A PHENOMENOLOGICAL STUDY: THE SELF-EFFICACY OF TWICE-EXCEPTIONAL STUDENTS

by

Lisa Ann Glover

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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APPROVED BY:

James Swezey, EdD, Committee Chair

Lucinda Spaulding, PhD, Committee Member

Abstract

The purpose of this transcendental, phenomenological study was to describe the perceived self-efficacy of twice-exceptional students in a singular school district located in the southeastern United States. The theories which guided this study are Swain and French's affirmative model of disability, Deci and Ryan's self-determination theory, and Bandura's self-efficacy theory because students who view their disabilities in a positive sense may have greater self-determination and thus increased self-efficacy. The guiding research question for the study examined the shared perceptions of self-efficacy among twice-exceptional students. Data to examine this question were collected from 10 high school students at East Lake School District through interviews, self-efficacy scale, and collages. Collected information was analyzed using the phenomenological process establish by Moustakas in horizonalizing data and establishing themes to derive a written description of the participants' perception of the phenomenon. The three main themes developed were (a) positive self-efficacy stemming from their area of giftedness, teacher and parental support, and utilization of nontraditional classes; (b) poor self-efficacy centered on their disability and teachers which resulted in frustration and self-doubt; and (c) a participant-generated set of suggestions on how their self-efficacy can be increased through greater focus, communication, and relationship building.

Keywords: twice-exceptional, self-efficacy, self-determination, affirmative model, phenomenology, high school, giftedness, disability

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Dedication

This work is dedicated to my family. My Mr. Incredible—Rob thank you for being the world's best husband and taking over everything in our family over the past few years. There is no way I could have done this without your love and support. This accomplishment belongs to both of us—not to mention that other than me, you have read through this paper more times than anyone! You are my constant cheerleader, and I am so glad God gave you to me. You have set such a beautiful example for our children on how a godly man should love his wife throughout this journey. To Jared, Abby, and Gabrielle: I know you three didn't know what you were getting into when you cheered me on to "keep going," but your encouragement has been a wonderful blessing. I know it wasn't easy when you had to go ask dad or wait patiently while the office door was closed because I was writing, but you three have been awesome through this. I hope you know how much I love each of you. Finally, to Jehovah Jireh, you have provided me with everything I needed to complete this task. You bring me joy. May this work bring you honor.

Acknowledgments

To say thank you just does not seem sufficient for all the assistance Drs. Swezey and Spaulding provided throughout this process. Dr. Swezey, you really are a rock star, and I am so grateful for all your assistance and honesty during this process. Yes, it was a bit painful at times, but the result is amazing! Dr. Bibb, thank you so much for your assistance and knowledge of student populations which enabled me to even begin working on the research portion of this! I am grateful for your help. Karon Nation and Janice Cessions, you have my eternal gratitude and admiration for all you do for your students—especially mine! We are blessed to have you in our lives. My Abby, you were the onus of all this research, and while what I have learned can no longer help you for your high school years, I can only hope that it will assist other 2e students, parents, and teachers as they progress through their education.

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List of Abbreviations

Autism Spectrum Disorder (ASD)

English Language Arts (ELA)

Individual Education Program (IEP)

Individuals with Disabilities Education Improvement Act of 2004 (IDEIA)

Institutional Review Board (IRB)

Other Health Impairment (OHI)

Response to Intervention (RtI)

Specific Learning Disability (SLD)

Twice-Exceptional (2e)

CHAPTER ONE: INTRODUCTION

Overview

Self-efficacy is affected by many internal and external factors (Bandura, 1997), and various studies have been completed on the self-efficacy of students with learning disabilities (Cavioni et al., 2017; Einav et al., 2018) and those with giftedness (Dixson et al., 2016; Westberg & Leppien, 2018). However, what happens when a student is diagnosed with a learning disability and a co-existing area of giftedness? These twice-exceptional (2e) students are a growing and unique student population who cause even seasoned teachers to reexamine their instructional practices (Coleman & Gallagher, 2015; Munn, 2017). Some theoretical models place the percentage of 2e students within the special education population at 11%, but many of these students remain unofficially diagnosed as 2e (Ottone-Cross et al., 2017) due to differing criteria between states and districts (Baldwin, Baum, et al., 2015; Ronksley-Pavia, 2015; Toffalini et al., 2017). As an official diagnosis, 5% of special education and gifted students are classified as 2e (van Viersen et al., 2016), and these students' self-efficacy needs to be understood to better assist them in their academic endeavors (Wang & Neihart, 2015a).

This chapter begins with the history of 2e identification, the social context, and the theoretical framework of this research. As transcendental phenomenological research, the background of the researcher and philosophical assumptions inherent with this type of research are discussed. This is followed by the problem statement and the purpose and significance of the work. The chapter concludes with the presentation of the guiding research questions, the definitions for terms used, and a closing summary of the chapter.

Background

The concept of a 2e identification developed from the intersection of gifted and special education more than 50 years ago but was not conceptualized into a theoretical model until the 1970s (Baldwin, Baum, et al., 2015). By the 1980s, public schools were developing programs to serve 2e students, and parents were creating organizations which would encourage support, research, and increased funding for these students (Baldwin, Baum, et al., 2015). An exact definition and parameters of what qualifies a student for 2e services are still in debate, but a widely accepted definition was created by the National Twice-Exceptional Community of Practice in 2014 (Baldwin, Baum, et al., 2015; Foley-Nicpon et al., 2011). This definition stated:

> Twice exceptional individuals evidence exceptional ability and disability, which results in a unique set of circumstances. Their exceptional ability may dominate, hiding their disability; their disability may dominate, hiding their exceptional ability; each may mask the other so that neither is recognized or addressed. (Baldwin, Baum, et al., 2015, p. 212)

It is important to review the historical and social context of 2e because it occurs at the intersection of giftedness and learning disability and this classification moves fluidly between the two categories. Therefore, the theoretical context of the study must also encompass elements of both gifted and special education.

Historical Context

Twice-exceptional education is based upon the development of gifted and special education laws and policies. Public Law 94-142 (Education for All Handicapped Children Act, 1975) defined the parameters of a free and appropriate public education for all children diagnosed with disabilities. The extension of this law led to the idea of the least restrictive environment and the modern idea of inclusion in the general education classroom for those with

disabilities. Due to the least restrictive environment mandate, 2e students are primarily educated in the general classroom environment (C. A. Bell, 2020).

While this act revolutionized the understanding and delivery of special education, it did not specifically address the population of students identified as both gifted and with learning disabilities (Baldwin, Baum, et al., 2015). The actual inclusion of 2e students in the law and funding for their educational supports did not occur until the 2004 Individuals with Disabilities Education Improvement Act (IDEIA), when approaches to identification of giftedness and disabilities became acceptable (Baldwin, Baum, et al., 2015; C. A. Bell, 2020). Currently a student must fall into 1 of 13 disability categories; however, twice-exceptionality is not explicitly mentioned as a category because giftedness is not addressed in special education law (C. A. Bell, 2020).

Gifted education, on the other hand, has not received as much federal attention on spending, but instead relies on the individual states (C. A. Bell, 2020). In the late 1950s, during the height of the Cold War, Congress did allocate finances to the individual states to provide gifted education through the National Defense Education Act (C. A. Bell, 2020). Throughout the late 1960s and 1970s, additional acts were passed for gifted education; however, the Omnibus Budget Reconciliation Act of 1981 repealed prior gifted education funding (C. A. Bell, 2020). The Jacob K. Javits Gifted and Talented Students Education Act (1988) currently governs federal gifted and talented education. However, unlike IDEIA, this act does not provide protection for students whose needs are not being met.

Most of the previous studies in twice-exceptionality focused on establishing guidelines for classifications and developing a set of cognitive and non-cognitive characteristics of 2e students which can be utilized for identification (Beckmann & Minnaert, 2018; Maddocks,

2020). Separate studies on the self-efficacy of gifted students and students with learning disabilities are plentiful and have been used to create meta-analyses on the two topics (Bear et al., 2002; Litster & Roberts, 2011); however, research examining the self-efficacy of 2e students through a qualitative approach is rare (Foley-Nicpon et al., 2015; Wang & Neihart, 2015a).

Social Context

Positive self-efficacy is an important attribute of student success (Wang & Neihart, 2015a) and can be affected by a student's interactions with teachers and peers. Various researchers (Cavanagh et al., 2019; Schöber et al., 2018) have linked high self-efficacy to increased student performance, but additional research needs to determine if this connection is valid within the 2e population. In their phenomenological study, Wang and Neihart (2015a) found that 2e students who were successful in school had a higher degree of self-efficacy; however, this study took place in Singapore, and differences in cultural and academic expectations between Singapore and the United States need to be taken into account.

Higher self-efficacy is also tied to peer relationships as demonstrated by Townend and Brown (2016). They showed the importance peers have on a positive attitude towards school, but 2e students can still maintain negative academic self-efficacy because of difficulty with classroom assignments and expectations (Townend & Brown, 2016). This discrepancy between expected academic results and actual performance creates a mindset of frustration and possible lower self-efficacy for 2e students (Baldwin, Omdal, & Pereles, 2015; Barnard-Brak et al., 2015; Beckmann & Minnaert, 2018). However, "when 2e students' strengths are emphasized and their self-confidence is boosted, they are motivated to put more effort into learning, and they also will be confident in their abilities to excel" (Wang & Neihart, 2015a, p. 70). Therefore, the goal of

educators and parents is to emphasize their strengths while mitigating weaknesses—a difficult task in any situation.

Theoretical Context

Theory acts as the grounding for all research so results can be interpreted within an accepted framework of understanding (Creswell & Poth, 2018). While the affirmative model of disability as presented in Swain and French (2000), self-determination theory (Deci & Ryan, 1980, 2000), and Bandura's (1997) work on self-efficacy are the guiding theories of this study. All three theories interact within one another, but Bandura's work on self-efficacy is the overarching theory under which the others will be incorporated. Many studies have examined the role of self-efficacy in the academic achievement of various student populations, and while this study is also examining self-efficacy, it is doing so with the understanding that students who are both gifted and have learning disabilities have needs which are different from the general education population (Cavilla, 2017; Michael & Zidan, 2018; White & Vo, 2006). Self-determination theory (Deci & Ryan, 1980, 2000) and the affirmative model of disability (Swain & French, 2000) will undergird Bandura's (1997) self-efficacy by providing the context through which to better view the possible components which contribute to greater self-efficacy.

Situation to Self

I am a high school history and English teacher, doctoral student, wife, and mother. I have been teaching for more than 20 years in public and private Christian schools and have worked in youth ministry. I currently have a Master's in Education in Teaching and Learning with an emphasis in history, and my Bachelor of Arts is in English education. I am currently certified to teach Language Arts (6–8), English (912), and social studies (912) by the states of North Carolina and South Carolina.

I have three children, all of whom are labeled as academically gifted; however, my middle child was born with Turner Mosaic syndrome (a chromosomal defect) which causes physical and educational difficulties. She is deaf in her right ear, and she wears a hearing aid and qualifies for services for the deaf and hard of hearing. She is also labeled with a specific learning disability and participates in inclusion math classes. That same child also has non-verbal learning disorder, which mimics many symptoms of Asperger's without the severity but can still interfere with her peer relationships and interpretation of body language.

Finally, she is labeled as academically gifted and participates in all honors classes (except for math) and, at the time of this writing, is ranked 11th in her class of 225 students. My husband and I never allowed her disabilities to define her and continually pushed her—undoubtedly sometimes too hard—to succeed in everything she put her mind to. When she transitioned to high school, my husband and I were told that she was the first officially identified 2e female student at her public high school in 10 years. This information piqued my interest and set me on the quest to find out more information about how to best identify and help students like my daughter achieve academic success.

I believe God created everyone in unique and wonderful ways, and this is especially true of 2e students who have traits of both giftedness and learning disabilities. Little research has qualitatively examined this student group, and additional research is needed to better understand 2e students and their educational needs. If 2e students can learn to view their concurrent disability and talent as a gift from God to enhance their life, their self-efficacy could be increased.

This study is grounded in the ontological philosophical assumption that multiple realities exist among the participants (Creswell & Poth, 2018). As the researcher, I reported the various

perspectives of the participants through the themes developed during the research and analysis process (Creswell & Poth, 2018). This assumption meant that I believe the participants will view their experiences differently and part of the reporting process will be to present the differing realities of their 2e experience.

A social constructivism framework was used in interpreting this research as it is "based on the assumption that social reality is constructed by the individuals who participate in it" (Gall et al., 2007, p. 21). Each student in the study had a different perception of the reality of their 2e educational phenomenon due to their individual experiences (Check & Schutt, 2012; Gall et al., 2007). This understanding of multiple realities allowed me to describe the complexity of the various views of the participants rather than a singular, similar perspective (Creswell & Poth, 2018). Social constructivism also guided the epistemological and axiological assumptions of this study. They stipulate the co-constructed reality of both the researcher and the participant occurred through individual experiences and allowed me to honor the individual values of participants (Creswell & Poth, 2018).

Utilizing that framework and philosophical beliefs, disabilities were viewed through the affirmative model of disability (Swain & French, 2000). While 2e students have both areas of giftedness and disability, it is the affirmative model of disability which guided this study. The opposing model, the medical model of disability, assumes that a person can only lead a fulfilled and abundant life if their disability is "fixed," while the affirmative model of disability was designed to counter this belief (Cameron & Tossell, 2012; Swain & French, 2000). The affirmative model of disability emphasizes the individual strengths of those with disabilities and the positive impact their disability has on their life (Cameron & Tossell, 2012; Swain & French, 2000). Cameron and Tossell (2012) succinctly stated, "The medical model identifies disability as

individual deficit and the social model sees it as a restrictive relationship, the affirmative model enables us to think about disability in productive terms" (p. 245).

The affirmative model of disability accentuates the positive aspects of a disability and encourages an increased view of self-worth (Swain & French, 2000). Twice-exceptional students who view their disability as an enhancement of who they are rather than a problem to be "fixed" may experience greater self-efficacy in all academic areas. However, when a disability is seen as a negative aspect of life, it leads to the belief that the disability causes a lesser worth for an individual with a disability as compared to non-disabled peers (Cameron & Tossell, 2012). The important emphasis of the affirmative model of disability is that it sees "the positive experiences and identity of disabled people" (Swain & French, 2000, p. 579) and uses the disability as a favorable force in life.

Problem Statement

Using cognitive and noncognitive methods of identification, 7%–11% of children in special education have concurrent giftedness and their giftedness is often overlooked as their educational goals focus on remediation of disabilities (Barnard-Brak et al., 2015; Dare & Nowicki, 2015; Ottone-Cross et al., 2017). However, the academic focus for 2e students is on improving their area of deficiency rather than emphasizing their area of strength (Barnard-Brak et al., 2015; Dare & Nowicki, 2015; Ottone-Cross et al., 2017). When services for 2e students focus on remediation of deficiencies rather than areas of giftedness, this may lower their self-efficacy beliefs (Wang & Neihart, 2015a, 2015b).

The problem this research examined is the self-efficacy classroom experiences of 2e students. Current studies emphasize identification techniques (Maddocks, 2020; Ottone-Cross et al., 2017) and ignore the beliefs of the students who are affected by the classifications. This

study did not focus on identification; instead, it has attempted to establish a better understanding of the perceived self-efficacy of 2e students. However, examining students' self-efficacy beliefs in relation to their 2e identification demonstrates the importance of including a label of giftedness to ensure students receive educational enhancements for their talents as well as supports for disabilities to increase their academic success.

Purpose Statement

The purpose of this transcendental phenomenological study was to understand the perceived self-efficacy of high school 2e students at East Lake School district (pseudonym). Twice-exceptionality is generally defined as students who are formally identified as having an area of disability along with a coexisting area of giftedness (Foley-Nicpon et al., 2011). The disabilities included in this study may encompass a specific learning disability (SLD), autism spectrum disorder (ASD), or other health impairment (OHI). The theories guiding this study are the affirmative model of disability as presented in Swain and French (2000), self-determination theory (Deci & Ryan, 1980, 2000), and Bandura's (1997) work on self-efficacy. By examining a disability as something to be incorporated into education rather than "fixed," the gifted aspect of these students can be enhanced, which may positively affect their self-efficacy.

Significance of the Study

This study is significant because the issues involving 2e students have only recently gained the attention of researchers, with most of the studies related to the qualitative identification of 2e students (Dare & Nowicki, 2015; Ottone-Cross et al., 2017). This study adds to the current literature base by examining the educational self-efficacy perceptions of 2e students. Self-efficacy is an important component in a student's academic success (Ardura & Galán, 2019; Bandura, 1989b; Tomás et al., 2020), and better understanding how 2e students

perceive their self-efficacy can assist in improving academic programs and experiences which specifically target the unique needs of these students (Rubenstein et al., 2015).

With increasing numbers of students with disabilities entering higher education (Francis et al., 2018) and subsequently the workforce, it is important to establish needed supports early in their education (Amran & Majid, 2019; Wang & Neihart, 2015b); however, proper and affective supports can only be realized through viewing their 2e experiences and needs through their eyes. Teachers and parents need to be equipped to recognize 2e students even before formal diagnosis takes place (Beckmann & Minnaert, 2018; S. M. Bell et al., 2015; Ronksley-Pavia et al., 2019). Practical insights into 2e characteristics and learning strategies for those students are helpful for teachers and parents who may feel overwhelmed by witnessing the dichotomy of abilities (Amran & Majid, 2019; Dare & Nowicki, 2015). Additionally, while each student is unique, this study will assist 2e students in realizing that they are not alone in their struggles and successes because there are others who share their experiences (Amran & Majid, 2019; Francis et al., 2018).

Theoretically, this study brought together the affirmative model of disability (Swain & French, 2000), self-determination theory (Deci & Ryan, 1980, 2000, 2008), and self-efficacy (Bandura, 1977) to create a comprehensive framework for guiding the inquiry and interpreting the results of the data. To increase students' self-efficacy, their disability and giftedness must both be acknowledged and the students must realize their own abilities to affect change (Barnard-Brak et al., 2015; Ottone-Cross et al., 2017; Wang & Neihart, 2015a). Placing this study squarely at the intersection of these three theories allowed for the incorporation of separate studies on students with disabilities and those with giftedness (Ardura & Galán, 2019; Bear et al., 2002; Fleming et al., 2017; Holzberg et al., 2019).

While debate exists regarding the diagnostic parameters which define the identification of 2e students (Barnard-Brak et al., 2015; Dare & Nowicki, 2015; Ottone-Cross et al., 2017; Toffalini et al., 2017), the current population of 2e students requires attention to ensure their academic success (Baldwin, Baum, et al., 2015; Lee & Ritchotte, 2018; van Viersen et al., 2016). Because these students fail to align within traditional parameters of giftedness and disability, 2e students prove to be a unique educational population (Dare & Nowicki, 2015; Maddocks, 2020), and a gap in the literature occurs in the understanding of the mindset of these students (Maddocks, 2020). Academically, they are caught between two worlds—that of the gifted and learning disabled—and the impact of that dichotomy is not clearly understood in the perception of their self-efficacy. If the affirmative model of disability is present in the educational setting of 2e students, it may provide the rationale for higher levels of self-efficacy (Swain & French, 2000) and thus greater academic achievement (Ardura & Galán, 2019; Hwang et al., 2015; Tomás et al., 2020).

Research Questions

Research questions provide a guide for framing an investigator's description of a phenomenon (Moustakas, 1994). Research questions need to be feasible, important, and relevant (Check & Schutt, 2012), and thus the guiding questions for this study were evaluated against this criterion. Establishing support for research questions in the current literature is vital (Gall et al., 2007); therefore, each question is followed by a brief rationale which ties it directly to previous research.

The following questions guided this research:

Central Question

What are the shared experiences of self-efficacy in high school 2e students?

While little research has examined the perceived self-efficacy of 2e students, common educational traits amongst this population have been observed: creative problem solving, strong commitments to tasks of interest, and enjoyment of abstract ideas (Abramo, 2015; S. M. Bell et al., 2015). These similarities in observable character traits foster the belief that similarities in self-efficacy will also be noted. To assist in clarifying the guiding research question and avoid ambiguity of findings, the inclusion of additional sub-questions has been utilized to more articulately describe 2e students' perception of self-efficacy.

Sub-Question 1

How do twice-exceptional students describe their self-efficacy in their area of giftedness?

As stated previously, 2e students exhibit "advanced vocabulary, analytic abilities, creativity, problem-solving, task-commitment, or reasoning capabilities" (S. M. Bell et al., 2015, p. 310). These are educational areas commensurate with their gifted peers, and if the focus of a 2e student's education is on this area, it would make sense that these characteristics would be dominant. Many of these traits are based upon testable objectives, and according to prior research (Bassi et al., 2007; Wang & Neihart, 2015a), students who are successful in school while exhibiting these traits have higher levels of self-efficacy.

Sub-Question 2

How do twice-exceptional students describe their self-efficacy in their area of difficulty?

While earlier cited studies show that some research demonstrates the positive academic commonalities of 2e students, other literature reports the negative similarities in that 2e students have a lack of self-confidence, difficulties in developing and maintaining peer relationships, and feelings of being different (Beckmann & Minnaert, 2018; Ronksley-Pavia et al., 2019). These negative experiences can be presented in the classroom through the 2e students' acting out with

inappropriate behaviors and/or speech (Beckmann & Minnaert, 2018). More than likely, these negative traits occur in areas where 2e students experience academic difficulty as a sign of frustration (Baldwin, Baum, et al., 2015; Reis & Renzulli, 2021; van Viersen et al., 2016).

Sub-Question 3

How do twice-exceptional students perceive external supports of self-efficacy (i.e., teachers, parents, friends) as helping their education?

The third sub-question helped determine how students perceive the impact of external supports (i.e., parents, friends, teachers) on their self-efficacy. Parents play an exceptionally influential role in their student's education, and 2e parents must balance embracing the strengths and weaknesses of their child while maintain high academic expectations in both areas (Wang & Neihart, 2015b). Missett et al. (2016) found that instructor bias negatively impacted expectations for students with learning disabilities, and this bias prevented referral of these students to gifted programs. Higher teacher expectations along with proper scaffolding allows 2e students to excel in their area of giftedness yet provides support for their disability (Belanger, 2015; Lee & Ritchotte, 2018; Wang & Neihart, 2015b).

Sub-Question 4

How does a twice-exceptional label affect a student's self-efficacy?

The last sub-question revealed how a 2e student views themselves through the 2e lens. Twice-exceptional students mentioned their disability, as opposed to their giftedness, more frequently in interviews (Wang & Neihart, 2015a). However, "academically successful 2e students possessed positive academic self-concept and that such positive self-beliefs affected their learning outcomes" (Wang & Neihart, 2015a, p. 67). To increase self-efficacy, it is

important to understand how these students view the 2e label and in what ways a positive connotation of what it means to be 2e can assist them in their academic efforts.

Definitions

The following terms are used throughout this research. This list of definitions, presented with accompanying support from the literature, allows for clearer understanding of the topics and information presented.

1. *Academic Success* – "Academic success, often measured by grades and degree completion, is an outcome with real life implications" (Fleming et al., 2017, p. 210).
2. *Achievement Test* – "Standardized tests used to measure skill and knowledge related to grade-level content standards" (Trail, 2011, p. 47).
3. *Disability* – "A person who has a physical or mental impairment that substantially limits one or more major life activity" (ADA National Network, n.d.). A physical or mental difference which separates one from society (Swain & French, 2000).
4. *Giftedness* – High "intelligence . . . as measured by an intelligence test" (Beckmann & Minnaert, 2018, p. 3).
5. *Impairment* – A milder disability, more closely tied to learning issues (Swain & French, 2000).
6. *Self-Efficacy* – "People's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994, p. 71).
7. *Societal Bias* – The way society treats individuals with disabilities in a different way as if they are less capable of success (Cameron & Tossell, 2012).

8. *Twice-Exceptional* – "Twice exceptional individuals evidence exceptional ability and disability, which results in a unique set of circumstances. Their exceptional ability may dominate, hiding their disability; their disability may dominate, hiding their exceptional ability; each may mask the other so that neither is recognized or addressed" (Baldwin, Baum, et al., 2015, p. 212).

Summary

This transcendental phenomenological study was conducted to understand the self-efficacy of 2e students. In general, little research has been directed towards this population of students, and studies on their self-efficacy are practically non-existent. While current 2e research emphasizes methods of identification, this research utilized students who are currently identified as 2e to infer how their 2e identification affects their self-efficacy in their areas of giftedness and disability. This information can be utilized to better serve and enhance these students' educational experiences.

CHAPTER TWO: LITERATURE REVIEW

Overview

A systematic review of the literature was performed to examine the current and past research on twice-exceptional (2e) learners and the role of self-efficacy in their academic success. This chapter reviews the relevant literature discussing 2e students and self-efficacy. In the first section, the affirmative model of disability, self-determination theory, and self-efficacy theory are discussed as the theoretical frameworks for this study. This is followed by a synthesis of recent literature on the identification and characteristics of 2e learners in the classroom and the importance of a multiple-layered support structure inside and outside the school. Next is a discussion on the gap in the literature between 2e students and the understanding of their self-efficacy with the potential positive academic impact this research could have for students, practitioners, and parents. The chapter concludes with a summary of the presented information.

