycle 2, Marie and I met one-on-one to revise the intervention plan based on the Cycle 1 data. We began the discussion by adding to her list of strengths, which now included identifying physical signs of emotion, using deep breathing, and recognizing the need for a break or an extra break. We also agreed to add frustration due to being stuck on a challenging question as a stimulus because she now recognized she felt anxiety about not knowing the correct answer. Then, we discussed how we would incorporate the rating system for her emotional responses mentioned in the Cycle 1 interview. We decided to use a rating system from 1 to 5 to identify the intensity of her emotions. If she rated her lower-level emotional response from 1 to 3, she would take a break in the rocking chair like she had been doing already. If she rated her emotions at a 4 or 5, she would take a walk in the hallway. Marie asked how she could let me know she

needed to take a walking break, and we decided she would raise her hand and cross her fingers to signal her need to take a walk in the hallway. With these revisions documented, Marie began to implement the updated plan.

Throughout Cycle 2, Marie continued to implement the plan successfully despite some big events and changes in her life. Her birthday occurred during this time, which caused excitement and added distraction due to the anticipation and new interests to pull on her focus. Marie also had a part in the upcoming school play, which caused a slight increase in anxiety. Additionally, her parents and doctor made changes to her ADHD medication, which decreased Marie's ability to focus and increased the intensity of her emotional responses. Despite these changes in her life, Marie's emotion journal showed she was happy, excited, and able to complete her assignments. Additionally, I observed her successfully use a break as she was working on a piece of writing and then return to complete her work. For her break, Marie incorporated new potential distractions for her attention; she looked up some information about the new watch she had received for her birthday and worked with a new Rubik's cube. Instead of the birthday gifts becoming additional distractions, they became a part of her coping strategies to assist her self-modulation. On another break, she went for a walk in the hallway because she was struggling with a challenging quiz, which caused a high-level emotional response. She returned form the walking break and was able to complete her assignment and received an excellent score. Based on the observations and emotion journals, Marie appeared to succeed with the updated plan.

For the final interview, I wanted to reflect with Marie on her growth and see if she wanted to revise the plan. Because we both agreed the plan was effective in helping her

to modulate her strong emotional responses, we did not make any changes. When I asked Marie how she thought the plan was going and what was working well, she stated she thought the emotion rating scale was helpful and allowed her to choose a coping strategy that fit the context. She said:

> When I wasn't rating [the emotional response], I would just [take a break]. I would do it and be like, wait, I don't feel like it's helped me that much. Then, I would have to go back and have to do another one instead of just do one long break.

I asked Marie to tell me about what she saw as her strengths when dealing with strong emotions. She responded, "I am able to stop [the strong emotional response] by using the coping strategies where before I would just get so into it, it would get really big and I couldn't stop it." When I asked about her ability to name and recognize emotions, she said, "At first, I was like, 'Wait, am I anxious? Nervous? Am I mad?' Now, I'm able to name what it is." She explained she was better at naming and recognizing her emotions because she thought about other instances when she experienced the same feelings and knew the situation was probably the same.

I asked Marie what her physical responses were to the strong emotions. She said, "I notice that my legs start to shake or I get really dizzy. I was like, I'm going to, like, explode." Marie told me she was better able to recognize when she is spinning out of control. She mentioned the feeling of spinning out of control in her emotion journal as well. Now, when she recognizes it, she starts using the strategies in her intervention plan. Marie described an example, sharing:

> The other day on the [English language arts] review yesterday, I couldn't think of the answer. I was just sitting there. I was like [Marie grunted in frustration here]. I started just focusing on my stuff and I was like, wait, I need to calm down and maybe go take a break or something and come back and redo it.

Marie added she had rated the incident with the English language arts review as a Level 3 emotional response and determined she needed to take a longer break. I shared my observation of the previously described incident, when I saw Marie struggle with a challenging quiz and take a walking break, and asked her how it felt. Interestingly, she described her feeling when she went back to work as "refreshed" and "calm." Marie said she was feeling nervous and anxious because she thought she would get a bad grade, and recognized she was feeling "tight" and needed a walking break.

Marie went on to talk about how she uses the strategies in her intervention plan at home when she is frustrated with her sister or her homework. She would walk away and take a break in her closet, which she had cleaned out for this purpose. She said, "I'm able to focus and do my work now. I'm not like, I hate doing this. I actually like doing stuff." I praised her for her growth, including her ability to implement her plan independently and to recognize changes that would benefit her. Marie added her focus had improved because she knows she is able to complete her work and, if she needs to, can take a break to give her mind a chance to explore a passion.

Marie commented about her improved grades. I asked her why she thinks they improved, and she responded, "Being able to focus and know what I'm feeling and being able to calm myself down." The data showed how self-reflecting on her physical responses, emotions, stimuli, and coping strategies increased her ability to be intentional

about her choices. Marie was also able to apply her intervention plan to different settings to meet her current needs. At her yearly IEP review, I had the IEP committee, which included a school administrator, special education teacher, Marie's parents, and me, add the coping strategies she employed in the classroom to her plan so she would have access to these accommodations in the future. Through this YPAR study, Marie's voice and input became a part of her IEP plan.

Jeff

Jeff was a leader in the classroom; most of his classmates wanted to emulate him and followed his suggestions. His strengths and overexcitabilities included athleticism, love for physical activity, and competition. Additionally, Jeff had an excellent memory for facts and figures, particularly about basketball teams and players. Academically, he was strong in error analysis and problem-solving.

One of Jeff's need areas was naming and recognizing his emotional responses. His emotional triggers were anxiety about relationship issues with his mother and acute physical pain that arose during the day. When these triggers occurred, Jeff would become lethargic, withdrawn, and overly focused on the anxiety and immediate physical pain, so he was not able to focus on instruction or assignments. As Jeff's teacher, I noted he would not seek my assistance with his assignments, and when I offered to help, he would say he did not need help. However, Jeff would spend a long time looking at an assignment but not making progress on it. His list of incomplete assignments grew and his father would work with him at home to complete these assignments.

Jeff did not have an IEP or 504 Plan, but he had received small-group and one-on-one assistance and instruction from the guidance counselor starting in kindergarten to

help him self-modulate his emotional response to anxiety. His mother and father were divorced, and he spent time with both parents throughout the week. Jeff's relationship with his father was strong and supportive, but his relationship with his mother had been turbulent and caused him anxiety. Jeff told me he wanted to be able to independently self-modulate his emotional responses and self-advocate with the adults in his life.

Initial Cycle

At the beginning of the year, Jeff said math and science were his favorite subjects, and he shared freely he hated reading and writing. At times, he would refuse to do his language arts classwork; he would put his head on the table or ball himself up in his hoodie. I worked to create a bond with Jeff, and we connected over what he was reading and writing. As the year progressed, he began to love reading and found a passion for writing. However, he would continue to shut down in class and was getting behind on his classwork assignments, particularly his writing assignments. Jeff's father would help him catch up on his school work at home. Based on his father's observations and my observations, Jeff seemed to be behind for reasons other than not knowing how to do the assignments and lacking the motivation to do well in school. Because ability and motivation were not factors hindering Jeff's learning, I thought the problem may arise from his unmodulated emotional responses.

Before Jeff and I met for an interview, I gathered data from observations and his emotion journal. In his emotion journal, he would say he was happy when he was moving around and interacting with his friends. When he wrote about feeling sad or stressed, he said he did not know what caused it or what to do about the strong emotions. Based on initial observational data, I concluded Jeff became taciturn and withdrawn when he was

dealing with strong emotional responses. I noticed he was physically lethargic with gross motor movements and would not talk about what was bothering him, even when asked directly. At these times, he would disengage by putting his head down, not asking for help, and not attempting to work on his classwork. Returning to a neutral state could take up to 2 hours or a change in what we were doing in class. When I asked him about what was bothering him, he would usually respond with a head shake or said nothing.

I noticed during our whole-class lessons on dealing with strong emotional responses that Jeff had trouble naming emotions and connecting physical responses to those emotions. I had seen similar issues with his ability to infer characters' emotions from clues as part of his reading comprehension. When I handed Jeff the parent consent form and sought his consent after explaining the study, he said, "Oh yeah, I have loads of anxiety!" Jeff was excited about working together to tackle his issues with self-modulation.

During our initial interview, I wanted Jeff's perspective on what I had observed. I asked him about what emotion he wanted to work on and he said, "Stress." He told me his physical response to stress was feeling tired, commenting, "I feel bored and I feel like something's just happening to me. My body feels like, all calmed down. It is not really calmed down, but like, more than too calmed down." He told me after he deals with stress, he continues to think about the stress and get more anxious. He called it "overthinking," and said he overthinks at school about incidents that happen at home. Jeff provided examples of his mother scolding him for events he thought were not his fault. At home, Jeff's physical responses to his strong emotions were the same, and he shared, "I'm normally quiet so nobody normally hears me a lot. So, I'm just the one that's up in

my room all the time." I told him about the physical responses I had observed from him at school and asked him to talk about them. He said he was worried about "home things" at those times. His anxiety about home situations clearly caused him to have emotional responses at school that were hindering his learning.

When I asked Jeff what he would like to happen when he felt these emotions, he said, "What I would have wanted to happen is some of the things that I think about to probably not think about." Noting that his efforts not to think about his stresses did not work, he explained walking around can make him feel better, and said, "[I like to] do something to get my body energized." Additionally, he would take deep breaths and try to go back to what he was doing before. I asked him if he had tried moving his body around when he is feeling stressed. He said, "Yeah, but I don't notice until, like, 10 minutes later, but then, my head is just going crazy and I don't know what to do." Jeff believed he did not know how to use movement to help him deal with his emotional response in the classroom. I told him we were going to create an intervention plan so he would know what he could do in class to self-modulate his strong emotions. Jeff needed help noticing his physical sensations from his emotional responses and strategies he could implement to help him move on from his overthinking due to anxiety.

Cycle 1

The next school day after our initial interview, Jeff asked me when we would start working on the plan because he was eager to put a plan in action. We met the following day for our first one-on-one conference about the plan I had created (see Appendix A). I called for him to meet with me and noticed he was showing physical signs of a strong emotional response. I asked him what was causing the emotions and he said he hurt his

leg at recess, but he thought he would be fine and was trying not to think about it. I wanted to know if he had ideas about how to handle situations like this, and when I asked, Jeff said he did not know what to do. I shared he could have told an adult and gotten some ice from the nurse. He responded, "Yeah, I'm also trying to keep these things to myself because I don't want to get embarrassed." I asked him how that was working, and he said, "Terrible." I wondered how many of his other emotional triggers were due to physical pain and his inability to modulate them.

During the conference, Jeff and I went over the intervention plan. We started with his strengths and preferences, such as physical movement, leadership, analytical abilities, and enjoyment of writing. When I asked what he wanted me to change or add, he said, "Nothing, I feel like you got most of it out of the middle, out of the top of my head." Jeff meant that I understood his strengths and preferences. Next, we talked about his anxiety about home situations as a stimulus, and he wanted me to add getting physically hurt as another stimulus. He seemed to connect his current emotional response to physical pain after we began our conference by talking about it, demonstrating our collaboration through dialogue was impacting his thinking about his emotional responses.

Jeff's goal behavior was to accept and name his emotions and stop the emotional spinning so he could complete classwork. He wanted me to add the statement, "I would just like to express myself to people," and clarified he wanted to be able to express himself to adults to get help when needed. We discussed several physical movement strategies to modulate his emotional response, including walking around, using a rubber band around the chair legs (i.e., chair band) to bounce his feet, manipulating therapy putty with his hands, and using a chair disc to rock while sitting in his chair. He said he

wanted to try walking around, using the chair band, and manipulating the putty, so I documented those options in his plan.

To build on Jeff's strength of writing, I added writing in his emotion journal or writer's notebook about his feelings as coping strategies. The writer's notebook was a journal students used to record ideas and thoughts that could later be used for writing topics. I added use of the writer's notebook as a strategy because Jeff enjoyed writing in it already. Jeff agreed with this addition, and told me he had completed an emotion journal entry about his physical pain before our conference. To prepare for the other strategies, Jeff picked out the firmness of therapy putty he preferred and decided where he was going to keep the putty at his seat. We also talked about a hand signal he could use to let me know he needed to take a walk in the hallway. Additionally, I explained how to categorize his stresses as things he can control or things he cannot control. He mentioned he had previously talked with the guidance counselor about categorizing his level of control over events from 1 to 5 "to see how bad it is," and it had helped him; thus, we added the rating system to his plan.

Jeff and I went over the steps of the plan, practiced each step, and reviewed them again. I told him we would try out the plan over the next few weeks and then come back to make changes as needed. I explained that, just like basketball players, we will practice and make changes to our game plan. During the conference, I noticed Jeff's voice volume was low and difficult to hear when we talked about his anxiety; by contrast, when we talked about the coping strategies, his voice was louder and more animated. I inferred Jeff had some anxiety or low self-esteem about his emotional responses. However, he seemed

excited about implementing the plan and coping strategies, which were based on his strengths and needs, and had added his voice to the final product.

The next day, Jeff put the plan in action and we quickly found some areas to improve. He came in from recess with a hurt leg, and when he came back in the room, he got out the therapy putty. He did not squeeze the putty in the way we had discussed; instead, he shaped it into forms. He used the putty for 3 minutes and then began his classwork, but was listlessly typing and slumped down in his chair. After 10 minutes, he gave me the signal to take a walk. He returned quickly and seemed to be experiencing the same physical reactions; thus, I surmised he had not taken a walk but just stepped outside the classroom and then reentered a few seconds later. The class moved on to another assignment, and during this independent time, Jeff used the signal to take another walk. This time he was gone longer, and when he returned, he resumed his classwork and seemed to have more energy. I asked him about how implementing the plan went, and he said he was stressed about his leg still hurting him from yesterday. Jeff explained the therapy putty did not work and had distracted him; however, he shared taking a walk up and down the hallway did work. I suggested when his emotional responses were stronger, like in this case, he may need to take a little more time walking in the hallway.

A few days later, Jeff came into the classroom and immediately sat slumped over in his chair and pulled his hoodie up over his head. He did not appear to use any of his strategies or steps in his plan. We talked at recess, and I reminded him to go through his steps. He told me he had noticed his physical response but did not follow the intervention steps, and when we returned to the classroom, he continued to be slumped over and not attentive to his classwork. I walked over and pointed to the steps taped to his computer

keyboard, and he seemed to use at least the deep breathing step. He also started working on his classwork, but not diligently. Jeff took a poppit—a soft, plastic fidget toy with rounded parts one can push up and down—from his bookbag. I noticed Jeff was manipulating the poppit frequently during this time, as though it took the place of the therapy putty. In his emotion journal for the day, Jeff mentioned he was stressed and did not know what caused the feeling, but tried to do his work. I asked him about using the strategies, particularly the poppit, and he said he did not think it helped him deal with his emotions and had distracted him from his work. Jeff showed an increased ability to recognize what worked for him and what did not.

The following day, Jeff came to class with a little more energy and was smiling, but still seemed to be struggling with sluggishness. After recess in the classroom, he wrapped up in his hoodie and did little classwork. I went over to prompt him to start his strategies, and he did not take a walk; instead, he used the chair band to bounce his feet, and completed a little more work. I wondered how I could support him to independently start the intervention plan and use the strategy of taking a walk.

With this information in mind, I conducted the Cycle 1 interview with Jeff. I asked him about what physical signs he had noticed due to a strong emotional response, and he shared his arm would tingle and he would hide in his hoodie. He had trouble articulating what caused his stresses, but did say he thinks physical pain and thinking about things at home can cause stress. Jeff expressed he felt he had gotten better at using the chair band and using deep breathing. He told me he had "been judging," and explained, "I've been in mid 3s a lot." I asked him to tell me more about this, and he said, "If it's over 3, then I probably need to walk around." Jeff seemed to have changed from

rating the amount of control he had over the stimulus of his stress to rating the strength of his emotions. He thought he had gotten a bit better at recognizing his emotions, but had trouble remembering to look at his steps and start using them.

When I asked Jeff what he liked about the plan, he told me I understood him and what he needed, and did not see anything about the plan that needed to change. However, he acknowledged that when his emotional response was above a 3, he was not able to control his response. He said, "Whenever it goes over 3, I just can't control anything I'm doing at that point." Jeff let me know the hardest part was noticing his physical reactions to his emotions, and agreed he needed help. We talked about how I could prompt him to use his strategies when I noticed his physical reactions, and he described and demonstrated the physical signs by pulling up his hoodie and slumping over in his chair so I would know when to help him.

I mentioned to Jeff that I had only seen him using the walking-around strategy once. Jeff said, "Because I'm trying to save that for, like, when I really need to." When I asked what he meant, he said he wanted to wait to use the strategy when his emotions are above a 3. Interestingly, he also shared he sometimes implements his plan in a different order. He said, "Like, I might take breaths. Then, I might rate the feeling first before I take the breaths." I clarified that he meant taking a deep breath can help him identify his emotion, and I praised his ability to be flexible with the plan as he learned more about his needs. Jeff shared about talking to himself when he has a strong emotional response. I asked him about what he says, and he explained that when he has thoughts about his stress, he talks to himself about what he is currently trying to do to refocus his thoughts. I

responded by sharing his use of self-talk was a great strategy and we could add it to his steps.

Near the end of the interview, I praised Jeff's growth in self-awareness, but he responded, "Sometimes, but not always." I asked him to explain, and he said, "Well, really, I don't feel like this about myself because I didn't notice until it has already passed." He meant previously he was not aware of his growing ability to notice his reactions and just today, during the interview when I brought it up, was he able to reflect on his growth. I decided we needed to work on Jeff's ability to see his growth, stating:

> I'm hearing a kid who can tell me so much more about himself and what he needs and how he feels. I'm hearing a kid who has some ideas about what to do with his strong emotions. I think it's pretty impressive. Make sure you spend time telling yourself you've done a good job.

Jeff demonstrated an increased ability to be self-aware of what strategies worked for him and increased self-advocacy by letting me know what he needed from me. Our collaboration was making an impact on Jeff's understanding about his emotions and his ability to self-modulate.

Cycle 2

With the new data from Cycle 1, I revised Jeff's intervention plan and met with him to get his input. We reviewed the updated plan, starting with these additions to his strengths: (a) rating emotions, (b) knowing what strategies work best for him, and (c) using deep breathing. In the preferences category, for emotions of Levels 4 or 5, I added (a) getting my assistance to prompt him to start the plan and (b) taking a walk. To his stimuli, I added physical pain. For goal behavior, I added recognizing physical reactions

early on, repeating the intervention steps as needed, and taking a walk for Level 4 emotional response or Level 3 if he does not experience improvement using the other strategies. Jeff had me add self-talk to the intervention step, prompting him to name his emotions. Jeff began implementing his intervention plan for Cycle 2.