Theoretical Framework

Research must be grounded in theory so that results can be interpreted within an agreed upon framework of understanding (Creswell & Poth, 2018). Because 2e students exhibit traits of both learning disability and giftedness, the theoretical frameworks which guided this study attempted to integrate the dichotomy found in this unique student population. It is important to remember that insistence on a singular guiding theory for this study would be nearly impossible as it would negate the uniqueness of these students and place them within an already established box of understanding. Therefore, the affirmative model of disability (Swain & French, 2000), self-determination theory (Deci & Ryan, 1980, 2000), and self-efficacy (Bandura, 1977) were utilized as the foundational theories of this research and subsequent descriptions of participant experiences. These three theories allowed for a comprehensive framework of discussion for both

the giftedness and disabilities of 2e students and propose possibilities for their increased academic success.

Affirmative Model of Disability

Traditionally, the medical model of disability has been used by practitioners to justify the educational choices and placements of students with learning disabilities (Swain & French, 2000). However, the rise of the affirmative model of disability attempts to counter the medical model's focuses on self-pity and the need for a disability to be "fixed" in order for a person to lead a full and productive life (Cameron & Tossell, 2012; Kavanagh, 2012; Swain & French, 2000). Instead of attempting to "fix" a student's disability, the affirmative model of disability emphasizes strengths and gifts and urges individuals to see the positive impact of their disability on their life (Cameron & Tossell, 2012; Swain & French, 2000). According to Cameron and Tossell (2012), "The medical model identifies disability as individual deficit and . . . the affirmative model enables us to think about disability in productive terms" (p. 245). Thinking about a disability in positive terms could increase the self-efficacy of 2e students if they understand that their disability does not define their educational outcomes or personhood and is only one part of who they were created to be (Kavanagh, 2012).

With the emphasis on the positive aspect of a disability, the affirmative model also encourages individuals to better recognize their own self-worth (Swain & French, 2000). The disability allows them to become part of a community rather than seeing their disability as a limitation to their participation in life (Eisenhauer, 2007; Rickson, 2014). Using this model, a disability can be viewed as a life-enriching difference which enhances not only the individual with a disability but also the community that surrounds them (McCormack & Collins, 2012).

Rickson (2014) stated that when adhering to the affirmative model of disability, those with disabilities are seen as follows:

> Active participants engaged in a quest for self-determination, usually against difficult odds created by the societies in which they live. They embrace notions of individual and collective empowerment; and become advocates who charge communities with providing policies and programmes that meet the needs of all of its diverse members. (p. 8)

If a student can view his or her disability in this way—as enhancing who they are as an individual—they may experience an increase in their self-efficacy because they understand their disability alone does not define them in a negative manner.

However, when a student or teacher focuses solely on a disability as something that needs to be "fixed," they both begin to believe the lie that those with disabilities have a lesser worth and cannot succeed in certain academic or life tasks (Cameron & Tossell, 2012). It is the emphasis on the positive interaction with a disability which differentiates the affirmative model from other disability models. In the affirmative model, the focus is not about the impairment, but instead how the disability frames the valuable identity and experiences of those individuals (Swain & French, 2000, p. 579). It allows those with disabilities to challenge society's notions of normalcy and achieve more than the precarious limits often placed upon them by themselves and others (Kavanagh, 2012).

The self-perceptions of 2e students are caught between the world of the gifted and those with learning disabilities (Litster & Roberts, 2011), but if 2e students can see their disability as how they were "fearfully and wonderfully made" (*New International Version Bible*, 1978/2011, Psalm 139:14), perhaps their self-efficacy may begin to follow the pattern of their gifted peers (S. M. Bell et al., 2015). Ronksley-Pavia et al. (2019) revealed how the "stigma of invisible

disability" (p. 14) created a feeling amongst 2e students that they were not normal, and they subsequently had negative perceptions of their 2e labels. As Swain and French (2000) stated, "Policies, provision, and practice, whether in community living or education, can only be inclusive through full recognition of disability culture and the affirmative model generated from the experiences of disabled people" (p. 580). Full participation in all of life can only be achieved if negative perceptions of disabilities can be identified and addressed (Eisenhauer, 2007; Rickson, 2014). With the use of the affirmative model of disability, negative attitudes may be altered to a more positive individual and classroom understanding of what it means to have a disability (Eisenhauer, 2007; Rickson, 2014).

Self-Determination Theory

Self-determination theory was first addressed by the work of Deci and Ryan (1980, 2000). Their theory examined the internal motivation individuals have for growth and theorized that motivation drives external behaviors (Deci & Ryan, 1980, 2000). Self-determination theory "emphasizes basic need fulfillment and development of genuine intrinsic motivation" (Sørebø et al., 2009) and flows along a line from amotivation (i.e., no motivation at all, motivation is non self-determined) to intrinsic motivation where behavior is completely self-determined (Gagné & Deci, 2005; Sørebø et al., 2009).

Between these points are four varying degrees of external regulation of behaviors which occur along a continuum, not individual stages, moving between full external motivation towards completely intrinsic motivation (Gagné & Deci, 2005; Jungert et al., 2016). Self-determination theory utilizes these regulations to explain to what degree an individual has internalized behavior so that it becomes self-determined (Vansteenkiste et al., 2006). It is assumed that perceived autonomy increases self-determined extrinsic and intrinsic motivation (Sørebø et al., 2009), so as

students experience greater success, the amount of extrinsic motivation needed for a task will decrease.

However, even though people may want to grow and improve, Deci and Ryan (1980) also explained that growth does not happen naturally because there is a social component to self-determination. In self-determination theory, autonomy is a factor for internalization where motivation moves from external (i.e., social interaction) to internal (Sørebø et al., 2009). This fits within the research topic of self-efficacy because 2e students need to believe that they are capable of success and placing them in classrooms with peers who have gifted abilities may increase their perceptions of self-efficacy as they may view that placement as external recognition of their gifted abilities (Wang & Neihart, 2015a) and thus move closer towards self-determination. This placement creates the social interaction which can act as an initial external motivator for self-determination. As Gagné and Deci (2005) described, self-determination also hinges on the "need to be connected to others and to be effective in the social world" (p. 337). Recognizing their gifted abilities and placing 2e students alongside their peers in gifted classes may create a feeling of connectedness and additional motivation to see how to utilize their gifts and talents in different ways.

Deci and Ryan's (1980, 2008) research in self-determination theory and the relationship between internal cognition and environmental, external motivation is useful in understanding self-efficacy. In self-determination theory, individuals recognize themselves as a factor in their success (Deci & Ryan, 1980). Intrinsic motivation is the core of this theory and can be altered based on a change in the self-perception of an individual (Deci & Ryan, 1980, 2008; Prentice et al., 2019). Thus, if the negative self-perception of 2e students can be altered, they may experience additional academic success. The drive for competency creates internal, intrinsic

motivation, and this motivation becomes the catalyst for future behavior (Prentice et al., 2019). Although this is a cognitive process which cannot be observed, the subsequent behavior and choices an individual makes due to internal motivation can be watched and recorded (Deci & Ryan, 2008).

In self-determination theory, it is essential for students to believe in their ability to initiate their own success (Deci & Ryan, 1980, 2008). As with the affirmative model of disability, students cannot adhere to an attitude of brokenness but instead must hold to a belief in self-improvement (Deci & Ryan, 1980, 2008; Swain & French, 2000). While agreeing with many aspects of self-determination theory, Prentice et al. (2019) proposed subdividing intrinsic motivation into smaller elements of personality as a means of further understanding motivation. While including personality may provide a broader manner of interpreting motivation (Prentice et al., 2019), the underlying theory of an internal, rather than an external, force as the onus for motivation remains intact and thus the original theory presented by Deci and Ryan (1980) is sufficient for this research.

Bandura's Self-Efficacy

While students may want to succeed, "unless people believe that they can produce desired effects by their actions, they have little incentive to act" (Bandura et al., 1996, p. 1206). Students who view ability as a skill to be developed seek out challenges and persevere during difficulty, but those who suppose ability is based on inherent characteristics fail to exert themselves and prefer tasks which demonstrate their proficiency (Bandura, 1993). Students need to be encouraged that they can achieve success through their work, and this belief in the ability to have control over their outcomes can increase their motivation (Deci & Ryan, 2008). This provides a direct link between Bandura's (1977) work on self-efficacy and motivation and the

affirmative model of disability as factors of student success. Bandura (1977) expressed that perceived self-efficacy can affect choices and coping mechanisms. Because 2e students are considered both gifted and learning disabled, these students maintain some traits of both sets of peers (Bear et al., 2002; Ottone-Cross et al., 2017; Wang & Neihart, 2015a), and thus require foundational theories which take into account their unique nature.

Unfortunately, persistent struggles in an area of difficulty can be internalized by a student as demonstrating a general lack of ability in all areas (Bandura, 2012). “Efficacy expectations determine how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences. The stronger the perceived self-efficacy, the more active the efforts” (Bandura, 1977, p. 194). Therefore, students who have experienced multiple difficulties in their area of weakness will struggle with persistence; however, 2e students should not be given easy assignments to increase self-efficacy as this would have the opposite effect. When students only experience easy tasks and receive praise and success, they may become quickly discouraged when given more difficult assignments and begin to struggle with the work (Bandura, 2012). As Bandura et al. (1996) demonstrated, self-efficacy beliefs have the power to increase perseverance during difficulties, and the lack of perseverance can leave individuals vulnerable to depression and stress.

However, if 2e students experience repeated failures due to their disability without learning how to use this as informative and for growth, it may begin to negatively affect their self-efficacy in their area of giftedness (Bandura, 2012). Studies by Hwang et al. (2015) and Robbins et al. (2004) have shown a strong correlation between self-efficacy beliefs and academic achievement, and it is this connection between self-efficacy and achievement which drives this study—understanding the perceived self-efficacy of 2e students and using future research to help

increase their perceived abilities. As Bandura et al. (1996) showed, when students have high self-efficacy, there are fewer behavioral and emotional problems and greater academic successes.

Even having high self-efficacy does not necessarily correlate to academic success for students (Bandura, 2012). It is possible for students to have high self-efficacy yet not perform to the standards they have set for themselves (Bandura, 1989b). While people tend to overestimate their abilities, this overestimation allows them the opportunity to persist during challenges and achieve greater success (Bandura, 1989b, 2012). Student's perceptions of their self-efficacy will vary depending on the activities being questioned (Bandura, 2012). This means that 2e students may perceive lower self-efficacy in their area of disability versus their area of giftedness. Also, "a person with the same knowledge and skills may perform poorly, adequately, or extraordinarily depending on fluctuation in self-efficacy thinking" (Bandura, 1993, p. 119), so even students who are gifted in an area could have difficulty performing skills in that talent due to low self-efficacy arising from their disability.

Related Literature

A review of the current literature showed three main themes which support further study of the perceived self-efficacy of 2e students. These included (a) developing a consistent definition of what constitutes twice-exceptionality, (b) utilizing a variety of criteria in determining 2e eligibility, and (c) the importance of an extensive support structure for 2e students inside and outside the school. Additional research is needed in the three previously mentioned themes to increase the academic performance, support, and self-esteem of 2e students (Beckmann & Minnaert, 2018; Dare & Nowicki, 2015). However, the related research section which follows will illuminate what has already been discovered and demonstrate the present gap

in the literature related to understanding the perception of self-efficacy in students who are identified as 2e.

Defining 2e

Initially, students with learning disabilities and those with giftedness were believed to be on opposite ends of the intelligence spectrum (Trail, 2011). So, the very idea that a student could possess both giftedness and disability required a change in the traditional mindset of educators and school psychologists (Foley-Nicpon, 2015; Trail, 2011). Developing a common definition for what it means to be 2e not only allows for consistent evaluations of students but also enables identification criteria to be fully communicated to educators and parents (Foley-Nicpon, 2015). Unfortunately, using an agreed upon definition of what constitutes being 2e is one of the greatest difficulties in performing research with this student population. Due to the wide range of abilities and disabilities this group possesses, there is a struggle to fully encapsulate all diagnoses and characteristics within a singular definition (Ronksley-Pavia, 2015). Even without a specific definition, research on 2e students with a specific learning disability (SLD), autism spectrum disorder (ASD), or other health impairment (OHI) has provided varying definitions of each impairment, but it is difficult to adequately compare studies without a consistent definition (Foley-Nicpon et al., 2011; Matheson & Robinson, 2019).

The most utilized definition is a broad, rather simplistic one which states that these students have coexisting giftedness and disability (Foley-Nicpon et al., 2011). However, this is superficial and does not express the multiple layers of complexity within each diagnosis (Danielian et al., 2015). While this definition does utilize the overarching theme that students who are 2e also have co-existing giftedness and learning disabilities, it needs to be expanded to convey the various idiosyncrasies present in those students' abilities and difficulties (Ronksley-

Pavia, 2015). “To properly investigate a population, a shared definition is necessary so that generalization across studies is possible” (Foley-Nicpon, 2015, p. 249), and currently, there is no federally accepted definition of what constitutes identifiable parameters of 2e ability/disability (Trail, 2011). Thus, ensuring a thorough and agreed upon definition is a necessary requirement for effectively researching the 2e population, but agreement on this definition has caused debate among researchers (Baldwin, Baum, et al., 2015; Foley-Nicpon, 2015).

To resolve the issue of a needed, common definition of twice-exceptionality, a Community of Practice was formed which included parents, researchers, and educators (Baldwin, Baum, et al., 2015). Working over the course of a few weeks via virtual meetings, these stakeholders collaborated their experiences and understanding to create a thorough definition of what it means to be 2e:

> Twice exceptional individuals evidence exceptional ability and disability, which results in a unique set of circumstances. Their exceptional ability may dominate, hiding their disability; their disability may dominate, hiding their exceptional ability; each may mask the other so that neither is recognized or addressed. (Baldwin, Baum, et al., 2015, p. 212)

Utilization of this definition by researchers and invested parties in discussion of 2e students allows for a consistent and descriptive understanding for qualifying students which can be applied evenly across all research.

Identifying 2e Students

Generally, researchers tend to use the more simplistic version of the 2e definition when speaking in terms of diagnosis to create a broad category for inclusion (Belanger, 2015; Toffalini et al., 2017). Development and testing of a consistent diagnostic tool for these students has been difficult in the past decade due to disagreement on identification parameters and testing

procedures (Peters et al., 2019). Without a clear set of criteria delineating concurrent giftedness and disability to use in diagnosis, variations in what constitutes a 2e classification have developed among individual schools, districts, and states (Baldwin, Omdal, & Pereles, 2015; C. A. Bell, 2020; Toffalini et al., 2017). This confusion has meant that students who are classified as 2e in one location may not be included in the 2e population of another location (Baldwin, Omdal, & Pereles, 2015; Toffalini et al., 2017). Diagnosis is additionally exacerbated because 2e students are as varied in their learning deficiencies as their areas of giftedness (Dare & Nowicki, 2015), so disagreements have arisen in determining what entails twice-exceptionality or prohibits inclusion (Ronksley-Pavia, 2015).

As stated earlier, due to ambiguous guidelines, identification of 2e students can vary between districts and schools. Researchers have attempted to identify students based on subtest scores or non-cognitive commonalities (Barnard-Brak et al., 2015; Beckmann & Minnaert, 2018; Maddocks, 2020), but no method has yet produced an adequate, consistent form of identification using any version of standardized testing (Maddocks, 2020). Toffalini et al. (2017) showed that qualification for twice-exceptionality may be dependent on the types of tests and scores used to define giftedness, and additional students with learning disabilities would be included in identification if full-scale IQ tests were not the only measure used. Toffalini et al.'s study highlighted how masking of giftedness creates barriers to the identification process.

Quantitatively, giftedness is traditionally evaluated using achievement and intelligence testing, and students with scores greater than the 90th percentile are assumed to have academic giftedness (Barnard-Brak et al., 2015). However, to qualify as having a learning disability, a student must have a substantial discrepancy between their intelligence score and their ability score. Although requirements vary by state, placement in special education services is usually

verified through standardized tests which reveal a 15 standard deviation point difference between ability and achievement or demonstrate that the student is 2 years below grade level (Trail, 2011). Legally, multiple disability areas are recognized in diagnosis and include the following:

> Intellectual disability, a hearing impairment (including deafness), a speech or language impairment, a visual impairment (including blindness), a serious emotional disturbance (referred to in this part as "emotional disturbance"), an orthopedic impairment, autism, traumatic brain injury, another health impairment, a specific learning disability, deaf-blindness, or multiple disabilities, and who, by reason thereof, needs special education and related services. (IDEIA, 2004, §300.8)

Using score-based determinations of giftedness and disability may be effective for the general population, but 2e students confound this identification process due to masking (Barnard-Brak et al., 2015; Beckmann & Minnaert, 2018). Therefore, it is important to incorporate a student's entire profile of talents and weaknesses when determining eligibility for 2e services (Beckmann & Minnaert, 2018).

Masking

Masking prohibits identification of children with 2e abilities and occurs in one of three ways: (a) giftedness masks the disability, (b) disability masks the giftedness, (c) the presence of disability and giftedness prevent a child from being identified for either gifted or special education (C. A. Bell, 2020; Ottone-Cross et al., 2017; van Viersen et al., 2016). The possibility of masking means schools should cautiously utilize IQ tests in conjunction with various teacher observations, parental input, achievement scores, and problem-solving tasks (Barnard-Brak et al., 2015; Matheson & Robinson, 2019; Morrison & Rizza, 2007). Weaknesses inherent in 2e students' cognitive abilities tend to subdue measures of their general intelligence (Maddocks,

2020). Also, as researched by Ottone-Cross et al. (2017) in the Kaufman Test of Educational Achievement—Third Edition (KTEA-3), students who are 2e tend to make mistakes which are similar to their gifted peers in higher level thinking skills and errors consistent with peers with learning disabilities in the lower-level skills. Thus, evaluating the types of mistakes made on the standardized tests can also assist in identification.

The masking effect is most evident when comparing the theoretical and actual incidence of diagnosed twice-exceptionalities utilizing methods other than full-scale IQ scores. Between 1%–5% of the population of children in special education are considered 2e (Barnard-Brak et al., 2015); however, when alternative methods of identification are used, the percentage of 2e students increases to 7%–11% of students with learning disabilities (Barnard-Brak et al., 2015; Dare & Nowicki, 2015; Ottone-Cross et al., 2017). The possibility that 1 out of every 10 children with learning disabilities could also have concurrent giftedness makes identification even more important, so these students have access to the full spectrum of services they need to be successful (Trail, 2011).

Previous researchers (Barnard-Brak et al., 2015; S. M. Bell et al., 2015) examined the use of sub scores from achievement tests to circumvent some of the issues masking causes in identification. Research by Barnard-Brak et al. (2015) showed that utilizing subtests increased the number of students with learning disabilities who would qualify for gifted services by six times, but it is not known definitively if all qualifying students were correctly identified. In a recent study, Maddocks (2020) utilized the Woodcock-Johnson cognitive (WJIV-COG) test to demonstrate that students with the same disabilities displayed differing patterns of strength which makes it nearly impossible to develop a single criterion to evaluate even students with similar disabilities. The problems inherent in identification using a standardized, score-based

method highlight the importance of evaluating both cognitive and non-cognitive abilities and difficulties when determining 2e classification.

Masking Giftedness. One of the greatest difficulties in identification of 2e students occurs because masking can interrupt identification of giftedness, which causes students to be excluded from receiving gifted services (Peters et al., 2019). Intelligence tests are the accepted way of identifying students for gifted programs, and the overall IQ is normally greater than the 90th percentile (Barnard-Brak et al., 2015). However, intelligence tests are difficult to use as diagnostic tools for determining giftedness in the 2e population because masking of abilities may lower overall scores and limit the acceptance of students with disabilities into gifted programs (Barnard-Brak et al., 2015; Dare & Nowicki, 2015; Ottone-Cross et al., 2017). Both students with ASD and SLD tend to have slower processing speed and this can greatly impact standardized tests (Bell et al., 2015; Maddocks, 2020; Mouga et al., 2016).

Traditional intelligence tests, such as the Woodcock-Johnson-IV (WJIV), can prevent adequate identification of giftedness in students with disabilities because the presence of a learning disability can slow a student's processing speed or working memory, which then lowers their overall intelligence quotient and prohibits acceptance into gifted programs (Maddocks, 2020; Trail, 2011). Maddocks (2020) found the following:

> As a group, students classified as potentially 2e-LD [twice-exceptional with a learning disability] exhibited slower processing speed than average-ability peers and performed particularly poorly on academic tasks that measured fluency. Therefore, it may be appropriate to deemphasize speeded academic tasks in identification processes and curriculum for students who are 2e-LD. (p. 16)

When a disability is present, elements of giftedness will be masked (Barnard-Brak et al., 2015; Belanger, 2015). Masking causes students with disabilities to remain largely undiagnosed as having concurrent gifts and talents because their disability prohibits optimum performance on standardized intelligence tests (Barnard-Brak et al., 2015; C. A. Bell, 2020; Dare & Nowicki, 2015). Toffalini et al. (2017) also examined how masking of giftedness prevented students with disabilities from being referred to gifted programs so it is important to develop a consistent way to determine eligibility which circumvents that difficulty.

Researchers have attempted to use various sub scores rather than an overall IQ score to circumvent the problem masking causes in identification (Barnard-Brak et al., 2015; S. M. Bell et al., 2015). Utilizing subtests rather than the full IQ score increased the number of students with learning disabilities who qualified for gifted services by six times (Barnard-Brak et al., 2015). While this is a positive result, it is also probable that additional qualifying students were not identified using this method. As noted by Peters et al. (2019), African American, Latinx, and Native American students as well as students with disabilities are disproportionately underrepresented in gifted education, but their research attributes this to a two-step identification process where the classroom teacher initiates evaluation.

The problem with subtests as identifiers was addressed by S. M. Bell et al. (2015) who found that a learning disability in reading negatively affected standardized math scores. Therefore, using subtest scores would also create problems for students with disabilities because a difficulty in one area would negatively affect subtest scores in another area and lessen the chance of inclusion in gifted programs. Despite researchers' best efforts, "there are a significant number of students who simultaneously possess above-average intelligence and an identified

SLD, but may not be receiving services for their strength as well as their areas for growth" (Foley-Nicpon et al., 2011, p. 8).

As studied by Barnard-Brak et al. (2015), students with disabilities remain largely undiagnosed as having concurrent gifts and talents. When students with disabilities are concurrently identified as gifted, motivation to nurture their talents increases (Barnard-Brak et al., 2015; Foley-Nicpon et al., 2011). However, even once students with learning disabilities are identified as also being gifted, they may still not receive services for their giftedness because the school's emphasis is on the area of need rather than expansion of gifts (Barnard-Brak et al., 2015; Foley-Nicpon et al., 2011). Practitioners must come to realize that both gifts and disabilities must be addressed in the supports for 2e students so they may achieve their full academic potential (van Viersen et al., 2016).

Masking Disabilities. In the same vein as masking giftedness, masking of a disability prevents a student who is classified as gifted from receiving the services they need in an area of weakness (C. A. Bell, 2020; Pfeiffer, 2015). Students who are identified as gifted with a specific learning disability encompass the largest subgroup of 2e students (S. M. Bell et al., 2015). Diagnoses can be missed because a teacher sees the gifted student as highly intelligent but lazy or disorganized (Baldwin, Omdal, & Pereles, 2015; Josephson et al., 2018). Refusal of a student to complete assignments may be a self-protection method to avoid anticipated failure due to past negative experiences (Trail, 2011). Bandura (1993) noted that when students are presented with obstacles, those with self-doubt will lessen their effort to succeed and quickly give up.

Sometimes, the perceived laziness a teacher witnesses may be unrelated to disinterest but caused by an underlying educational disability which is then left undiagnosed (Baldwin, Omdal, & Pereles, 2015). Typically, this form of twice-exceptionality is not found until middle school

when a student can no longer “fake it” or utilize compensation skills from their high intelligence (Baldwin, Omdal, & Pereles, 2015; Beckmann & Minnaert, 2018; Trail, 2011). At the same time, it is not helpful to assume that all students who underperform are 2e, and formal and informal measures should be used to assess suspected 2e students (Josephson et al., 2018). Beckmann and Minnaert (2018) suggested that if a student is underachieving and frustrated with their academic performance, this may be the delineating factor for a 2e identification.

Masking of disability occurs when the giftedness of a 2e student is dominant (Peters et al., 2019). Some teachers find it difficult to believe that a learning disability can be present in a student who is academically gifted and thus do not recognize the student’s learning disability (Wormald et al., 2015). The potential of these intelligent students is obvious, but they can also appear lazy, disorganized, or disinterested (Baldwin, Baum, et al., 2015; Baum et al., 2017; Belanger, 2015). Often, these students are overlooked for special education services because their advanced abilities allow them to develop compensation skills in their area of weakness and they thus maintain average academics (Beckmann & Minnaert, 2018; van Viersen et al., 2016). When these gifted students reach middle or high school, the expectations for work increase and they can no longer rely on their innate, intellectual abilities to succeed academically (Baldwin, Baum, et al., 2015; Baldwin, Omdal, & Pereles, 2015; Belanger, 2015). Unfortunately, it is assumed that gifted students “will succeed no matter what is offered through the academic environment” (Foley-Nicpon & Assouline, 2020, p. 1616), and needed scaffolding for support is not established for them.

This dichotomy of abilities and disabilities can cause gifted students with undiagnosed learning disabilities to suffer from low self-esteem, confusion, frustration, or depression because they do not understand why they are no longer successful and/or struggling (Baldwin, Baum, et

al., 2015; C. A. Bell, 2020; van Viersen et al., 2016). Additional research in identification is critical in establishing proper supports for these students. With the identification of being both gifted and learning disabled, negative attitudes may be prevented or reversed because proper supports for their disability can be established. As shown by Townend and Brown (2016), students can have an increase in their self-concept when proper scaffolding for both their giftedness and learning disabilities is addressed. However, without adequate support, 2e students who are not reinforced in both their disability and giftedness are at risk for low self-esteem, depression, and anxiety because their full range of educational needs is not being met (Beckmann & Minnaert, 2018; Dare & Nowicki, 2015; Ronksley-Pavia, 2015).

Characteristics of 2e Students

In the actual practice of identifying and providing services for these students, both cognitive and non-cognitive similarities of 2e students must be examined for inclusion in gifted and special education classes. According to Beckmann and Minnaert (2018), “Several characteristics are very common among these [2e] students” (p. 17), and these could be utilized in assisting with identification. While similarities between 2e students can be used to assist with identification, these similarities are not all based on positive attributes. Twice-exceptional students act out in the classroom—externalizing their internal academic struggles (Beckmann & Minnaert, 2018; Mohammed, 2018). These students also tend to have a negative attitude towards their disability and school in general (Beckmann & Minnaert, 2018; Ronksley-Pavia, 2015). However, 2e students also exhibit creativity and want to connect with their teachers and peers (Wang & Neihart, 2015b), and it is these positive elements which need to be reinforced in the classroom to help 2e students achieve success.

Cognitive Similarities. Cognition is an internal action, and cognitive similarities in 2e students cannot be observed. However, research has examined testing data from students who are 2e, gifted, learning disabled, and general education (S. M. Bell et al., 2015; Maddocks, 2020; Ottone-Cross et al., 2019). Scores between and among the groups tend to vary, but traditionally 2e students more closely resemble their gifted peers in their areas of talent while in their area of difficulty they are more like their peers with learning disabilities (Maddocks, 2020). An interesting study by Ottone-Cross et al. (2017), these researchers demonstrated that it was not the correct answers on standardized tests which identified 2e students, but instead it was the types of mistakes they made while testing which showed their higher cognitive levels. The results of the Ottone-Cross et al. (2017) study have not been replicated, and according to Maddocks (2020), "there is no processing single profile nor any guaranteed pattern of strengths and weaknesses that will accurately characterize all students who are 2e-LD or even all students who are 2e-LD with the same disability" (p. 15). This means that utilizing cognitive commonalities to identify 2e students is, at the least, difficult, and more probably, impossible because even students with the same disability will have variations in severity, onset, and manifestation (Ng et al., 2016; Trail, 2011). Instead, many of the similarities which could be utilized in identifying characteristics among 2e students are in non-cognitive domains.

Non-Cognitive Similarities. When examining possible non-cognitive characteristics of 2e learners, one commonality includes excellent compensation skills for deficiencies (Beckmann & Minnaert, 2018; Maddocks, 2020; Ronksley-Pavia et al., 2019). Despite this skill, 2e students have lower self-esteem than their peers and become easily frustrated when comparing their academic work to their peers (Baldwin, Omdal, & Pereles, 2015; Beckmann & Minnaert, 2018; Pfeiffer, 2015). Frustration arises in these students because they recognize their own academic

potential, yet their actual performance does not match this expectation (Beckmann & Minnaert, 2018). This mindset creates a "discrepancy between the 2e child's own high expectations and performance in gifted areas in contrast to areas of disability" (Mohammed, 2018, p. 16). Additionally, according to Bandura (1993), when students have a low sense of self-efficacy in handling academic demands, they become vulnerable to anxiety in scholastic demands. Thus, by raising academic self-efficacy, feelings of anxiety may be mitigated (Bandura, 1993).

Low self-confidence can occur in 2e students because of previous educational struggles in their area of difficulty, which are then generalized to their entire educational experience—even in areas of giftedness (Matheson & Robinson, 2019). Therefore, frustration and low self-esteem are traits which should be noted by parents and classroom teachers as possible signs of twice-exceptionality (Matheson & Robinson, 2019; Mohammed, 2018; Pfeiffer, 2015). These feelings can create a sense of isolation which opens 2e students up to bullying and depression (Mohammed, 2018; Ronksley-Pavia et al., 2019; Trail, 2011). The possibility of emotional and academic distress creates an urgency for early identification, support, and understanding of 2e students to assist them in achieving their academic potential and fulfilling their emotional needs (Baldwin, Baum, et al., 2015; Baldwin, Omdal, & Pereles, 2015; Mohammed, 2018).

Also, the general educational experiences of 2e students follow a similar pattern in that many report a lack of self-confidence, a perception of being different from their peers, and difficulties with social relationships (Beckmann & Minnaert, 2018; Matheson & Robinson, 2019; Ronksley-Pavia et al., 2019). These struggles lead to additional problems in the classroom such as acting out, exhibiting inappropriate speech, or displaying negative behaviors (Beckmann & Minnaert, 2018; C. A. Bell, 2020).

However, S. M. Bell et al. (2015) demonstrated that 2e students also display "advanced vocabulary, analytic abilities, creativity, problem-solving, task-commitment, or reasoning capabilities" (p. 310), and Maddocks (2020) emphasized the tremendous compensation skills of students in their academic work. Like their gifted peers, 2e students are curious and active learners who are interested in the "big picture" concepts (Trail, 2011). In utilizing the affirmative model of disability, these students would benefit from "a strength-based model of intervention" (Bell et al., 2015, p. 310) which focuses on development of their gifts (Francis et al., 2018; Lee & Ritchotte, 2018).

Support Structures for 2e Students

Correctly diagnosing 2e students requires more than a high-test score or ability discrepancy; it necessitates a team approach to education (Coleman & Gallagher, 2015). Working with 2e students creates an opportunity for parents and teachers to collaborate in supporting the unique gifts and struggles within this student population. Although 2e students are classified as simultaneously gifted and learning disabled, their talents and weaknesses are varied and cannot be generalized (Maddocks, 2020). This variation in gifts and disabilities means that some evidence of a student being 2e is more readily observed in the classroom by teachers while others may be witnessed by parents outside of school (Baldwin, Omdal, & Pereles, 2015; Beckmann & Minnaert, 2018). Interventions preceding from a 2e diagnosis must not only support learning deficiencies but also increase 2e students' awareness of their own abilities (Amran & Majid, 2019; Francis et al., 2018; Matheson & Robinson, 2019). This knowledge must converge into an "individualized, flexible plan that addresses the whole child" (Baldwin, Omdal, & Pereles, 2015, p. 218).

It is important to remember that teachers and parents do not need to wait for children to fail before classroom interventions can begin. The use of response to intervention (RtI) allows teachers the freedom to begin research-based intervention as soon as they believe a student is not showing adequate progress (Trail, 2011). However, while RtI does assist students in their area of difficulty, 2e students can remain bored in a classroom where they are not pushed to excel in their area of giftedness (Amran & Majid, 2019). Also, RtI cannot always identify 2e students because their classroom performance will not necessarily lie in the bottom portion of their class due to the issue of masking (Foley-Nicpon & Assouline, 2020). Therefore, support from gifted specialists should be utilized along with that of special education teachers to provide classroom differentiation (Trail, 2011).

Teachers

Teachers know that students learn differently, and they are foundational in creating a flexible learning community (Trail, 2011). The classroom teacher also plays a vital role in identifying and supporting students who are 2e (Cavilla, 2017; Francis et al., 2018; Rowan & Townend, 2016). Without classroom teachers recognizing traits of giftedness, 2e students tend to be excluded from gifted classes (Harwin, 2019); however, participation in these classes assists in validating a student's understanding of their giftedness and may raise their self-efficacy (Townend & Pendergast, 2015).

Twice-exceptional students will spend most of their day in the general education classroom, so the classroom teacher, even more so than the gifted and special education teacher, needs to be able to "identify and serve these students" (Lee & Ritchotte, 2018, p. 338). It then becomes the classroom teacher's responsibility to create environments which are conducive to learning for all students (Bandura, 1993). Additionally, teachers will need to place more energy

into students who struggle by continually finding opportunities to praise them for their accomplishments to raise their self-efficacy (Bandura, 1993).

Unfortunately, many teachers are not prepared for this additional role and are unaware that students can be classified as both gifted and learning disabled, and so they miss important cues to assist with identification (Francis et al., 2018; Munn, 2017). Additional training focusing on the unique characteristics of these students would be helpful for classroom instructors (Lee & Ritchotte, 2018; Trail, 2011). Teachers must be cognizant that extraordinary abilities in students with learning disabilities and extra assistance needed for students who are gifted may indicate the presence of twice-exceptionality (Cavilla, 2017).

Students with learning disabilities are underrepresented in gifted and talented programs because of missed diagnoses due to the masking of their talents (C. A. Bell, 2020; Missett et al., 2016). Unfortunately, this lack of identification and subsequent lack of inclusion is a poor demonstration of educational equity (Lee & Ritchotte, 2018). However, even when 2e students are diagnosed, the educational focus of the school is the student's area of disability rather than giftedness (Barnard-Brak et al., 2015; Dare & Nowicki, 2015). Teachers must recognize elements of twice-exceptionality in their interactions with students to ensure diagnosis and full support (Cavilla, 2017; Francis et al., 2018). In their research, Missett et al. (2016) noted that teacher bias against students with disabilities created negative expectations for those students, which subsequently prevented them from being referred to gifted education programs. Positive teacher expectancy of all students is important in creating scaffolding for 2e students to thrive in their area of giftedness while providing additional support for their learning weakness (Belanger, 2015; Wang & Neihart, 2015a, 2015b; Wormald et al., 2015).

Additionally, teachers have the added task of addressing the individual needs of 2e students and attempting to normalize their classroom experience (Willard-Holt et al., 2013). Teachers must address the classroom learning environment (Robinson, 1999; Wormald et al., 2015) and examine strategies such as flexible assessments and pacing to meet the varied abilities and disabilities of 2e students (Francis et al., 2018; Willard-Holt et al., 2013). Along with support to address difficulties, 2e students require opportunities to use higher order thinking and processing skills (Lee & Ritchotte, 2018; Trail, 2011). This requires a complete understanding of 2e, and as Foley-Nicpon (2015) stated, stakeholders "need to become better equipped to understand twice-exceptional students' individual differences . . . to set them up for success instead of letting them fall through the cracks" (p. 249). Additional training for educators in understanding 2e would be the start of this process.

A teacher's attitude towards 2e students' abilities and disabilities directly affects their academic performance (Lo & Yuen, 2017; Wormald et al., 2015), and teachers should focus on the positive traits of their students to establish sustainable success (Trail, 2011). In research by Townend and Pendergast (2015), the interviewed students highlighted the importance of a teacher's actions as well as their direct words when interacting with 2e students and attempting to build their self-concept. "Students who experienced high levels of warmth and support . . . in teacher–student interactions had better achievement" (Wang & Neihart, 2015b, p. 148). As Willard-Holt et al. (2013) pointed out, teachers should work in conjunction with 2e learners to assist them in reaching their full potential, which serves to increase the intellectual interaction in the school.

Classroom Strategies. Classroom teachers create positive educational experiences for 2e students by building relationships with them (Cavilla, 2017). Many 2e students have excellent

relationships with their teachers (S. M. Bell et al., 2015), and with the additional support those teachers provide, 2e students can be extremely successful in school (Coleman & Gallagher, 2015; Wang & Neihart, 2015b). Coleman and Gallagher (2015) stated, “The quality of the teacher is an essential factor in the student’s success” (p. 252) because the classroom teacher is the one who will ensure that the student’s areas of giftedness and disability are appropriately addressed. Foley-Nicpon et al. (2015) countered this argument in their research, arguing that educational support services do not impact students’ perceptions. However, as those researchers explained, their sample size was small and may account for a lack of correlation with any other findings (Foley-Nicpon et al., 2015).

Classrooms are not homogeneous, and the movement towards inclusive classrooms means teachers are interacting with various abilities and disabilities (Rowan & Townend, 2016). However, even seasoned teachers struggle with providing both supports and challenging academics to 2e students (Amran & Majid, 2019; Ritchotte & Zaghlawan, 2019). Teachers must “understand and recognize their student, then provide the best learning strategies or interventions” (Amran & Majid, 2019, p. 955). Teachers must utilize methodologies to increase the academic self-perceptions of 2e students so they may believe they are able to successfully complete challenges (Reis & Renzulli, 2021; Tomás et al., 2020) as academic self-efficacy represents a good prediction of academic performance (Ardura & Galán, 2019; Crane et al., 2017).

As demonstrated by Bandura et al. (1996), students who believe they have some control over their learning achieve academic success. This is reiterated by Hwang et al. (2015), who stated that “self-efficacy beliefs . . . positively predicted the academic achievement of students” (p. 89). When students do not believe their choices can affect their academic outcomes, there is

little incentive to remain steadfast when a task becomes difficult (Bandura, 2012; Bandura et al., 2001). This underscores the importance of interventions which allow students to view past academic performance in relation to current ability beliefs (Hwang et al., 2015) and identify ways in which they predicated their own success.

Trail (2011) stated that teachers should focus their attention on developing strengths so students will become motivated to be lifelong learners as they gain confidence in their academic abilities. This is reiterated by additional researchers (Foley-Nicpon & Assouline, 2020; Josephson et al., 2018; Reis & Renzulli, 2021) who suggested that a student's area of giftedness be addressed before any remediation of disability takes place. Twice-exceptional students can also have difficulty relating previously learned material to new material, so direct connections presented by the teacher or brainstorming of known information by the student can also assist these students (Josephson et al., 2018).

Reflection on past success can also help students identify strategies and personal strengths that helped them persist during struggles (Hwang et al., 2015). Bandura (1993) noted that "feedback that focuses on achieved progress underscores personal capabilities. Feedback that focuses on short-falls highlights personal deficiencies" (p. 125). Teachers should allow students to reflect on past difficulties, but this must be undertaken delicately so as not to further frustrate the student (Hwang et al., 2015).

Research into specific intervention strategies for 2e students is just beginning (Amran & Majid, 2019); however, the commonalities among findings include access to gifted programs, emphasis on strength-based support, integration of technology, and social support systems (Amran & Majid, 2019). The key to effective learning strategies for 2e students relies on the

collaboration between educators, families, and professionals (Amran & Majid, 2019; Coleman & Gallagher, 2015).

Academics. Throughout primary and secondary school, accommodations are given to students with disabilities through their individual education program (IEP) or 504 plan, and students normally do not have to approach their teachers to ensure accommodations are made for their learning difficulties (Fleming et al., 2017; Schultz, 2012; White & Vo, 2006). Differentiation of content, process, and product is used by teachers to meet the various abilities within the classroom (Trail, 2011), and growth towards academic and/or behavioral goals is monitored on a yearly basis (Reis & Renzulli, 2021). It is important to note that while an IEP should describe areas for improvement and remediation goals for the student, IEPs for 2e students “can also include other important areas, such as engaging extracurricular activities like science fair, invention convention, or debate club" (Reis & Renzulli, 2021, p. 48).

However, when students enter college, it becomes their responsibility to address their disability and needed accommodations with their professors (Fleming et al., 2017; Holzberg et al., 2019). This change in expectancy can be difficult for students who have never learned or had the opportunity to express their educational difficulties/modifications to others through self-advocacy (Fleming et al., 2017; Francis et al., 2018). This self-advocacy is an important aspect for the academic success of students with disabilities (Holzberg et al., 2019).

An increasing number of 2e students are enrolling in postsecondary school (Holzberg et al., 2019; Terras et al., 2015), and it is important to understand how they perceive their academic self-efficacy. Being able to perceive that accommodations are helpful for academic success and communicating needs to professors in a timely manner is an essential skill for 2e students (Fleming et al., 2017; Terras et al., 2015). Often, students with disabilities choose not to disclose

their need for accommodations until they are failing a class for fear that their professors would judge them as incapable of success when they admit to a disability and need accommodations (Fleming et al., 2017; Francis et al., 2018; Holzberg et al., 2019; Terras et al., 2015). However, most professors readily assist students when disability and accommodation information is presented to them early in a course (Fleming et al., 2017; Holzberg et al., 2019). Understanding how 2e students perceive their self-efficacy may later lead to methods of initiating advocacy assistance at the postsecondary level.

Schools must create environments where 2e students can be successful by equipping teachers with the knowledge, skills, and confidence to address the specific needs of 2e students (Rubenstein et al., 2015). Increasing academic self-efficacy before students transition to postsecondary schools may help alleviate the abysmal percentage of college students with a disability who graduate from 4-year institutions (Francis et al., 2018). Direct instruction and practice of study skills, reading comprehension, and collegiate logistics are suggested by Francis et al. (2018) as immediate needs for students with disabilities who are entering college. Because 2e student have a coexisting disability and giftedness, they may also benefit from those suggested supports. Additionally, teachers should follow the advice offered by Bandura (1993) and create learning environments where academic ability is viewed as a skill to be obtained and progress is measured not through social comparisons but though personal growth.

Parents

The problem of insufficient identification tests, variability in scores, and masking means parents must play a vital role in the identification of 2e students (Dare & Nowicki, 2015; Morrison & Rizza, 2007). Many parents express frustration in witnessing their child struggle between talent and weakness (Dare & Nowicki, 2015; Trail, 2011). Because parents are aware of

their child's struggles at home and are concerned about the vast differences in ability, they are often the ones to initiate testing inside or outside of the school setting to assist in reconciling these issues (S. M. Bell et al., 2015; Dare & Nowicki, 2015; Ronksley-Pavia et al., 2019; Wang & Neihart, 2015b). However, "parents need to understand the types of support and advocacy needed both in school and at home for their 2E children to enable them to realize their potential" (Reis & Renzulli, 2021, p. 42).

The observations and in-depth knowledge of 2e students that parents possess underscores the importance of collaboration between schools and families to create proper identification and support systems for the unique needs of 2e students (Belanger, 2015; Dare & Nowicki, 2015). Unlike classroom teachers, parents experience the frustration of their 2e children as they move from extremes in strengths and weaknesses in a very personal manner (Dare & Nowicki, 2015). Thus, parents may "see a frustrated, angry, and depressed child" (Mohammed, 2018, p. 16), and at the same time, parents are the earliest ones to have the opportunity to provide support for their 2e children (Mohammed, 2018).

The parents of 2e students need to embrace their child's strengths and weaknesses and maintain high expectations—even in their area of disability—to ensure academic success (Ronksley-Pavia et al., 2019; Wang & Neihart, 2015b). Interventions are necessary to help 2e students in their area of weakness; however, parents should continually focus on their child's abilities rather than their disabilities (Danielian et al., 2015; Reis & Renzulli, 2021). Parents also need to gain a better understanding of the social and academic issues their 2e children face so they can effectively provide the support and advocacy their 2e children require (Barber & Mueller, 2011). The best advocate for a 2e student is their parent because parents know their child's strengths and weakness better than anyone (Danielian et al., 2015). As Bandura et al.

(1996) stated, the "educational aspirations [parents] hold for them enhance their children's beliefs in their own academic efficacy and raise their aspirations" (p. 1207). Therefore, parents can encourage their children to reach their full potential by emphasizing their areas of strength rather than attempting to only mitigate difficulties.

Parents must be empowered to approach schools in a collaborative way where they can share observations from their home "regarding [their] child's strengths and suggesting alternate ways for [their] 2e child to demonstrate subject mastery beyond written papers and tests" (Danielian et al., 2015, p. 2). This collaboration between home and school will help ensure success for the 2e student in the classroom (Coleman & Gallagher, 2015; Ronksley-Pavia et al., 2019). Collaboration is particularly important because gifted students are not covered by the federal laws which dictate special education rights and services (Foley-Nicpon & Assouline, 2020; Josephson et al., 2018). As noted by Josephson et al. (2018), when school and home act collaboratively in attempting to work with the gifts and difficulties of a 2e student, it increases the student's opportunity for success.

Parents have a strong influence on their 2e child's academic success (Ritchotte & Zaghlawan, 2019; Townend & Brown, 2016), and they "contribute to their children's intellectual growth in a variety of ways" (Bandura, 1993, p. 143). Wang and Neihart (2015b) found that parents support their 2e children academically and emotionally and provide them with strategies to help them succeed. By advocating for their 2e child, parents also assist in building resiliency in their children after they experience setbacks (Mohammed, 2018). Parents can also be utilized in supporting their child's academic growth at home by encouraging higher-level thinking and questioning when reading, which encourages their gifts (Ritchotte & Zaghlawan, 2019). In working within the affirmative model of disability, parents must assist in "cultivating their

children's interests and gifts, as opposed to just remediating their learning deficits" (Ritchotte & Zaghlawan, 2019, p. 99).

Parents must become an active advocate for their 2e child in assisting their schools in designing and providing academic opportunities and supports for their children (Francis et al., 2018; Rubenstein et al., 2015). When parents advocate for their children and convey their academic and behavioral expectations to the school, a teacher's commitment to their children increases (Bandura et al., 1996). This advocacy becomes another connection between the home and school for the benefit of the child.

Summary

Much of the research surrounding 2e students has been focused on identification practices (Beckmann & Minnaert, 2018; Maddocks, 2020). Understand the problem of masking in the 2e population and circumventing its consequences has confounded researchers (Baldwin, Baum, et al., 2015; Ottone-Cross et al., 2017). Therefore, the percentage of students identified as 2e is lower than would be expected (Barnard-Brak et al., 2015). When a student is identified as needing 2e services, the emphasis of their education is correcting their area of disability rather than advancing their giftedness (Harwin, 2019). According to the affirmative model of disability, the strengths of 2e students should be emphasized to increase their self-efficacy (Bandura, 1989b; Swain & French, 2000).

The study of twice exceptionalities is still emerging, as noted by the lack of a singular conceptual picture by which to identify these students (Baldwin, Omdal, & Pereles, 2015; Ronksley-Pavia, 2015). Masking prevents the use of traditional methods of identifying giftedness and learning disabilities, so teacher and parental participation is vital in ensuring 2e students are recognized and receive both gifted and special educational services (Barnard-Brak et al., 2015;

Dare & Nowicki, 2015; Ottone-Cross et al., 2017; van Viersen et al., 2016). The literature is minimal in research understanding the perceived self-efficacy of 2e students (Wang & Neihart, 2015a) as these students are caught in an educational world between that of the gifted and learning disabled. This study fills this gap in the literature and adds to the understanding of the self-efficacy in 2e students.

CHAPTER THREE: METHODS

Overview

The purpose of this qualitative study was to understand the phenomenon of twice-exceptionality and twice-exceptional (2e) students' perceptions of their academic self-efficacy. This chapter begins with a description of the study and research design, a restatement of the research questions, and a description of the setting and participants. This is followed by a list of procedures and the researcher's role in the study. Next, data collection, interview questions and explanations, and data analysis are discussed. The chapter concludes with the trustworthiness of the study, ethical considerations, and a summary of the information presented.

Design

This was a qualitative, phenomenological study examining the perception of academic self-efficacy in 2e high school students. Qualitative studies are utilized to incorporate the voices of the participants and the meanings they bring to their world (Creswell & Poth, 2018), and thus this type of study was chosen to examine students' perceptions of their self-efficacy within the context of their twice-exceptionality. This was the appropriate type of study for this research because the purpose of this study was "to capture educational reality as participants experience it" (Check & Schutt, 2012, p. 189). A qualitative study was chosen because the topic of self-efficacy of 2e students is a concept which requires intense exploration and cannot be fully understood through quantitative means. Qualitative studies attempt to describe the meanings the participants bring to their phenomenon rather than interpreting predetermined data (Denzin & Lincoln, 2011, p. 3). Qualitative research can bring about change in the way others view a phenomenon (Creswell & Poth, 2018), and in this study, the way teachers and parents support and encourage 2e students in their pursuit of academic success.

Phenomenology attempts to extend the reality of conscious knowledge and is used to extend and deepen previous knowledge of a topic through personal experience with a phenomenon (Moustakas, 1994). The focus is on the participants' perceptions, and phenomenology attempts to portray a descriptive essence without lessening the sense of wonder of a phenomenon which can occur through the written word (Moustakas, 1994). Therefore, a researcher must be passionate about their topic of investigation and descriptive in the communication of their participant narratives (Moustakas, 1994). Because my research interest stemmed from the experiences of my 2e daughter, my desire to increase knowledge about this topic was fueled by passion and thus aligned with Moustakas's (1994) phenomenological methodology.

Additionally, researchers should approach the phenomenon being investigated with a sense of wonder (Moustakas, 1994). I view my daughter with a continued sense of amazement when I witness her exceptional giftedness and the frustration which occurs due to a coexisting disability. This personal connection to the phenomenon means that while it was difficult for me to bracket my personal experience, it was vital to practice epoche to ensure the credibility of the study.

With a heavy background in philosophy (Moustakas, 1994; van Manen, 2014), phenomenology is useful in education to describe lived experiences of similar groups of students to assist them in gaining greater academic success. Phenomenology contains broad philosophical assumptions of objective reality versus individual experience, consciousness of the observer and participants, and the bracketing of the researcher's opinions (Creswell & Poth, 2018).

Transcendental phenomenology was utilized in this study as it is "focused less on the interpretations of the researcher and more on a description of the experiences of participants"

(Creswell & Poth, 2018, p. 78). By simply describing the experiences of the participants rather than attempting to interpret them, it allowed for greater practice of epoche to bracket my personal relationship to the phenomenon and potential bias in interpretation (Moustakas, 1994).

In this study, the phenomenon that was researched was the academic self-efficacy of 2e high school students. In examining this population, it was important to describe the common meaning and similar life experiences of individuals (van Manen, 2014). According to Creswell and Poth (2018), phenomenological research "describes the common meaning for several individuals of their lived experiences of a concept" (p. 75). Using that definition, this study described the educational experiences of 2e students and the perceived impact of that label on their academic self-efficacy.