A couple of days later, Jeff asked for help adding details to his editorial writing, and we had a writing conference about using personal stories as details that would help explain his reasons to support the claim in his editorial. After the conference, as I was walking around the room assisting other students, I noticed Jeff was hitting the same key on his computer over and over. I walked over to him and saw he was punching the same number into his computer calculator. I asked if he was using his intervention plan, and he said, "A little bit." After my prompting, he worked through his intervention steps twice and gave the signal for a walking break, returning 2 minutes later. He independently completed an emotion journal entry before he implemented his plan, and recorded he felt sad and was staring at the screen but not doing his work. After he implemented his intervention plan and took a walk, he completed another journal entry, recording he was happy and enjoyed doing his writing work. His pre- and post-intervention plan implementation journal entries showed the plan was helping Jeff to self-modulate his emotional responses and promote his academic growth.

During independent writing time later that week, Jeff got out his therapy putty and spent most of the writing time manipulating the putty by pulling it apart and swinging the parts around. I talked to him about using the putty for a short amount of time as a break and then returning to his work. Although he put the putty away, he got the putty back out a few minutes later and used it for about 10 minutes without working on his writing. I

talked to him again, and we decided to put the putty someplace else in the room so he could go to that place, use the putty, and return to his work. Our collaboration helped Jeff work out a better solution.

A week later, Jeff struggled similarly with his emotions while working on his writing, and he felt it was not turning out the way he wanted it. Again, I prompted him to implement his strategies. After he came back from his walk, we talked about his writing and what help he needed, and he could see how his writing improved through his revisions and what he could add to it. In his emotion journal, he said he did not know he was having a strong emotion until I reminded him.

During this cycle, Jeff completed twice the number of emotion journals than during the previous cycle. I noticed Jeff usually recorded negative emotions, but completing the emotion journals when he was having a strong emotional reaction was part of his intervention plan implementation. The journaling seemed to be having a positive impact because after he completed the journal, his physical reactions would change. Jeff needed less prompting from me to start the intervention plan as the cycle continued, and several times he gave me the signal to take a walk and returned to complete his work without any prompting. Jeff also completed all his classwork during this cycle, and the work he turned in was of higher quality than his previous work, particularly his writing assignments.

Jeff and I ended Cycle 2 with an interview. I started the interview by talking to him about a break I saw him take earlier in the day, in which he had moved to another location in the room to take a break with the therapy putty and returned to his work with focus and attentiveness. Jeff said he took the break because his stomach was hurting him

after recess. Jeff explained the break worked but not completely; rather, his stomach was still hurting, but at least he was not stressed about it. Although Jeff was not able to stop his emotional reactions to a physical stimulus, he was able to implement strategies to help him to self-modulate the response.

I asked Jeff how he thought the plan was working, and he said, "Good." He was looking at the steps taped to his computer more often when he noticed he had a physical response. He mentioned he did not like using the band now because it was too loud, but I noticed he made sure to take the chair band to his new seat when the students changed assigned seats, so I left this option on his plan. Jeff said he preferred the putty and taking a walk as strategies, and added moving the putty to a new location to take a break had helped. The emotion rating system was also working well, and he shared he rated the earlier stomach pain as a 3, which is why he took a break with the putty rather than a walking break.

Interestingly, Jeff said he was also thinking about weather his response to a stimulus was due to physical pain or an emotion. Jeff said, "I would say, is it physical or emotional?" Demonstrating his increased self-awareness, Jeff noted the stimulus was usually due to anxiety about home situations, but sometimes from a physical pain. He did not have anything he wanted to change to the plan and said he had been self-advocating more with his dad. Jeff shared:

> I really do talk to my dad about how I feel. And normally, it is when I talk about stuff that goes on at home, like, because I have two houses. So, maybe one part happens at one house, and I go tell my dad at the other, because he's the only person I can actually talk to.

Jeff was still working on advocating for himself with his mom, but was sharing with his dad more often.

I mentioned to Jeff that I had noticed him raising his hand to ask for my help more and advocating for himself more in class. He said it was a "slow change." I could tell he did not feel sure of himself, so I decided to turn the conversation to instances in which he had self-advocated and asked him if he could share some examples. He identified he had self-advocated earlier when he told me about his stomach and the previous day in asking for help with a class project. Jeff also smiled as he talked about how he sought help with his editorial and he got a 100% grade on the assignment. I told him recognizing how far he had come in working on his intervention plan was important. He said, "I am now able to express myself more than I was."

Jeff stated, "I'm not spinning that much. Most of what I do is fill out the emotions journal." He meant filling out the emotion journals was helping him self-modulate strong emotional responses. I pointed out to him the emotion journal was another way he was sharing how he felt and asking for what he needed. He smiled at that statement. Jeff shared at home he had "multiple journals" he could write in, and he was using the strategy of taking a walking break at home by walking around his house. Jeff's ability to transfer implementing his coping strategies to a new context shows how he was becoming more adept at self-awareness and self-modulation.

Jeff and I then talked about how he was using the strategy of rating his emotions to choose a coping strategy. Jeff told me:

> Whatever I rate it at is what I am going to do. In these situations, like I did, right there, physical. What I did was I rated how bad it was, or if it is bad enough, that

told me what I need to do. And that's why I really rate them. I rate them by how bad they are.

I also asked Jeff about how our work together had helped him, and he said, "That's like, a huge change for me. And this will probably stick with me. Who knows, until college, and it just makes me feel good to be able to express my feelings like this." Jeff had made progress with self-advocating, noticing his physical responses, choosing a strategy to fit the context, and implementing his intervention plan independently and more often.

Henry

Henry's strengths and overexcitabilities were his compassion and empathy for other people, sense of humor, creativity and flexibility of thinking, high level vocabulary use and understanding, and enthusiasm for learning. At the beginning of the year, Henry was an unidentified 2e student. He had a medical diagnosis of ADHD but did not have a 504 Plan to provide accommodations for his disability, and he started the year in my general education classroom as an underidentified G/T student. Based on classroom observations, I soon realized he was an unidentified 2e student with a disability that may have impeded his identification for G/T services. I reviewed his data from previous years to see what areas he had and had not met for the state G/T criteria. I discovered he was 1 percentage point from meeting the criteria on his ability or reasoning test from third grade. If his achievement scores from third grade had been higher, he would have been able to qualify for G/T services with his combined ability and achievement scores.

From these records, I could see Henry struggled to meet grade-level standards in school since kindergarten due to his disability. Although one of Henry's reasoning subset scores placed him in the 99th percentile nationally, his other reasoning scores were low,

which disqualified him for G/T services. Henry began taking medication for his ADHD in third grade. Although his achievement scores had increased, he still struggled with academics and meeting grade-level standards. I successfully advocated with the principal and G/T coordinator to move him into the G/T class because I thought this setting would be the most supportive placement for his needs. Later in the school year, his achievement and ability scores increased significantly and he officially met the state G/T criteria. The score increases were partially due to the challenging curriculum he received in the G/T classroom, which better met his academic needs. Additionally, by the end of the year, Henry had a 504 Plan that included coping strategies from the intervention plan we cocreated.

Henry's ADHD medication was positively impacting his performance in class and his ability to control his emotional responses, but he still struggled to regulate his emotional responses and his learning was hindered. He exhibited similar emotional responses when he was and was not taking his medication; however, on days he had not taken his medication, his emotional responses were more intense. The day Henry moved into the G/T classroom, he had not taken his medication, which I did not realize until halfway through the day. Unfortunately, his first day in the G/T homeroom did not go well because he was not able to control his impulses such as loud talking outbursts, constantly moving his body, falling out of his chair several times, climbing up the bathroom stalls during a bathroom break, and not completing any classwork or focusing on instruction. At the end of the day, he told his mother he wanted to move back to the general education class because he could not succeed in the G/T class. Unfortunately, Henry connected his experience with not having his medication to the G/T class.

I talked to Henry the next day, assured him he was capable, and explained why we had moved him to this class. After 2 days, I could see an improvement in his impulsivity control and Henry confirmed he had begun his medication again; however, in his mind, he said he felt incapable and defeated. Henry had felt unsuccessful in school before this transition to the G/T class, but his experience the first day increased his feelings of inadequacy and anxiety. From the beginning of the school year, writing in particular had caused him anxiety, despite the fact he was creative and had an above grade-level vocabulary usage. Henry had a significant visual impairment, which made reading and writing a challenge for him; however, supports such as preferential seating and computer-assisted reading and writing helped him meet this need. In addition, ADHD caused him to struggle with focusing his attention on an extended task like writing.

In my general classroom, Henry had been feeling more confident in his writing ability and was improving his ability to stay focused on and complete writing assignments. However, after his initial experience in the G/T classroom, his negativity toward writing increased and caused him to feel anxious about writing tasks. Henry's reactions varied significantly depending on his medication status. If Henry had taken his medication and had a writing assignment to complete, he might rush through the assignment, giving it little attention, or he would avoid working on it. He would not want to share his writing or thoughts about his writing with other students. If he had not taken his medication, Henry's physical reactions to this anxiety were more explosive and disruptive to the whole class. He would react by yelling, slamming his computer shut, and hiding under his desk or another space in the classroom. Henry needed an

intervention plan to help him self-modulate the anxiety triggered by writing tasks so he could progress academically.

Initial Cycle

Henry had been in the G/T class for 3 months when the initial cycle began, and adjusted to the class and formed new friendships shortly after the transition. His confidence in his ability was increasing, which showed in his reading and social studies work; however, he continued to struggle with his writing. He often rushed through assignments, either not giving them much effort or avoiding them completely. One day, we did a quick writing assignment on a prompt, which meant students would jot down their ideas on a topic in 5 minutes. Then, the class shared with each other in small groups. Henry refused to share, despite the encouragement and prompting of his group. Henry put his head down and zipped up his arms and head inside his jacket. I intervened and asked if he would like another student to share his writing for him. He said, "No," so I asked if he could instead share after recess, and he agreed. However, when we returned, Henry continued to refuse to share but agreed to have other students read what he wrote. Henry had written a funny dialogue exchange between a shark and a seal, in which the seal was trying to convince the shark not to eat him. The class laughed at the story, but Henry remained hidden in his jacket.

A few days later, Henry had another strong emotional response. He had not completed any writing for a project we had been working on over a couple of days. I met with him a few times one day to see what help he needed, offer encouragement, and discuss some options for completing the assignment. The first time we met, he responded he was not in the mood to do the assignment and said he did not feel well. The next time I

met with him, he told me he was angry that he needed to complete some of the writing before moving on to another activity he wanted to do instead. Immediately after sharing this statement, he rushed over to a tall director's chair in the room, hid underneath the chair, and zipped up in his jacket to cover his head and face. He stayed under the chair for about 20 minutes before coming out and writing a few words for his assignment.

During the initial cycle, Henry completed his emotion journal but with little to no information, choosing to type in "no" or "nothing" to most of the short-answer responses. For the multiple-choice question about what emotion he felt, he always chose "Happy." For the question about his physical reactions, he chose "Relaxed" or filled in an optional response of "Good," rather than choose an option like "Tense." On one short-answer question, asking if he would like to tell me anything else, he typed "YOU ARE AWESOME!!!!!!!" We did have a trusting relationship and strong connection, but he did not choose to share specific details of his emotions and responses to those emotions through the emotion journal.

I conducted an interview with Henry to gain his perspective about his strengths and needs. He told me he had strong emotions of worry when he had a "super, big test." I asked him to talk about his avoidance of working on and sharing his writing, and he said, "Yeah. I put it in. I put it in my poem," referencing a poem the class had been working on about themselves. He wrote in his poem, "I worry [about] my shark story. (It embarrasses me just thinking about it)." He told me he felt sad because he was shy and his writing was "not how [he] wanted it to be," but said he could not think of anything else to write. I asked him how he knew he was feeling shy, and he said, "Because whenever I have to go talk to someone I don't know that much, or say something big to a lot of people, that

makes me feel shy." I asked him to clarify what he meant, and he explained when he had to talk to 10 or more people about something important, he felt embarrassed. In response to my question about how he reacts to this emotion, he said, "I like to hide." I inquired about how he hides, and he explained, "I go on my bed and put on the covers and, and lay it out straight, and keep the corners clinging together." I asked how he hides at school, and he said he hides in his hoodie, demonstrating by zipping up the hoodie he was wearing and saying, "Like this."

To discover his goals, I asked Henry what he would have wanted to happen in the scenarios we discussed. He told me he would have wanted not to have to share at all, but I explained he would have to share his thoughts and writing in life, and he agreed. I asked him what he could have done to help him deal with that strong emotion, and he replied he could have thought of happy thoughts, saying, "like the time I went to my cousin's house in Orlando."

I noted Henry would share in class often, and was usually the first person with his hand raised to share, except for writing assignments. He shared thoughtful and creative ideas in reading and social studies, and I wanted to find out what was different in these circumstances. He told me, "Sometimes I don't have really good ideas and other times I do have good ideas." I suspected his confidence in his writing ability was causing his anxiety. He was anxious and lacked confidence in his writing, and was therefore not able to share his writing with others and his ability to complete his writing assignments was negatively impacted.

I inquired about what Henry saw as his strengths, and he told me math and social studies were his strong subjects. For his strengths in dealing with strong emotional

responses, he explained how he modulates strong emotions in math, saying, "Really, it's just math because I'm really good at it. And my body says, 'Oh it's math. You can really do that.'" He delivered this statement in a high-pitched voice to imitate how his brain's voice would sound. I asked him if he had used this strategy of positive self-talk with writing. Interestingly, he said, "Not really. My body doesn't say that." I concluded Henry was able to use positive self-talk as a coping strategy in math because he was confident in this area.

I responded to Henry and said, "Guess who's the boss of your body? You are. What if we give that a try? What do you think?" I wanted Henry to learn he could use positive self-talk in writing. To build his confidence, I reminded him of the class's reaction when the other students shared his creative shark story, saying:

> I remember when you shared that story about the shark. It was creative, how you had the shark and the seal talking back and forth. Do you remember the other people in the class clapping and laughing when your classmates read the story? Did you hear that?

Henry said, "No, I plugged my ears." Even when Henry was receiving positive feedback about his writing, his confidence was low. Henry's intervention plan needed to build on his strengths to support his needs so his confidence in his writing ability would improve and he would be able to modulate his strong emotional responses.

Cycle 1

With this information in mind, I drafted an intervention plan and shared it with Henry to get his input (see Appendix A). We discussed the intervention plan, starting with his strengths and preferences. I shared that I thought he was creative, empathetic,

compassionate, and humorous, and how I had seen these strengths in the classroom. He had me add that he was good at science in addition to math and social studies. We also talked about how he preferred to be physically active.

I explained our plan would be like a science experiment, and asked Henry what scientists do if something does not work. He said, "They try again." I shared the stimuli of completing and sharing his writing assignments often initiated his physical responses of avoiding his work, hiding, and rushing through assignments. Our goal was for him to complete and share his writing assignments to the best of his ability. During this time, I sought his input and questions; he responded with no additions and said, "It's very good."

Next, I talked to Henry about the strategies he could use in his plan, including positive self-talk, deep breathing, and imagery, and mentioned we also needed to build up his confidence in his writing ability. We went over the ways he could get help from me and established a signal he could use to let me know he needed me. Finally, we went over, practiced, and reviewed the steps he would take when he had a strong emotional response. I asked again if he would like me to add or change anything, and although he did not have additions or changes, he seemed interested and engaged during the conference. He said, "No, I think it's awesome," and added he liked all the steps, saying, "You're, like, really creative." Henry seemed excited about the intervention plan built from his strengths to support his needs.

The day after the conference, I noticed an immediate improvement in the effort he was putting into his writing. The day before, he had not made any additions to his writing and instead worked on other assignments; however, this day he was diligent and focused on his writing. I thought his confidence in his writing increased after our discussion about

his strengths, yet he was hesitant about sharing with his group. One of his group members asked him to share first, but he refused. I had hoped he would share first before he became more anxious. After all the students in his group had shared but him, they all turned to look at him. I saw him taking some deep breaths, and when one of the students prompted him to share, he took a few more deep breaths and then shared his writing. His voice was quiet but clear and his group clapped for him. I talked to him at the end of the day to get his thoughts on this event. He said it went well and he had taken deep breaths and thought of his mother's hugs.

During this conversation, Henry asked if he could use the therapy putty as a coping strategy, but I hesitated because he had tried it and it was not effective earlier in the year. It became a toy and a distraction to him and the people sitting around him, so I told him we could talk about using the therapy putty another time. Several days later, when the class was working on a brainstorm for an editorial writing, Henry again brought up the possibility of using the therapy putty. During this incident, Henry had written very little for his brainstorm, and what he did write was in large, illegible words. As he was erasing what he had written, I went over to him to remind him to use his intervention plan. Later during class, I asked him to go back and add to his brainstorm, but he said he did not want to and did not like the topic. At this point, he asked to use the therapy putty, and I told him why I was hesitant to use this strategy. We talked about how to use it as a tool to help him modulate his emotions and not as a toy that would distract him from his work. During the independent work time, I watched him use the therapy putty as a toy, building shapes with it and sticking it on to his headphones. I reminded him how to use it as a tool. He did return to his work but played off and on with the putty. At the end of

class, we talked about using the putty, and he said it was helping him, but I had not seen evidence of this help. Allowing Henry to have a voice in the plan and to try out strategies he thought might work, like the therapy putty was important; however, I knew we would need to talk again later about this incident.

The following day, the class returned to the editorial brainstorm with a new topic. Henry wrote some ideas down and seemed enthusiastic about the new topic. A few days later, Henry did not have his medication, and I could tell he was struggling more and was more easily distracted from his work. He got up to get water often and spent more time than needed on the task. He fumbled through his belongings to find his writing materials, and when he finally began his writing assignment, he drew pictures related to the topic and wrote only two words. We had a conference to work through some of his writing ideas. He did tell me he did not have much written because he was busy doing other things, including drawing pictures. I had him verbally share with me his ideas for the writing topic and he was able to give convincing reasons and descriptive details. I transcribed these ideas onto brainstorm paper and praised his creativity. The next day, his behaviors became more pronounced and louder, so they were distractions for the whole class. As he completed an emotion journal, he was giggling, and he typed the word, "farty," with exclamation marks. I talked to him about my observations to get his perspective, and he said he had not had his medication for the past couple of days.

During Cycle 1, Henry continued to complete emotion journals when the whole class was completing them but his journals continued to be only about positive emotions with "nothing" or "no" typed into the short-answer responses. I observed instances when he used the intervention plan, but he did not mention them in his emotion journal.