Research Questions

This study is focused on the central research question: What are the shared experiences of self-efficacy in 2e high school students? To assist in clarifying these experiences and allowing for a more cohesive interpretation, four sub-questions (SQs) were developed to assist in understanding the 2e students' feelings on self-efficacy.

SQ1: How do twice-exceptional students describe their self-efficacy in their area of giftedness?

SQ2: How do twice-exceptional students describe their self-efficacy in their area of difficulty?

SQ3: How do twice-exceptional students perceive external supports (i.e., teachers, parents, friends) as helping their academic self-efficacy?

SQ4: How does a twice-exceptional label affect a student's self-efficacy?

Setting

The setting of the study was East Lake School District (pseudonym), a moderately-sized school district in the southeastern United States. There are more than 2700 high school students in the district with a diverse population: White 60%; African American 30%; Hispanic 5%; Mixed Race 3%; Asian 2%. Reading, language, and math standardized test scores are higher than the state average, and the district has a graduation rate of 88% with 34% of the students qualifying for free or reduced lunch. The district offers a wide variety of athletics, fine arts, and intellectual clubs and teams for the students.

While qualifications for giftedness vary between states, East Lake School District defines gifted students as those who demonstrate "high performance ability or potential in academic and/or artistic areas and therefore require educational programming beyond that normally provided by the general school programming in order to achieve their potential" (S.C. Code Regs. § 43-220, p. 1). Students who are considered gifted are screened automatically through nationally normed tests. However, recommendations for the program can also be given by parents and teachers and are evaluated by a team on a case basis.

The district was chosen for the sample in part due to its size because obtaining a sample of 10 identified 2e students from a single school would be difficult. According to theoretical models, anywhere between 5%–10% of a school's special education population is considered 2e. This district has a large special education and gifted program as well as many options for honors and advanced placement classes from which to draw students for the study. The district's graduation rate is higher than the state average, and its excellent testing records show its commitment to meeting the educational needs of its diverse student population. East Lake's 2e population is aligned with the anticipated average as 27 students are identified as 2e in the

district. This equates to a little more than 1% of the total school district population.

The leadership of the school district includes a superintendent whose contract was just renewed, and between the high schools in the district, there are three principals and six assistant principals. Of those administrators, there are two females (both are assistants), in two of the high schools. All five of the current administrators are Caucasian—the only African American was appointed as a principal this spring. The lack of diversity in the administration needs to be noted as it does not reflect the student demographics for the district.

Participants

Creswell and Poth (2018) suggested the usage of three to 10 participants for a phenomenological study. This study utilized their recommendation and recruited 10 participants who were purposefully selected based on their identification of a specific learning disability (SLD), autism spectrum disorder (ASD), or other health impairment (OHI) and a coexisting area of giftedness. Recruitment of students ceased when thematic saturation occurred. All 10 students were enrolled in Grades 9–12 at East Lake School District, which contains approximately 2,700 high school students. The majority of the participants were Caucasian males and only one participant was African American; I was not alarmed by this because females and students of color are less likely to be diagnosed as 2e (Barnard-Brak et al., 2015).

While all 27 eligible students were asked to participate in this study, the students were chosen for the study based their desire and willingness to openly discuss their perceptions and experiences of self-efficacy. Non-respondents were expected (Check & Schutt, 2012), and the participants were determined in a systematic manner which attempted to reflect the student population of the district.

Purposeful, criterion sampling was used to ensure that all participants in the study had

experienced the phenomenon of being 2e. Purposeful sampling was necessary because it "targets individuals who are particularly knowledgeable about the issue[s] under investigation" (Check & Schutt, 2012, p. 104). Criterion sampling is important in phenomenology because the purpose is to describe the participants' experience, so it is vital that all participants share a common phenomenon (Creswell & Poth, 2018).

Procedures

Institutional Review Board (IRB) approval was obtained before beginning this study (Appendix A). The superintendent of the school district was contacted for participation, and he referred me to the director of assessment and data. This administrator was exceptionally helpful in identifying the potential students for the study and gave permission for me to conduct the study through the district. He was also the initial contact between the students, their parents, and me as to maintain privacy laws. The initial email which was sent to all potential participants was approved by the IRB (Appendix B). After 2 weeks, a second email was sent to possible participants. After this, parents were mailed a copy of the recruitment letter (Appendix B). Later, local school guidance counselors were contacted, and they also mailed letters (Appendix B) to the remaining 2e students in their schools who had not yet responded.

After parents/students responded to me through the email, I provided them with the link included in the initial email which directed them to a Google Forms survey which began with electronic consent forms (Appendix C). Upon submission of that, Forms moved them to the self-efficacy survey (Appendix D). The Likert-style questions in the survey were used as clarifiers during the interviews. After completion of the survey, I contacted the participants' parents and/or guardians via phone to further discuss the purpose and extent of the study while answering additional questions. At this time, students and parents were given the option of in-person or

virtual interview times to complete their participation in the study. Virtual options were included to encourage participation of students who may be attending school virtually due to COVID-19 concerns, but no participants chose this option.

At the beginning of the interview, students were given instructions on how to create a collage based on their school experiences as a 2e student (Appendix E). These collages were later analyzed using the themes collected from the interviews and surveys and compared across the student participants. Finally, students were interviewed for approximately 1 hour with the assistance of recording devices, which were used to translate the conversations verbatim. Notes were taken during the interviews and memos were made both on the notes and the transcribed interviews.

The Researcher's Role

While I do have a daughter who is labeled 2e, and thus have a vested interest in this study, the participants were unknown to me until the initial interviews. The school from which the participants were drawn is in a location that I was not familiar with until we moved into the area a few months ago. I did have the opportunity to meet some special education teachers, and they are excited about what can be learned through this study and the potential for teacher training in the district. I realize that my daughter has high academic self-efficacy, but interactions with other 2e students I have taught in the past (not participants in this study) have shown me that many of them do not have that same perception.

Though my experience teaching, I have had 2e students in my history and English classrooms; however, very few were officially diagnosed as such. Many of these students have been identified as gifted but lack either an IEP or 504 plan for their academic difficulties. This high number of gifted students with possible learning difficulties is most likely attributed to the

fact that I teach almost all honors classes. My own opinions as to the 2e label and perceived self-efficacy remained bracketed so that I could accurately describe the lived experiences of the interviewed participants; however, this bias must be addressed here as no amount of bracketing can ever completely eliminate a researcher's personal experiences. That said, my personal experiences with 2e and self-efficacy were set aside so that I could fairly describe the experiences of the participants without interference from my own understanding.

My role as a researcher was one of moderate participation (Moser & Korstjens, 2018) as I was not affiliated with the location of my research. Although active participation would have been preferable (Moser & Korstjens, 2018), COVID-19 regulations did not allow my entrance into the classroom settings for observation and student interactions.

Data Collection

I cross-checked and triangulated data through a self-efficacy scale, a collage created by the participants, and interviews (Moser & Korstjens, 2018; Moustakas, 1994). Before the interview began, each student was asked to respond to a self-efficacy scale and create an 8"x10" pictorial collage of their school years by using magazine images and words which described or showed their feelings about school, themselves, and their perceived success and failures (Appendix F). The order of this data collection was chosen so I could begin with the students' perception of their school experience and then move toward their understanding of the 2e label in relation to their self-efficacy in the classroom setting. Memoing occurred during and after all data collection, so my reflections also became part of the entire research process (Creswell & Poth, 2018). Utilization of data from both the participants and the researcher essentially made us co-researchers in this process (Moustakas, 1994).

The long interview is the traditional form of data collection in phenomenological research (Moustakas, 1994). Pre-designed questions helped facilitate the discussion of the full experience of the phenomenon from the participants (Moustakas, 1994). Despite the advance work in designing the questions, sometimes the order was altered when a participant began to share his or her experience (Moustakas, 1994). During the interview, participants must feel as if their contributions provide valuable insight into understanding the topic of research (Moustakas, 1994). It was important that participants were given the opportunity to review the description of the phenomenon developed by me and provide additional feedback—if needed—to ensure the correct representation of their experience (Moustakas, 1994). As described by Moser and Korstjens (2018), data collection needs to be somewhat flexible so additional data collection strategies were utilized as necessary.

In my research, interviews with the 10 participants were the primary source of data collection to develop textural and structural descriptions of the phenomenon of being 2e (Moser & Korstjens, 2018; Moustakas, 1994). Each student was interviewed once for approximately 1 hour. Interviews allowed participants to describe their experiences using their own words (Moustakas, 1994; van Manen, 2014), and this assisted me in understanding what is outside of my bias and experience and gain new insight into the phenomenon (Josselson, 2013; van Manen, 2014).

Self-Efficacy Scale

Originally, observation was denoted as a portion of the triangulated data for this research. However, with the uncertainty of changing COVID-19 regulations and access to schools, use of a self-reported self-efficacy questionnaire was determined to be the best option as it could be administered remotely and used for descriptive data and clarification purposes (Appendix D). It

must be noted that this questionnaire was not used for screening of participants but used to generate further descriptive data of the participants and extend triangulation of the other data collection techniques. While questionnaires tend to be associated with quantitative research, Gall et al. (2007) discuss their usefulness in qualitative studies.

Self-efficacy scales are used to measure the "cognition and feelings that each individual has about himself or herself" (Gall et al., 2007, p. 219). This method tends to utilize Likert scales which ask participants to determine the degree of agreement with an item (Gall et al., 2007). Designing a survey instrument requires time and resources, so Check and Schutt (2012) urged researchers to utilize a survey instrument which has already been designed and tested for validity.

The Children's Multidimensional Self-Efficacy Scales: Self-Efficacy for Self-Regulated Learning scale and Self-Efficacy for Academic Achievement scale (Bandura, 1989a) was chosen as it is a 20-question, Likert-type scale that has been utilized effectively in other research studies on self-efficacy (Ferren, 1999; Zimmerman et al., 1992). The scale allows students to rate their perceived self-efficacy of school and academic tasks on a scale between 1 and 6, with 1 signifying "not well at all" and 6 being "very well." The Children's Multidimensional Self-Efficacy Scales was demonstrated to have high reliability with an initial Cronbach α coefficient of .87 for the self-efficacy for self-regulated learning scale and .70 for the self-efficacy for academic achievement scale (Zimmerman et al., 1992). The self-efficacy for self-regulated learning scale consists of 11 items which measure students' perceptions of their ability to use self-regulated learning strategies (Zimmerman et al., 1992). The self-efficacy for academic achievement scale includes nine items which measure "students' perceived capability to achieve in nine domains: mathematics, algebra, science, biology, reading and writing language skills,

computer use, foreign language proficiency, social studies, and English grammar" (Zimmerman et al., 1992, p. 667).

Questionnaires were administrated to participants through an email link to Google Forms (Check & Schutt, 2012). If the interviews are web-based, it becomes difficult to attach an individual questionnaire to a participant to more closely examine responses during the interview process. Mailing questionnaires takes additional time, cost, and paper usage; however, it was necessary to reach a subset of possible participants using this method. These questionnaires were initially emailed to each participant and responses collected in advance of the scheduled interview. In this way, the responses were used during the interview session to prompt additional probing questions.

Artwork Analysis

Visual data analysis through photovoice asks participants to engage their world through photography (Check & Schutt, 2012). The artwork analysis that was part of this research is formulated out of that creative interaction between researcher and participant. At the beginning of the interview process, students were given paper, various magazines, markers, and glue sticks to create a collage of their perception of school. The prompt stated: You are being asked to create a collage which shows how being considered 2e makes you feel about school. There are only a few rules for students to follow when doing this. First, there are no right or wrong answers for this project as everything chosen is based on personal perceptions. Students were asked to tear out and paste onto the provided construction paper at least 15 images and words from the various magazines provided for them which describe their experience in school as a 2e student. Magazines included those which focused on teen, food, décor, sports, outdoor activities, and news. Participants were asked to choose words and images which defined their school experience

in light of their 2e identification.

The collages were utilized by the researcher through the interviews with the students to help explain or elaborate upon descriptions of experiences. While this is neither directly asking about their self-efficacy or 2e perspective, the activity acted as a catalyst for the interview and as a framework for the students' perception of being 2e and their self-efficacy. This activity allowed me to "learn more about the participants' worlds as they see it and react to it" (Check & Schutt, 2012, p. 314). These collages also enabled students to engage in the research process by recording their own point of view, which also assisted in my descriptions of the phenomenon (Check & Schutt, 2012). Creative, casual activities also act as ice breakers to lessen nervousness and tension often present at the beginning of the interview. Some students wished to keep their collages, so a photo of their collages was taken.

Interviews

The main data collection strategy I utilized was semi-structured interviews with the 2e students. Interviews are an effective way of learning and understanding the perspectives of participants by allowing them to describe their experiences in their own words (Moustakas, 1994; van Manen, 2014). This interaction created a co-constructed reality where "we aim[ed] . . . to learn something about what is beyond ourselves and our preexisting assumptions" (Josselson, 2013, p. 2). Moving beyond my own presuppositions and bracketing what I perceived about being 2e was vital during this process (Moustakas, 1994). Interviews also allowed for immediate follow-up questions for clarification of statements and themes as they developed (Creswell & Poth, 2018).

Normally, interviews would be conducted at the school in a conference room at a time convenient to the various parties; however, due to possibly changing COVID-19 regulations,

interviews were conducted at the local library, the outside school patio, and participant homes. This flexibility added to the attraction of interviews in the data collection process during the COVID-19 pandemic as the setting for the interviews varied as needed to maintain the comfort level of participants (Hitchings & Latham, 2020). Data were audio recorded and transcribed, and I took additional notes during the interviews themselves (Creswell & Poth, 2018). This strategy enabled me to begin to understand the self-efficacy perceptions of the 2e students through their own words.

Open-Ended Interview Questions

1. Please introduce yourself to me and tell me about yourself.
2. During this research, your name and identifying aspects will remain hidden. To do this, I will use a pseudonym throughout the research and analysis process. I would like you to choose a "name" you would like me to use for you in this research. What name would you like to use?
3. Tell me about how you interact with your friends.
4. Please tell me about your daily school schedule/classes.
5. Please tell me about activities you enjoy outside of school.
6. Please explain to me what you believe the label twice-exceptional means. (If needed, clarify the definition for the student)
7. In what ways do you see yourself fitting the description of 2e?
8. What does the word self-efficacy mean to you?
9. Experts describe self-efficacy as your beliefs about your ability to perform a task. How would you describe your self-efficacy in your area of giftedness?

10. You have created a collage of your perception of your various school experiences. Knowing about being 2e and self-efficacy, how would you explain three elements on your collage to me?
11. Please tell me about a time when you experienced a successful project or class assignment?
12. Using that same definition of self-efficacy, how would you describe your self-efficacy in your area of difficulty.
13. Please tell me about a time you really struggled with a class or assignment and did not feel successful?
14. Experts believe that greater self-efficacy equates to greater success in school. What do you think a 2e student should do to be successful?
15. Why do you believe you have difficulty in your area of challenge?
16. How do you believe your 2e label could improve your self-efficacy in your area of difficulty?
17. How would your parents describe your self-efficacy?
18. Why do you believe they would describe it like that?
19. How would your teachers describe your self-efficacy?
20. Why do you believe they would describe it like that?
21. Tell me about the struggles you have experienced in school with your 2e label?
22. If you were a teacher of a 2e student, what would you do to help boost their self-efficacy?
23. What advice would you give your parents to assist you in gaining greater self-efficacy?

24. Imagine you are being interviewed at a conference on twice-exceptionality, in front of thousands of other 2e students and teachers. What would you want to tell them to expect to experience in school as a 2e student?
25. The number of students with disabilities going to college is rapidly growing, but your IEP will not transfer there with you. In college, you must choose whether to disclose your disability to the Office of Disability and Academic Support or your professors. What are your plans for college and disclosure of your disability?
26. When speaking to your professors about your disability, do you also plan on sharing your gifted identity? Why or why not?
27. We have spoken for quite a while today, and I really appreciate your sharing your thoughts with me. One final question. . . . What else do you think would be important for me to know about being a twice-exceptional student?

Question 1 was meant as an introduction and attempted to place the interviewees at ease with the questions and give them a sense of control in a relaxed atmosphere (Moustakas, 1994; van Manen, 2014). The atmosphere of the interview is dependent upon the researcher, so this question was intended for the students to become more open with their answers as the discussion became focused on their 2e label and their perceptions of self-efficacy (Moustakas, 1994). Question 2 follows this as it explained once again to students that their information will remain hidden to protect their identity and encouraged honesty in the discussion (Creswell & Poth, 2018). Questions 3–5 followed as they asked generalized questions which allowed student perceptions of school, friendships, and nonacademic influences to arise.

Phenomenology is based on the perceptions of the participants, so it is vital to clarify their understanding, and thus perception, of the research terms used throughout this study. By

asking an open-ended question for a definition, it also allowed the researcher to see the participants' perceived focus on either their disability or giftedness (Swain & French, 2000). Participants and the researcher need to share the same understanding of this definition for it to be properly perceived by the researcher (Coleman & Roberts, 2015). Questions 6–10 focused on clarifying definitions and perceptions of being 2e and self-efficacy (Bandura, 1994, 1997; Wang & Neihart, 2015a).

Questions 11–16 asked the participants to compare their perceived reasons for success and difficulty against that of their self-efficacy. Several studies (Cavanagh et al., 2019; Schöber et al., 2018; Wang & Neihart, 2015a) indicate that greater self-efficacy equates to greater academic success. However, it was possible that these students would attribute their success in school to external factors rather than internal (Bandura, 1994, 1997), and so this question helped to understand their rationale for success and failure.

Questions 17–20 invited the students to take the perspective of their parent(s) or guardian(s) and a teacher, which can be helpful in gaining new insights in how they perceive their relationships (van Manen, 2014). Studies show that positive interactions with teachers and parents increase the academic success of 2e students (Ritchotte & Zaghlawan, 2019; Townend & Pendergast, 2015). Therefore, those questions helped reveal the types of interactions taking place between them and placed positive interactions and higher self-efficacy within the findings of those studies (Ritchotte & Zaghlawan, 2019; Townend & Pendergast, 2015).

Question 21 is more difficult and asked the student to reveal where they have struggled. Expressing areas of weakness is difficult for adolescents (Ronksley-Pavia et al., 2019), so this question needed to be asked further into the interview (Patton, 2015). In waiting to ask this

question, the student hopefully felt more comfortable with me and answered with greater honestly (Patton, 2015).

Questions 22–23 again asked the student to perceive their 2e label from the perspective of their parents and teachers (Patton, 2015). This allowed the students to think about their experience as a co-researcher (Creswell & Poth, 2018). This time, though, they were asked to deeply examine what could assist them in gaining greater success in school. The answers to these questions fit within the confines of other studies and help teachers and parents in facilitating the success of 2e students at home and in school (Dare & Nowicki, 2015; Missett et al., 2016; Ritchotte & Zaghlawan, 2019). Question 24 again required vulnerability with answers as participants communicated expected school experiences to other 2e students based on their perspectives (Patton, 2015).

Questions 25–26 encouraged the students to look towards their future and educational possibilities available to them post high school. With growing numbers of students with disabilities entering secondary education, it is important to communicate to students the difference between high school and college expectations when discussing learning difficulties and giftedness (Fleming et al., 2017). This question also helped reveal the students' comfort level in discussing their 2e label with future instructors which helped reveal their perception of their identification.

The last question invited the student to contribute additional information that had not been directly asked earlier in the interview process. The closing question also signaled to the participant that the interview was ending (Sowicz et al., 2019). This was an important final question because it allowed the student to finish the interview by including anything else that may have come to mind during the other questions. This empowered the participants to include

what they felt was important for me to know in describing their perceptions (Josselson, 2013; Sowicz et al., 2019) and also "acknowledges the interviewee as a person" (Sowicz et al., 2019, p. 10).

Data Analysis

Before data were analyzed, I approached the phenomenon of being 2e with a sense of wonder (van Manen, 2014) and bracketed my opinions and presuppositions on the lived experience of 2e students (Moustakas, 1994; van Manen, 2014). Throughout the interview process, during transcription of the interviews and descriptions formulated through the self-efficacy scales, I continued to memo thoughts, ideas, and connections between and within the student responses as they occurred (Moustakas, 1994). This written data provided additional information for future researchers and increased the study's internal reliability (Creswell & Poth, 2018; Moustakas, 1994).

According to Moustakas (1994), data analysis begins with the horizonalization of data from the transcribed interview. I began by working with the words of the participants and naming initial codes (Creswell & Poth, 2018; van Manen, 2014). I regarded every statement and observation in connection to the research question with equal value and formulated a list of coded categories and their subsequent descriptions (Creswell & Poth, 2018; Moustakas, 1994).

Analysis continued as I developed emerging themes and described them in a narrative of the textural and structural descriptions of the phenomenon (Moustakas, 1994; van Manen, 2014). From this process, meaningful units emerged and were clustered into themes (Moustakas, 1994; van Manen, 2014), which were utilized in creating textural and structural descriptions of the experienced phenomenon (Moustakas, 1994). Themes developed from a list of nonrepetitive, nonoverlapping statements describing the similarity of experiences (van Manen, 2014). This

process allowed me to remove repetition of ideas and organize the various themes into the description of the phenomenon (Moustakas, 1994).

Moustakas (1994) suggested using imaginative variation which brings together the experience of the participants into a description of how and what they experienced. The final product of phenomenological research integrates the descriptions into a "synthesis of the meanings and essences of the experience" (Moustakas, 1994, p. 144). Finally, participants were asked to read my transcriptions of the interviews and written descriptions of the phenomenon and provide additional input as to the authenticity and accuracy of my work (Moustakas, 1994).

Trustworthiness

Trustworthiness was established in this study through member checking, triangulation of data, and reflexivity (Creswell & Poth, 2018). According to Kornbluh (2015) member checking is the most important strategy in establishing trustworthiness in a study. Through member checking, I asked for the participants' opinions as to the accuracy of my description of their experience and conclusions drawn from their interviews. However, for member checking to be effective, trust needed to be established between the participants and myself so they may honestly respond to the accuracy of my description of the phenomenon (Kornbluh, 2015).

Because I was the one describing their shared experience, it was important that my descriptions correctly portrayed the perceived lived experiences of the participants. Interviews with participants were triangulated with the student-created collages and self-efficacy scales. This method increased the validation of this study by showing the themes were present in various sources of information (Creswell & Poth, 2018). Researcher reflexivity was important because this was where I explained my personal experience with the phenomenon, which could have caused bias in my understanding and description of the way students perceive their 2e label

(Creswell & Poth, 2018; Moustakas, 1994). This was important in establishing the trustworthiness of this study because it revealed my personal perspectives of the phenomenon, so the readers may use that information to filter their own interpretations.

Credibility

According to Roller and Lavrakas (2015) credibility refers to "the extent to which the findings of a qualitative research study are internally valid" (p. 21). Credibility was established through the richness of the information collected and the descriptions that arose (Amankwaa, 2016). According to Lunenburg and Irby (2008), credibility is also established though a solid theoretical framework and previous literature. As with trustworthiness, member checking was an important element of creating this credible study (Korstjens & Moser, 2018).

This study was deemed credible though the depth of the interviews, the triangulation of data from various sources, the grounding in a strong theoretical framework, and utilization of previous literature. Also, the description created from the data collected was shared with all participants to ensure it accurately reflected their feelings and perceptions.

Dependability and Confirmability

Dependability and confirmability are defined as the degree to which an outside researcher can audit a study and the data which support the findings and interpretation (Roller & Lavrakas, 2015). Dependability and confirmability were established through the detailed depictions of the context and setting in a narrative form (van Manen, 2014) as well as multiple sources of data (Amankwaa, 2016). Dependability also occurred through the memoing process which allowed other researchers to follow my thoughts throughout the research (Korstjens & Moser, 2018). Creating a detailed research plan and audit trail which can be followed by other researchers is vital to dependability and confirmability (Korstjens & Moser, 2018). This research achieved

these attributes through the thick and rich descriptions of the participants and setting and a detailed list of the steps and procedures which fellow researchers may use to replicate this study.

Transferability

Transferability refers to the ability of other researchers or practitioners to use the findings in differing research contexts (Roller & Lavrakas, 2015). All students participating in this study were identified as 2e and thick, rich descriptions were utilized to assist with transferability (Amankwaa, 2016). Fellow researchers can use the provided descriptions to determine if this study would be applicable to their population of 2e students (Amankwaa, 2016). However, the transferability of results to the entire 2e population will be difficult. This study sought to achieve maximum variation in demographics and students had various areas of giftedness and disability. Even so, transferring the results of this study to other 2e students with dissimilar gifts and talents may be unwise.

Ethical Considerations

The names of all participants and the school location were given pseudonyms so that any negative comments regarding teachers, schools, or individuals would not impact the interviewees' honesty in discussion. Interviewees were also asked for input as to the interpreted findings to ensure their experiences had been accurately portrayed. The data collected were stored electronically in password-protected files and were only used for this study and subsequent journal article. Data will be stored for approximately 3 years on a password-encrypted laptop. Students had the option to withdraw from the study at any time without risk of penalty or repercussion.