Although the intervention plan was not always successful at helping Henry complete all his writing classwork, there were some successes. With the plan in place, Henry never became so upset that he physically hid somewhere in the classroom or in his jacket. He was able to get some brainstorm ideas down, never refused to share, attempted to use his strategies, and was able to talk about his emotional responses. On the days Henry took his medication, the intervention plan resulted in a greater positive impact on his ability to complete more of his writing than the days he was not taking his medication. However, on the days he did not have his medication, his emotional responses to writing improved compared to his reactions before we started the intervention plan.

To end Cycle 1, I conducted an interview with Henry to talk about what was working well and how we could revise the plan. I began the interview by talking about Henry's growth so far and reviewing the purpose of the plan. He told me he was using self-talk and imagery. He had used positive self-talk while taking a math test and thought it had helped him get a good grade. However, he thought the strategies did not seem to be working as well with writing. I responded by letting him know he might try those strategies, but he may still need to ask me for help with the coping strategies or his classwork. He said he would work on it.

Henry told me he felt somewhat successful using the strategies with his editorial brainstorm because he was able to get some ideas down on paper, but he did not have time to write more. He added, "I was thinking in my head and doing things that went with the game in my head." He was referring to his editorial topic about computer games being beneficial for kids and implied his thoughts were going off track some, which was

related to not having his medication for ADHD. I acknowledged that putting the plan in action was harder for him when he was dealing with changes due to his medication, and I asked him to keep that in mind as he reflected on how he implemented the plan and the progress he had made. I asked about sharing his writing, and he said, “Yeah, I did really good. I shared it aloud clearly, and I didn’t sound tense, like I was about to blow.” This conversation helped Henry identify examples of his growth, putting the intervention plan in action despite some challenges with implementation.

Next, I asked Henry how he thought using the therapy putty went, and he said, “It didn’t really work that well.” I praised him for learning what works for him and what does not. Then, he wanted to talk about some problems he had with his writing, and said he needed help with his editorial project. We talked about a few things he could do to help generate ideas for writing, including finding a place in the room where he could read his writing aloud or talk out loud to help him generate ideas. I wanted to encourage the connection between his verbal strengths and his writing.

To continue building his self-confidence, I moved the conversation to what Henry thought was working well for him. He said, in addition to the self-talk and thinking of happy memories, our collaboration on the plan had helped. Additionally, he felt his writing had improved, and proudly said, “I feel like it’s getting better and the creativity is going up.” Henry believed his confidence in his writing had also improved, and he declared, “I think that all this work has clicked through to increase my courage.” Based on this evidence, we made some revisions to his plan, including (a) finding a place in the room to talk about his writing out loud, (b) asking me for help with his writing, and (c) using positive self-talk with writing assignments.

Cycle 2

Cycle 2 began with a one-on-one conference to discuss the revisions to Henry's intervention plan. For his strengths, I added (a) perseverance with his writing, (b) sharing more, (c) not avoiding or hiding from doing work, and (d) learning what works and what does not work. For student preferences, I added finding a place in the room where he could talk aloud about his writing to himself. I added generating ideas for writing caused him anxiety as a stimulus. We briefly talked about writer's block and how writers naturally struggle with generating ideas. For his goal behaviors, I added (a) moving past writer's block and asking for help, (b) using positive self-talk with writing, and (c) repeating steps as needed. We reviewed the steps he should take when he noticed his physical reactions, which he said was his body shaking, putting his head down, and stopping his work. I pointed out the steps of asking for help and repeating the steps if his emotional response was still strong. He did not have anything else he wanted to add to the plan, and seemed to like the addition of a place for him to work on his writing in the classroom.

During this cycle, Henry continued to only record positive feelings in his emotion journal, but he did not leave the short answer questions blank or write "nothing." He would write about how field trips, blocking soccer goals at recess, and good things caused his happy feelings. On anything else he wanted me to know, he would type some variation of, "You are the best teacher ever!" The emotion journal was not a place he used to record negative emotions or how he was using the intervention plan.

Based on my observations, Cycle 2 was successful for Henry. He would make use of finding a spot in the classroom to talk out loud to himself about his writing, he was

diligent in taking his editorial project through the writing process, and he accepted constructive criticism from his writing buddies and me as he made changes to his writing. Henry shared his writing with his group and writing partners without hesitation. Interestingly, Henry began to choose writing when he had time for self-chosen work. I often saw him jotting his thoughts down in his writer's notebook, and he often seemed disappointed when we moved on to other work when he was writing.

At the beginning of this cycle, Henry needed my help one time to prompt him to initiate his intervention plan; however, after starting his steps, he was able to return to his writing assignment and completed his work for that day. During this cycle, the class also finished the editorial writing project. When I graded Henry's final piece, he received all his points on the rubric and had produced a well-crafted piece of writing. This assignment was the first time Henry had completed a writing project on time and received all the possible points.

Cycle 2 ended with a final interview with Henry. We did not have any changes we wanted to make to the intervention plan, and Henry shared the strategies were working well for him. He said his strengths were still self-talk and imagery. I asked if he could tell me about an example in which he used these strategies. He said, while writing his editorial, "[I was] anxious about thinking what to write about. But when you gave me the coping strategies, then I did fine." He meant when I prompted him to start the intervention steps, he was able to self-modulate his emotion. I asked how he had changed in being able to identify his emotions, and he said his body indicated when he was feeling anxious, saying, "It acts up," and saying, "My heart tells the brain you should get mad, but I'm not mad." He added:

> At the beginning, I didn't know which emotion I was feeling. And so, I didn't know what coping strategy to use. And now, since I know a lot about my emotions, I can find out what coping strategy to use just like that.

To demonstrate, he snapped his fingers to show how fast he was now able to choose a coping strategy.

Henry started talking about how he was using coping strategies at home. If he was frustrated, he would yell into something, like his pillow, and he would use a poppit if he felt anxious. I asked him what he was most proud of, and he responded enthusiastically it was his writing, adding, "Because, at first, I was getting 70s, 80s. But on my editorial, I got a 100. Yeah, that's my first 100 on writing." Henry shared the coping strategies had helped him improve his writing because they calmed him down when he felt stressed. I ended the interview by asking if he recognized how much he had changed in his ability to self-modulate. He said, "Yeah, I really do." As Henry's confidence and his writing ability developed, he was able to independently implement his intervention plan and learned what strategies worked best for him.

The three student participants demonstrated growth in their abilities to self-modulate the strong emotional responses that had hindered their learning. Their academic achievement, confidence, self-awareness, and ability to self-advocate developed as well. Building the plans from the students' strengths, incorporating their voices into the creation of the plans, and the collaboration between us were essential factors to the success of these cocreated, strength-based intervention plans.

Findings Based on Themes

The following section highlights examples from the coded data used to develop the four themes that emerged from this research study: (a) student's needs, (b) self-advocacy and self-awareness, (c) relationships and connections, and (d) self-modulation. I provide a description of each theme, the codes that contributed to the theme, and examples from the data for each student participant. I conclude by explaining how the overarching theme of collaboration developed and how the four themes mutually impact the overarching theme.

Theme 1: Student's Needs

Theme 1, encompassing what a student needs to successfully self-modulate emotional responses, emerged from the codes: (a) not effective, (b) hindrance to learning, (c) behavior response goals, (d) response to stimuli, and (e) stimuli (see Table 4.2). Data I associated with this theme showcase the stimuli causing students' emotional responses and the accompanying ineffective physical responses that hindered students' learning before the creation and implementation of the intervention plans. I worked collaboratively with each student to identify their needs and determine the behavioral goals that formed the foundation of the intervention plans. Student's needs changed throughout the research cycles, which required the student and I to continuously collaborate to effectively support their needs.

Theme 2: Self-Awareness and Self-Advocacy

Theme 2 emerged from the codes: (a) rating strength of emotion, (b) self-advocate, (c) self-awareness, and (d) naming emotions (see Table 4.3). This theme described the students' understanding of self, their ability to act on their understanding,

and how these factors impacted their self-modulation of strong emotional responses. When students understood their strengths and needs, they could advocate for themselves. Additionally, their ability to identify or name their emotions—and, in some cases, their ability to rate the strength of their emotional responses—contributed to their ability to self-modulate emotional responses. Through our collaborative efforts, the students learned about their emotions and began to advocate for themselves.

Theme 3: Relationships and Connections

Theme 3 encompassed the codes: (a) student input, (b) teacher prompting, (c) feedback and praise from the teacher, (d) seeking help from the teacher, and (e) relationship between the teacher and the student (see Table 4.4). The theme described how I, as the teacher, built relationships and made connections with the students to promote collaboration and engage students as coresearchers. To achieve this goal, I sought the students' input in the creation and revisions of the intervention plans, and I provided positive feedback to encourage students as they implemented the plans. As a result, students felt comfortable and encouraged to seek my help to prompt and guide them as they implemented their plans. The strong relationships and personal connections we created formed the basis of our collaboration and positively impacted students' abilities to self-modulate.

Theme 4: Self-Modulation

I derived Theme 4 from the categorization of the codes: (a) effective, (b) student growth, (c) strength or overexcitability, and (d) choosing and implementing a coping strategy (see Table 4.5). This theme described how the students effectively used coping strategies from the intervention plan to self-modulate their strong emotional responses.

Because students' strengths or overexcitabilities informed the intervention plans, the students showed significant growth in effectively choosing and implementing a coping strategy to modulate their emotional responses. In turn, their ability to self-modulate their strong emotions positively impacted their academic success.

Overarching Theme: Collaboration

The data analysis revealed that successful collaboration among the coresearchers during this YPAR study positively impacted our ability to identify the students' needs, promote students' self-awareness and self-advocacy, and build strong relationships, which resulted in the students being able to self-modulate their strong emotional responses. Accordingly, collaboration was the overarching theme emerging from this study because this component of our work was connected to and influenced by the four previously mentioned themes (see Figure 4.1). Additionally, as we evaluated and revised the intervention plans over the three cycles, our ability to collaborate improved, which increased our effectiveness as noted in the previously described themes. Figure 4.1 shows how the themes derived from this study shared a reciprocal relationship with the overarching theme of collaboration, illustrated by double arrows connecting each theme with collaboration. In other words, strengthening these four themes improved the students' and my ability to collaborate, and improving our collaboration positively impacted the four themes.

As an example of this mutual impact, the balanced dialogue between the students and me as we worked together contributed to their sense of ownership over the intervention plans and our collective ability to implement the plans under a variety of circumstances. Additionally, as the students' understanding of their needs and strengths

grew through our collaborative work, their ability to express that understanding improved. Collaborating to identify the students' strengths and needs had a profound impact on their motivation to implement the intervention plans. Furthermore, our collaboration was successful because we built strong relationships. These relationships formed the foundation for an environment that increased the students' courage to take risks and explore solutions for their needs. As the students explored the impact of these solutions, they gained confidence from their successes. With my guidance, they also learned their failures or mistakes were opportunities to discover what did not work for them. The students and I worked together to act and reflect on the intervention plans, but as the study progressed, the students moved toward independence in initiating, implementing, and reflecting on their intervention plans. Thus, the findings indicate collaboration is essential to students successfully implementing an intervention strategy to self-modulate strong emotional responses that hinder their learning.

Analysis of Data Based on Research Questions

In the following sections, I explain how the coded data and themes provided answers to the research questions I posed in this study. The research questions were designed to illuminate the impact a cocreated intervention plan had on a 2e student's ability to self-modulate strong emotional responses that hindered their learning. I first summarize findings related to the two supporting questions, and then conclude the section with findings answering the main research question.

Supporting Question 1

Through this study, I sought to discover how a 2e student's ability to recognize and label emotions would impact the student's choice of coping strategies to self-

modulate behaviors intrusive to their learning. This question prompted an exploration of how the ability to recognize emotions impacted the student participants' ability to self-modulate their strong emotional responses. In this study, students who were able to notice their physical symptoms and quickly and correctly identify the associated emotions could more effectively choose and implement a coping strategy.

For example, Marie initially believed she was angry about not being able to explore her passions, which included solving puzzles or reading about her interests. As she progressed through the research cycles, she had a realization, sharing, "They're sort of different. Now, I'm understanding it's not so much me wanting to do something else. It's like, with the work, it's just, I don't want to do this. And I get all frustrated with myself." She learned she was upset at not having more time to explore her passions because she was spending her free time catching up on incomplete work. Marie also connected being behind on her classwork to becoming frustrated with herself when she did not know the right answer or when an assignment was challenging. Marie's intervention plan was effective because we used a coping strategy of taking short, timed breaks to explore her passions when she was feeling frustrated with an assignment. Because the content of the break was one of Marie's passions, she told me she would return feeling "refreshed." By implementing the breaks, she began to not "hate" doing the classwork that pulled her away from what she would rather do, and instead realized she could balance classwork and her passions.

Of the three participants, Jeff struggled the most with noticing how his body reacted to anxiety about home life and physical pains, and we determined he needed more support from me to initiate his intervention plan. Jeff would become lethargic and

taciturn as a physical response to anxiety; at times, he would put his head down and zip up inside his hoodie and not complete his assignments. Jeff told me, "I feel tired. I feel bored and I feel like something's just happening to me. I feel anxious." Interestingly, Jeff explained to me, "I'm also trying to keep these things to myself because I don't want to get embarrassed. It's not working." At the beginning of the study, Jeff wrote in his emotion journals that he did not know what had caused his emotion or what to do about it.

However, over the research cycles, Jeff's ability to identify his physical changes improved, which impacted his ability to effectively apply coping strategies. Jeff recognized this change, sharing, "When I first got the coping strategies, I was like, what emotion do I have? But now, I'm like, I have anxiousness." Being able to rate his emotional response also made a difference in his ability to apply the coping strategies. He learned to rate his emotions from 1 to 5, and he knew he had a harder time initiating the plan at a 4 and asked me to prompt him when I noted he was experiencing emotion at this level. Jeff was able to communicate the physical signs I should look for to know when he would need help. At the lower levels of emotions, Jeff was more likely to fill out an emotion journal, commenting, "Now, I can actually put all my thoughts inside of one thing and forget about it." Using the rating system he developed, completing the emotion journal, and talking to me about his needs helped Jeff to improve in his ability to self-advocate. He felt he was better able to express himself after working through the research cycles.

From the beginning of this process, Henry seemed to understand his emotions well. He was able to tell me he was nervous sharing "something big" and "having to

write ideas," and even expressed one of his strong emotional responses in a poem. He understood he responded to strong emotions by hiding and could tell me the different ways he hid, like under a chair or table or zipping up his jacket. He could also tell me the strategies he preferred to use, such as thinking about his mom's hugs, happy memories, and positive self-talk. However, once his emotions spun out of control, Henry's ability to explain how he felt or implement the strategies he preferred was very low. The intervention plan helped Henry by having clear, step-by-step instructions about what to do when he first noticed the physical signs of his emotional response, allowing him to start enacting the plan before his emotions spun out of control. During one interview, Henry told me he could implement a coping strategy "just like that," as he snapped his fingers, because he had learned more about his emotions. As he had success with modulating his emotions, Henry became more confident in his writing abilities and comfortable with sharing his writing. He told me, "I think that all this work has clicked through to increase my courage."

Supporting Question 2

Another goal of this study was to understand how 2e students engage in identifying and applying coping strategies intended to address strong emotional responses resulting from internal or external stimuli. I designed this question to discover the process 2e students go through as they choose and apply a coping strategy, with a focus on how the coping strategies could build on their strength or overexcitability.

Marie's strengths and overexcitability were related to her joy of solving puzzles and a passion for reading more about her interests. She would bring Legos and Rubik's cubes to school hidden in her jacket, and she would sneak time watching YouTube videos

or reading on Epic, a digital catalogue of books. Consumed with exploring these passions, she was often behind in her school work. Even when completing her work, Marie's anxiety about not doing well with her assignments would cause her mind to wander to these passions. Because we designed Marie's coping strategies to support spending time exploring her passions, she was eager to use them. Marie said, "I was like, let's just stop on this for a minute. Read a book on Epic and come back and do it. Then, I could think a little bit better." Using timed breaks allowed her to balance what she needed to do with what she wanted to do.

Jeff's strengths and overexcitabilities were physical movement and writing. Lethargy was a physical sign that he was experiencing a strong emotional response, and moving around helped him to self-modulate. He learned a strong emotional response meant he needed to move his whole body, which he accomplished by taking a walk in the hallways. He also had a strength and passion for writing, so he turned to recording his emotions in the journal to help him modulate lower-level responses. Jeff also experienced physical pain more acutely, which caused him to feel anxious about the pain, and he often needed help to deal with the combination of pain and anxiety. As he felt more open to sharing with me when he had a physical pain, like through our hand signal, I could help him deal with the physical pain first so we could focus on the emotional response. Jeff said, "The thing that I like about it, what we're doing, is that you can understand the things I'm doing."

Some of Henry's strengths were empathy, compassion for others, and his mathematical reasoning. He told me at the beginning of the action research he preferred to use imagery, such as imagining his mother's hugs or happy moments with family, and

he would use positive self-talk when he was struggling in math. For Henry, we needed him to use these strengths to help with his anxiety about generating writing content and sharing his writing. I asked Henry about why he did not use positive self-talk in writing when it worked so well in math, and he responded, "It's just math, because I'm really good at it. And my body says, 'Oh it's math. You can really do that.'" I thought increasing his confidence in writing may help him to apply the coping strategies to this area in the same way he did in math. I provided praise and extra support during the writing process, and noted Henry's confidence increase, which lowered his anxiety. The reduction in anxiety toward writing enabled him to be more successful at choosing and applying his coping strategies. He worked diligently on the writing project at the time, effectively using his coping strategies to intervene when he experienced a strong emotion, which resulted in his first 100 on a writing assignment.

Main Research Question

The main research question that guided this study explored what happens to a 2e student's ability to self-modulate behaviors intrusive to learning when the student and the teacher coconstruct and reflect on a flexible, individualized intervention plan. This research question focused on discovering the impact of collaborating with a 2e student to cocreate an individual and flexible intervention plan. The findings of this study demonstrate collaboration was key to the success of the intervention plans. Additionally, as the students and I worked together throughout the action research cycles, our ability to collaborate improved, which improved our ability to implement, create, and revise the intervention plans.

I valued and continuously sought the students' voices, and as the research progressed, the students became more forthcoming with their input and were better able to self-advocate. I told Marie, "The change I've seen in you has been huge. You have helped me learn about the things that work for you and you gave me ideas of how we can change the plan." To Jeff, I said, "You are telling me what you need, advocating for yourself. Since you've been doing that, I noticed you have not gotten behind on your classwork." All three students and I worked together to keep our communication continuous. They had hand signals to let me know when they needed my help, would email me when they needed to speak with me, and used the emotion journal as a way for me to check in with them. The conferences and interviews were important for our collaboration to successfully implement the intervention plans.