Summary

This qualitative study was designed to understand the phenomenon of twice-exceptionality through students' perceptions of their academic self-efficacy. Chapter Three began with a description of the study and research design, the research questions, and a description of the setting and participants. Next a list of procedures and the researcher's role in the study were presented. Then information on data collection, interview questions and explanations, and data analysis was discussed. This chapter ended with the trustworthiness of the study, ethical considerations, and a summary of the chapter. The information provided in this section should allow this research to be replicated and confirmed in additional studies.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this transcendental phenomenological study was to describe how twice-exceptional (2e) students feel about their self-efficacy—the ability to accomplish academic tasks. Chapter Four presents the results of the data analysis. The chapter begins with a chart summarizing participant information, which is followed by a narrative description of the ten 2e participants. It is followed by an elaboration of the three themes which emerged during the data analysis: positive self-efficacy, poor self-efficacy, and perceived ways to increase self-efficacy. Next, the central research question and four sub-questions were answered, and the chapter ends with a summary of the findings.

Participants

The overall participant group consisted of 10 students ranging from Grades 9–12 in East Lake School District (pseudonym). Typically, 2e students are Caucasian males, and this study's participants fell predominantly into this expected frame. The participants consisted of seven males and three females, all of whom were Caucasian except for one male who was African American. I was pleasantly surprised by the number of females identified as 2e in the district, and while I would have preferred to include additional African American and Hispanic individuals, only those who responded to the survey or administrative and teacher emails were included in the sample population. The table below provides a visual representation of the basic characteristics of the student participants with their names, grade level in school, race (African American or Caucasian), self-identified gender (male or female), and mean self-efficacy score.

Table 1

Participant Demographics

Student Participant	Grade Level	Race	Sex	Mean self-efficacy score
D	12	African American	M	3.50
Kayleigh	12	Caucasian	F	4.10
Lilly	11	Caucasian	F	4.55
Moose	10	Caucasian	M	2.85
Onyx	9	Caucasian	M	3.20
Paige	10	Caucasian	F	3.10
Peanut	9	Caucasian	M	3.15
Roy	11	Caucasian	M	3.55
Timothy	10	Caucasian	M	3.35
Trevor	11	Caucasian	M	4.45

Note. Possible self-efficacy scores ranged from a low of 1 to a high of 6.

The following subsections will provide a rich narrative description of each of the individuals interviewed for this study. Each participant chose his or her own pseudonym to provide greater anonymity.

D

D is the type of person you like as soon as you meet him. He walked into the school conference room dressed casually in a pair of jeans and white logo t-shirt which complemented his chocolate-toned skin. A big smile spread across his face as he stretched out his hand to introduce himself to me. His strong handshake contrasted with his gentle demeanor, soft voice, and polite, southern charm. D came to me through a recommendation by the special education department at one of the high schools, and it was a pleasure talking with him and learning his

perspectives on being 2e as students of color are less likely to be identified. As the first senior I interviewed, I was particularly interested in his school experiences as he had more years from which to draw information.

While D has many acquaintances throughout the school, he is an admitted introvert who does not maintain close friendships. However, as I was interviewing D in the common area of the school, nearly every student and teacher who walked through yelled over to him to say hello. He has a very sweet manner and kindness about him that seems to draw others near. D is exceptionally goal-oriented and continually mentioned money as the ultimate prize of his hard work. He has been employed since his freshman year and works 5–6 days a week (even during the school year). D has earned multiple promotions through his excellent work effort which he attributes to the influence of his mother.

D receives special education services on a consult basis through his 504 plan, and has been in advanced classes, but the current semester did not afford any class time or school resources to his giftedness. However, the previous semester's courses at the school's career center allowed D the opportunity to build his confidence in engineering—a course sequence he has been taking since ninth grade. Even before he graduated in June, D was brought in as an intern at a local manufacturing plant that builds and designs automotive parts. D can visualize how various parts work together and interact in a way that amazes me. D's engineering skills were highly recognized inside and outside the school, and after graduation, the company will pay for him to attend college while working for them.

Kayleigh

Kayleigh also came to me through a recommendation at the special education department, and it was a privilege to speak with this young woman who has conquered so much.

Kayleigh is not only 2e in the traditional sense with a specific learning disability (SLD) and giftedness, but she must also navigate life through the foster system. Kayleigh is 18 and approached me about the study when she heard she would be an eligible participant from her special education teacher. Kayleigh confidently walked up to me and introduced herself. Her eye contact with me while speaking was remarkable, as they seemed to implore me to share her story and experiences.

We took a seat at a concrete table at the school's outside patio. The wind was blowing my papers with such gusto that I had to pin them down. I explained the purpose of the study and went through the consent forms with Kayleigh (Appendix C), and she readily agreed to participate. I then asked her to take the self-efficacy survey—I had brought along a paper copy as I did not know if she would have any electronic or internet accessibility. She diligently read through each question and pondered her answers before circling them. It was particularly interesting watching her take the survey because the others were all submitted electronically, so I could not observe the mannerisms of the students taking them.

After she finished, I explained the collage assignment and gave her the magazines, scissors, and glue sticks. She flipped through each magazine rather quickly as if she knew exactly what she was looking for. As she worked, we talked about school and her plans for after graduation. Unlike other students, Kayleigh did not find 10 images for her collage, and we had been there for quite a while at that point, so we moved on to the interview with only three. I am not sure if I distracted her from the work while talking to her or she was not finding exactly what she was looking for.

Kayleigh's time in the foster care system was the very first thing she told me about herself, and she referenced that aspect of her life frequently as we spoke because of the

tremendous impact it had on the young woman she is. She never once mentioned it with any bitterness, but more matter-of-factly like one would a favorite sports team. Kayleigh keeps a small group of friends who like to go to church events and hang out at the park, but her focus has been on her job and education. Although 18, and at a normal graduation age, her earlier time in the foster care system caused some delays with schooling, so she was not technically scheduled to graduate the following year. However, Kayleigh used her giftedness and motivated herself during her freshman year to take classes over the summer so she would graduate in only 3 years.

One of the elements I enjoyed most about Kayleigh was her honesty. She always told me what was on her mind and what she thought about school and her teachers—I always knew where I stood with this young lady! While she is exceptionally gifted, she did tend to focus our conversation on areas where she struggled even when I directed her towards her strengths.

Lilly

Lilly's parents graciously allowed me to interview her at their home on a bright Saturday afternoon. I pulled into their neighborhood, parked at the side of the house, and walked past a beautifully manicured garden to the front door. Lilly and her two small dogs greeted me there, and she brought me in to meet her family. Her mother and father were relaxing in the living room because—as they later told me—they walked nearly 10 miles at the zoo the day before. It was clear from the conversation and the pictures in the room that her family is close and enjoys doing activities together.

Like many of the others, Lilly was put in touch with me through the high school. Her special education teacher knew about the study and encouraged her and her parents to participate in this research. She is a beautiful young woman with bright eyes, a quick smile, and slender frame. Her family graciously welcomed me into their home for the interview. The house has an

open floor plan so although her mother and father both sat in the living room while Lilly and I spoke at the kitchen table, they actively listened to the questions and added in additional comments during the interview. Lilly seemed to honestly enjoy the process, and it was obvious that the initial collage activity tapped into her creative side. Her eyes lit up when she saw me take the magazine out of my bag and she really took the assignment to heart and spoke openly with me as she multi-tasked—finding pictures and quotes which met the criteria, cutting them out and then pasting them onto the collage. She would occasionally get distracted by some pictures or words and she would begin to tell me the stories she associated with those items, but this was my favorite part of the interview process. I feel like I learned as much about her and life and school experiences through this activity as I did the formal interview. Whereas other students worked in near silence on this project, Lilly spoke to me with a refreshing honesty and openness through that initial activity.

Lilly is the youngest in her family and her mother and father are exceptionally supportive—they are her main cheerleaders. While they act as a sounding board for advice and advocate on her behalf scholastically, Lilly has developed excellent self-advocacy skills for her needs. Lilly also has a very strong work ethic as she holds down a part-time job while she is taking classes—this will be her senior year—and finishing her CNA certification. Lilly plans on going into healthcare, and with the obvious skills she has gained coupled with her determination, there is no doubt she will accomplish exactly what she sets out to do.

Lilly keeps a small group of close friends from school. They communicate via messaging, hang out at a local coffee shop, and get their nails done. Unfortunately, negative school experiences began at a younger age when she was first diagnosed with ADHD in second grade. Lilly's teacher informed her parents that she was struggling in math, and "struggle"

wasn't quite the right word. Lilly required intensive pull-out math for her SLD for most of elementary school. Her test scores in other areas were above grade level, yet the focus in elementary on her disability left her frustrated and doubting her giftedness. When Lilly reached high school, the focus finally switched to her areas of giftedness, and she began to shine and once again enjoy school. While she is not in any honors or gifted classes through the high school, she takes dual enrollment courses at the community college. She is currently serviced for her SLD in math through a 504 plan.

Moose

Moose's family lives in a beautiful subdivision on a large lake, and the ride to their home had breathtaking views as I crossed numerous bridges. When I pulled up to Moose's house there was one additional car in the driveway and one in the garage. Moose was grinning when he met me at the door, and I followed him to the living room where we sat and talked for a few minutes until his mother came downstairs. She had been helping Moose's two younger sisters with their schoolwork—the family now homeschools. She immediately apologized for the orange peel that was sitting on the end table next to me, and I assured her I was very used to that as my youngest leaves them everywhere she goes, very similar to Hansel and Gretel and their breadcrumbs.

I was introduced to Moose through one of the schools, and he was an absolute joy to speak with. Where sometimes in previous interviews I had to work at encouraging students to open up about their experiences, Moose jumped right in, and at times, I had difficulty even getting in the words to ask a question! We spoke in the formal interview setting for well over and hour, and thankfully his parents were gracious hosts because we definitely went over the time range I had told them to expect. Moose has an OHI (other health impairment) classification and receives resources through his 504 plan, and he is not involved in any honors or AP classes.

Moose had the most varied school experience compared to the other participants. After conversing with his mother, I learned that Moose started with homeschool and changed to a private Christian school before he moved to the public school for his sophomore year. The transition was a struggle for Moose and his family as they attempted to work within the system and acquire the accommodations and extra resources he needed to support his learning challenges and giftedness. Ultimately those challenges forced his family to make the decision to return to homeschooling, so Moose will transition out of the public school for his junior year.

Moose is the oldest in his family, so everything his parents experience with him is completely new territory. Moose loves anything mechanical and believes that there is not a thing with moving parts that he cannot fix. Moose experienced quite a bit of frustration in school this past year as he attempted to navigate through a much larger school environment and advocate for himself for the first time. He has a quick wit and a sarcastic sense of humor which operates at a higher level than most of his peers. Moose really enjoys his friends, but it was easy to see that he gravitates towards adults who can better understand him and appreciate his humor and personality.

Onyx

Onyx is a 14-year-old young man who was introduced to this study through a school guidance counselor who realized that he fit the student profile requirements. His mother then reached out to me and completed the participant consent form online (Appendix C). We scheduled our interview at the local library and his mother sat next to Onyx throughout the interview; however, she did not respond to any of the questions during the recorded session of the interview. She did stay after the interview to ask me some additional questions about my research and mentioned that she would be interested in participating in a study that seeks to

understand the parent experience of having a 2e child. Onyx has an amazing sense of humor and he had me literally laughing out loud multiple times during the interview as he relayed various stories and experiences from school. He is a natural storyteller with a friendly and open disposition.

Onyx is exceptionally high energy, funny, and creative, and his friend group is vitally important to him for both social interaction and scholastic support. This group not only has various classes together throughout the school day, but they also play video games and hang out outside of school. Onyx is obviously gifted in math and science but the struggles from his OHI would cause him to occasionally get off topic during our interview. However, the outside noises and actions of others at the library did not seem to directly affect the interview process. It was more as if he became lost in his own thoughts and stories.

In school, Onyx is involved in JROTC where he currently serves as a Private First Class and has lofty leadership aspirations for within that group as he moves through school. He is also active in Scouting and is hoping to obtain the level of Eagle Scout. This background helps explain his emphasis on preparedness. Onyx carries a first aid kit everywhere he goes—just in case. He is also part of the school's concert band where he enjoys playing the trumpet. He is not in the least bit pretentious and does not feign perfection—he easily admits mistakes and is willing to push forward through areas of difficulty.

Thoughts are constantly moving through Onyx's brain. He has a wonderful imagination and likes to create stories and plot lines to original movies. Unfortunately, he does not view himself as a good writer—despite these creative writing tendencies. Onyx admits to becoming frustrated with his writing ability as he feels there is a blockage which keeps his stories from

moving from his brain to the computer. His parents are highly supportive and involved in his education and continually help him strive to accomplish goals.

Paige

Paige's mother was the second person to return the inquiry email sent by the district, and I am grateful for the opportunity to include her perspective as a participant because females are not as likely to be identified as 2e. Paige's family lives in the same town as I do, but Paige attends a different high school in the district because of where her mother teaches. However, the family excitedly noted that next year Paige will be leaving the public school system and attending a small, private Christian school in the county. Paige honestly appears excited about the transition, as she already has a good friend who attends there.

I was invited to interview Paige at her home. Paige's mother welcomed me into their combined living room dining room and the family was seated on the couch watching a baseball game on the television. As Paige and I sat down at the round dining table, her father excused himself to another room where he remained for the interview while her mother stayed on the couch nearby watching the game. Due to proximity, her mother listened to the interview and occasionally interjected additional information which expanded on what Paige was telling me, and at times, had difficulty fully expressing. This added an additional level of depth and understanding into Paige's perspectives—one in hindsight I wish I had from all the parents.

Paige is a beautiful, shy young woman with a soft voice and gentle handshake. When Paige initially introduced herself to me, she had a hard time maintaining eye contact, and in the beginning of the interview recordings, her voice was difficult to pick up. However, all of that improved during our time together as she became more comfortable with me. Her voice grew louder and more animated as she spoke about areas she enjoyed like baking, fishing, and science.

While Paige has friends in all her classes, she keeps a rather small friend group consisting of girls and boys from church and cross-country. Her mother noted that she believes Paige has difficulty making friends due to fear of exposing her disability and the worry that others will see her differently. Paige did not mention a lack of friends and seemed quite happy with her intimate group; however, she did note that when she was younger, students would make fun of her reading and writing skills.

Paige receives daily services for her disability in a study hall, but no mention of any services for her giftedness were noted by either her or her mother. This is interesting to note as Paige is identified as 2e by the school district. Paige loves to learn how things work and enjoys taking items apart and putting them back together again without directions. In particular, she just replaced a broken toilet lever and door lock.

Peanut

Peanut, a 14-year-old young man, was introduced to the study through the local high school guidance counselor. Peanut and his mother completed the parental consent and self-efficacy scale questionnaire online (Appendix C) and then we scheduled our interview at the library. His mother accompanied him and sat next to him during the interview but did not contribute to any of the interview questions. His mother is actively involved and supportive of Peanut both academically and emotionally. Unlike some of the other interviewees, Peanut has been attending the East Lake School district for his entire educational career.

Throughout the interview, Peanut was exceptionally polite and attempted to answer all my questions and follow-ups. He had a gentle sweetness and honestly about him which became clearer as the interview progressed. However, his shyness could be seen in the way he allowed his hair to cover his face, and he had a bit of difficulty maintaining eye contact. It is evident that

his good manners and kind personality play into his friendships and positive relationships with his teachers. Interactions between Peanut and friends take place both inside and outside of school, and friendships are very important to him. Peanut and his friends play X-Box interactive games such as Minecraft and Fortnite using headsets when they are at their individual homes, but they also talk with one another face-to-face and eat lunch together during the school day. They also go as a group to the movies or minigolf, so their interaction is varied and rather consistent.

Peanut did not mention any classroom services for his disability other than his 504 plan accommodations. He currently takes a combination of college prep (CP) and honors classes, though, which places him with other gifted students. Peanut is passionate about singing and is actively involved in the school men's choir which has won numerous state awards and distinctions over the years. It is his interest in the current series of choir music he's studying which prompted him to want to learn German, and he has been working on that skill outside of the normal school day. Peanut is gifted, but his disability interferes in various aspects of his life, not just school, and causes him stress both at school and at home.

Roy

Roy was my final interview, and it was an incredible session. Roy is a 16-year-old male and like some of the previous participants, he was directed to the study by a high school guidance counselor who knew that Roy was labeled as a 2e student. Roy and his father filled out the parental consent and self-efficacy survey online (Appendix C), and I reached out to them by phone to schedule the interview. Like many of the other participants, we met at the local library and Roy's father sat with him through the interview. I chuckled at the beginning of the meeting, before the recorder was on, because Roy reminded his father that he was not allowed to answer the questions—that it was his interview. There were times during the interview where I could see

his father biting his tongue, so unlike any of the other interviews, I kept the recorder going at the end and allowed his father time to speak.

Roy is brilliant. I was in awe speaking with him as he articulated his perception of life as a 2e student. He has a direct and open personality; Roy tells you exactly what is on his mind, which helps when you are doing a qualitative study! Roy does not have any close friends. He was part of a toxic friend group for quite a while and then removed himself from their negative influence. He considers students at school to be acquaintances and has one person he considers an online friend: a boy from Thailand with whom he plays interactive games. Roy especially enjoys online interaction and playing strategy games.

For complete transparency, I found out during the interview that Roy is in the same honors pre-calculus class as my youngest daughter, but I had never heard her mention him by name nor had I ever met Roy before this interview. Most of his classes are honors or advanced placement (AP), and he enjoys learning and researching new information. While Roy really does not interact with students outside of school, he loves participating in marching band which is active during the fall of the school year. He became involved with the high school marching band in middle school as he is an exceptionally talented musician and was asked to join. Ironically, Roy does not like to practice playing his music outside of school and prefers to utilize the time built into his school day for practice.

Like the other student participants in this study, Roy does not receive any additional gifted services beyond the honor and AP classes at the high school. Roy does have a 504-plan and struggles in school because of his OHI. It greatly interfered with his learning while he was in middle school, and there is still a strong sense of resentment in his voice when discussing those

school years. His father and mother are very involved with school and band activities and continually support and encourage Roy in all his academic and social endeavors.

Timothy

Timothy was my very first respondent from the school district to respond to the email that was sent out to eligible participants. Timothy and his mother filled out the online consent forms (Appendix C) and the self-efficacy survey (Appendix D) before I contacted them to schedule an interview date and location. I was exceptionally nervous as I followed his mother's directions on how to reach their farm—where we agreed to conduct the interview. Timothy, his mother, and younger sister were parked in their ATV a few hundred yards down the gravel drive.

I followed his mother and Timothy along the gravel drive towards the house and parked near a large greenhouse. Timothy and I sat down at a small wrought iron table with two chairs and his mother sat in a lounger a few feet away. Timothy is a slight young man with piercing eyes, a firm handshake, and a slight lisp to his quiet speech, and he and I spoke for more than an hour and a half. As with most 2e students, his disability is not readily visible. It is not until speaking with him at length that his difficulties subtly emerge.

Timothy is a voracious reader—and this caused him some difficulty when designing his collage. He became so engaged in reading the various articles (especially in *National Geographic*), and relating what he was reading back to me, that he began to lose site of the assignment. I finally convinced him to complete the work by agreeing to allow him to keep the *National Geographic* magazine with which he was so enthralled. Timothy's reading comprehension and retention were his most obvious strengths, and his mother told me that he does not leave his room without a book in his hands. Timothy is also highly involved in Future Farmers of America at his school and loves the responsibility of caring for the animals.

Timothy keeps a small friend group at school, and they do not tend to socialize much in person outside of their school day. He and his friends like to engage in verbal banter with one another, but do not seem to interact in the traditional teenage sense—going to movies, football games, etc. Timothy does receive services for his disabilities through a specialized study hall with four other students where he completes unfinished homework. The only services, if they can be called that, for his giftedness were his honors history and honors government classes.

Trevor

Trevor is the ultimate Clemson fan—he really is "All in." Trevor was introduced to me through the special education facilitator at one of the schools. It took weeks to schedule our meeting because of his involvement in honors classes and various school sports, so needless to say I was very excited to finally meet him! We scheduled an early Saturday morning appointment at the local library so Trevor could get to the Clemson game on time, and I recognized him as soon as he stepped from his car. Trevor was covered in orange—from his jersey down to his sneakers! His father had warned me I might have some trouble getting him to open up to the interview questions, but I began by talking about Clemson football and his opinion on the team and current players to make him more comfortable. That must have worked in some way because according to Trevor, our interview "was so much fun!"

Trevor's giftedness and disability were apparent almost simultaneously. He utilized the wording of my questions to begin his answers which were very direct; however, when I would ask him to elaborate on what he had said, he did it with ease. However, at times I found it necessary to rephrase his statements to make sure I captured the essence of what he was trying to tell me. Trevor also required quite a bit of processing time between the questions and most answers. When he would pause to think, he would turn his head to the side, release a small sigh,

and rub his chin between his right pointer finger and thumb. As he was developing his answer, he would move his hands away from his face and take a deep breath before beginning to speak.

With his love for Clemson, Trevor gravitated right to the football magazine I included in the stack for the collage as it highlighted Trevor Lawrence's career. Like a previous participant, Trevor became transfixed on that one magazine, so I offered to put it aside for him and give it to him at the conclusion of the interview. We then moved to other magazines, and I assisted Trevor by turning pages. He would then stop me to point out the picture or words he wished to cut out. Trevor was so proud of his collage that he asked to keep it, but he allowed me to take a picture of it before he left.

Trevor is exceptionally brilliant, and he is involved in multiple honors classes and active in the school's chapter of the National Honor Society. For full disclosure, during the interview I found out that Trevor knows my oldest daughter through National Honor Society, but I had never met him before the interview. Trevor keeps a small friend group and most of their interaction takes place through virtual media: games, FaceTime, and texting. He loves sports and works as a manager for the high school football team. Trevor became interested in physical fitness about a year ago and currently works out at the gym for 45 minutes 6 days a week. This love of fitness ties into his future goal of working in athletic training.

Trevor is a motivated and hard worker who excels intellectually in multiple areas, but considers English, particularly reading, to be his nemesis. He has been struggling with the classroom reading choices this year—*The Great Gatsby* and *The Crucible*—due to the vocabularies used by the various characters. However, the reading requirements for history are more enjoyable and fit his interests.

Results

The central question that guided this study asked, What are the shared experiences of self-efficacy in high school 2e students? Phenomenological studies require that each participant must experience the specified phenomenon, and thus purposeful sampling was used to acquire participants (Creswell & Poth, 2018). An introduction letter and request to conduct the study were sent to the school district, and the administration gave a positive response for me to utilize their assistance in identifying and contacting participants. When fewer than 10 respondents were achieved from the initial emails sent by the central administration, personal contacts I had in the guidance and special education departments of the individual high schools were approached. These individuals then reached out to identified students who had not yet responded, and the replies quickly reached the needed participation level. Following Moustakas's (1994) methodology, structural and textural data analysis was utilized to understand and organize the data. The data collected through the collages of school experiences created by each participant (Appendix F), self-efficacy scales (Appendix D), and transcribed interviews all demonstrated the emergence of three primary themes: positive self-efficacy, poor self-efficacy, and perceived ways to increase self-efficacy. Positive self-efficacy was then delineated by the subthemes of giftedness, family, teachers, and nontraditional course choices; poor self-efficacy was further divided into the subthemes of disability, frustration, self-doubt, and teachers; perceived ways to increase self-efficacy included focus, communication, and relationships.

Textural Descriptions

D began the interview by telling me he likes to "chase bread." Everything his does in school pushed him towards that end. His area of disability manifests in English language arts (ELA). Because he knows this is his weakness, he reaches out to his teachers because it's

something “[he] can’t help.” However, he does not let that defeat him, because when reading is associated with his giftedness in machine science it is not as difficult. D explained, “It’s something that will benefit me. It will stick in my head.” His positive self-efficacy is evident in his views about his gifted abilities, and he blatantly described his self-efficacy in science as “strong.” His mother plays a driving role focusing on his area of giftedness as she “pushes [him] to reach [his] goals.”

D thrives in his nontraditional classes because he’s a “hands on person” and his machine classes allow him to see things and “figure out how to do it [himself].” D feels “you do need to have motivation in life. Without it you won’t succeed,” and this is his perception of the gifted portion of his 2e label. To him, giftedness is based on effort, so to increase your self-efficacy, you need to increase your effort because “with work what you put in is what you get.”

Kayleigh’s strength is what defines her feelings about being identified as 2e. That was the word that dominated her collage (see Appendix F). She perceives herself as having high self-efficacy as rated in her questionnaire (Table 1) and her interview. Kayleigh said, “My self-efficacy is good, but it really depends on what it is in school.” She compares everything else in her life to the initial trauma of being removed from her birth family in high school; however, even that experience she called an “eye opener” because she realized that with her current attitude, she will not “get anywhere. [She’d] be just like them.” That initiated a change in her attitude towards school. Kayleigh explained, “When I came in my ninth grade year, I was like done. I can’t do this. This is not for me.” However, once she started focusing on her gifted abilities, she realized the importance of her education and took “online classes in the summer” and is now ready to graduate after only 3 years.

Kayleigh described her self-efficacy in her area of difficult, math, as “okay . . . not as good as I wish I was.” But even in that statement she believes she can improve. However, she attributes her lower self-efficacy in math to a teacher who told her she “needed to figure out everything that needs to be turned in alone.” This interaction caused her a great deal of “frustration” and made her want to “just leave the class.” Kayleigh does not place the sole responsibility on her teacher, though. She explained that she did not “put in enough effort for her class,” and believes that her self-efficacy would improve if she “[paid] attention.”

Lilly sees everything through rose-colored glasses. Lilly is classified as 2e with an SLD in math and giftedness in science and ELA. She does not see her learning disability as a hinderance, though, because she can “help other people.” It is not surprising that Lilly has the highest self-efficacy rating of the participant group as her efficacy in math is high due to her positive outlook. She explained that there were “countless times where math wasn't very easy, but I've succeeded, and I’ve looked at it, and I am like, ‘Wow I can make As in math.’” The positive reinforcement of the grades helped improve her self-efficacy.

That is not to say school has been easy and she has not had to struggle. Quite the opposite. Lilly explained that she has had teachers tell her she was “stupid” and that she “can’t do anything.” She still feels like she struggles with math, due to teachers who “didn’t realize how to help” her succeed and “didn’t put a lot of confidence” in her ability. However, in her science courses, she describes her teachers as being “mentors” and working “hard to help [her] develop.” Lilly likes to build those relationships with her teachers because “they are willing to help you out.”

Moose’s OHI impacts various element of school, but he is “always trying to help others.” Moose is gifted in science and describes his self-efficacy in his nontraditional computer class as

"really good cause I understand computers a lot." However, he later circled back to this idea and toned it down when he explained he's "not perfect. There is always something I probably could have done better." This self-doubt expressed itself most heavily in his self-efficacy questionnaire as he was the lowest scoring individual—even in his area of giftedness.

This self-doubt may come from the frustration of teachers who do not understand how he can "know so much about vehicles" and not follow simple directions. Moose realized that when he's "struggling in school" it's because he did not talk to his teachers about his disability, and they get frustrated when they see someone who is "quick to understand" but also "falling behind." However, when he spoke with his teachers, they worked with him on "more extended deadlines" because the class was "really fast paced." While Moose says he does well in his academic classes, his favorite part of the day is his ROTC class which he "wouldn't trade for anything" as it allows him time to "bond with people."

Onyx also has OHI which has a negative impact on his ELA class. He described his self-efficacy there as "not good. Not at all." However, he described his area of giftedness completely differently as he believes he is "really good with like math and science." This positive feeling has a twinge of self-doubt as he attributes his giftedness to "the result of my genes." This self-doubt may explain why Onyx was in the overall lowest half of scores for the self-efficacy survey (Table 1). Onyx has had multiple good teachers who were "amazing" and taught him information that "stuck with" him. He did have some teachers who caused him frustration because they were "mean" or when giving project directions allowed students to "do whatever you wanted" versus teachers who gave "detailed instructions."

Onyx's family is very supportive of him but he feels they would say his self-efficacy in ELA or history is "not good" because he "doesn't have the initiative or the want" to complete

those tasks. Onyx, however, sees his 2e as demonstrating his "potential to be good enough" but that it means he has to "push twice as hard to be better than everyone else." His JROTC class exudes high self-efficacy as he sees "ranking up or adding more" shows that he can "focus" and succeed.

Paige is gifted in science and math and her self-efficacy is "good at science. All kinds of science." But she also loves her art and entrepreneurship classes and chose pictures for her collage based on those courses (see Appendix F). They help provide a reprieve from her SLD in ELA which is "just draining" for her. She can tap into her creative science brain and "build a business" which was something her teacher felt she "did very well." In ELA, however, "there's a lot of rules. . . and it's hard," so she leaves school "exhausted by the end of the day." Her parents are very support and "always help at home" because there are things where she "needs extra help."

Paige suffers from quite a bit of self-doubt, and her mother explained that her "confidence level is not there" and that Paige does not believe "she's a pretty special person." This was demonstrated on her self-efficacy questionnaire where she had the second lowest score. This self-doubt stems from earlier incidents in school where students "made fun of [her] handwriting" and the fact that she "couldn't read well." These caused her to "struggle with interaction" and "she doesn't make friends easily," according to her mother. While Paige is shy, she notes that students should "ask for help" but that teachers should also "approach students" because they would be "scared."

Peanut is gifted in mathematics but struggles with his OHI which affects various aspects of his academics. Peanut is shy but did express high self-efficacy in "math and chorus," but tempered that statement with self-doubt when he said, "But I know I could do better." Peanut's

self-efficacy is increased by teachers who have been “uplifting and helping” when he struggles. He knows he can talk to his math teacher, and she will “help with something,” but more importantly to Peanut, “she’ll listen.” Listening is important to Peanut, not only in building relationships with his instructors, but also in helping him to “focus” and “know what to do” for assignments.

Problem arise though because Peanut thinks he feels “perfectly fine about doing everything,” but as he begins working on the assignment, he realizes he “can’t do it.” This causes him frustration because he “thought [he] could do it well” and “put it off. . . until the very last day, and [wasn’t] able to finish.” While this causes “a lot of struggle” with schoolwork, he does believe he will “get there eventually.” But for the time being, “schoolwork is kinda of stressful.” This may explain why Peanut’s self-efficacy score is one of the lowest of the participants.

Roy is academically gifted in multiple areas but also has an OHI that can interfere with school. His favorite class, AP Seminar, is outside the traditional academic scope but it is “fun” and “the teacher is the best teacher” he has ever had. Roy “actually like[s] learning” and “being engaged in classes.” He likes “talking to [his] teachers” and building a “personal relationship because [he] like[s] personal relationships with [his] teachers.” Roy loves playing in the marching band and uses his intellect to memorize his music in “a week or two.” Roy’s parents are “very supportive” and continually tell him he’s “brilliant.”

However, Roy has considerable self-doubt. He struggles “managing expectation” between his giftedness and disability. He also says that sometimes “I doubt my abilities” because everyone has always told him that he was “gifted” yet he struggles to “live up to it.” Self-doubt started to arise in a middle school, which he described as “the sinkhole” where issues with his OHI “kept building on itself” until “it was just a never-ending spiral.” Roy’s parents stepped in

and were “a lot more understanding” once they understood what was happening. Roy believes students need to “focus just on schoolwork” and when things do not work out the first time to not “beat yourself up too much about it” because the difficulties “will get better.”

Timothy is academically gifted in multiple areas and has a SLD which affects his written expression. Timothy feels that in general his “self-efficacy is high” and that once he begins a task, he is “going to finish it.” When his is interested in a subject, he reads everything he can about it, and it is hard to “get [him] outta [his] room without a book.” While he takes honors academic courses, Timothy says he “starts the day off going to [his] agriculture class” where he helps take care of “four horses, a pony, and three goats and two miniature donkeys.” His love of animals was also displayed in his collage which was filled with fish (see Appendix F). Timothy is “super confident” in working with animals because it is “something . . . he does all the time” as his family also owns a farm.

However, when it comes to writing, Timothy stated, “I don't really like writing at all.” It is not for lack of trying because he has “tried to get better at it, but it hasn’t gotten that much better.” This lack of noticeable improvement has caused him some frustration to where he will “just put words on paper and hope they make sense later.” His mother has offered to help him, but Timothy does not believe that is necessary because “everything's typed now.” Timothy does receive support for his disability in “tutorial class,” which he does not mind because some of his “friends are in there so basically just socializing.” He believes in communicating with his teachers so “they can help [him] in the places that [he] need[s] help.” His teachers are also willing to support his disability by having “notes on Canvas” and “telling what to write.”

Trevor is academically gifted and has autism spectrum disorder (ASD). He is an active member “in a club called National Honor Society,” and chooses to “be all in” for his academic

endeavors. His overall self-efficacy is “high,” and he explained that he “expect[s] success to happen.” While Trevor is gifted, he recognizes that when he is struggling in class, “the teacher helps” him to “answer a difficult question.” He also utilizes tools given by the teacher because things like “the rubric shows you what your project should look like to get a good grade on it.” Trevor takes a sports medicine class at school and sees this as his “future career . . . a purpose.” His collage was decorated with many sports-related items. Trevor believes that he “deserves success, good grades, [and] excellent teachers” because of his “motivation.”

Trevor does get frustrated when he sees his “success in sports medicine” and “struggle in English III.” That struggle is because English is “kind of tricky because of different English [language] that the author speaks.” However, Trevor explained that he gets through this by pay[ing] attention in class” and “try[ing] to get stuff done.” Sometimes he does feel defeated and that is when his father has him “listen to some David Dawkins motivation” to get him back in the right mindset. Trevor’s parents are also available “in case [he] has homework . . . and has trouble.” He knows he can “ask them for help.”

Structural Descriptions

D is driven by money to work hard. His disability in ELA causes him to struggle with reading and writing, but he continues to motive himself to do and accomplish more because he is exceptionally goal oriented. For D, that goal is a good career where he can establish himself financially. He has a growth mindset and utilizes his gifts in math and science to propel him forward in that area. He secured an internship at a nationally recognized manufacturing facility that will lead to full-time employment and payment for his college education.

While D is an introvert, he sees the impact that open communication with his teachers has on his goals because he has found that his teachers are willing to work with him and assist him

when he has trouble with reading or writing assignments. However, that struggle only seems to happen within the context of his ELA classes. When reading and writing pertains to science or math, he does not have as much trouble because he sees that information as useful for his future career rather than an isolated assignment with no connection to his personal goals. His overall self-efficacy rating was above average (see Table 1), as even in his area of disability, he rated himself higher as the support system he has in place allows him to feel he can accomplish the various tasks. Thus, his 2e label does not create insurmountable odds as he feels supported both by his mother at home and his teachers at school.

Kayleigh's 2e struggles are nothing compared to other experiences in her life. At the start of high school, she was taken from her parents and placed in the foster care system. Yet, she never uses that as a reason for her scholastic struggles; instead, she views that as just an additional challenge which made her stronger. Perhaps it was her troubled experiences with her birth family which exasperated her middle school experiences to the point where she wanted to drop out. However, once she was in her foster family, her attitude towards school began to change. No longer was she acting out and getting in trouble. No longer was her disability her defining characteristic in the classroom. Kayleigh began to recognize the importance of her education and stopped dwelling on what people said she could not do. Instead, she began to recognize and live up to her gifted potential and saw accomplishment in school as an escape from generational abuses. Kayleigh no longer focuses on her disability but does recognize the need for additional assistance in math. By completing high school in only 3 years, her self-efficacy increased dramatically—she had one of the highest mean self-efficacy scores from among the participants (see Table 1). Kayleigh demonstrated that when the gifted aspect of a 2e

label becomes the focus, difficulties can be viewed as challenges to overcome versus a fixed position in life.

Lilly is exceptionally positive about almost everything—including her 2e label. For Lilly, being 2e is just another part of who she is, and not something to be fixed. She sees her label as making her stronger and enabling her to deal with adversity as she embodies a growth mindset. Lilly looks back to where she was in elementary and middle school and then compares that to what she has accomplished. Although she believes she can do even more, she is proud of the changes she has made. However, frustration does set in when the goals she sets for herself are not always accomplished due to her disability and trouble with teachers who do not understand how 2e students can be successful and struggle at the same time. On the other hand, she has developed close relationships with her certified nursing assistant (CNA) instructors and is not afraid to approach them for help. Lilly sees her 2e label as just a part of who she is, but not the defining factor of her as a person.

Moose also had a very positive attitude about his 2e label, and during the interview, he focused almost entirely on his area of exceptionality—science. However, having an OHI, Moose's disability impacts every aspect of his education, so his overall self-efficacy scale was the lowest of the entire participant group (see Table 1). While Moose did not express internal frustration from his 2e label, he noted that his teachers would become frustrated with him because they could not understand how he could have an advanced knowledge base in so many areas yet struggle to accomplish tasks in their classrooms. This may have impacted his internal perceptions of his self-efficacy and would then account for the low score.

Moose does not have the internal drive to accomplish tasks that do not involve his areas of interest or giftedness. This also negatively impacts his class performance which also would

account for the lower self-efficacy score. While Moose likes to build relationships with his teachers and enjoys talking to them on a variety of subjects, he is reluctant to talk to them about his 2e label—particularly his area of disability. While he recognized that he should explain to his teachers what being 2e means for him, he often does not approach the subject until there is a negative event, such as a poor grade. Moose seems to feel that being 2e is just part of who he is, and he does not feel a need to address it.

Onyx is very relational—with teachers, friends, and his parents. He has a take-me-as-I-am attitude when it comes to his disability because it is evident to everyone. However, that does not hinder him from excelling in math and science at school, but he attributes his giftedness to genetic disposition rather than effort on his part. That may explain why his reported self-efficacy scores are in the bottom quarter. Onyx requires limited outside stimulation. Anything from a glue stick to a paper clip can distract him—and he knows it! He is successful outside of school and wants to see that transfer to all areas of his academic life, but he lacks the motivation to push through difficult academic tasks. However, in nontraditional classes, he excels. This may occur because having a disability does not matter in those environments, so only his giftedness shines through. It may also happen because he sees a connection between those nonacademic classes and his future interests, so the motivation to excel suddenly increases.

Paige's experiences with 2e in elementary and middle school left her lacking confidence. She is very self-conscience about her disabilities in reading and writing as students in those earlier years made fun of her. She has difficulty making friends as she is afraid of being judged for her disability, and instead keeps a small group of friends whom she has known for many years. This problem with friends was part of the reason her family decided to pull her out of the

public school system at the end of the year and enroll her in a private Christian school where she has friends from church.

Paige views her ability in class as either good or bad—she feels she is good as science and math but bad in reading and writing. This has led her to shy away from asking for help, as she feels there is not anything that can be done to better assist her. Unfortunately, her lack of confidence sometimes spills over to her giftedness where even though she knows she understands the work and can do it well, she begins to second guess herself. For Paige, 2e leads to self-doubt.

Peanut's view of 2e is almost philosophical. To him, a 2e diagnosis is more than a simple label—he recognizes that he is a complex, special individual who can move between giftedness and disability multiple time during the day. Peanut's OHI impacts all areas of his academic and social life, and this may be why his self-efficacy score is one of the lowest of the participants (see Table 1). Peanut values relationships with his teachers and sees them as a vital part in his school success. He is not afraid to ask them questions about material he does not understand, but he also does not talk to them about his gifted abilities because that is too much like bragging.

When his academic stress begins to rise, Peanut turns to chorus not only as an escape from school pressure, but also to showcase talents outside his gifted classification. The stress Peanut feels is usually of his own making as he procrastinates starting assignments, not because he feels they are too difficult, but because he is overconfident about his understanding of the requirements and the time it will take to complete. By the time he finally begins and realizes he does not understand what he was asked to do, it is too late to ask a teacher for assistance.

Although Roy is 2e, his disability was the primary focus during elementary and middle school. In high school the focus changed to his giftedness when he had the opportunity to begin

enrolling in honors and AP courses. However, even with the knowledge of how brilliant he is, and his stellar high school academic record, he often experiences self-doubt. He worries that perhaps he really is not as smart as everyone thinks he is, and this could be the result of continuously negative interactions with teachers and administrators in middle school.

Roy explained his giftedness in terms of his standardized tests scores because they are his external validation for his gifted diagnosis, but it is not something he really talks to others about because he does not think that it is that important. He enjoys building relationships with his teachers and participating in class as this allows him to interact with teachers who appreciate his intelligence. He tends to get aggravated by the lack of motivation in other students, even those in his AP and honors classes. Roy also uses his nonacademic classes to unwind. He enjoys playing in the band and participating in marching band, but he does not like practicing his music at home because that is meant to be his time away from all things school.

Timothy's view of being 2e varies depending on how he feels about the class and subject area. For him, the 2e label is either gifted or disability, not both simultaneously. Even within the area of his disability, Timothy distinguishes between areas of interest. When it comes to his ELA disability, he does well in reading but badly in writing and grammar. In his math and science giftedness, he is all about determination and finishing what he starts. This spills into his agricultural classes and the responsibility he takes on in taking care of the animals on his farm. For Timothy, continual practice is the key to improving his disability so that he can better understand the underlying concepts. However, when given this practice, he often does not take full advantage of it as getting concepts from his head to the paper is exceptionally difficult for him. It frustrates him knowing what he wants to write, but his hand refuses to cooperate. Being

2e for Timothy is not necessarily about being gifted or having a disability but about the attitude he has going into classes and assignments.

Trevor mainly focuses on the gifted portion of his 2e label in his continued school success. He knows he requires additional supports in ELA as compared to his math and science classes. He occasionally gets frustrated by his differing abilities, but he does not allow that to pull his attention from his honors courses. He views everything that happens in school as a means of motivating himself to his future career and success as an athletic trainer. He continually puts forth his best effort, even though—as he admits—he sometimes falls short. Instead of hanging his head and assuming the next attempt will achieve the same result, he becomes motivated to study and work even harder to prove what he is capable of. He almost takes on the view of a motivation speaker in that he continually expects to be successful, and from his self-efficacy mean score as the second highest in the group, he believes it (see Table 1). To Trevor, his 2e diagnosis determines nothing for his disability and everything for his giftedness.

Synthesis

Some students who are 2e find it difficult to reconcile their giftedness and learning disability. This brings about lower self-efficacy caused by unmet personal and academic expectations. As self-efficacy decreases, it leads to added self-doubt and frustration which can cause students additional difficulty in both their area of disability and giftedness. This is especially true if negative grades become a consistent reinforcer that they are beyond improvement or have no control over the outcome of their educational efforts. Parental involvement does not affect these feelings but can temper the negative feelings by affirming the student's worth and being present to help if needed.

Other students, however, have broken out of that cycle and have higher self-efficacy. This is not necessarily by achieving good grades—although that does help—but by witnessing a change in their own lives regarding how they used to be versus how they are now. These students tend to be more positive about their 2e label and the outlook for their future. They have determined they have control over their educational futures, and the actions they choose to take affect their goals. These students also realize they are not in an academic vacuum, and their education requires them to communicate effectively with teachers to not only express their needs but build relationships to help sustain them when work becomes difficult. Again, parents can encourage their children to reach their full potential through their words, but the desire to fulfill that must be internalized by the student.

Table 2

Themes and Subthemes for all Data Sources

Themes	Subthemes
Positive Self-Efficacy	Giftedness
	Teachers
	Family
	Nontraditional Classes
Poor Self-Efficacy	Disability
	Frustration
	Self-Doubt
	Teachers
Ways to Increasing Self-Efficacy	Focus
	Communication
	Relationships

Positive Self-Efficacy

Positive self-efficacy has been linked to increased performance and school success (Cavanagh et al., 2019; Schöber et al., 2018; Wang & Neihart, 2015a). Thus, high self-efficacy is a vital aspect of academically successful students (Ardura & Galán, 2019; Bandura, 1989b; Tomás et al., 2020). However, when asked specifically about the term "self-efficacy," none of the students had ever heard the word before. The typical response, as given by Trevor, was simply "I don't know." After explaining what it meant and giving them examples, the students were able to use the term to describe their self-efficacy in various areas.

This idea of positive self-efficacy was woven throughout their responses and collages. Kayleigh said, "[My self-efficacy is good] but it really depends on what it is in school." Some participants interchanged the idea of self-efficacy with confidence. Lilly exemplified this switch when she stated, "I have the confidence for it" when discussing her giftedness. This was obvious in her self-efficacy scale as she rated herself a 5 for both science and computers. The idea of confidence being interchangeable with self-efficacy in the students' minds was also observed in the response of Paige, who said, "I think that most of the time they [my teachers] think I'm pretty confident in myself . . . for like the stuff I'm good at." This showed on Paige's self-efficacy scale as she rated herself with a 5—the highest score—in science and social studies. Timothy's mother, who spoke to me after our interview, stated that "[Timothy] has a lot more self-confidence in certain areas that he knows he's, he will do well at. And things that are new to him, it takes him awhile to build that confidence." For Timothy, that confidence is found in his reading ability as he expressed to me, "You can't get me outta my room without getting a book out of my hand." Interestingly, though, on the self-efficacy scale, Timothy listed his self-efficacy in reading and writing as a 3—the middle rating.

Giftedness

When describing their positive self-efficacy, students gravitated immediately to discussing their area of giftedness. This collaborated with Wang and Neihart (2015a), whose research demonstrated that when the strengths of 2e students are the focus, their self-confidence increases. As Onyx plainly stated, “I’m really good with like math and science,” and he finished this statement with a story of creating a flashlight during class with some parts he found on the ground and in the garbage. This was corroborated though his choices on the self-efficacy scale. Onyx rated himself as a 4 in both general mathematics and algebra and a 5 in science and computers. Timothy’s interview contained the same emphasis on giftedness as he described his reading ability as “very high . . . once I start [reading] I’m going to finish it.” Lilly expressed the same feeling when describing her self-efficacy in science: “I feel really confident in my ability to like perform very well because it just kind of came out of second nature for me.”

Roy equated his positive self-efficacy to his giftedness as demonstrated through his standardized test scores: “I get good test scores. I definitely get good, standardized test scores. I’ve gotten, ah, consistently 95th percentile and above in my reading.” Giftedness to him is equated to these scores which in turn increases his self-efficacy in that area of giftedness. He stated, “I do well in English . . . I feel like I could do [any task].” Roy also demonstrated this though his self-ratings on the efficacy scale for reading and writing and grammar—all 5s. Moose continued this same theme with his direct statement, “When it comes to machines, I’m amazing.” He carried this theme into his collage as it was dominated by mechanical devices.

Positive self-efficacy in giftedness can also be seen in how students prioritize workloads. According to Paige, “I feel like to do pretty well . . . I usually have a good time figuring out things in science, I’m really good at that so I usually don’t worry about it.” Onyx also echoed the

gifted emphasis when he explained that when given any math task that he "[could] definitely do it."

Teachers

Teachers have the exceptional ability to instill greater self-efficacy into their students by their words and their actions. The students who participated in this study all mentioned the positive impact teachers have had on their self-efficacy levels throughout their school years. Trevor succinctly described how his sports medicine teacher positively affects his self-efficacy when he explained, "Well, I'm not comfortable with everything. It's just that my sports medicine instructor leads me to get comfortable with something I'm not comfortable with." Trevor is being built up in the class so that he reaches the point where he believes he can succeed in the various tasks. Granted, he naturally gravitates towards sports, as his collage had a decidedly physical fitness theme. But he was not the only one to feel the increased self-efficacy through the words of a teacher. As Peanut stressed, "My teachers recently have been really uplifting . . . my math teacher she can like talk to me like I'm a friend—kind of—like if I need help with something, she'll listen and help me," and that positive interaction can change the way students view their academic self-efficacy. He expanded further on this idea when explaining his collage (see Appendix F). He included a cut-out of the words "A healing place" because that was how he felt about school at this point in his education.

However, it is not just the words of teachers which have an impact—it is also their actions. As Lilly stated, "In seventh grade I had a teacher that was really good. She had her doctorate's degree in English, and she worked really hard to help me develop in that." While encouraging words are important, it is the action of teachers which students recognize as helpful. Lilly reiterated this concept in her collage when explained that she cut out the words, "professors

added to the teaching role and became more like the mentors" because that was the relationship she developed with her CNA instructors. Sometimes positive actions are as simple as what Timothy observed: "She put notes on [the board]. She tells us to write what—what you need to write." Other times that support and increased self-efficacy can come from clear expectations found in rubrics as Trevor noted: "The rubric shows you what your project should look like to get a good grade on it." Teachers set the tone of their rooms—literally—from a place for students to relax and learn in a no pressure environment to a room where fun engagement keeps everyone active. As Onyx explained:

> I had this one teacher who was amazing. She had LED lights in her room that would like change to like downtown colors to help you calm down. She had bean bags everywhere, and I was like I love this.

Even if the subject is not something the student is necessarily interested in, a teacher still has the power to make it an enjoyable learning experience for the student. Roy noted, "I've been enjoying seminar. It's kinda weird but I like the teacher . . . the teacher is the best teacher that I've ever had." A student's positive relationship with the teacher can increase their self-efficacy, even if the subject matter is not what they anticipated or even wanted.

Family

The other powerful force behind the participants positive self-efficacy was the relationships they had with their families. D's mother is a mighty force in his positive self-efficacy. D explained that she continually portrays her own confidence in him and his abilities because "my mother knows I would like . . . like to be someone, and she pushes me to reach my goals. She push[es] me so I can be someone . . . to keep me on the right track." According to Paige, parents also help increase their children's self-efficacy by "getting them tutoring. That's a

good help . . . and to always help them at home ‘cause a lot of times we need like extra help.” There is only so much that teachers can accomplish during the class period, so having parents involved and there for assistance at home helps increase their child’s self-efficacy. Timothy also agreed with the idea of parents providing academic support outside of the school day. He astutely tied parental help to increased self-efficacy when he said parents should “help them go through stuff that they don't understand. Help them understand what they're doing, and the more they understand it, the more confident they're going to get in doing it.” Even negative family experiences can have positive effects on students’ self-efficacy as demonstrated by Kayleigh:

> I live at a children’s home . . . it’s a foster. I’ve been there for three going on four years . . . it’s kinda like an eyeopener when I got taken from my biological parents. And it was like if I don’t get anywhere, I’m gonna be just like them.

That fear of repeating negative family patterns caused increased self-efficacy in Kayleigh’s academics and she graduated high school in only 3 years. She also recognized this as a strength because she chose the word “STRONG” as one of the cut-out for her collage (see Appendix F). Students know their parents are not perfect—none of us are—and as Peanut showed, “They encourage me . . . try their best to help . . . try to help me with my work.” But as he also explained, sometimes they just do not understand the work themselves. However, the emphasis was on his parents’ willingness to help him. Parents can be their child’s greatest source of encouragement as Trevor discovered. When “I’m bummed out, my dad gets me to listen to some David Dawkins motivation.” Parents know their children better than anyone else and they fill in the space where and/or when the school is not able.