I built trusting relationships through student-specific praise and acknowledgement of the students' strengths and needs. I praised Jeff for his progress with self-advocacy, saying, "That shows some good thinking. That is one way you have improved in the way you're talking to me about how you feel and rating yourself." Henry's confidence improved as I noted his diligence in his writing, and I said, "You shared your writing. You wrote some ideas, and you would stop, think, and add to your writing." Marie confided in me about her impulsiveness and "sneaking" to do things, and she showed me her stash of Legos and Rubik's cubes in her jacket pockets. Knowing she could take a break when she needed it built trust. She said to me, "Just knowing I was able to, like, stop for a second to do it. It helped me a lot. I knew I could do it if I needed it. I knew it was there and I was fine." Trust was an important aspect in the students' ability to take risks and reflect on their needs and strengths.

The students expressed their success and how our work together impacted their success. When I told Jeff, he had grown in his ability to self-advocate, he told me it was because we worked together and he enjoyed that collaboration. Jeff said, "That's like a huge change for me. And this will probably stick with me. Who knows until college and just makes me feel good to be able to express that feeling like this." Marie began to transfer her success to other situations. During our last interview, she shared:

> Sometimes at home, when I'm doing my homework sometimes or other stuff, I'll stop and take a deep breath. I'll say, "I'm going to go over here and do some Legos for a minute." Then, I'll come back and finish.

Henry told me he liked the plan because I was so creative with the ideas I had. I inferred he appreciated my ideas for his plan because they met his needs and strengths. For all three student participants, our ideas for their intervention plans came from our collaboration and originated from their strengths and needs. Thus, we tailored the intervention plans to their individuality as 2e students.

Summary

The purpose of this YPAR study was to cocreate an intervention plan to support 2e students as they worked to self-modulate strong emotional responses to stimuli. The three 2e students and I worked one-on-one to create individualized, strength-based plans. I valued and sought the students' voices throughout the research cycles. Through the coding and analysis of the data, four themes emerged: (a) student's needs, (b) self-advocacy and self-awareness, (c) relationships and connections, and (d) self-modulation. I theorized that collaborating with the students resulted in reciprocal benefits among the four themes and the overarching theme of collaboration, improving our ability to work

together as coresearchers. Thus, in this YPAR qualitative study, collaboration was essential to the successful implementation of the strength-based, individualized intervention plans on the students' ability to self-modulate strong emotional responses and the positive impact on their learning and growth

Table 4.2 *Findings by Student Participant*

	Marie	Jeff	Henry
Strength and Preferences	Solving problems, gaining knowledge about topics of interest, physical manipulation of objects	Physical movement, sports, writing, leadership	High emotional intelligence, creativity, empathy
Emotional response to stimuli	Daily occurrence of emotional responses impacted assignment completion and quality of work Emotional responses include sneaking on websites during independent work and manipulating objects brought from home instead of working on assignments Duration of unmodulated emotions from 10 minutes to 30 minutes	Three to four times per week emotional responses impacted assignment completion, quality of work, and focus on instruction Emotional responses include putting head down, hiding in jacket, not asking for help, disengagement from instruction and assignments Duration of unmodulated emotions from 30 minutes to an hour or more	During each writing instructional period emotional responses impacted assignment completion, quality of work, and refusal to share writing orally with other students Some emotional responses about every two weeks were disruptive to the class. Most responses include avoidance of writing assignments. Duration of unmodulated emotions from 10 minutes to 30 minutes.
Goals	Complete assignments on time Increase independent, self-chosen learning time	Complete assignments on time Recognize physical responses and self-advocate	Increase amount and quality of writing Share writing with other students Follow directions for writing assignments
Intervention Plan Strategies	Timed breaks to learn or manipulate object Rating emotions to determine type or length of break	Physical movement breaks Rating emotions to determine if steps need to be repeated or vary breaks Journaling about emotions Visual cue to seek help from teacher	Positive self-talk and imagery Deep breathing Seek help for writing Quiet location in the classroom to work on writing assignments orally
Impact of intervention plan	Self-modulated almost all emotional responses within 5 minutes. All assignments completed on time. Grades and quality of work increased. Increased independent, self-chosen learning time	Self-modulated most emotional responses within 10 to 15 minutes. All assignments completed on time. Grades and quality of work increased. Self-advocated with prompts or visual cues.	Self-modulated almost all emotional responses within 5 minutes. All writing assignments completed. Grades and quality of work increased. Able to share writing verbally with other students.

Table 4.2 *Theme 1: Student's Needs*

Code	Description	Example quotes				
		Student	Quotations	Coresearcher	Data Source	Cycle
Not effective	Before the intervention plans, students were unable to self-modulate their emotional responses and reacted in ineffective ways.	Marie	"Avoiding work and watching YouTube videos on Rubik's cubes during independent work time."	Teacher	Observation	Initial
			"It's an impulse and I feel like it's something that I could do at home, but I never have enough time, so I want to do it then."	Marie	Interview	Initial
		Jeff	"Avoidance and waiting to get help from his father at home."	Teacher	Observation	Initial
			"Once I realized I've already dealt with stress, I get really anxious, which can cause harder stress in me."	Jeff	Interview	Initial
		Henry	"He refused again and sat under a tall director's chair for the duration of the activity."	Teacher	Observation	Initial
			"I would have wanted to just not share it, just not share."	Henry	Interview	Initial
			"No, I plugged my ears."	Henry	Interview	Initial
Hindrance to learning	Students' inability to modulate their emotional responses hindered their learning and personal growth before the implementation of the intervention plans.	Marie	"I feel like I should do my classwork, but I don't. 'No, you should do this.' It's like one part of my brain is thinking one thing and the other is thinking another. It's like they're fighting against each other."	Marie	Interview	Initial
			"I had her put the cube back at her break spot. Based on past experiences, this would have distracted her from her work."	Teacher	Observation	2
		Jeff	"He would put his head down and click keys on his computer but not really complete his work."	Teacher	Observation	Initial

Code	Description	Example quotes				
		Student	Quotations	Coresearcher	Data Source	Cycle
			"Lack of confidence in his ability to complete the assignments."	Teacher	Observation	Initial
			"He got the putty and spent a good bit of time playing with it, but he did not work on his writing."	Teacher	Observation	2
		Henry	"Yeah, I just couldn't think of anything else."	Henry	Interview	Initial
			"He put his head down and refused to work."	Teacher	Observation	Initial
Behavior response goals	The student and I worked together to determine the student's behavioral goals or desired outcomes when confronted with a stimulus.	Marie	"Like, for my work to be actually finished so I can do the other things I want."	Marie	Interview	Initial
			"Our goal is that you complete your assignments on time so that you have more independent time to do the things you want to do."	Teacher	Interview	1
		Jeff	"Sometimes I would just like to express myself to people."	Jeff	Interview	Initial
			Jeff's goals were "to accept the worry . . . to stop spinning . . . complete assignments and ask for help."	Teacher	Interview Notes	1
			"Our new goal is for you to connect your physical sensations to your emotions."	Teacher	Interview	2
		Henry	"Instead of hiding or avoiding your writing assignments, the goal is for you to follow directions and complete assignments; that includes sharing."	Teacher	Interview	1
			"Getting yourself past writer's block and asking for help when you need it."	Teacher	Interview	2
Response to stimuli	Before the creation of the intervention plans, students had	Marie	"I sort of get bored at my work, and I want to do other stuff. So, before I stop and think about it. It's an impulse."	Marie	Interview	Initial

Code	Description	Example quotes				
		Student	Quotations	Coresearcher	Data Source	Cycle
	physical responses to internal or external stimuli that hindered their learning.		"I just grab it slowly and do it. I'm trying to be sneaky sometimes with it."	Marie	Interview	Initial
			"My body was acting crazy."	Marie	Journal	2
		Jeff	"I feel tired. I feel bored and I feel like something's just happening to me. I feel anxious."	Jeff	Interview	Initial
			"Sitting and looking at a screen for a long time."	Jeff	Journal	2
			"My arm or head would be tense or tingle."	Jeff	Interview	1
		Henry	"Tense body, avoided eye contact, shallow breathing"	Teacher	Observation	Initial
			"I, like, hide. Remember when I just went under the table and then I wouldn't come out?"	Henry	Interview	Initial
			"My body tells me. It acts up. It does something I don't normally do."	Henry	Interview	2
Stimuli	The internal or external stimuli caused a strong emotional response in the students that hindered their learning.	Marie	"Playing with Legos. Actually, I have some stashed in my pocket because I want to play with Legos. Sometimes I want to, like, read a book."	Marie	Interview	Initial
			"The ReadWorks question was hard."	Marie	Journal	1
		Jeff	"I'm mostly worried about home things."	Jeff	Interview	Initial
			"Probably just overthinking about what's going to probably happen."	Jeff	Interview	Initial
			"Sometimes it can be physical."	Jeff	Interview	1
		Henry	"It was not how I wanted it to be."	Henry	Interview	Initial
			"Whenever I have to go talk to someone, to say something big, or to a lot of people."	Henry	Interview	Initial
			"Like, having to write ideas and share."	Henry	Interview	1

Note. I edited the quotes for clarity and redundancy.

Table 4.3 *Theme 2: Self-Awareness and Self-Advocacy*

Code	Description	Example quotes				
		Student	Quotations	Coresearcher	Data Source	Cycle
Rating strength of emotion	A couple of students rated the strength of their emotional responses to make decisions about choosing and implementing coping strategies.	Marie	"I tried that a second ago. I was just, like, taking a break and thought I was good, but I was like, no, this is bigger than a 1."	Marie	Interview	2
			"She is using the rating system to decide how long of a break to take. Today she only needed one break because it was a Level 1 for her."	Teacher	Observation	2
			"I like rating it and doing my strategy depending on what I rate it."	Marie	Interview	2
		Jeff	"Maybe just try to see how bad it is, 1 out of 5; 5 is the worst, 1 is like alright. I think if I can say if it's bad or something, then I'll know what to do about it."	Jeff	Interview	1
			"I asked what level of emotion he is at and he said 4. I told him maybe he could take a walk since it is so high which he did. When he returned his mood had improved."	Teacher	Observation	1
		Henry [a]				
Self-advocate	During the action research cycles, students became more adept at advocating for themselves and expressing their needs.	Marie	"She sent me an email after filling out the emotion journal asking to meet with me. She wanted to talk about how she needed more than one break."	Teacher	Observation	1
			"She told me later that she figured out the numbers to decide on her break."	Teacher	Observation	1
		Jeff	"I thought that I could just go on with it and I would be fine. But I wasn't."	Jeff	Interview	1

Code	Description	Example quotes				
		Student	Quotations	Coresearcher	Data Source	Cycle
			"I'm also trying to keep these things to myself because I don't want to get embarrassed. It's not working."	Jeff	Interview	1
			"You are telling me what you need, advocating for yourself. Since you've been doing that, I noticed you have not gotten behind on your classwork."	Teacher	Interview	2
		Henry	"I suggested that if this happens again, he tells the people he needs another minute to get ready."	Teacher	Observation	1
			"One idea I have is that you can give me a signal when you are having a hard time sharing or working on your writing."	Teacher	Interview	1
Self-awareness	The students became more aware of their needs and physical reactions to stimuli.	Marie	"She said after one break she was still feeling as strong emotion but after two breaks she felt better."	Teacher	Observation	1
			"I noticed that my legs start to shake. I get really dizzy and I was like, 'I'm going to explode.'"	Marie	Interview	2
		Jeff	"Somethings you can control and somethings you can't."	Jeff	Interview	1
			"I think the band has definitely been helping. I have been judging to rate how bad my stress is. I've been in mid-3s a lot."	Jeff	Interview	1
		Henry	"About the therapy putty, it didn't really work that well."	Henry	Interview	1
			"When I'm mad, my heart tells the brain that you should get mad, but I'm not mad."	Henry	Interview	2

Code	Description	Example quotes				
		Student	Quotations	Coresearcher	Data Source	Cycle
Naming emotions	Students' abilities to precisely name and identify their emotions and the accompanying physical reactions impacted their implementation of the intervention plans.	Marie	"She talked about how she feels less angry and realizes she was not really angry but worried."	Teacher	Observation	2
			"They're sort of different. Now, I'm understanding, it's not so much me wanting to do something else. It's like, with the work, it's just, I don't want to do this. And I get all frustrated with myself."	Marie	Interview	1
		Jeff	"But I don't notice until like 10 minutes later, but then my head is just going crazy and I don't know what to do."	Jeff	Interview	Initial
			"Noticing my body is hard to do."	Jeff	Interview	1
		Henry	"Seemed to have trouble naming the strong emotion we were working on with his plan."	Teacher	Observation	1
			"When I first got the coping strategies, I was like, what emotion do I have? But now, I'm like, I have anxiousness."	Henry	Interview	2

Note. I edited the quotes for clarity and redundancy.

[a] Henry did not use the rating emotion strategy so no data appeared in that section of the table.

Table 4.4 *Theme 3: Relationships and Connections*

Code	Description	Example quotes				
		Student	Quotations	Coresearcher	Data Source	Cycle
Student input	I sought out and included the students' input in the creation and revisions to the plans.	Marie	"That's really good that you can recognize sometimes you need a different break . . . So that can be something we add to the plan."	Teacher	Interview	1
			"I am going to add that to how to get help . . . I'm glad you said that."	Teacher	Interview	2
		Jeff	"Nothing, I feel like you got most of it out of the middle, out of the top of my head."	Jeff	Interview	1
			"I'm trying to save that for, like, when I really need to."	Jeff	Interview	1
			"So, let's do something different. What could you do instead?"	Teacher	Interview	1
		Henry	"What do you think would be a good signal to use?"	Teacher	Interview	1
			"Does that sound like something you want to work on?"	Teacher	Interview	1
			"Other things I like are that we work together on things."	Henry	Interview	1
Teacher prompting	I supported the student with prompts to initiate the intervention plan or prompts on how to implement a coping strategy effectively.	Marie	"We talked about how the strategies are working well, but she has to use them. She agreed and said she forgot to bring in something for a break. I reminded her she could read on Epic."	Teacher	Observation	1
			"I reminded her that it might work better if she moved over to the rocking chair for her break."	Teacher	Observation	1
		Jeff	"He said he noticed his physical reactions but did not follow the other steps. We reviewed the steps and he seemed to remember them."	Teacher	Observation	1

Code	Description	Example quotes				
		Student	Quotations	Coresearcher	Data Source	Cycle
			"So, you're saying you just need some help with the strategies when it gets over a 3?"	Teacher	Interview	1
			"Well, I didn't know at first that I was having that emotion until my teacher reminded me."	Jeff	Journal	2
		Henry	"I saw him tearing off pieces of the putty and sticking it to his headphones. I checked in with him to remind him how to use it."	Teacher	Observation	1
			"If I notice you're not following the intervention steps, I will walk over to remind you of them."	Teacher	Interview	2
Feedback and praise from the teacher	I supported the students' efforts and progress through specific praise and feedback.	Marie	"I'm impressed with how quickly you started using the plan and without my help in prompting you."	Teacher	Interview	1
			"The change I've seen in you has been huge. You have helped me learn about the things that work for you and you gave me ideas of how we can change the plan."	Teacher	Interview	2
		Jeff	"I am seeing and hearing a kid who can tell me so much more about himself and what he needs."	Teacher	Interview	1
			"That shows some good thinking. That is one way you have improved in the way you're talking to me about how you feel and rating yourself."	Teacher	Interview	1
		Henry	"You have really good ideas. When you raise your hand, I love to call on you because you have some creative ideas."	Teacher	Interview	Initial
			"You shared your writing. You wrote some ideas, and you would stop, think, and add to your writing."	Teacher	Interview	1

Code	Description	Example quotes				
		Student	Quotations	Coresearcher	Data Source	Cycle
Seeking help from the teacher	The students were comfortable seeking assistance from me.	Marie	"What if someone goes and sits in the rocking chair? What should I do?"	Marie	Interview	2
			"I was wondering if there was a way for me to let you know that I needed to go out to walk?"	Marie	Interview	2
		Jeff	"Maybe I can give you some key things that might happen so you can know when to help me."	Jeff	Interview	1
			"He raised his hand to tell me it was bothering him. I had him get a cool, wet towel. He started to work again but went back to rubbing his eye."	Teacher	Observation	2
		Henry	"Sometimes you might still need to ask for help."	Teacher	Interview	1
			"I want him to be able to seek out help when he needs it and continue to transfer his ability to self-talk to writing more."	Teacher	Interview notes	1
Relationship between the teacher and the student	The student and I created a trusting and strong relationship.	Marie	"She shows me the Lego in her jacket pocket. Later, she shows me the miniature Rubik's cube in her pocket, too."	Marie	Interview notes	1
			"Marie and I talked after she requested so from yesterday. She wanted to talk about how many breaks she needed."	Teacher	Observation	1
		Jeff	"He still makes eye contact with me often in a way that seems like he is checking in. When we do make eye contact, he smiles and then returns to work."	Teacher	Observation	2
			"The thing that I like about it, what we're doing, is that you can understand the things I'm doing."	Jeff	Interview	1

Code	Description	Example quotes				
		Student	Quotations	Coresearcher	Data Source	Cycle
		Henry	“He moved seats closer to me. He was very excited about this. He said he got to be closer to me.”	Teacher	Observation	2
			“You are the best teacher ever!!!!!”	Henry	Journal	2
			“You’re, like, really creative.”	Henry	Interview	1

Note. I edited the quotes for clarity and redundancy

Table 4.5 *Theme 4: Self-Modulation*

Code	Description	Example quotes				
		Student	Quotations	Coresearcher	Data Source	Cycle
Effective	As students implemented their intervention plans, their responses to emotional stimuli became more effective.	Marie	"Being able to focus and know what I am feeling to calm myself down."	Marie	Interview	2
			"Just knowing I was able to, like, stop for a second to do it. It helped me a lot. I knew I could do it if I needed it. I knew it was there and I was fine."	Marie	Interview	2
			"I went back, like, refreshed."	Marie	Interview	2
		Jeff	"I'm not spinning that much. Most of what I do is fill out the emotions journal."	Jeff	Interview	2
			"I did everything I needed throughout the day by using my coping strategies."	Jeff	Journal	2
		Henry	"When we were doing the brainstorm, I didn't think a lot about things because I was so anxious. But when you gave me the coping strategies, then I did. I did fine doing that."	Henry	Interview	2
			"I saw a greater improvement with his ability to use his coping strategies. Both weeks he has shared his writing, stayed on task more, and seemed to be more concerned with doing his best on his writing."	Teacher	Observation	1
Student growth	Students showed growth in their ability to self-modulate strong emotional responses, which positively impacted their academic learning and confidence.	Marie	"You have changed in not just being able to complete your work on time, but the quality of your assignments has increased."	Teacher	Interview	2
			"I'm able to focus and do my work now. I'm not like, I hate doing this. I actually like doing stuff before I was like (grunts)."	Marie	Interview	2
		Jeff	"That's like a huge change for me. And this will probably stick with me. Who knows until	Jeff	Interview	2