Nontraditional Classes

One surprising theme that arose was the importance nontraditional classes had in relation to increased self-efficacy. This theme was first observed while the students were creating their collages, so I asked additional questions as they were working to help understand the thought process behind their choices. While class options varied between the high schools, courses which moved beyond the scope of traditional English, math, history, and science were often associated with feelings of greater self-efficacy in the 2e participants. For instance, D cut out a picture of a man in a woodworking shop measuring dimension (see Appendix F). When we began to talk, D explained that he had the opportunity to complete internships at local companies, and when I spoke to him, he was excited to "start an internship on the 6th." He explained, "It's like each week I'm gonna learn something different and then they're going to start like [at] 14 [dollars an hour] and after I start everything up its goin' up to 17." He was particularly excited about the fact that the company would also pay for him to go to college. When I asked him about his self-efficacy working with the machines he would be using, he replied, "My self-efficacy with machines is strong . . . I am a hands-on person, so if like I see it, I can figure out to do it myself." The school allows for early dismissal and late arrival, which gave D the opportunity to engage in that internship.

Often, the nontraditional classes and increased self-efficacy had nothing to do with the student's area of giftedness. Moose had this type of experience with his law enforcement class. When working on his collage, he chose the 9mm Ruger because "we were training a lot on a fake pistol that looked very similar to this . . . this was a class [I] really liked." Moose enjoyed this class so much that he began to design a triple barrel shotgun (something which I do not believe is on the market) and explained to me:

> [I] have to be really good with velocity. Like I would really have to do some math to figure out where is the shell casing going to go . . . because once I learn how to do things, I feel I know what I'm good at.

Onyx also had military themed items on his collage because they were associated with JROTC—a high school military class in which he excels. One of the items was the picture of a patch which read, "Land of the Free, Home of the Brave." Onyx explained that JROTC is a class he would go to every day if it were possible, and this class allowed him focus more and prepared him to help others. This preparedness was shown in his increased self-efficacy in his ability to assist others in need. As Onyx explained, "I carry my first aid kit in my backpack every day" so he can "be strong enough to protect people in case something happens."

Nontraditional classes also played a role in the self-efficacy of Roy and Peanut, who participate in various music and band groups at the school. Peanut sings in the men's choir, and when I specifically asked about his self-efficacy to complete tasks in that area, he replied, "Um, I believe that I do excel in . . . chorus . . . so I believe I could do pretty good." Roy reiterated the same idea when I asked him about marching band and how quickly he could learn and memorize his music; he told me, "Um, a week or two . . . usually marching band music is pretty repetitive, and it doesn't have too many complicated rhythms, so it's usually pretty easy to memorize." Neither of these young men is classified as having their area of giftedness in music, but their passion for learning in these nontraditional classes taps into a part of their natural intelligence which allows them to shine outside of a traditional classroom setting. As Peanut explained to me, "Singing gets my mind off stuff. That's why I like it a lot."

The same can also be stated for Trevor, who participates in sports medicine classes, and Lilly, who is taking high school courses while simultaneously getting her CNA through the

community college. As Trevor explained to me, "[Sports medicine is] my future career. . . It is a purpose . . . I want to succeed in that class to be able to, um, get my athletic training job and my future career." Lilly was so excited to talk to me about the college credits she was earning towards her future nursing degree:

> We learn all the systems [of the body]. We learn about heart and reproductive systems. We learned about the different types of proteins, nutrients, and stuff like that. We learned about the muscles, and we learned about like how they work and everything . . . and [I] end[ed] up getting three Tri-County credits.

These nontraditional educational classes allow gifted students the ability to delve deeper into content they enjoy without causing them additional stress.

Poor Self-Efficacy

The second dominant theme to arise among the participants was their feelings of poor self-efficacy. This makes sense considering that according to Bandura (2012), perceptions of self-efficacy can vary depending on the activity in question. It can be difficult for 2e students to excel and achieve academic success in all scholastic areas when their disability causes problems with understanding and/or completing assignments. Feelings of poor self-efficacy can lead to a cycle of academic struggles. While all the student participants were 2e, almost every one of them was more open to discussing their area of disability as opposed to their area of giftedness. The students all received services for their disabilities, but there was no gifted coordinator at the high school level to ensure students were challenged in their area of ability. Wang and Neihart (2015a, 2015b) found that when services for 2e students focus on remediation rather than giftedness, lower self-efficacy occurs.

This was particularly obvious when I asked the students about their plans after high school and whether they would disclose their disability and/or giftedness to their college professors. Paige's response was typical when I asked about speaking to her professors about her giftedness:

> I might mention it, but I won't . . . talk about it a whole lot. I feel like if I talk about it a whole lot, people might think, well she's just you know. So I'll mention it but I won't make it like a whole conversation.

However, her response to speaking about her disability was the complete opposite when she said, "Tell [your professor] just so they know." This willingness to speak about their disability versus their giftedness was echoed by Peanut who uttered, "I won't talk about the giftedness. It's just not something that comes up in conversations for me." However, when it came to speaking to professors about his disability, he stated, "Yes [I'll tell my professors]. It helps a lot to have that extra time." The rationale for not speaking to the professors about gifted abilities was also express by Roy, who believes that "professors don't care [that I'm gifted] . . . I don't see how me telling them that I'm gifted would help."

Disability

Remediation for disabilities rather than a focus on giftedness could lower the self-efficacy beliefs of 2e students (Wang & Neihart, 2015a, 2015b). This lower self-efficacy can also occur in students who compare themselves to their non-disabled peers (Baldwin, Omdal, & Pereles, 2015; Beckmann & Minnaert, 2018; Pfeiffer, 2015). Paige noted that she struggles in her English class (her area of disability) and described her disability as compared to her peers. She expressed, "I'm really not a slow reader—but [compared to other students] I am—so like by the time I'm done, I like don't remember." This negative comparison was propagated during her

elementary years because, as Paige stated, “People just made fun of my handwriting a lot or that I couldn’t read well.” This was consistent with her self-efficacy survey in which she rated English reading and writing skills as a 2—the lowest rating she gave. Paige also expressed this in her collage choices (see Appendix F). She cut out words like “frustrated,” “stressed,” and “exhausted” to describe how she felt after class. Kayleigh expressed similar feelings in that after continuing to struggle in her math class, she just gave up and “[didn’t] put in enough effort for her [math teacher’s] class.”

D’s words demonstrate that students who have higher self-efficacy in their area of giftedness seem to face an insurmountable obstacle when they struggle with their disability. He said, “But me reading? . . . It’s just goin’ in and out.” D’s survey also demonstrated his lack of self-efficacy in reading as he rated himself a 2 in the English reading and writing portion—the only item rated lower was foreign language. This feeling of obstacles was also expressed by Moose, who said, “I just don’t have the drive . . . I just don’t feel the reason to do it” when asked about working within his area of difficulty. Peanut practices avoidance with his area of difficulty. He explained that when faced with an assignment in his area of disability, he “would put it off till the end. Like I would put it all to the very last day.” Peanut also showed this concept in his survey when chose a 2 for his ability to motivate himself to complete schoolwork. This procrastination caused even greater problems and additional stress for him because as he said, he would “not be able to finish it all.”

Teachers

Whereas teachers’ positive words can lift students up and encourage them, their negative words can cause students to feel defeated and disliked. Lilly had this issue with some of her elementary and middle school teachers; she explained:

> I think I struggled in math because a lot of teachers didn't realize how to help me, but also I don't have a lot of confidence because . . . teachers didn't put a lot of confidence in me. I've had teachers tell me that "Oh, you're stupid; you can't do anything" and made me feel that way.

Kayleigh had this same issue her senior year. She had to be quarantined because of COVID-19, and her teacher was not supportive during that time. When she returned to school and asked for help, "[My teacher] kinda just looked at me. She told me . . . that I was a senior and I needed to figure out everything that needs to be turned in alone." Kayleigh struggles with math, and after that interaction, she said, "I was ready to just leave the class, but I didn't cause I didn't want to get in trouble."

Onyx faced the same issue in middle school; he explained, "Everybody hated this teacher like you gotta understand. This teacher was so mean." When I asked him to expound on this and explain why he felt that way; it appeared to stem from her personality, coupled with a lack of clear expectations. Onyx said she would tell them information "stone faced" and give them generalized directions like "tell how the pyramids were built." This led to confusion during projects and lower grades when unspoken expectations were not met. Roy described this by saying, "I . . . didn't have teachers that were necessarily up to my needs." Twice-exceptional students do have unique needs, and unfortunately, it seems teachers throughout the system—elementary, middle, and high—do not fully understand what these students need to be successful.

Sometimes, though, teachers' words may be unintentionally negative because they are spoken from frustration. However, a student who is already struggling with low self-efficacy may take those words in an exceptionally negative context. This is what happened to Moose:

> I've definitely had problems and it's been mostly with teachers. Cause it's like how you know so much about like vehicles and stuff like this, and you can make a diagram of all this type of stuff, and you can't keep a simple notebook organized.

While Moose realized that his teacher did not mean to make him feel inadequate, he still felt the sting of his twice exceptionality not being understood by his teacher. This frustration from teachers towards 2e students may come from a lack of understanding the nature of 2e. As Roy said, "I did have the 504, but they just didn't really care." Roy brough up his negative experiences with teachers in his collage as well. He chose a sinkhole picture and explained to me that the negative interaction with his middle school science teacher was "a never-ending spiral which is kind of represented by a sinkhole . . . [What caused me the trouble] was mostly the teacher." It is difficult for teachers to understand how a student can have such extremes of the ability and disability. As Trevor astutely noted, his teachers vary their description of him based on the class and activity "because when I'm doing great in school they, um, describe me . . . my greatness and when I'm struggling in school, they describe my disability."

Frustration

Frustration can occur in 2e students when there is an evident disparity between a students' expected results and actual performance, and this can then lead to lower self-efficacy (Baldwin, Omdal, & Pereles, 2015; Beckmann & Minnaert, 2018). Paige admitted to this when she stated, "I get frustrated, and I give up—and that's why I'm not as good at some things." Paige also chose the word "frustrated" as part of her collage depicting her school experiences (see Appendix F). Lilly also spoke of frustration when she said, "Math would frustrate me so much, I would throw things down . . . I was like why can't I do this? I just want to be able to think like everybody else."

Timothy showed his frustration with school in his writing experiences when he explained, “Most of the time when I write stuff . . . what I do is just put words on paper and hope they make sense later.” Negative experiences in middle school led to great frustration for Kayleigh in high school—to the point where she wanted to drop out. She stated, “When I came in my ninth grade year, I was like I’m done . . . I can’t do this. This is not for me.” While Peanut’s experience was not as dramatic as Kayleigh’s, he too experienced the frustration that comes from expected results versus actual results, explaining, “I do excel in math or chorus, but I know I could do better.” Moose echoed this same idea when he expressed, “I’m good with technology, but not perfect. There is always something I probably could have done better.” Roy’s disability also caused him frustration during the middle school years. On his collage, he chose a picture of a sinkhole (see Appendix F) because every day he felt like the teacher’s fixation on his disability made him sink lower and lower.

The idea of anticipated results versus actual results also occurs with class projects and homework. Peanut’s self-efficacy to complete his homework was high until he began the actual work. His frustration was heard when he stated, “I think I feel perfectly fine about doing everything. But when it gets to doing it, I can't . . .well I can, but it's a struggle for me 'cause I already thought I could do it really well.” According to Paige, this continued frustration wore her down every day until she would “get really exhausted by the end of the day. It is really long.”

Self-Doubt

Students who have low self-efficacy in navigating school assignments and classroom expectations can become more vulnerable to anxiety, which can lead to self-doubt. Peanut showed that anxiety in his words when he said, “Doing my schoolwork is kind of stressful . . .

sometimes I'll stress over did I do this? Or did I do that? That 'cause I forget a lot." Roy also struggles with self-doubt as he explained:

> There's a lot of self-doubt for me at least. I do well in English, but I don't necessarily like English. But I feel like I could do [better]. It's just sometimes I do kinda doubt my abilities. I wonder 'cause everyone, in my whole life has always said you're so gifted and you're so great, and I sometimes I feel like I can't live up to it.

Paige also experienced self-doubt when she said, "For like projects and stuff, I second guess myself," and her mother reiterated this when she told me, "She doubts other areas . . . things she's really good at because she struggles." Lilly on the other hand described her self-doubt as a lack of confidence. She believes, "[Teachers] didn't adapt ways to help . . . make me feel more confident in my abilities to perform well in math."

Timothy struggles with self-doubt in his writing, and he said, "I don't know what to do. The problem is just figuring out how to get started on the writing. I can do it after I get started." For Timothy, it is the lack of confidence in taking that first step in the writing process. Moose sometimes goes into assignments and school with self-doubt before his day begins. He stated, "Now when it comes to schoolwork, like today, I'm probably gonna fail."

Perceived Ways to Increase Self-Efficacy

Acknowledging both a student's giftedness and disability can increase self-efficacy, but students must also believe in their own abilities to change and grow (Barnard-Brak et al., 2015; Ottone-Cross et al., 2017; Wang & Neihart, 2015a). Lilly first demonstrated this in her collage when she chose the words "rarely breaks down" because she would become extremely frustrated with math, but learned that she could use that frustration to motivate herself to do better, so that

she now rarely breaks down. Lilly beautifully expressed the way she viewed her ability to change and grow:

> A person can go above and beyond what other people think they can do. People have disabilities and stuff, but their disability doesn't really define [them]. It doesn't define them or what they can and cannot do. I feel like [being 2e] really made me stronger as a person because I realized that I can get somewhere and that it's not like I am just sitting at the same place where I'm at.

By using the affirmative model of disability and viewing their disability as an additional portion of who they are rather than the single defining factor, self-efficacy can increase. Looking at giftedness first and disability second was also reiterated by Moose who believes that 2e students should do the following:

> Work on what they already are good at then they have to work on the deficiency. And the harder they work at that—even if it is the hardest thing ever—the better they will become till it becomes something they are very good at.

Twice exceptional individuals are already aware that they are different from other students as exemplified by Peanut. He was working on his collage and explained to me why he picked the image with multiple, colorful arrows pointing in differing directions (see Appendix F). Peanut explained, "Everybody can have a different path and there's no specific path for anybody." As 2e students, these unique young adults really are on their own path, but as Moose showed, positive self-efficacy comes from the way they see their disability. Moose described his disability "not as a problem. I see it as an opportunity to get better at things." If students understand as Timothy said, "Not everything is going to be hard, but some things will be,

depending on how you feel about that subject," there is a way students can positively affect their perceived self-efficacy.

Focus

The student participants seemed to believe that focusing during class—even if it is a class they do not like—is the first step towards increasing self-efficacy. Paige stated this bluntly when she said, "Pay attention." This is harder than it seems because in school, there are many things vying for students' attention. Kayleigh noted this when she said, "Just focus on your schoolwork and not stuff outside of school." It is easy for students to get caught up in drama as D explained, "Don't be into drama or nothin. Just be focused."

Peanut also spoke of focus but used it in the context of memory, which he tied to higher classroom grades. He explained, "Focusing is really big cause like if you're not focus[ed] you won't remember." Trevor also correlated focus with grades when he stated, "Always pay attention and always study" because that is what helps him succeed. D also spoke of the importance between focus and grades. He admonished students to "Focus on their grades," and reminded them that "they can always get help with it." Roy agreed with the idea of focus but placed a warning on the amount of pressure a student should feel when he or she does not succeed immediately. Roy explained, "Just don't beat yourself to up too much up about it because it does get better, and you will get better. It's not as hard as it is as it seems. It will get easier."

Communication

Good communication of both needs and expectations is vital to ensuring students understand content and assignments and increase their self-efficacy. Unfortunately, some students are afraid to approach their teachers when they need additional assistance. Paige

explained that if she were the teacher, she would specifically seek out students like herself who might need help "because I think they would be scared to do it." However, she did express that the student should first approach their teacher about their disability diagnosis "just so they know" and that students should "ask for help when [they] need it." Paige also included the picture of a button her collage which said, "Let's talk about it" because even though she was shy and approaching teachers made her nervous, she realized the value in that action. D also felt that communication with teachers was important and expressed some of the same fears as Paige when he said, "Some students are scared to ask for help." Moose acknowledged that part of his problem came from not communicating with his teachers. Moose explained, "I think part of what I'm struggling with in school is when I don't tell someone about my disability and they're thinking 'why are you falling behind?'"

However, not all students are afraid to speak with their teachers. Peanut likes talking to his math teacher because "I can talk to her and show her my stuff [assignments] in that class," and thus get the extra help he needs to be successful. Timothy feels the same way about the communication in his math class. His teacher "has the notes on [the board]. She tells us what you need to write." In that class, notetaking is easier for Timothy because she explicitly reveals the most important part of her lesson. Moose also received additional help in class when he finally approached his teacher with his disability. Moose explained that he "was worked with a little bit more, extended deadlines and stuff like that, because we talked, and [the class] was really fast paced for me."

When it came to assignments, written communication was as important as verbal to the students. Trevor explained that his teacher gave him rubrics, and "the rubric shows you what your project should look like to get a good grade on it." Trevor also had this experience with his

computer teacher who “gave [him] very detailed instructions,” which helped him feel successful in that class. D’s mechanics teacher gave him exact directions as well. D said, “[He] explained each step,” so that when the project portion of the lesson arose, D knew he would be successful before he even began to follow the directions.

Relationships

Students and teachers who have good communication with one another tend to have positive relationships as well. Roy explained this when he said:

> I like talking to my teachers, so I just build a personal relationship because I like personal relationships with my teachers. A lot of other students don't do that . . . they just don't talk to them. I like actually like interacting with my teachers 'cause they're real people.

Students want that positive relationship as it feeds into higher self-efficacy. Kayleigh believes that “you should get a close connection with the professor” so that if you ever need help, “you have a good connection with them.” According to Lilly having those relationships with teachers can make students “feel accepted as a person.” In pursuit of those relationships, Peanut feels teachers should “encourage [students] and tell them that they can do it” because there “is a lot of struggle but you'll get there eventually.” His relationships with teachers are vital to his perceived self-efficacy and scholastic success.

Research Question Responses

This research was based upon the central research question: What are the shared experiences of self-efficacy in high school 2e students? This question was narrowed by the three sub-questions, and the results were sorted according to the previous themes of positive self-efficacy, poor self-efficacy, and perceived ways to increase self-efficacy.

Central Research Question

What are the shared experiences of self-efficacy in high school 2e students? The students' responses all included elements of positive self-efficacy, poor self-efficacy, and ways they felt their self-efficacy could be increased. All the participants recognized that being 2e comes with obvious abilities and disabilities. Paige expressed this succinctly:

> Do not expect [being 2e] to be weird. You're gonna like be bad at something like . . . not bad, but like struggle with like ELA or something like that. And then be like really good at like science or social studies, and that sometimes people would judge you but that's okay.

This knowledge of the duality of their skills and difficulties was reiterated by almost every student participant, but 2e students do not want to be solely defined by their disability because they know there are subjects and areas where they excel, and they want to be recognized for that. Lilly explained this idea when she said having a disability "doesn't mean that there's things that I can't do." Moose also reiterated this point when he compared his giftedness and disability with the speed at which he could comprehend ideas because he was "a little slow to understand certain things" in his area of disability but "really quick on understanding others" in his area of giftedness. Therefore, the need to emphasize the gifted aspect of their diagnosis is important because these students realize they have gifts, and they want others to recognize that.

Students also embraced the idea of being 2e because it set them apart from their classmates. Peanut explained this in both his interview response and collage. He stated being 2e is "like special—like 2 sided. . . it doesn't appear as it seems," and his collage included a signpost with multiple directions emanating from it (see Appendix F) because he believes everyone has a different path to take. Moose agreed with the positive connotations of the 2e label

and said that it makes him “more special.” While these students recognized their disabilities, they focused on the gifted side of the diagnosis.

Acknowledging the duality of 2e was also felt by Trevor who explained that even his teachers describe him as both gifted and a student with a learning disability based on the class he was in. Teachers play an important role in not only supporting these students in their area of disability but also readily acknowledging their gifted abilities and creating ways to challenge and grow them in the classroom. Onyx also saw himself as two-sided and recognized the potential that is there for greatness but emphasized the need to “push twice as hard to be better than everyone else” because of the struggle with a disability. That undergirding of support is necessary for these students and they recognize that fact, but they do not want that to be the only way they are described. These students are willing to work harder—have worked harder than many of the other students in the class to compensate for their disabilities.

D also emphasized the need to work harder than his peers in his collage and interview. He explained that even more motivation was needed to push through the difficult tasks, and he used a cut-out of the word “motivation” to emphasize the point (see Appendix F). Kayleigh also observed the strength required to overcome the obstacles presented by her disability through her interview and collage. When she found the word “strong,” she immediate cut it out to add to her collage (see Appendix F). All the student participants recognized their area of weakness yet chose to persevere through difficult classes and activities associated with their disability.

Sub-Question 1

Sub-Question 1 asked how 2e students describe their self-efficacy in their area of giftedness. Each student in this study described higher levels of self-efficacy in their different areas of giftedness; however, they viewed their ability to “control” their giftedness in two

distinct ways. Some students based their gifted ability on factors over which they had control while other believed their giftedness was not something they could control.

Most students in this study believed that their giftedness was something over which they had control and could even improve upon. D said it the best when he explained, “What you put in is what you get.” In other words, giftedness is based upon one’s effort—a controllable factor. However, students having control over their giftedness could also be seen in more subtle ways. Some students believed their giftedness was not stagnate, that it had to be worked on and there was always the opportunity to get even better. Roy noted that it was important to focus on ability so it “doesn’t lessen,” and Peanut believed that while he had high self-efficacy in math and science, he could “always do better.” By mentioning that giftedness might “lessen” or be “better,” students expressed their perceived control over increasing or even decreasing their abilities.

Trevor also tied his higher self-efficacy to factors he could control. He explained that grades—whether good or bad—increased his self-efficacy. If he received a low grade on a test, he attributed it to not studying enough, an element over which he had control. He would then make an extra effort to prepare more fully for the next one. Conversely, he used his consistently high grades to prove to himself that he was capable of that caliber of work as it was something he controlled by the effort he put forth. Timothy directly tied persistence, an area over which he can control, to his higher self-efficacy. He explained that his self-efficacy in reading was high because once he started reading, he was going to see it through to the end. In their view, ability and giftedness were malleable and subject to the amount of effort they put forth.

However, while Lilly and Onyx expressed high self-efficacy in their areas of giftedness, both based their gifted abilities on uncontrollable factors. Lilly explained that her giftedness just

came as “second nature” and Onyx attributed his giftedness in math to his “genes.” Neither attributed higher self-efficacy in their area of giftedness to work habits or practice—things over which they have control. For them, their gifted ability was more about what was passed on to them genetically rather than something they worked to achieve or something they could improve. Their giftedness was in a fixed state.

Sub-Question 2

The second sub-question examined how 2e students described their self-efficacy in their area of difficulty. Each student in the study reported feelings of lower self-efficacy in their area of difficulty—both in the interviews and their individual self-efficacy questionnaire. Similar to their views of their giftedness, several students expressed the hope that their lower self-efficacy in their disability could potentially be increased while others kept a fixed mindset. Paige struggles in reading and writing, but writing was the focus when she took the unwavering position that “I have really bad handwriting.” Onyx also struggles in ELA and when asked to describe his self-efficacy in English class he replied, “Not good not at all. I'm not good at writing.” He also scored his self-efficacy at a 2 when it came the question addressing English reading and writing ability—the lowest on his survey. Their answers were all exceptionally blunt with little note of a possibility for improvement or control. It was as if they felt they were made that way and there was nothing they could do differently about it.

D, who also struggles in ELA, had a slight variation in his response—a subtle difference to Paige’s good versus bad answer—“Essays. . .writing essays is hard for me.” Note that it was not impossible to accomplish or that he was bad at the skill, but that it was difficult. This indicates that he has some control over the outcome of these assignments, even though they are hard. Timothy had the same style of response when he admitted, “I struggle in writing. I don't

really like writing at all." Like D's response, Timothy did not see his self-efficacy as good or bad, but rather as something to be conquered, a struggle. Although he may not like those types of assignments, a struggle is indicative of something that may be conquered when enough effort is put forth.

While Lilly expresses her frustration with math and the difficulty it has caused her, she took a very optimistic tone and a growth mindset when she said:

> I've had countless times where math wasn't very easy, but I've succeeded. And I've looked at it and I am like, "Wow, I can make As in math!" I'm a really hard-working person and . . . I really try. I don't just give up on something.

This was similar to the response offered by Roy, who stated that his self-efficacy in his disability is low. However, he continued in a very optimistic tone as he came to the realization of how much he has grown over the years. Both of these students looked at the observable change in their grades and attitudes towards their areas of disability; being able to see they have grown and improved increased their motivation and persistence.

Sub-Question 3

Sub-Question 3 delved into how 2e students perceive external supports of self-efficacy (i.e., teachers, parents, friends) as helping their education. Almost all the students gave examples of times when words or actions by their teachers increased their self-efficacy. Moose was helped by his teachers when he was struggling to complete assignments on time. Rather than being critical, his teachers worked with him on extended deadlines. Peanut also spoke of help received from his math teacher when he explained, "If I need help with something, she'll listen and help me." Trevor also knows he can receive help from his teachers because he knows his "teacher just helps me answer a difficult question." It was the idea of taking time to help a student learn a new

skill which also increased Onyx's self-efficacy: "He helped me learn that and stuff like that." These supports encouraged the students inside the classroom to persist in difficult tasks and led them to believe that their teachers were encouraging their success.