Code	Description	Example quotes				
		Student	Quotations	Coresearcher	Data Source	Cycle
			college and just makes me feel good to be able to express that feeling like this."			
			"I am now able to express myself more than I was."	Jeff	Interview	2
		Henry	"Because at first, I was getting 70s, 80s. But on my editorial, I got a 100. Yeah, that's my first 100 on writing."	Henry	Interview	2
			"I think that all this work has clicked through to increase my courage."	Henry	Interview	2
			"Yeah, really good. I did it well. I shared it aloud. Clearly and I didn't sound tense like I was about to blow."	Henry	Interview	2
Strength/OE	We created the intervention plans from students' strengths and overexcitability. We view overexcitability as an asset or strength.	Marie	"Like that time, you were watching the videos on how to solve the Rubik's cubes. You were really interested in trying to solve it and your brain was just focused on that."	Teacher	Interview	Initial
			"I've been on Epic and I've seen videos or books so I want to go back to those books instead of doing the new work."	Marie	Interview	Initial
		Jeff	"What I mean by that is like just getting my feet moving. At least one part of my body."	Jeff	Interview	Initial
			"Now, I can actually put all my thoughts inside of one thing and forget about it."	Jeff	Interview	2
		Henry	"Yeah. I put it in. I put it in my poem."	Henry	Interview	Initial
			"Really. It's just math because I'm really good at it. And my body says, 'Oh it's math. You can really do that.'"	Henry	Interview	Initial
			"I feel like it's getting better and the creativity is going up."	Henry	Interview	1

Code	Description	Example quotes				
		Student	Quotations	Coresearcher	Data Source	Cycle
Choosing and implementing a coping strategy	Students learned how to choose and implement appropriate coping strategies that met their needs and fit their context.	Marie	"Sometimes at home, I do. Like when I'm doing my homework sometimes or other stuff. I'll stop and take a deep breath. I'll say I'm going to go over here and do some Legos for a minute. Then, I'll come back and finish."	Marie	Interview	2
			"I was like, let's just stop on this for a minute. Read a book on Epic and come back and do it. Then, I could think a little bit better."	Marie	Interview	2
		Jeff	"Like, if it's over a 3, then I probably need to walk around."	Jeff	Interview	2
			"I only choose by rating. Whatever I rate it at is what I am going to do."	Jeff	Interview	2
		Henry	"Whenever, I get stuck on that, I can usually just take a deep breath and then just do one of the coping strategies and go back to my work. Then, I feel like my mom helped me."	Henry	Interview	2
			"At the beginning, I didn't know which emotion I was feeling. And so, I didn't know what coping strategy to use. And now, since I know a lot about my emotions, I can get, I can find out what coping strategy to use, just like that."	Henry	Interview	2

Note. I edited the quotes for clarity and redundancy.

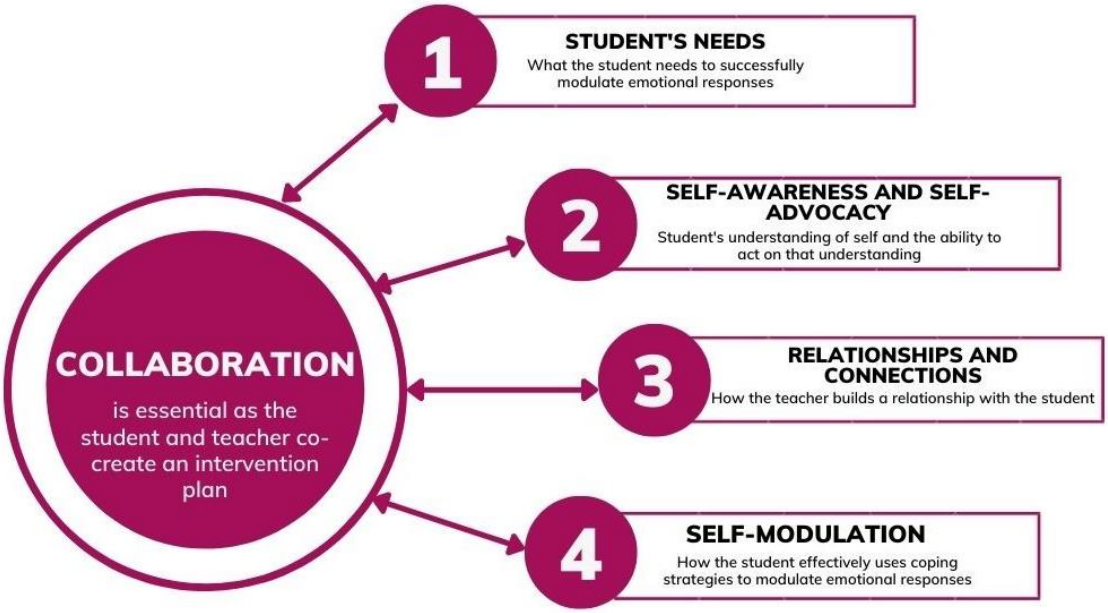


Figure 4.1 *Diagram Connecting Collaboration With Supporting Themes*

CHAPTER 5: IMPLICATIONS

This youth participatory action research (YPAR) study aimed to discover the impact of a cocreated, strength-based, individualized intervention plan on twice-exceptional (2e) students' ability to self-modulate strong emotional responses. These emotional responses often hindered students' academic progress and growth. Three of the 2e students in my fourth-grade gifted and talented (G/T) classroom needed individualized social and emotional supports because their responses to stimuli were negatively impacting their learning. Two of the 2e student participants had an individualized education program (IEP) or 504 Plan, which provided accommodations for their disabilities; however, these accommodations were not adequately meeting their social and emotional needs. The other 2e student participant did not have an IEP or 504 Plan for accommodations, but he had continuously shown a need for social and emotional supports since kindergarten.

Using critical pedagogy, social constructivist theory, and the theory of positive disintegration as the theoretical framework, this action research sought to empower the student participants with my guidance to investigate coping strategies that would support their strengths and needs so they could successfully self-modulate or vary the intensity of their emotional responses to positively impact their academic growth. To solve this problem of practice, the student participants and I worked one-on-one to cocreate strength-based intervention plans. The intervention plans built upon students' strengths or overexcitabilities to support their social and emotional needs. The plans provided coping

strategies and specific steps the student participants could implement independently to support self-modulating their strong emotional responses. Using interviews with students, student emotion journals, and observations, I collected and analyzed data throughout three research cycles. I used the data analysis to inform revisions to the intervention plans and answer the three research questions that guided this study:

- **Main Research Question**: What happens to a 2e student's ability to self-modulate behaviors intrusive to learning when the student and teacher coconstruct and reflect on a flexible, individualized intervention plan?
- **Supporting Question 1**: How does a 2e student's ability to recognize and label emotions impact the student's choice of coping strategies to self-modulate behaviors intrusive to learning?
- **Supporting Question 2**: How do 2e students engage in identifying and applying coping strategies intended to address strong emotional responses resulting from internal or external stimuli?

Four themes emerged from the data analysis process: (a) student's needs, (b) self-awareness and self-advocacy, (c) relationships and connections, and (d) self-modulation. The theme of student's needs showed what each student needed to reach their behavior goals and successfully self-modulate strong physical responses to external or internal stimuli. Self-awareness and self-advocacy demonstrated how each student's awareness of their emotions, needs, and strengths impacted their ability to self-advocate. The theme of relationships and connections showed how I, in my role of teacher, created strong relationships as I supported each student with prompting and positive feedback. The self-modulation theme provided evidence that student input was essential to creating and

revising the plans. Overall, the study showed strength-based intervention plans with individualized coping strategies were effective in supporting the students' abilities to self-modulate strong emotional responses. An overarching concept, collaboration, emerged as a cross-cutting theme that connected the previously described four themes. I theorized our collaboration efforts had reciprocal benefits demonstrated by the other four themes; specifically, our collaboration was an essential component to successfully creating and revising effective, individualized, strength-based intervention plans.

This chapter includes the implications of the research findings, a reflection on the research process, and recommendations for future research. The chapter begins with a summary of the research findings by theme, the connection of the themes with previously reviewed literature, and conclusions from these connections. From these conclusions, I then describe the practice recommendations and a plan for implementation. Finally, the chapter provides a reflection on the research methods with a discussion of the study's limitations and suggestions for future research.

Key Findings in Relation to Literature

The following sections provide conclusions that connect the themes derived from the data to existing literature. I first summarize each theme: (a) student's needs, (b) self-awareness and self-advocacy, (c) relationships and connections, and (d) self-modulation. Next, I describe each theme's connection to data from the study, existing literature, the theoretical framework, and the significance of the study. The section offers conclusions about the overarching theme of collaboration framed by existing literature and data from this study.

Student's Needs

The theme of student's needs explored what each student needed to successfully self-modulate emotional responses to promote their continued academic, social, and emotional growth. This theme showed the connection between the stimuli and the accompanying physical responses that hindered student learning before the creation and implementation of the intervention plans. Previous studies have shown that failing to meet 2e students' social and emotional needs hinders their academic growth (Baum et al., 2017; Neihart, 2017; Ogurlu, 2021). For 2e students, intense emotions can be their dominating characteristic and can influence their social interactions and cognitive functioning (Nielsen & Higgins, 2012). Additionally, Dabrowski's theory of positive disintegration argued gifted individuals may be more likely to experience intense emotional reactions to stimuli referred to as overexcitability (Daniels & Meckstroth, 2008; Piechowski, 2014; Silverman, 2008). Overexcitability may manifest as a behavior resulting from an intense emotional response, and this intensity is part of what promotes development and talents in gifted individuals (Daniels & Piechowski, 2008; Piechowski, 2014). The 2e student participants in this study had intense emotional responses to stimuli that hindered their learning, but these emotional responses were also integrated with their gifts and talents.

Before the intervention plans were created, the student participants' learning was negatively impacted when they were unable to self-modulate their strong emotional responses. All three student participants experienced emotional responses to internal or external stimuli that caused them to feel anxious, embarrassed, or frustrated. These emotional responses caused physical reactions such as: (a) hiding, (b) avoidance, (c)

isolation, (d) loss of focus on tasks, and (e) lethargy. For example, Marie's intensity to explore her passion to solve puzzles and read about topics of interest took her focus away from classwork, which caused her to not complete assignments. She spent less time in class working on literacy skill development because of these distractions. The increasing list of assignments she needed to complete caused her to have less free time for her passions, increasing her frustration. For Jeff, his anxiety about stressful situations at home and physical pain caused him to disengage from learning and classwork. He would focus exclusively on the causes of his anxiety, causing him to retreat into his worries, miss class instruction, and not be able to complete classwork. Henry experienced anxiety with writing assignments due to previous negative experiences with writing and low confidence in his writing abilities. He would react by refusing to work on the assignments or have loud, disruptive physical reactions, which increased his anxiety and lowered his self-confidence. These examples demonstrate how the student participants were negatively impacted by their inability to self-modulate strong emotional responses.

The student participants' intensity and way of experiencing the world around them was actually part of their gifts. Marie's strengths were problem-solving and intense intellectual curiosity. Jeff was strong in physical abilities and loved movement. Henry experienced strong emotions and was creative with language. When the intensity of these strengths was too great, the students were unable to self-modulate their emotional and physical responses, which negatively impacted the students' ability to learn. They were unable to focus on instruction, complete tasks, or show their learning.

Instead of inhibiting their emotional responses, which were integral to how they experienced the world, the students needed supports to help them self-modulate or vary

their responses to the emotions. Silverman (2016) argued the goal of an overexcitability intervention should not be to extinguish students' overexcitability responses, but to modulate the responses so development can occur. To solve this problem, the students and I reflected together to identify the emotions, physical responses, and stimuli hindering their academic growth. Through collaboration, we designed behavior goals built on their strengths or overexcitability. We ensured the goals were achievable and supported the students' academic, social, and emotional needs. Framing the intervention plan by building on strengths and centering the students' voices was key to the success of the plans.

Self-Awareness and Self-Advocacy

The self-awareness and self-advocacy theme showed students' understanding of their emotions and the ability to act on their understanding impacted their ability to self-modulate strong emotional responses. Goleman (2005) explained the ability to manage emotions begins with self-awareness, recognition of emotions, and physical signs. Being able to identify stressors causing intense emotional responses promoted the 2e students' abilities to mitigate resulting behaviors (Baum et al., 2017). When the student participants struggled with interoception—or the ability to identify or name emotions and physical signals of emotional change (Mahler, 2015)—choosing a coping strategy to modulate their responses became a challenge (Goleman, 2005). As the student participants became more self-aware and adept at identifying their strong emotions and connecting the emotions to their physical responses, they improved their ability to implement and choose a coping strategy.

Students would sometimes struggle with identifying emotions and physical responses, and in these instances, I would guide and coach them in the moment. We also examined the data from observations, interviews, and emotion journals together to determine what situations caused these struggles. The data assisted the students as they reflected on their physical and emotional responses. For example, Jeff noted he would realize his head was "just going crazy" often "10 minutes later," at which point, he would not know what to do to modulate his emotional response. We worked together to identify his initial physical signs before his emotions were out of control, allowing him to implement his intervention steps more effectively. Henry also exemplified this type of growth. In the beginning, he could not name his emotions, saying, "I was like, what emotion do I have?" However, we worked together to talk through the data, and he named feeling anxious about writing. Henry knew when he felt the physical reactions to the emotion, he needed to start the steps of his intervention plan. Similarly, Marie at first thought her loss of focus and concentration on assignments was solely because she was frustrated about not having more time on her passions. However, as we reflected on the data, she came to understand another stimulus was feeling anxious about getting the correct answers. Knowing the cause of her emotions and physical responses helped her choose coping strategies to meet her needs.

Marie and Jeff used a self-created emotion rating system to precisely connect the strength of their emotional response to the coping strategy to best meet their current need. Jeff was the first to introduce this system to the intervention plans because it was a strategy he had learned previously for rating his level of situational control. Through our collaboration, Jeff decided when his emotional response felt less intense, like a 1 to 3 out

of 5, and he would engage movement in a minor way by using therapy putty or an elastic band on his chair to bounce his feet to help him modulate his response. However, when he felt the emotion was more intense, such as at a 4 or 5, he needed more movement and would take a walk in the hallway to effectively modulate these emotions. Based on Jeff's success, I suggested Marie use a rating system. After trial and error, she decided a low-level emotional response could be modulated with a 1- to 2-minute break with a Rubik's cube or reading nonfiction text. If the emotion was stronger, she would need a longer break or more breaks. Using the rating system was a way Marie and Jeff could connect their interoception to a coping strategy.

The YPAR method supported the critical pedagogy aspects of this study by providing the structure for incorporating the students' perspectives and building their self-awareness (Cammarota & Fine, 2008; Freire, 1970/2017; McIntyre, 2000), which increased their ability to self-advocate. As the student participants acquired more experience with self-advocacy through this YPAR study, they became more comfortable expressing their needs and seeking help. As the study progressed, I noticed the students needed less prompting from me to share their questions and ideas for changes to the plans. In the first conferences and interviews, the students talked less and mostly just agreed or affirmed what I was sharing with them. As I sought out their input, asked questions, and praised their increasing abilities to recognize what they needed, they became more open to sharing with me. They would send me emails, write notes to me on sticky notes, use hand signals, and initiate conversations about their needs and progress with the intervention plans. Because of our collaboration, they took ownership of the

intervention plans and used their increasing knowledge of themselves to advocate for what they needed.

Relationships and Connections

Building relationships and making connections was important to the success of this YPAR study. The aim of this study was to personalize the intervention plan by incorporating the students' voices, which embodies the social constructivist idea that learning occurs through social interactions with scaffolding or supports from the teacher through gradual release of responsibility to student independence (Vygotsky, 1978). Because the students and I were coresearchers, establishing a strong relationship and personal connection with the students was important so they were open to trial, error, and self-reflection. I built strong relationships by: (a) incorporating student input; (b) providing positive feedback; (c) prompting the students, when needed, on how to implement the plans; and (d) supporting the students when they sought my assistance.

An important aspect of this study was centering students' voices and empowering them to act, which I accomplished by establishing strong relationships with them to create a risk-taking, explorative environment. When problems arose and the students were unable to self-modulate their emotions, I would direct the students on *how* to think about their emotions, physical responses, choice of coping strategies, and implementation of coping strategies, rather than dictating *what* to think (Fonseca, 2015), which supported the students' self-exploration and independence. When Henry said he wanted to try using therapy putty as a coping strategy, I hesitated because Henry used the putty as a toy instead of a tool in the past. To empower Henry in the spirit of the YPAR process, we tried it out. I thought the putty remained a distraction, but at first, Henry did not agree.

When we met a few days later to reflect, however, Henry told me the putty was not working. We decided to try different strategies and discovered positive imagery and self-talk worked best for him. Incorporating Henry's voice empowered him to explore his needs and what worked for him.

As the study progressed, the students felt more confident in voicing their thoughts, taking risks, and acting upon them because we had created strong relationships. Near the beginning of the study, Jeff told me he was trying to keep his emotional reactions to physical pain to himself because it embarrassed him; however, he was able to tell me later that keeping his emotions to himself was not working. He began to seek help from me for strong emotional responses due to physical pain, and he provided ideas about coping strategies he would like to try. Because of our strong relationships, each student participant became more independent and confident in their abilities to reflect and act.

Positive praise or feedback was another element that impacted the creation of strong relationships and a risk-taking environment. When students were able to reflect and take actions based on their reflections from the data, I praised their efforts. I told Marie, "The change I've seen in you has been huge. You have helped me learn about the things that work for you and you gave me ideas of how we can change the plan." Following this conversation, Marie's confidence grew as she tested out the rating system and coping strategies for different levels of emotional responses. Jeff had trouble noticing how he had improved in his ability to self-advocate, which was a goal he had set for himself. I pointed out incidences in which he had successfully self-advocated. He smiled as he told me he had not realized how far he had come. After this conversation, Jeff began to self-advocate more and was transferring this new ability to his home life.

Praising students' attempts to act and reflect supported our strong relationships and built their confidence to study their own strengths and needs.

Prompting the students or providing scaffolding was another strategy I used to support the students' efforts. I targeted this support in the student's zone of proximal development, a concept from social constructivist theory describing where the student's prior knowledge meets classroom knowledge and results in a developmental gain (Fosnot, 2005). Scaffolding is an instructional tool for assisting children in the zone of proximal development. To scaffold a learning experience successfully, the teacher should determine a student's knowledge, relate new content to what is already known, break large tasks into smaller tasks, model the tasks, and use visual and verbal cues (Silver, 2011; Wood et al., 1976). When we created and revised the intervention plans during the conferences, I would model the steps and practice them with the students before they put the plan in action. In class, I would prompt students by using visual or verbal cues to start their steps if I noticed their physical reactions and determined they had not started the steps. Jeff recognized he had trouble starting his steps once his physical responses began, so he asked me to prompt him to start his steps if I saw his physical responses. Providing prompts and scaffolding supported students as they worked toward independence.

Thus empowered, students made decisions about themselves and we built strong relationships, which helped students to feel open to expressing themselves and their needs and seeking help when needed. For example, when Henry was not successfully using positive self-talk with writing tasks the way he had with math, I asked him questions to reflect on this issue. We were able to determine his confidence in writing was low but his confidence in math was high. Understanding the issue was confidence,

when Henry sought my help because he felt stuck with his writing, I knew he needed support from me to build up confidence and assist with generating ideas for his writing. Henry felt the ways we worked together to support him were creative, and declared in his emotion journal, "You are the best teacher ever!" In this study, incorporating students' voices and supporting their reflection and actions built strong relationships. Marie also sought my assistance by asking to meet with me when she needed to talk about her plan. She realized she might need more than one break to self-modulate one incident, and we worked together to modify her plan to incorporate this element. Jeff became more open to telling me about his physical pains and asked me to prompt him to start his steps. Overall, the student participants felt confident in seeking help from me, which improved their ability to self-modulate.

All three student participants said they enjoyed our work together to create and revise the intervention plans. They thought I understood them and their strengths and needs. In line with the YPAR method, the students and I shared the role as researchers, and we worked collaboratively and shared power because we had built trusting relationships that connected us. I needed to trust that the students knew what would work for them and what they needed; conversely, the students needed to trust that I would support them through this investigation. I built this trust by incorporating student input, providing positive feedback to the students, prompting students to implement the plans when needed, and supporting the students when they sought my assistance.

Self-Modulation

The self-modulation theme demonstrated how the students effectively explored their use of coping strategies to create and revise intervention plans to self-modulate their

strong emotional responses, which positively impacted their academic achievement. Through this self-study, students showed significant growth in effectively choosing and implementing a coping strategy to modulate their emotional responses. Implementing the intervention plans we created was easier because they were based on the students' strengths or overexcitabilities rather than using a deficit approach to create the intervention steps.

Scott et al. (2015) argued that the critical theory undergirding a YPAR approach supports analytical, power-shifting, and transformative results. In creating these intervention plans, power shifted to the students and I transformed the focus of the plans from a deficit approach to a strength-based approach. Strength-based approaches focus on "advanced abilities, interests, and talents while simultaneously offering support and strategies designed to address academic, behavioral, and social challenges" (Baum et al., 2017, p. 141), which proved to be more effective for 2e students in improving their social, emotional, and academic outcomes (Ogurlu, 2021).

In this study, each of the student participant's intervention plans began with the student's strengths or overexcitability and used these strengths to support their needs. Jeff's strengths and overexcitability were psychomotor oriented, which meant Jeff enjoyed physical activity but strong emotions would cause him to be lethargic, withdrawn, and unlikely to seek help. Additionally, Jeff felt physical pains intensely, which caused him anxiety and he would become upset and unable to focus on his assignments or instruction. We based his plan on his strength of physical movement to help him self-modulate his emotional response, including strategies such as using a strong elastic band on his chair to bounce his feet or walking the halls. Jeff also grew to

love writing; thus, we planned for him to use writing and completing emotion journals as ways to increase his self-awareness and advocate for his needs. Jeff made gains in his ability to self-modulate and advocate for himself. He told me, "That's like, a huge change for me. And this will probably stick with me. Who knows, until college, and just makes me feel good to be able to express that feeling like this." Connecting Jeff's strengths to his needs positively impacted his ability to self-modulate his emotions and academic progress.

Marie showed tendencies toward intellectual overexcitability, resulting in her intense focus on her passions such as solving puzzles or learning about topics of interests. This intense focus on her passions often meant she was unable to focus on her classwork. She hid items like Legos and Rubik's cubes in her jacket pocket to play with during the day and, at times, used YouTube or other websites to research information when she had other work to complete. For one of Marie's coping strategies, she would take a break and explore her interests when she felt her emotional response rise out of control. She was able to go to a different location in the room where she kept an object like a Rubik's cube or she would take her computer with her to take a timed break. Marie said she went back to her work "refreshed." The quantity and quality of her work increased and she said, "I'm able to focus and do my work now. I'm not like, 'I hate doing this.' I actually like doing stuff." A strength-based approach impacted her academic achievement.

Finally, Henry's strength or overexcitability was emotional and imaginative, but he struggled with anxiety about working on and sharing his writing. We tapped into Henry's strengths by using the coping strategy of imagery and positive self-talk. He would think about vacations that were happy memories, imagine his mother's hugs, and

give himself positive comments. His confidence in his writing and his ability to self-modulate his emotions grew. Henry was so excited about earning his first score of 100 on a writing assignment and told me, “I think that all this work has clicked through to increase my courage.” Starting from the students’ strengths and valuing their voices empowered them to investigate their strengths and needs and allowed them to effectively self-modulate their emotional responses by choosing and implementing coping strategies. Their success positively impacted their academic progress.

Collaboration

From this YPAR study, I concluded collaboration was an overarching theme, aligned with this study’s theoretical framework, comprising critical and social constructivist theories. Social constructivist theory supports teachers’ and students’ cocreating or coconstructing learning through social interactions (Fosnot, 2005). Furthermore, YPAR aligns with social constructivist ideas because it begins with dialogue, accepts multiple realities, and is based in real-world problems (Scott et al., 2015). In support of critical theory, YPAR is a tool for critical discovery through reflection because both teacher and students participate as coresearchers. Additionally, critical theory supports the empowerment of participants to solve problems that directly impact them (Freire, 1970/2017). YPAR study participants are often marginalized or at-risk youth (Cammarota & Fine, 2008), such as the 2e students in this study, who—like other 2e students—were not receiving equitable social and emotional supports (Cain et al., 2019; Crim et al., 2008; Foley-Nicpon et al., 2011). The YPAR approach of this study centered the student participants’ voices and empowered them to explore their needs as I guided and supported them through cycles of action and reflection.

Collaboration positively impacted the students and me as we worked together to identify their needs, increase their self-awareness and self-advocacy, build trusting relationships, and improve their ability to self-modulate their strong emotional responses. Additionally, as we implemented and refined the plans, our ability to collaborate improved through each research cycle, which positively impacted the success of the intervention plans. Thus, with data from this study, I theorize that collaboration was essential to the students' successful implementation of intervention plans to self-modulate strong emotional responses that hindered their learning.

Practice Recommendations

Cocreating individualized, strength-based behavioral intervention plans with my 2e students helped the students self-modulate their emotional responses, which had positive impacts on their social, emotional, and academic growth. The data revealed key aspects that led to this success, including: (a) identifying students with 2e abilities, (b) understanding the needs of 2e students, (c) designing strength-based intervention plans, and (d) empowering students to make changes for themselves. Based on the results from this current study and previous studies, I recommend educators implement these practices to support the social, emotional, and academic needs of 2e students who need supports for strong emotional responses that impact learning.

Nielsen and Higgins (2012) studied effective instructional strategies for 2e students and learned a key aspect for 2e students' success was the use of social and emotional supports and interventions in the classroom. However, Cain et al. (2019) showed 2e students were not receiving adequate interventions in their schools to promote their academic growth compared to students solely identified as having a disability, who

were more likely to receive interventions that met their needs and promoted academic growth. Similarly, one of the 2e students in my study was not identified for a disability and did not have an IEP or 504 Plan to provide accommodations; however, the student had struggled with self-modulation of strong emotional responses since kindergarten. The other two student participants in this study had accommodations listed in their IEP or 504 Plan, but these accommodations did not adequately address their social and emotional needs. Unfortunately, 2e students may not be dually identified (i.e., have a gifted and disability diagnosis) or are only identified for their gift or disability (Crim et al., 2008; Foley-Nicpon et al., 2016; Probst, 2006).

To increase the number of 2e students receiving accommodations that meet all their educational needs, I agree with Cain et al. (2019) that educators (e.g., administrators, general education teachers, special education teachers, guidance counselors, and G/T teachers) need more training on identifying and meeting the academic, social, and emotional needs of 2e students. Moreover, for 2e students who do receive supports through an IEP or 504 Plan, the supports may focus only on the disability and not the gift, which is a deficit approach. Trail (2008) reported intervention plans focused solely on students' deficits resulted in underachievement and an increase in defiant behavior. Alternatively, Ogurlu (2021) found the use of strength-based interventions improved educational outcomes of 2e students; this finding aligns with the results from the current study, in which 2e students cocreated strength-based intervention plans using the student's strengths or overexcitability to support the student's needs. Based on these results, I recommend educators receive training in strength-based strategies and use strength-based intervention plans to support student needs.

Training to support 2e students could involve presentations to educators on 2e students' characteristics, needs, and accommodations and supports for students' strengths and deficits. Guidance counselors, special education teachers, general education teachers, and G/T teachers could also plan together in professional learning communities (PLCs) to discuss how to support the local population of 2e students. Griffith et al. (2014) explained effective PLCs value teacher expertise and provide extended collaboration over time. The use of PLCs to support 2e students could draw on the expertise of educators mentioned previously so the academic, social, and emotional strengths and disabilities of 2e students are addressed and coordinated using the supports available in the local setting and can be examined over time.

Educators are not the only stakeholders in the needs of 2e students. Sharing information about twice-exceptionalities with parents of 2e students can assist with supporting the 2e students at home and helping them become advocates for their students at school. Dyce and Longmire-Avital (2017) showed engaging families in their student's education positively impacted the student's academic, social, and emotional growth. Just as educators may not be aware that students can be gifted and have a disability, parents may also not be aware. When parents of G/T students, including 2e students, have information about the educational needs of their children, they can better advocate for their needs (Bagwell & Femc-Bagwell, 2017).

The 2e students are stakeholders and should also receive age-appropriate information about their 2e abilities and social and emotional skills because self-awareness improved self-modulation in this study. Foley-Nicpon et al. (2016) suggested 2e students should learn about giftedness and having a disability, along with learning age-

appropriate skills for self-advocacy. Furthermore, Alabbasi et al. (2020) and Ogurlu (2021) found gifted students had high emotional intelligence and recommended capitalizing on this strength to help students manage stress and intrapersonal skills. As this current study showed, when 2e students became aware of their strengths and needs, they were able to self-advocate, which positively impacted their social, emotional, and academic growth.

Empowering 2e students to explore, act, and reflect on their social and emotional needs with guidance from their classroom teacher was another aspect of the current study that positively impacted student outcomes. In the past, I have had behavioral intervention plans for 2e students, but these plans did not include student input. Other educators in my school would meet through response to intervention (RTI), 504 Plan, or IEP meetings to create the behavior intervention plans; however, these meetings at the elementary level did not include the 2e students or their voices. After making the plans, I would return to the classroom to tell the 2e student how to implement the plan. However, in this study, the students and I worked together to investigate their strengths and needs. By following the YPAR method, I viewed students as experts in their lives and empowered students to investigate problems relevant to them through act, reflect, act cycles (Cammarota & Fine, 2008; McIntyre, 2000; Scott et al., 2015). Students were the agents of change and they had ownership of the intervention plans. I supported and guided students in this study, but I viewed them as experts about their needs and valued their input. Because the study supported student independence, they were able to self-modulate, adapt to different situations, and transfer their new skills to different settings. From this study, I

recommend students be involved as active participants in creating and revising intervention plans.

From the results of this current study and in relation to previous studies, I recommend educators and other stakeholders receive training and information on the identification and understanding of 2e students, how to create and implement strength-based strategies, and involve 2e students in the creation and revisions of intervention plans. The following section summarizes a detailed plan of action to enact these recommendations.

Implementation Plan

Based on the findings from this study, I provide practice recommendations, including increasing educators' knowledge about the needs of 2e students, implementing strength-based strategies to promote social and emotional development, and involving 2e students in the creation and revision of intervention plans. To enact these recommendations at the national and state level, I plan to share the results of this study by submitting it to research journals focused on the education of 2e students, such as *Exceptional Children* from the Council for Exceptional Children or *Gifted Child Quarterly* from the National Association for Gifted Children. I will apply to present it at conferences such as South Carolina Gifted Consortium, American Educational Research Association, and National Association for Gifted Children annual and regional conferences. Sharing the results from this study will bring attention to the social and emotional needs of 2e students and how to meet those needs through cocreated, strength-based intervention plans.

To share this study's findings at the local level, I plan to work with the district G/T coordinator, the special education coordinator, special education teachers, and G/T teachers in my school district. Special education teachers, G/T teachers, and general education teachers may benefit from learning about the educational needs of 2e students and how I implemented these intervention plans in my classroom, because all these teachers serve 2e students. I will assist these teachers as they implement strength-based behavioral intervention plans in their classrooms using the intervention plan framework used in this study (see Appendix A). Additionally, in the school district I will offer to lead a group of G/T teachers and special education teachers to examine how we could use strength-based practices for 2e students. In addition to the information from my study, we can reference the literature that supported my study, such as *To Be Gifted and Learning Disabled* by Baum et. al (2017) and *Twice-Exceptional Gifted Children* by Trail (2010), to discuss and find ways to improve the educational supports we offer our 2e students. Parents are also stakeholders who could benefit from this study's insights. I will share with the parents of my 2e students about characteristics of 2e students and how to support 2e students using strength-based strategies.

In my classroom, I will continue to cocreate strength-based intervention plans with 2e students who need additional social and emotional supports. Based on the success of strength-based strategies to support students social and emotional needs, I will use similar strategies to directly support student academic needs through a talent-based philosophy of education. Stambaugh and Fecht (2021) explained a talent-based educational lens is "a way of designing your lessons and classroom structure to invest in human capital and to develop individual strengths" (p. 27). I will include several

components of the talent-based curriculum, including: (a) assessing student talents, (b) focusing on long-term creative production, (c) offering students the opportunity for exposure to advanced content and fields, (d) providing experiences that support access and growth, (e) differentiating instruction for students' needs to promote expertise and creativity, and (f) embedding social and emotional skills into challenging curriculum (Stambaugh & Fecht, 2021). These components will extend the success of strength-based social and emotional supports to academic supports for 2e students in my classroom.

Reflection on Study Design

This qualitative YPAR study supported my investigation into the impact of cocreated intervention plans on a student's ability to self-modulate strong emotional responses. The following section reviews the benefits of using a qualitative YPAR approach. I discuss possible modifications to the study design along with a reflection on the personal and professional value of this study.

The theoretical framework of social constructivist and critical theories supported the use of a YPAR method. Critical theory emphasizes empowering students in solving real-world problems that directly impact them (Cammarota & Fine 2008; Freire, 1970/2017; Scott et al., 2015), and the students in this study investigated strength-based intervention plans that incorporated coping strategies to self-modulate strong emotional responses. Social constructivist theory maintains the role of the teacher as a guide who supports students to construct knowledge through two-way dialogue (Brooks & Brooks, 1999; Fosnot, 2005; Vygotsky, 1978). In this study, as a coresearcher with the students, I was a mentor and guide for students as they sought to create and revise an intervention plan that met their strengths and needs. Herr and Anderson (2015) described action

research as the implementation of interventions to solve a problem in context through a series of action cycles. As the students and I worked collaboratively on this action research, we generated knowledge applicable to the study participants and in this specific context. With this new knowledge and reflection thereon, we acted to make changes to the intervention plans. The study showed the intervention plans supported a student's abilities to self-modulate their emotions.

Although the YPAR approach to this study supported student voices and engagement with me as the teacher researcher, it did limit transferability to different contexts and objectivity because the students and I were insiders to the research. Action research, as characterized by Efron and Ravid (2020), arises from a specific contextual problem and is flexible to meet the needs of a complex and dynamic situation. Action research and YPAR fit the needs for this study in examining a specific contextual problem and positioned the students and me as participants and researchers.

Action research met the needs of this study; however, some modification could have enhanced the results. For example, having an outsider to the research setting could have lent some objectivity to the study and could have provided another perspective from which to analyze the data. An outsider could have been another G/T or special education teacher, administrator, instructional coach, or university researcher. This additional researcher may have been able to add to the observational data about events that I may have missed because my focus was not only on observing the student participants, but also on teaching other students. Additionally, an outsider could have conducted separate interviews with the students and me to gain a different perspective on our thoughts and

reflections. This additional qualitative data could have provided another layer of data to inform the results of this study.

The addition of quantitative data also could have enhanced the results of this study. I only used qualitative data in this study to discover the process and impact of creating and revising the intervention plans because it offered flexibility and provided an authentic and rich description of the experiences (Efron & Ravid, 2020). However, the use of quantitative data could have provided concrete, numerical results to add to the qualitative results. This study took place in a district where students took the Panorama Student Survey. Third and fourth grade students take the survey at the beginning of the school year and at the end of the school year. Panorama Education (2020) explained the survey was designed to provide quantitative and qualitative data to schools and districts on the social and emotional needs and strengths of students. This survey could provide a quantitative source of information to compare changes in students' perceptions of their social and emotional needs and abilities over the school year. I did not use the survey in this study because students took the initial survey 5 months before and the final survey 1 month after this YPAR study, precluding reliable connections among the data. If I conducted this study through the entire school year, the quantitative data from the Panorama Student Survey may have added to the results.

The results and experience of conducting this study were of personal and professional value to me and provided some expected and unexpected outcomes. I expected the students would make progress in their ability to self-modulate their emotions; however, the amount of progress students made and the immediate impact it made on their social, emotional, and academic growth was beyond my expectations.

Although the students were hesitant in their initial interviews, by the final interviews they were fully invested and motivated as researchers. Their high level of engagement and involvement exceeded my expectations. As they began to approach me, unsolicited, to discuss their plans and share their reflections, I knew this study would have a big impact in our classroom and probably on their futures. The students became so successful with independently implementing their plans that they began to transfer their skills to new contexts outside our classroom. They showed they could transfer the skills they gained in our classroom study to other areas.

On a personal and professional level, this study confirmed to me the value of students' voices and seeking students' perspectives. In academic areas, I have learned that the more control I release to the students and the more I seek their input, the more their engagement increases and academic growth improves. With this study, I was able to see the impact empowering students to think critically and be autonomous had on their social and emotional growth. Additionally, this study reinforced my belief that relationships are essential to student growth because learning is a social construct students and teachers build together.

Limitations and Suggestions

Some limitations to this study include: (a) the small sample size, (b) the time and setting of the study, (c)students' ability to reflect on their actions, (d) my actions as the teacher, and (e) and power dynamics of the coresearcher relationship. Because this was an action research study, the problem of practice for this context drove the study. The context of the study was limited to the 2e students in my classroom who were exhibiting problems with self-modulating emotional responses. I had three students who needed

supports due to unmodulated emotions impacting their learning. The intervention plans in this study were successful for these three students; however, 2e students can vary dramatically in their strengths, education needs, disabilities, interests, and backgrounds (Baum et al., 2017; Probst, 2006; Trail, 2008). Different 2e students could have different results from this study. A small sample size, such as the three participants in this study, can be common for a qualitative action research (Efron & Ravid, 2020). Additionally, this study's scope was limited to an 8-week time period and to behaviors that occurred in my language arts and social studies G/T classroom. The study did not address behaviors that occurred in other settings and does not show the results of continued use of the intervention plans in the classroom. The study occurred during the 2nd semester of the school year, giving the students and me more time to build relationships and learn about each other. Expanding the study's time and participants could yield more diverse and expansive results.

In this YPAR study, the student participants and I were coresearchers. The students in this study were 9 and 10 years of age. Their age might have impacted their reflections and perceptions. However, the purpose of this YPAR study was to empower the students to act and reflect on problems that were important to them in their local setting. The students in this study, with my guidance, were able to reflect on their emotions, actions, strengths, and needs. Enlisting students with different ages and abilities than those in this study could yield different results. Additionally, because I was a coresearcher with the students and guided them throughout the study, my actions and choices impacted the study outcome. As advised by Herr and Anderson (2015), I examined the power dynamics and my role as the teacher and researcher to ensure

validity. However, teachers with different backgrounds, knowledge, philosophies of education, and experiences would interact differently with the students as coresearchers. This YPAR study effectively solved a problem of practice in my specific context and brought new insights to the social and emotional needs of my 2e students.

Recommendations for Future Research

Based on the success of the cocreated intervention plans and reflections on possible modifications or extensions to this study, I provide the following recommendations for future research. In future work, I would like to extend the limited timeframe of this study and continue to work with 2e students on cocreated intervention plans throughout the school year. Because RTI processes occur in cycles of action, data collection, and reflection—like action research—I would incorporate more cycles throughout the year. This time increase might mean some students would need the individualized and intensive supports from the cocreated intervention plans for different lengths of time based on their needs. Some students and I may need to revisit the plans as needed.

Additionally, I want to examine the results from the Panorama Student Survey for differences between the initial survey and end-of-year survey for student participants and to compare student participants to students who did not participate in the study but showed a need for social and emotional regulation supports. I would also like to try implementing cocreated, strength-based behavioral intervention plans with different populations of students—including general education, special education, and students from a variety of ages—to investigate the impact of the plans on their abilities to self-modulate emotions. Because my school also serves general and special education

students from prekindergarten to fourth grade, I also recommend investigating what age students can successfully reflect on their emotions and take actions, and what supports they need from the teacher to successfully participate as coresearchers about their own needs. Additionally, because 2e students are underidentified, these students exist in general education classrooms and receive special education services. The use of cocreated, strength-based intervention plans could benefit students in a variety of classroom settings. I would like to involve general education and special education teachers in implementing cocreated, strength-based behavioral intervention plans in their settings to find out how the plans impact these students. Based on the success of this study on students' abilities to self-modulate, extending this study to broader populations could yield results that could increase transferability.

Summary

As a classroom G/T teacher, I serve a subpopulation of 2e students who are gifted but also have a learning disability. These students often have social and emotional issues that need accommodations and supports beyond what the average classroom offers. Like my 2e student participants, other 2e students may not receive social and emotional supports through an IEP or 504 Plan, or these supports may use a deficit approach versus building from strengths. To empower my students to self-modulate the emotional responses that hindered their learning by building upon their strengths and centering their voices, we cocreated strength-based intervention plans through cycles of action, reflection, and action. Using a constant comparative method to analyze qualitative data from observations, student journals, and student interviews, four themes emerged: (a) student's needs, (b) self-awareness and self-advocacy, (c) relationships and connections,

and (d) self-modulation. Collaboration emerged as an overarching theme, and I theorized our collaboration had reciprocal benefits on the other four themes. This YPAR study showed working with students to empower them to act and reflect on self-modulation of strong emotional responses positively impacted their social, emotional, and academic growth. Through collaboration and sharing of power, the students and I successfully worked together to improve their lives at school and promote their continued growth.

REFERENCES

Alabbasi, A. M. A., Ayoub, A. E. A., & Ziegler, A. O. (2020). Are gifted students more emotionally intelligent than their non-gifted peers? A meta-analysis. *High Ability Studies*, *32*(2), 1–29. https://doi.org/10.1080/13598139.2020.1770704

Anyon, Y., Bender, K., Kennedy, H., & Dechants, J. (2018). A systematic review of youth participatory action research (YPAR) in the United States: Methodologies, youth outcomes, and future directions. *Health Education & Behavior*, *45*(6), 865–878. https://doi.org/10.1177/1090198118769357

Bagwell, M. M., & Femc-Bagwell, M. (2017). Collaborating with families to support gifted students. In R. D. Eckert & J. H. Robins (Eds.), *Designing services and programs for high-ability learners: A guidebook for gifted education* (2nd ed., pp. 185–199). Corwin.

Baldwin, L., Baum, S., Pereles, D., & Hughes, C. (2015). Twice-exceptional learners: The journey toward a shared vision. *Gifted Child Today*, *38*(4), 206–214. https://doi.org/10.1177/1076217515597277

Baum, S. M., Schader, R. M., & Hébert, T. P. (2014). Through a different lens: Reflecting on a strengths-based, talent-focused approach for twice-exceptional learners. *Gifted Child Quarterly*, *58*(4), 311–327. https://doi.org/10.1177/0016986214547632

Baum, S. M., Schader, R., & Owen, S. V. (2017). *To be gifted and learning disabled: Strength-based strategies for helping twice-exceptional students with LD, ADHD, ASD, and more* (3rd ed.). Prufrock Press. https://doi.org/10.4324/9781003239147

Beduna, K., & Perrone-McGovern, K. (2016). Relationships among emotional and intellectual overexcitability, emotional IQ, and subjective well-being. *Roeper Review, 38*(1), 24–31. https://doi.org/10.1080/02783193.2015.1112862

Brooks, J. G., & Brooks, M. (1999). *In search of understanding: The case for constructivist classrooms*. Association for Supervision & Curriculum Development.

Burchi, E., & Hollander, E. (2018, March 26). *Anxiety in autism spectrum disorder*. Anxiety and Depression Association of America. https://adaa.org/learn-from-us/from-the-experts/blog-posts/consumer/anxiety-autism-spectrum-disorder

Cain, M. K., Kaboski, J. R., & Gilger, J. W. (2019). Profiles and academic trajectories of cognitively gifted children with autism spectrum disorder. *Autism*, *23*(7), 1663–1674. https://doi.org/10.1177/1362361318804019

Cammarota, J., & Fine, M. (2008). *Revolutionizing education: Youth participatory action research in motion*. Taylor & Francis Group. https://doi.org/10.4324/9780203932100

Caraballo, L., Lozenski, B. D., Lyiscott, J. J., & Morrell, E. (2017). YPAR and critical epistemologies: Rethinking education research. *Review of Research in Education, 41*(1), 311–336. https://doi.org/10.3102/0091732X16686948

Castellano, J. A. (2003). *Special populations in gifted education: Working with diverse gifted learners*. Pearson Education. http://hdl.handle.net/2027/mdp.39015056168183

Coleman, M. R., & Gallagher, S. (2015). Meeting the needs of students with 2e: It takes a team. *Gifted Child Today*, *38*(4), 252–254. https://doi.org/10.1177/1076217515597274

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory Into Practice*, *39*(3), 124–130. https://doi.org/10.1207/s15430421tip3903_2

Crim, C., Hawkins, J., Ruban, L., & Johnson, S. (2008). Curricular modifications for elementary students with learning disabilities in high-, average-, and low-IQ groups. *Journal of Research in Childhood Education*, *22*(3), 233–245. https://doi.org/10.1080/02568540809594624

Dabrowski, K. (2015). *Personality-shaping through positive disintegration*. Red Hill Press. (Original work published 1967)

Daniels, S., & Meckstroth, E. (2008). Nurturing the sensitivity, intensity, and developmental potential of young gifted children. In S. Daniels & M. Piechowski (Eds.), *Living with intensity: Understanding the sensitivity, excitability, and the emotional development of gifted children, adolescents, and adults* (pp. 33–56). Great Potential Press.

Daniels, S., & Piechowski, M. (2008). Embracing intensity: Overexcitability, sensitivity, and the developmental potential of the gifted. In S. Daniels & M. Piechowski (Eds.), *Living with intensity: Understanding the sensitivity, excitability, and the emotional development of gifted children, adolescents, and adults* (pp. 3–17). Great Potential Press.

Dewey, J. (1938). *Experience and education*. Macmillan Co. http://archive.org/details/experienceeducat00dewe

Dewey, J. (1948). *Reconstruction in philosophy*. Beacon Press. http://hdl.handle.net/2027/hvd.32044017183484

Dewey, J. (2017). My pedagogic creed. In D. J. Flinders & S. J. Thornton (Eds.), *The curriculum studies reader* (pp. 33–40). Taylor & Francis Group. (Reprinted from "My pedagogic creed," 1929, *Journal of the National Education Association*, 18[9], 291-295)

Dole, S. (2001). Reconciling contradictions: Identity formation in individuals with giftedness and learning disabilities. *Journal for the Education of the Gifted*, *25*(2), 103–137. https://doi.org/10.1177/016235320102500202

Dyce, C. M., & Longmire-Avital, B. (2017). Learning from teachers: Critically conscious educational leadership for engaging diverse families in Title I schools. In A. Esmail, A. Pitre, & A. Aragon (Eds.), *Perspectives on diversity, equity, and social justice in educational leadership* (pp. 127–147). Rowan & Littlefield.

Efron, S. E., & Ravid, R. (2020). *Action research in education: A practical guide* (2nd ed.). The Guilford Press.

Foley-Nicpon, M., Allmon, A., Sieck, B., & Stinson, R. D. (2011). Empirical investigation of twice-exceptionality: Where have we been and where are we going? *Gifted Child Quarterly*, *55*(1), 3–17. https://doi.org/10.1177/0016986210382575

Foley-Nicpon, M., Doobay, A., & Park, S. (2016). Attending to the needs of twice-exceptional learners. In R. D. Eckert & J. H. Robins (Eds.), *Designing services and programs for high-ability learners: A guidebook for gifted education* (2nd ed., pp. 136–150). Corwin.

Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology*, *55*(1), 745–774. https://doi.org/10.1146/annurev.psych.55.090902.141456

Fonseca, C. (2015). *Emotional intensity in gifted students: Helping kids cope with explosive feelings* (2nd ed.). Prufrock Press.

Fosnot, C. T. (Ed.). (2005). *Constructivism: Theory, perspectives, and practice* (2nd ed.). Teachers College Press.

Freire, P. (2017). *Pedagogy of the oppressed* (M. B. Ramos, Trans.). Penguin Books. (Original work published 1970)

Gaesser, A. H. (2018). Befriending anxiety to reach potential: Strategies to empower our gifted youth. *Gifted Child Today*, *41*(4), 186–195. https://doi.org/10.1177/1076217518786983

Gallagher, S. (2013). Building bridges: Research on gifted children's personalities from three psychological theories. In C. S. Neville, M. M. Piechowski, & S. S. Tolan (Eds.), *Off the charts: Asynchrony and the gifted child*. Royal Fireworks Press.

Goleman, D. (2005). *Emotional intelligence: Why it can matter more than IQ* (10th ed.). Bantam.

Griffith, P. L., Ruan, J., Stepp, J., & Kimmel, S. J. (2014). The design and implementation of effective professional development in elementary and early childhood settings. In L. Martin, S. Kragler, D. Quatroche, & K. Bauserman (Eds.), *Handbook of professional development in education: Successful models and practices, PreK–12* (pp. 189–204). Guilford.

Herr, K., & Anderson, G. L. (2015). *The action research dissertation: A guide for students and faculty* (2nd ed.). SAGE Publications.

Hollingworth, L. S. (1923). *Special talents and defects: Their significance for education*. Macmillan. http://hdl.handle.net/2027/mdp.39015063632155

Huverty, T. J. (2010). *Anxiety & anxiety disorders in children: Information for parents*. National Association of School Psychologists. https://www.nasponline.org/resources-and-publications/resources-and-podcasts/mental-health/mental-health-disorders/anxiety-and-anxiety-disorders-in-children-information-for-parents

Kane, M. (2009). Contemporary voices on Dabrowski's theory of positive disintegration. *Roeper Review, 31*(2), 72–76. https://doi.org/10.1080/02783190902737624

Kanpol, B. (1999). *Critical pedagogy: An introduction* (2nd ed.). Bergin & Garvey.

Kaplan, L. S. (1990). *Helping gifted students with stress management* (ERIC Digest No. E488). https://files.eric.ed.gov/fulltext/ED321493.pdf

Kincheloe, J. L. (2004). *Critical pedagogy primer*. P. Lang.

King, E. W. (2005). Addressing the social and emotional needs of twice-exceptional students. *TEACHING Exceptional Children*, *38*(1), 16–21. https://doi.org/10.1177/004005990503800103

Klehr, M. (2012). Qualitative teacher research and the complexity of classroom contexts. *Theory Into Practice*, *51*(2), 122–128. https://doi.org/10.1080/00405841.2012.662867

Limont, W., Dreszer-Drogorób, J., Bedyńska, S., Śliwińska, K., & Jastrzębska, D. (2014). "Old wine in new bottles?" Relationships between overexcitabilities, the Big Five personality traits and giftedness in adolescents. *Personality and Individual Differences*, *69*, 199–204. https://doi.org/10.1016/j.paid.2014.06.003

Lovett, B. J., & Lewandowski, L. J. (2006). Gifted students with learning disabilities: Who are they? *Journal of Learning Disabilities*, *39*(6), 515–527. https://doi.org/10.1177/00222194060390060401

Maenner, M. J., Shaw, K. A., Bakian, A. V., Bilder, D. A., Durkin, M. S., Esler, A., Furnier, S. M., Hallas, L., Hall-Lande, J., Hudson, A., Hughes, M. M., Patrick, M., Pierce, K., Poynter, J. N., Salinas, A., Shenouda, J., Vehorn, A., Warren, Z., Constantino, J. N., DiRienzo, M., . . . Cogswell, M. E. (2021, December 3). Prevalence and characteristics of Autism spectrum disorder among children aged 8 years—Autism and developmental disabilities monitoring network, 11 sites, United States, 2018. *Centers for Disease Control and Prevention MMWR Surveillance Summaries*, *70*(No. SS-11), 1–16. http://doi.org/10.15585/mmwr.ss7011a1

Mahler, K. (2015). *Interoception: The eighth sensory system: Practical solutions for improving self-regulation, self-awareness and social understanding of individuals with autism spectrum and related disorders*. AAPC Publishing.

Mahler, K. (2016). *What is interoception and how does it impact those with autism?* Autism Awareness. https://autismawarenesscentre.com/what-is-interoception-and-how-does-it-impact-autism/

McCrae, R. (2010). The place of the FFM in personality psychology. *Psychological Inquiry*, *1*(21), 57–64. https://www.jstor.org/stable/25704848

McCrae, R., & John, O. (1992). An introduction to the five-factor model and its applications. *Journal of Personality*, *60*(2), 175–532. https://doi.org/10.1111/j.1467-6494.1992.tb00970.x

McIntyre, A. (2000). Constructing meaning about violence, school, and community: Participatory action research and urban youth. *The Urban Review*, *32*(2), 123–154. https://doi.org/10.1023/A:1005181731698

Mendaglio, S. (2008). Dabrowski's theory of positive disintegration: A personality theory for the 21st century. In S. Mendaglio (Ed.), *Dabrowski's theory of positive disintegration* (pp. 13–40). Great Potential Press.

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). John Wiley & Sons.

Mindful Schools. (2019). *Why is mindfulness needed in education?* https://www.mindfulschools.org/about-mindfulness/why-is-mindfulness-needed-in-education/

National Association for Gifted Children. (n.d.). *Twice-exceptional students*. https://www.nagc.org/resources-publications/resources-parents/twice-exceptional-students

National Association for Gifted Children. (2010). *Redefining giftedness for a new century: Shifting the paradigm* [Position statement]. https://www.nagc.org/sites/default/files/Position%20Statement/Redefining%20Giftedness%20for%20a%20New%20Century.pdf

National Autistic Society. (2020, August 14). *Social interaction and autism: Strategies and interventions*. National Autistic Society. http://www.researchautism.net/issues/3/social-interaction-and-autism

National Education Association. (2006). *The twice-exceptional dilemma*. https://www.nagc.org/sites/default/files/key%20reports/twiceexceptional.pdf

National Institute of Mental Health. (n.d.). *Any anxiety disorder*. Prevalence of Any Anxiety Disorder Among Adolescents. https://www.nimh.nih.gov/health/statistics/any-anxiety-disorder

Neihart, M. (2017). Services that meet the social and emotional needs of gifted children. In R. D. Eckert & J. H. Robins (Eds.), *Designing services and programs for high-ability learners: A guidebook for gifted education* (2nd ed., pp. 122–133). Corwin.

Nielsen, E. M., & Higgins, D. L. (2012). Guiding principles: Curriculum for twice-exceptional learners. *Gifted Education Communicator, 43*(4), 30–33. http://www.giftededucationcommunicator.com/wp-content/uploads/2013/03/Twice-Exceptional-Gifted-Students.pdf

Ogurlu, U. (2021). A meta-analytic review of emotional intelligence in gifted individuals: A multilevel analysis. *Personality and Individual Differences, 171*, 110503. https://doi.org/10.1016/j.paid.2020.110503

Olton-Weber, S., Hess, R., & Ritchotte, J. A. (2020). Reducing levels of perfectionism in gifted and talented youth through a mindfulness intervention. *Gifted Child Quarterly, 64*(4), 319–330. https://doi.org/10.1177/0016986220953392

Panorama Education. (2020). *Reliability and validity of Panorama's survey topics for students: 2020 update*. https://go.panoramaed.com/hubfs/Validity-Report-Student-Topics-2020.pdf

Pesce, N. L. (2019, April 2). *Most college grads with autism can't find jobs. This group is fixing that.* MarketWatch. https://www.marketwatch.com/story/most-college-grads-with-autism-cant-find-jobs-this-group-is-fixing-that-2017-04-10-5881421

Piantanida, M., Tananis, C. A., & Grubs, R. E. (2004). Generating grounded theory of/for educational practice: The journey of three epistemorphs. *International Journal of Qualitative Studies in Education*, *17*(3), 325–346. https://doi.org/10.1080/0951839042000204661

Piechowski, M. (2014). *"Mellow out," they say. If only I could: Intensities and sensitivities of the young and bright* (2nd ed.). Royal Fireworks Press.

Probst, B. (2006). Issues in school placement for "twice exceptional" children: Meeting a dual agenda. *Journal of Therapeutic Schools and Programs, 1*(2), 174–188. https://doi.org/10.19157/JTSP.issue.01.02.10

Rai, D., Culpin, I., Heuvelman, H., Magnusson, C. M. K., Carpenter, P., Jones, H. J., Emond, A. M., Zammit, S., Golding, J., & Pearson, R. M. (2018). Association of autistic traits with depression from childhood to age 18 years. *JAMA Psychiatry*, *75*(8), 835–843. https://doi.org/10.1001/jamapsychiatry.2018.1323

Rankel, M. (2008). Dabrowski on authentic education. In S. Mendaglio (Ed.), *Dabrowski's theory of positive disintegration* (pp. 79–100). Great Potential Press.

Reis, S. M., Baum, S. M., & Burke, E. (2014). An operational definition of twice-exceptional learners: Implications and applications. *Gifted Child Quarterly*, *58*(3), 217–230. https://doi.org/10.1177/0016986214534976

Roux, A., Rast, J., Anderson, K., & Shattuck, A. (2017). *National autism indicators report: Developmental disability services and outcomes in adulthood*. Autism Outcomes. https://drexel.edu/autismoutcomes/publications-and-reports/publications/National-Autism-Indicators-Report-Developmental-Disability-Services-and-Outcomes-in-Adulthood/

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality*, *9*, 185–211.

Scott, M. A., Pyne, K. B., & Means, D. R. (2015). Approaching praxis: YPAR as critical pedagogical process in a college access program. *High School Journal*, *98*(2), 138–157. https://doi.org/10.1353/hsj.2015.0003

Silver, D. (2011). Using the "zone" to help reach every learner. *Kappa Delta Pi Record*, *48*(1), 28–31. http://doi.org/10.1080/00228958.2011.10516721

Silverman, L. (2008). The theory of positive disintegration in the field of gifted education. In S. Mendaglio (Ed.), *Dabrowski's theory of positive disintegration* (pp. 157–173). Great Potential Press.

Silverman, L. (2016, January 12). *The truth about overexcitabilities*. Gifted Development Center. https://www.gifteddevelopment.com/blogs/bobbie-and-lindas-blog/truth-about-overexcitabilities

South Carolina Department of Education. (2018a). *Gifted and talented best practices guidelines: Curriculum and instruction*. https://ed.sc.gov/instruction/standards-learning/advanced-academic-programs/gifted-and-talented/gifted-and-talented-curriculum/

South Carolina Department of Education. (2018b). *Gifted and talented best practices guidelines: Identification.* https://ed.sc.gov/instruction/standards-learning/advanced-academic-programs/gifted-and-talented/

Stambaugh, T., & Fecht, S. (2021). Practical strategies for teaching through a talent development lens. In J. D. Swanson & M. V. Sickle (Eds.), *Talent development in school: An educator's guide to implementing a culturally responsive talent identification and development program* (pp. 20–50). Routledge.

Strauss, A. A., & Lehtinen, L. E. (1947). *Psychopathology and education of the brain-injured child* (Vol. 1). Grune & Stratton. https://catalog.hathitrust.org/Record/001578989

Strauss, A. L., & Corbin, J. M. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (4th ed.). SAGE Publications.

Tieso, C. L. (2007). Patterns of overexcitabilities in identified gifted students and their parents: A hierarchical model. *Gifted Child Quarterly*, *51*(1), 11–22. https://doi.org/10.1177/0016986206296657

Tillier, W. (2009). Dabrowski without the theory of positive disintegration just isn't Dabrowski. *Roeper Review*, *31*(2), 123–126. https://doi.org/10.1080/02783190902737699

Trail, B. (2008). *Twice-exceptional learners: What they need in order to thrive* [Doctoral dissertation, University of Northern Colorado]. ProQuest Dissertations and Theses Global.

Trail, B. (2010). *Twice-exceptional gifted children: Understanding, teaching, and counseling gifted students*. Prufrock Press.

VanTassel-Baska, J. (2009). Affective curriculum and instruction for gifted learners. In J. VanTassel-Baska, T. L. Cross, & R. E. Olenchak (Eds.), *Social-emotional curriculum with gifted and talented students* (pp. 113–132). Prufrock Press.

Vuyk, M. A., Krieshok, T. S., & Kerr, B. A. (2016). Openness to experience rather than overexcitabilities: Call it like it is. *Gifted Child Quarterly*, *60*(3), 192–211. https://doi.org/10.1177/0016986216645407

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds.). Harvard University Press.

RTI Action Network. (n.d.). *What is RTI?* http://www.rtinetwork.org/learn/what/whatisrti

Winkler, D., & Voight, A. (2016). Giftedness and overexcitability: Investigating the relationship using meta-analysis. *Gifted Child Quarterly*, *60*(4), 243–257. https://doi.org/10.1177/0016986216657588

Wood, D., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry*, *17*(2), 89–100. https://doi.org/10.1111/j.1469-7610.1976.tb00381.x

Wood, D., & Middleton, D. (1975). A study of assisted problem solving. *British Journal of Psychology*, *66*(2), 181–191. https://doi.org/10.1111/j.2044-8295.1975.tb01454.x

APPENDIX A:

STRENGTH-BASED INTERVENTION PLANS

Blank Strength-Based Intervention Plan

Student: Date Created:

Student Profile

Student's strengths	
Student's preferences	

Intervention Plan

Stimuli	
Current Behavior/Reaction	
Goal Behavior	
Strategies to use	
How to get help	
Steps to implement strategies	

Strength-Based Intervention Plan: Marie

Student: Marie
Date Created: January 31, 2022
Date Revised: February 22, 2022

Student Profile

Student's social and emotional strengths	Solving problems (e.g., visual and math), humor, creative ideas, love of learning *Identify physical signs of emotion *chooses to take use deep breathing and take break *able recognize when a break or extra break is needed
Student's preferences	Legos, Rubik's cube, nonfiction genre, something to hold and manipulate, time for independent exploration

Intervention Plan

Stimuli	Angry or frustrated because not enough time to do self-chosen work *Gets stuck on assignments
Current Behavior/Reaction	Sneaks to do activity, impulse, unable to complete classwork *Sometimes gets stuck on questions or assignments *Chooses to take a break but may need a longer or walking break
Goal Behavior	Complete assignments on time to have independent time *Rate emotion to determine break length *Use walking for stronger emotions *Ask for help when needed
Strategies to use	Timer to take a break Use emotion journal (i.e., Writer's Notebook) at home Deep breathing Put items for break time in another location *Put items near the rocking chair and use while sitting in the rocking chair
How to get help	Sticky note on board or email
Steps to implement strategies	1. Notice body sensations 2. Take deep breaths 3. Accept and notice anger/frustration 4. *Rate emotion 1–5 5. *Decide if break or walking is needed 6. After break return to class work 7. Meet with teacher to discuss or get help

Note: The asterisk * denotes additions or changes to the original intervention plan.

Strength-Based Intervention Plan: Jeff

Student: Jeff
Date Created: January 31, 2022
Date Revised: February 21, 2022

Student Profile

Student's social and emotional strengths	Physical, sports, movement, emotions, analytical, find errors, following rules *Rate emotions *Knows what strategies work for him *Working hard to put plan in action *Uses deep breathing and changes order of steps as needed
Student's preferences	Movement, talk, take a break, Writer's Notebook *Teacher steps in to help when she notices he is not using strategies. *Save walk around for Level 4 and above

Intervention Plan

Stimuli	Thinking about home issues at school Stress/worry *Physical pain
Current Behavior/Reaction	Putting head down, not completing work, tired/lethargic, not asking for help with assignments *Sometimes does not connect physical signs to emotions *Does not repeat steps or move to walking around for stronger emotions
Goal Behavior	Accept worry, move beyond feeling, pick up energy, complete assignments, ask for help *Be able to express his emotions and needs to adults *Recognize physical signs *Repeat steps and use them in different order as needed. *Use walking around (for Level 4 or when Level 3 does not improve with other steps)
Strategies to use	Move body, walk around Chair Band Therapy putty Keep strategies close to look at
How to get help	Send email, raise hand, hand signal (e.g., cross fingers)
Steps to implement strategies	1. Notice body sensations or signal from Mrs. Garrett 2. Take deep breaths 3. * Self-talk to accept and name worry 4. *Categorize 1–5 5. Move body based on level 6. Meet with teacher to discuss or get help Level 1–3 band and putty Level 4 and first use of steps not working - walking around the hallway

Note: The asterisk * denotes additions or changes to the original intervention plan.

Strength-Based Intervention Plan: Henry

Student: Henry
Date Created: January 31, 2022
Date Revised: February 21, 2022

Student Profile

Student's strengths	Creative, strong emotions (e.g., kind, caring), funny, active *Perseverance with writing *Sharing more with group *No strong emotional reactions that caused avoidance or hiding while using the plan. *Realized putty did not work
Student's preferences	Math, social studies, physical activity, science *Talk about writing aloud to self and have place to work in the room during writing

Intervention Plan

Stimuli	Sharing out loud in class and completing assignments that involve writing new ideas *Coming up with ideas for writing - writer's block.
Current Behavior/ Reaction	Avoiding assignment or sharing, hiding *Stuck on writing and not asking for help
Goal Behavior	Follow directions, complete, and share assignments that involve writing. *Moving past writer's block and asking for help when needed. *Go through strategy steps more than once as needed. *Positive self-talk with writing *Use deep breathing more often and repeat steps as needed
Strategies to use	Positive self-talk, deep breathing, imagery, build confidence *Place sticky note on the board to ask for help during writing *Finding a spot in the classroom to talk about ideas out loud.
How to get help	Sticky note on board or send email raise hand, hand signal *If you need time before sharing, use hand signal
Steps to implement strategies	1. Notice body sensations 2. Take deep breaths 3. Accept and name worry 4. Positive self-talk and happy memory 5. Move body if needed (i.e., find a place in the room) 6. Ask for help or repeat steps 7. Return to assignment or share 8. Meet with teacher to discuss or get help

Note: The asterisk * denotes additions or changes to the original intervention plan.

APPENDIX B:

INITIAL, MID-STUDY, AND FINAL INTERVIEW PROTOCOLS

Initial Interview
(Before Creating the Intervention Plan)

Student: Date:
Stimuli:
Response to stimuli:

How did you feel before/during/after the event? Can you name the emotion(s)?
How do you know when you are experiencing this emotion?
What do you think caused the emotion?
Is this how you usually respond when this happens? Explain
What would you have wanted to happen? How would you have wanted to respond to the emotion/event?
What help would you want to have before/during/after the event?
What are your strengths when handling strong emotions?
What strategies do you prefer to use when handling strong emotions?

Mid-Study Interview
(After Creating the Intervention Plan)

Student: Date:
Stimuli:
Response to stimuli:

How did you feel before/during/after the event? Can you name the emotion(s)?
How do you know when you are experiencing this emotion?
What do you think caused the emotion?
What strategies did you use? Why?
Were the strategies successful? Why?
What would you have differently?
What help would you want to have before/during/after the event?
What are your strengths when handling strong emotions?
What strategies do you prefer to use when handling strong emotions?

Final Interview
(Reflection of the Intervention Plan and Study)

Student: Date:

What is working?
What is not working?
What should change about the intervention plan?
How have you changed in your ability to name and recognize your emotions?
How have you changed in your ability to recognize when you are losing control?
How have you changed in your ability to choose coping strategies?
What are your strengths when handling strong emotions?
What strategies do you prefer to use when handling strong emotions?

APPENDIX C:

STUDENT BEHAVIORAL OBSERVATION PROTOCOL

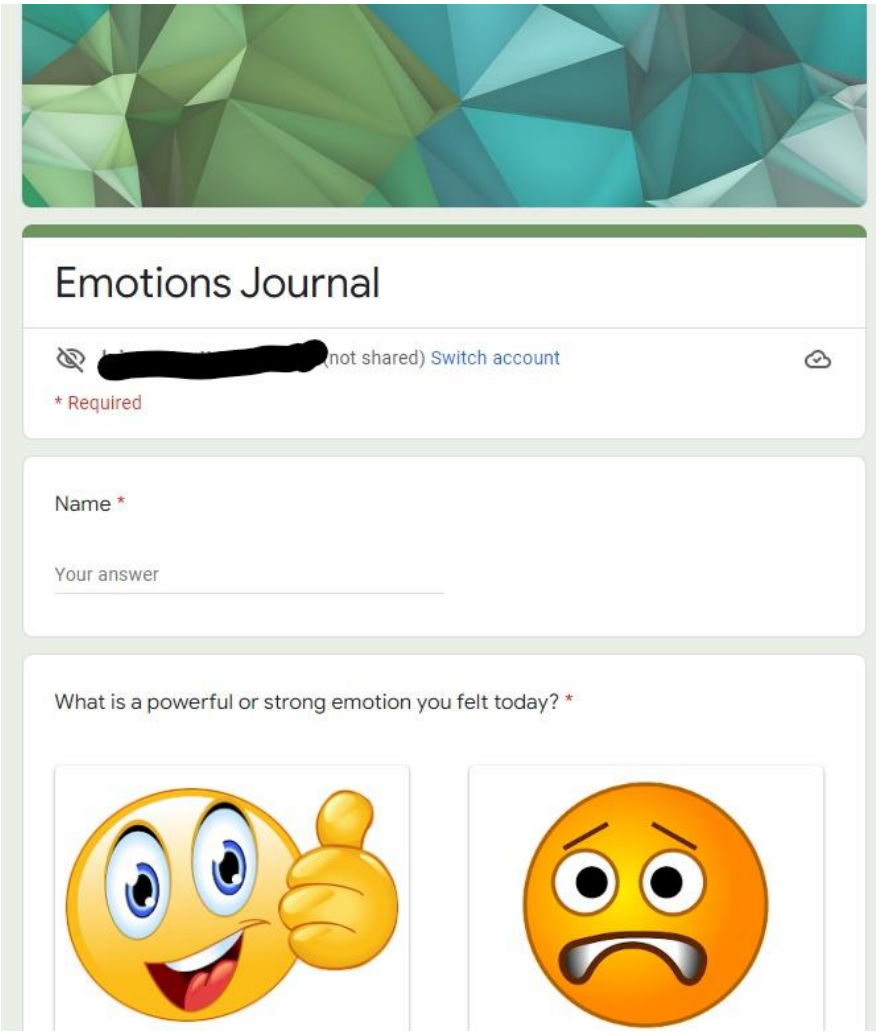
Student:
Date:
Time:
Setting:

Stimuli that triggered response:	
Emotional response to stimuli:	
Use of coping strategies:	
Result of coping strategies:	
Time to return to neutral emotional state:	
Additional Notes:	

APPENDIX D:

STUDENT EMOTIONS JOURNAL

This is a Google Form that students completed for their emotions journal. Students had a link to this form on our digital classroom application.



1. Happy, content, cheerful, pleased, joyful

2. Worried, anxious, tense, nervous

3. Sad, disappointed, gloomy, unhappy, ashamed

4. Angry, upset, annoyed, frustrated

Other:

What caused you to have that emotion? *

Your answer

Did this emotion make you feel like you were spinning? Spinning means you were not able to control or modulate the emotion for a little while or a long while. *

yes

no

How did your body feel or react when you had that emotion? *

- [ ] Sweaty or hot
- [ ] Cold or clammy
- [ ] Heart beating faster
- [ ] Breathless
- [ ] Shaking or moving body part over and over
- [ ] Sick to your stomach, queasy, butterflies in your stomach
- [ ] Dizzy or headache
- [ ] Tears
- [ ] Clinched or tensed body parts
- [ ] Hide or cover your face
- [ ] Avoid doing your work
- [ ] smiling and/or laugh
- [ ] relaxed, not tense
- [ ] free, not weighed down
- [ ] Other: _____

How did you respond to that emotion? What choices did you make because of that emotion? *

Your answer

Do you have any suggestions for me? Is there anything else you would like to tell me?

Your answer

Submit Clear form

APPENDIX E

PARENTAL CONSENT FORM

November 3, 2021

Dear Parent or Guardian:

I am your child's fourth grade teacher and I am also a student in the College of Education at the University of South Carolina. I am pursuing my Doctorate of education in Curriculum and Instruction. As part of my degree program, I am conducting a research project on supporting the social and emotional needs of gifted and talented students or students who show gifted and talented characteristics. I request permission for your child to participate.

The study consists of developing a social and emotional intervention plan with the student's input. The plan will be created to support the student with choosing and using coping strategies to self-regulate strong emotions, such as anxiety, that arise while at school. The student and I will work one on one during the regular school day to develop the intervention plan. The student will provide input into which strategies are working best and how I can best provide support. For example, coping strategies might consist of taking deep breaths, using a tool like putty, moving around, or using a journal to help calm nerves or sooth strong anxiety.

The project will be explained in terms that your child can understand, and your child will participate only if he or she is willing to do so.

Participation in this study is voluntary. Your decision whether to allow your child to participate will not affect the services normally provided to your child by myself, XXXXX or XXXXX. Your child's participation in this study will not lead to the loss of any benefits to which they are otherwise entitled. Even if you give your permission for your child to participate, your child is free to refuse to participate. If your child agrees to participate, they are free to end participation at any time. You and your child are not waiving any legal claims, rights, or remedies because of your child's participation in this research study.

Any information obtained in connection with this study that identifies you or your child will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by limiting access to student responses and information to myself and the student, not using the student's name or identifying information, and storing student information on secure devices. At the conclusion of the study, children's responses will be reported anonymously. Students' names, identifying information, and the school's name will not be used in the written dissertation.

Should you have any questions or desire further information, please call me at XXX-XXX-XXX or email me at XXXXX.

Keep one copy of this letter for your records. Return the second copy with the other side completed and send this to school through your student's school and home communication folder.

Concerns about your rights as a research subject are to be directed to Lisa Johnson, Assistant Director, Office of Research Compliance, University of South Carolina, 1600 Hampton Street, Suite 414D, Columbia, SC 29208, phone: (803) 777-6670 or email: LisaJ@mailbox.sc.edu.

Sincerely,
Kristy Garrett
Fourth Grade Teacher
XXXXX

Please indicate whether you wish to allow your child to participate in this project by checking one of the statements below, signing your name and returning this copy to school through your child's Gator folder.

_____ I grant permission for my child to participate in Kristy Garrett's study on supporting a student's social and emotional need through a teacher and student created intervention plan.

_____ I do NOT grant permission for my child to participate in Kristy Garrett's study on supporting a student's social and emotional need through a teacher and student created intervention plan.

_____ _____
Signature of Parent/Guardian Printed Parent/Guardian Name

_____ _____
Printed Name of Child Date