Some students, such as Lilly, recognized more generalized support from her teachers when she explained her teachers "became more like the mentors." Peanut agreed with this assertation and expressed that "my teachers recently have been like really uplifting and helping." Other students like Trevor expressed how more tangible items, such as rubrics with specific directions, allowed him to be more confident in completing tasks. This was also echoed by Roy, who likes the combination of directions and freedom the rubric provided: "I mean they have rubrics, but it's pretty much do whatever you want that fits inside the rubric." Timothy liked more directed help that came from notes on the board and specific directions about what was important to write down and remember. All of these supports occurred as little actions by teachers throughout the day and not a singular concentrated effort to only assist the 2e students in their classrooms.

Students were very clear about the important role their parents play in assisting with their academic self-efficacy. Many times, the additional push these students receive from their parents propels them towards higher self-efficacy. D explained that his parents "push [him] so [he] can be someone. . . to keep [him] on the right track." Moose's parents are also continually pushing him to be and do better in school. Parents were also actively involved in assisting their children with homework. Peanut showed that his parents "try their best to help . . . try to help me with my work." Trevor also knows that he "can ask them [him parents] for help" when he has "homework to do [and has] trouble."

Family involvement for increased self-efficacy is not just about assisting with schoolwork. It also involves quality time and words of encouragement. Kayleigh expressed how important it was for her to "spend time with family." Trevor talked about how his father encourages him "to listen to some David Dawkins motivation" when he "is bummed out." Roy expressed that his parents were "very supportive" and "they tell [him he is] brilliant, too." These parents know their children and their needs, which extend well beyond the traditional school day. Parents take time to encourage and help their children, not only with completion of school-related tasks but also with more broad support for who they are as unique individuals.

Friendships also play a role in raising self-efficacy, but not all the students found it easy to make and retain meaningful friendships. D explained, "I am an introvert, so I really don't have no friends." D saw high school friendships full of drama and detracting from what he wanted to achieve. Roy does not maintain close friendships either. He said, "I don't have friends. I used to have a friend group that I did stuff with . . . but they were not great. They're just not great people." Paige has some friends from track and outside of school, but her mother explained that "she doesn't make friends very easily." Lilly also explained that "it is kind of hard making friends," but she said that "spending time with [friends] makes me happy." Their disabilities can make them self-conscious about making friends and the way that others perceive them. When friendships do occur, they tend to have greater depth rather than sharing superficial interests.

Other students did not express any trouble with making friends and spoke of their friendships as the reason they enjoy school. Moose explained, "I've almost never had a problem getting a friend. During JROTC, I got to bond with people." Onyx said he is "a lot happier" with his friends "cause like they're as crazy as [he is]." Onyx also explained that his teachers do not have cues for him when he zones out; it is his friends that step up: "I'll like zone out and my

friends are like dude, dude." Timothy explained that the reason he enjoys his tutorial class so much is because "some of my friends are in there so basically just socializing." These friendships all occurred outside of the traditional classes—whether it was JROTC, music, or tutorials—placing those students in areas where their disability was not a concern.

Sub-Question 4

The final sub-question examined how a 2e label affects a student's self-efficacy. Most of the students described their label of 2e with a sense of hope—that their disability was not their defining characteristic. Lilly summed up that perspective when she said, "A person can go above and beyond what other people think they can do . . . disability doesn't really define. . . what they can and cannot do" because 2e students are "able to grasp more things than most people." Moose also demonstrated this perspective when he said that being 2e is "something different. Something that makes [2e students] different. It makes them even more special than compared to other people." Onyx spoke optimistically when he said, "You have the potential to be good enough—you already are good enough" but mingled that with realism when he said that the disability forces one to "push twice as hard to be better than everyone else." These students know they have various disabilities which are obvious in a classroom setting; however, that is not how they want to be described. They view their 2e label as just that—twice exceptional. That means they desire others to recognize the exceptional part of that label as well and not make a sweeping generalization of their abilities based on one aspect of them as a person.

However, some students focused more on the disability aspect of the 2e label. Peanut admitted that with a 2e label, there is "a lot of struggle . . . but you'll get there eventually." Peanut also offered the reminder that being 2e "shows not just in school but in the real world." Paige's mother revealed that because of the disability portion, "the confidence level is not there,

and that needs to be there. She's a pretty special person though. She just does not believe she is all the time." These students who focus on their disability tend to lose sight of how incredible they truly are. They have been viewed through the lens of their disability for so long that it becomes how they define themselves.

Roy expressed that the duality of a 2e label can be difficult. He said that "it might seem really hard to live up to expectations, and it might seem hard to . . . be dealing with all this stuff." Trevor also expressed the feelings of duality when he explained his perception on how his teachers viewed his giftedness and disability "because um when I'm doing great in school, they describe me my greatness. And when I'm struggling in school, they describe my disability." These students really are dual natured, and it is difficult trying to come to terms with certain areas of school being exceptionally easy while others they struggle to merely pass the course. Struggles with the duality of their label grows exponentially, however, when they have the mindset of focusing solely on their giftedness; having to work harder in their area of disability then seems like failure instead of it simply being the other half of their nature.

Summary

Twice exceptional students recognize their unique nature but tend to gravitate towards either their giftedness or disability when speaking about their self-efficacy. Teachers have the greatest impact on these students' self-efficacy by their words and actions in the classroom, but parents also provided a safety net for students when they get home as a place for continual support and encouragement. The students also gravitated towards nontraditional classes where their giftedness could shine and their disabilities were not a hinderance. However, only five of the students are involved in actual advanced classes (as designed by AP and honors) which give

them the opportunity to expand their abilities, but all are serviced through their IEPs or 504 plans with three students having special tutorial classes for additional support.

Students expressed frustration at attempting to balancing their need for extra assistance in some areas with their giftedness in others and placed some of that blame upon teachers who did not understand their unique needs. They also expressed feelings of self-doubt stemming from that same struggle. However, all the students spoke with a sense of hope that their self-efficacy could be improved by increasing their focus during class and developing better communication and relationships with their teachers.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this transcendental phenomenological study was to describe the academic self-efficacy of twice exceptional (2e) high school students at East Lake School district. Ten students were purposely chosen for the study based on their 2e identification, grade level, and school district. This chapter examines the findings relevant to the students' perception of their academic self-efficacy in their area of giftedness and disability. The chapter also includes an interpretation of the findings followed by implications for policy and practice. Theoretical and methodological implications as well as limitations and delimitations of the study are discussed. The chapter concludes with recommendations for future research and a conclusion.

Discussion

The study's findings, considering the developed themes, are provided in this discussion. This interpretation is supported by empirical and theoretical sources and information gathered through the interviews, questionnaires, and school experience collages of each participant. This discussion includes the subsections of interpretation of findings, implications for policy and practice, and recommendations for future research.

Interpretation of Findings

Examining the interview transcriptions, self-efficacy questionnaires, and collages brought about the development of three primary themes: positive self-efficacy, poor self-efficacy, and ways to increase self-efficacy. These were established through the theoretical foundations of the affirmative model of disability, self-determination theory, and self-efficacy theory, which depict how students view themselves and their self-efficacy and actions they can take to change negative perceptions.

Summary of Thematic Findings

Students who had a positive view of their disability were more likely to have higher self-efficacy in their area of disability. Teachers played a predominant role in either increasing or decreasing a students' self-efficacy based on their words and actions in the classroom. While students realized they are 2e—maintaining traits of both students with disabilities and students with giftedness—they tended to focus on either their disability or their giftedness. Students also identified actions they could take to increase their self-efficacy in subject areas where they struggled.

Positive View of Their Disability. Students in this study who viewed the disability aspect of their 2e identification in a positive way had higher self-efficacy—even in their area of disability. Thinking about a disability in positive terms can increase the overall self-efficacy of 2e students. When students understand that their disability does not define their educational outcomes or personhood and is only one part of who they were created to be, it can free them to view the positive ways their disability and giftedness have affected their lives. In this same thread, students who viewed their disability as a challenge over which they had some semblance of control also reported higher self-efficacy. This increased self-efficacy may arise because they understand their disability alone does not define them in a negative manner or determine the outcome of their educational goals because they feel empowered by past successes (as seen with Lilly and Roy).

Teachers Play a Significant Role in Affecting Self-Efficacy. Every student in the study mentioned the influence—either positively or negatively—teachers have on their self-efficacy. This included both words spoken to the student directly or even comments or actions aimed at other students in the classroom. Although some of these words and actions were not directly

aimed at the 2e students in this study, they were nonetheless internalized and impacted their self-efficacy. Teachers who had a positive mindset towards their class and reached out to students who were struggling increased the self-efficacy of the students. On the other hand, teachers who spoke harshly, dismissively, or overly sarcastically to students decreased their self-efficacy, even if they had other supports in place. Specific actions teachers took also increased or decreased self-efficacy. Explicit and clear written directions, rubrics, and physical examples increased student self-efficacy in classes that accentuated their giftedness and those meant to support their disabilities, while ambiguous directions and lack of concrete examples caused frustration and lower self-efficacy.

Either/or Mentality. While every student knew they were 2e and could verbalize what that meant and looked like for them, they tended to focus their answers on either their giftedness or their area of disability. They did not actually seem to view themselves as 2e. For most of the students, their identity lay in their disability and even when they spoke of their giftedness, they were insecure. Even students who initially reported exceptionally high self-efficacy in their area of giftedness later included subtle comments which demonstrated a wariness of that ability.

Ways to Increase Self-Efficacy. Students readily suggested ways in which they could increase their own self-efficacy. While these did include interaction with teachers, they focused on their part of the interaction and how they could initiate communication. Rather than waiting for another party to act on their behalf, the students knew what they needed to be successful in their different classes. While it is important to have teachers who are compassionate and willing to work with students, these students realized that they had to initiate that conversation.

Implications for Policy or Practice

The findings from this study have policy and practical implications for schools and families. When students are diagnosed as 2e, a collaborative effort between all the involved parties needs to occur to enhance educational opportunities for each student. In the school setting, cooperation is needed between gifted teachers, regular classroom teachers, special education teachers, and parents to ensure the complex needs of these students are met.

Implications for Policy

There is one implication for policy related to this study. Diagnosis of a 2e student can be difficult and tricky as score-based determinations of giftedness and disability confound identification due to masking (Barnard-Brak et al., 2015; Beckmann & Minnaert, 2018). This problem makes it crucial to consider the full scope of talents and weaknesses when determining eligibility for 2e services (Beckmann & Minnaert, 2018). As also demonstrated in this study, students diagnosed with 2e will likely be Caucasian males—females and students of color are less likely to receive a 2e diagnosis (Barnard-Brak et al., 2015). In this study, 70% of the participants were male; 30% were female; and 10% were African American. The percentage of African American students and females in this study is not representative of the district demographics of 30% African American and 48% female. It could be that more females and African Americans were identified as 2e in the district but chose not to participate in this study; however, this discrepancy needs to be addressed and identification of gifted and talented females and African Americans needs to become a priority.

Implications for Practice

Findings from this study have two implications for school district practices dealing with 2e students. First, while East Lake School District has definitive guidelines in place for

identifying both students with disabilities and those with giftedness, less than half of the 2e students involved in the study participated in gifted educational opportunities (AP and honors classes). There is an overall gifted program director and multiple gifted, licensed staff in the elementary and middle schools, but not a single gifted instruction staff member is present at any of the three high schools. While nationally, anywhere between 8%–12% of students with disabilities are labeled as 2e, East Lake has a solid 10%, so they have been intentional in identification; however, gifted educational opportunities are not available for high school students outside of honors and AP classes. Additionally, only half of the students are taking part in those opportunities. Parents need to be made aware of the current opportunities available for their students so they can better advocate on their behalf and encourage enrollment in those classes.

Secondly, because gifted services and/or a liaison are not readily available in the high schools, additional teacher training must be instituted from the district to assist regular classroom teachers in helping these students increase their self-efficacy and reach their maximum potential. Teachers can easily become frustrated when they realize that these students are exceptionally bright but are not performing to the expected standard. That would make it even more difficult for them to address the specific needs of 2e students. While AP and honors classes require academic rigor and high student engagement, teachers for those classes are not necessarily equipped to respond to the unique needs of 2e students. Therefore, additional teacher training is necessary to ensure the success of 2e students in advanced classrooms.

Theoretical and Empirical Implications

There are three theoretical and empirical implications in this study as the framework guiding this study was the intersection of self-efficacy theory (Bandura, 1997), the affirmative

model of disability (Swain & French, 2000), and self-determination theory (Deci & Ryan, 1980, 2000). It was important to examine this study through the overlap of these theories because the needs of 2e students (being both gifted and having a learning disability), are different from the general education population (Cavilla, 2017; Michael & Zidan, 2018). However, Bandura's work on self-efficacy acts as the connecting theme that weaves all three together. First, while 2e students contain elements of their giftedness and disability, higher self-efficacy was reported in their area of giftedness and lower self-efficacy in their area of disability. This correlated with the findings of Dixson et al. (2016), who also noted higher self-efficacy in gifted students, and the work done by Cavioni et al. (2017), which showed lower self-efficacy in students with disabilities.

Secondly, the affirmative model of disability accentuates the positive ways a disability impacts a person's life (Cameron & Tossell, 2012; Swain & French, 2000). While self-efficacy was lower—comparatively speaking—in their area of difficulty, students who saw their disability in a positive light or as a challenge that could be mitigated reported higher self-efficacy than their peers who saw their disability as unchangeable or limiting.

Finally, the affirmative model of disability ties directly into self-determination theory, which describes motivation as moving from external (steps taken in the past which create successful outcomes) to internal as displayed through their higher self-efficacy (Deci & Ryan, 1980). If 2e students do not see their disability as changeable, they will lack the motivation necessary to drive changes, which would enact greater self-efficacy.

Limitations and Delimitations

Limitations and delimitations both need to be addressed in this study. Limitations were present in this study due to problems associated with the COVID-19 pandemic. Delimitation was

present because of the boundaries required in the study to best examine the 2e population. Both limitations and delimitations need to be contemplated before generalizing any study findings and conclusions.

Limitations

Many students in this study had spent the previous year and a half alternating between in-person and on-line classes—all of which could have significantly impacted their perception of self-efficacy. While the school district did an excellent job of remaining open, students were regularly quarantined due to COVID-19 contact tracing. While this study aimed to examine their perceptions of their self-efficacy during their high school years, many social, club, and sporting opportunities were not available, and all students were online for the final semester of 2020. Two students chose to continue online education through the district for the fall of 2020, but all students in the study returned to face-to-face-courses in the spring of 2021. This time spent without socialization inside and outside of school and physical contact with teachers was mentioned by each student as a negative aspect of their school experience. This prolonged experience may have detrimental effects on their overall self-efficacy scales.

Another possible limitation of the study is due to changing teaching styles due to the pandemic. While masks were no longer required in the district at the time of the study, some teachers and students continued to wear them for protection. Unfortunately, masks can cause problems with verbal communication and a lack of being able to read facial features and expressions. While all students were interviewed in person, two did wear masks throughout their interview. Desks remain spaced for social distancing, and group work has been limited the past two semesters, so teachers have relied more on lecture and independent classwork. Peer

relationships are important, so this lack of social interaction may have also affected the participants' perceived self-efficacy.

A final limitation is that the study was conducted in only one district in the southeastern United States. Because there is no national governing body for diagnosing giftedness, students identified as 2e in this district may not have that same label in another district within that state. Also, the resources which schools allocate to gifted services vary by district, so a neighboring district may provide additional services to their gifted students which were not available to the students of this study.

Delimitations

Delimitations in the study originated from the boundaries placed upon participants. To participate, students had to be in Grades 9–12 in East Lake School District and be diagnosed by the district as 2e. The study information was sent out by the district via email and letter to all eligible participants, and those that responded positively to the inquiry were included in the study.

Another delimitation occurred through the gender and race of the participants. While 70% of the study participants were male and 30% were female, these were the students who chose to participate in the study. These numbers do not represent the school demographics as 48% are female and 52% are male. Also, the racial makeup of the school was not representative of the participants. In the study, African Americans comprised 10% of the participants, and 90% were Caucasian. While the school does have an African Americans population of 9%, they also have 12% Hispanic and 4% multi-racial, yet neither of the latter two ethnic groups participated. Because purposeful criterion sampling was used to ensure all students experienced the 2e

phenomenon, the findings cannot be generalized to all 2e students because participants were not randomly selected.

Recommendations for Future Research

The research in this study should be expanded to include students outside the targeted district to determine if the results are replicable on a broader scale—especially if additional services for gifted students are available. Also, the study would benefit from generalizations which might be made by studying student populations with the same giftedness and/or disability diagnosis. Because these students had varying disabilities (OHI, SLD, and ASD) and areas of academic giftedness, it may cause differences in their self-efficacy. Additionally, specific methods of increasing self-efficacy—whether it be curriculum, teacher training, or parent involvement—need to be studied both qualitatively and quantitively for their effectiveness.

Conclusion

This study described the shared experiences of 2e high school students in a school district located in the southeastern part of the United States. Findings of this study were examined through the intersection of three theories: Bandura's (1977) work of self-efficacy, the affirmative model of disability (Swain & French, 2000), and self-determination theory (Deci & Ryan, 1980). Because the student population of this study was so unique, no singular theory could explain the various nuances.

The study attempted to answer the central question: What are the shared experiences of self-efficacy in 2e high school students? This was supported by four additional sub-questions that focused on self-efficacy in the areas of their giftedness and disability, their perception of self-efficacy help provided by parent and teachers, and how the 2e label affected their overall self-efficacy. Data were collected using a self-efficacy survey, interviews, and a school

experiences collage. Ten students in Grades 9–12 who had been labeled as 2e by East Lake School District participated in the study. Each of these students has either an SLD, OHI, ASD and concurrent giftedness as defined by the school.

The most significant findings showed that a positive view of disability and increased motivation were found in 2e students with higher self-efficacy. The study also revealed that traditional classroom teachers have a tremendous impact on both the positive and poor self-efficacy of 2e students. This leads to other research implications for additional studies to determine whether the results would be replicated at a high school that has gifted programs for 2e students.

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Appendices

Appendix A: IRB Approval

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

3/12/2021
Mail - Glover, Lisa Ann - Outlook
Dear Lisa Glover, James Swezey:

We are pleased to inform you that your study has been approved by the Liberty University Institutional Review Board (IRB). This approval is extended to you for one year from the date of the IRB meeting at which the protocol was approved: March 11, 2021. If data collection proceeds past one year, or if you make modifications in the methodology as it pertains to human subjects, you must submit an appropriate update submission to the IRB. These submissions can be completed through your Cayuse IRB account.

Your study falls under the expedited review category (45 CFR 46.110), which is applicable to specific, minimal risk studies and minor changes to approved studies for the following reason(s): 7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely, G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

Appendix B: Participant Recruitment Letter

September 13, 2020

Dear Exceptional Student,

I am a graduate student at Liberty University conducting research as part of the requirements for a doctoral degree in curriculum and instruction. You have been identified by your school's IEP liaison, administrator, or teacher as a potential subject for this study. I am writing to invite you to participate in my study on the academic experiences of twice-exceptional high school students.

If you are willing to participate, I will be asking you to join me in a face-to-face (virtually or in person), recorded interview, create an artistic memory collage, and complete a self-efficacy scale. You should be able to complete your participation in approximately two to three weeks, with it taking two to three hours of time to complete all procedures. Your name and other identifying information will be requested as part of your participation, but the information will remain confidential.

To participate, please review the consent form which contains additional information about my research and then respond to this email with your desire to be a participant. I will then contact you for an interview. When we meet, I will provide the consent form for you to sign, a copy for you to retain for your records.

Sincerely,
Lisa A. Glover
Doctoral Candidate
Liberty University

Appendix C: Parental Consent and Child Assent Google Forms

Parent/Student Consent Form

A PHENOMENOLOGICAL STUDY: THE SELF-EFFICACY OF TWICE-EXCEPTIONAL STUDENTS

* Required

1. Email *

2. Parent's name *

3. Child's name *

Parental Consent

Title of the Project: A PHENOMENOLOGICAL STUDY: THE SELF-EFFICACY OF TWICE-EXCEPTIONAL STUDENTS

Principal Investigator: Lisa Glover, Liberty University

Invitation to be Part of a Research Study

Your child/student is invited to participate in a research study. Participants must be twice-exceptional high school students within Oconee County School District. This means students must have a specific learning disability (SLD), autism spectrum disorder (ASD), or other health impairment (OHI) and a coexisting area of giftedness.

All students will be enrolled in Grades 9–12. Taking part in this research project is voluntary. Please take time to read this entire form and ask questions before deciding whether to allow your child/student to take part in this research project.

What is the study about and why are we doing it?
The purpose of the study is to describe how students who have a learning disability and are gifted feel about their ability accomplish academic tasks. This information will later be used to develop methods to increase the academic achievement of these students.

What will participants be asked to do in this study?
If you agree to allow your child/student to be in this study, I will ask him/her/him or her to do the following things:
1. Honestly answer questions on a self-efficacy questionnaire which will last approximate 10 minutes. Pseudonyms will be used to maintain confidentiality.
2. Participate in an artistic memory collage which will give an overview of educational experiences. Participation will take approximately 15 to 20 minutes. Collages will be kept for analysis, and pseudonyms will be used to maintain confidentiality. 3. Participate in a face-to-face (virtual or in-person) interview with the researcher. The interview will take approximately one hour. The face-to-face interview will be audio-recorded, but pseudonyms will be used to maintain confidentiality.

How could participants or others benefit from this study?
Participants should not expect to receive a direct benefit from taking part in this study.

What risks might participants experience from being in this study?
The risks involved in this study are minimal, which means they are equal to the risks your [child/student] would encounter in everyday life.

How will personal information be protected?
The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records.

Procedures will be taken to protect the privacy of all participants including the use of assigned pseudonyms. Interviews will be conducted in locations where others will not easily overhear the conversation.

- Data will be stored on a password-protected computer and all hand-written documents will be kept in a locked file cabinet. Data may be used in future presentations. After three years, all data on the computer will be deleted and paper copies of collages will be shredded.
- Interviews will be transcribed by the researcher. Recordings will be stored on a password-protected computer for three years and then erased. Only the researcher will have access to these recordings.

How will participants be compensated for being part of the study?
Participants will not be compensated for participating in this study.

Is study participation voluntary?
Participation in this study is voluntary. Your decision whether or not to allow your child/student to participate will not affect your or his/her/his or her current or future relations with Liberty University or the School District of Oconee County.
If you decide to allow your child/student to participate, he/she/ is free to not answer any question or withdraw at any time without affecting those relationships.

What should be done if a participant wishes to withdraw from the study?
If you choose to withdraw your child/student from the study/your child/student chooses to withdraw from the study, please contact the researcher at the email address/phone number included in the next paragraph. Should you choose to withdraw child/student or should your child/student choose to withdraw, data collected from your child/student will be destroyed immediately and will not be included in this study.

Whom do you contact if you have questions or concerns about the study?
The researcher conducting this study is Lisa Glover. You may ask any questions you have now. If you have questions later, you are encouraged to contact her at [redacted] You may also contact the researcher's faculty sponsor, Dr. James Swezey, at [redacted]

Whom do you contact if you have questions about rights as a research participant?
If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu
Your Consent:
By choosing the consent button on this document, you are agreeing to allow your child/student to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

_____

4. Your Consent: By choosing the consent button on this document, you are agreeing to allow your child/student to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above. *

   Mark only one oval.

   ◯ I have read and understood the above information. I have asked questions and have received answers. I consent to allow my child/student to participate in the study. The researcher has my permission to audio-record my child/student and take a photograph of their collage as part of his/her participation in this study. *Skip to question 5*

   ◯ I have decided not to allow my child to participate in this study. *Skip to section 4 (Thank you for your response.)*

Skip to question 5

Verified Consent

5. Parent: By typing my name and the date, I agree to my child participating in this study. *

6. Student: By typing my name and date, I agree to participate in this study. *

The Children's Multidimensional Self-Efficacy Scales: Self-Efficacy for Self-Regulated Learning scale, and Self-Efficacy for Academic Achievement Scale

(Zimmerman, Bandura, Martinez-Pons, 1992)

7. Student's Name *

8. Student's email *

9. Parent's phone number *

10. High School *

Check all that apply.

[redacted]

11. Year in School *

Check all that apply.

- ☐ Freshman
- ☐ Sophomore
- ☐ Junior
- ☐ Senior

12. Ethnicity *

Check all that apply.

- ☐ African-American
- ☐ Hispanic
- ☐ Asian
- ☐ Caucasian

13. Gender *

Check all that apply.

- ☐ Femal
- ☐ Male
- ☐ Other

Appendix D: The Children's Multidimensional Self-Efficacy Scales

Question	D	Kayleigh	Lilly	Moose	Onyx	Paige	Peanut	Roy	Timothy	Trevor
Self-efficacy for self-regulated learning										
1	3	4	5	3	2	4	2	2	3	4
2	2	3	5	1	1	3	1	1	3	5
3	2	4	4	3	3	2	3	3	3	5
4	4	5	5	2	4	2	4	3	1	4
5*	4	4	5	2	4	1	2	4	3	4
6	5	5	4	3	1	2	1	3	3	4
7	3	5	5	2	2	3	1	3	1	4
8	3	4	5	3	4	4	4	5	4	5
9	2	3	5	2	2	3	3	1	3	4
10	4	5	5	3	3	3	2	1	3	5
11	5	4	5	4	5	2	4	5	4	5
Self-efficacy for academic achievement										
1	5	5	4	2	4	4	4	3	5	5
2	5	5	4	2	4	3	4	3	5	4
3	4	4	5	3	5	5	5	5	5	4
4	3	3	5	3	5	4	3	5	5	5
5	2	2	3	4	2	2	4	5	3	4
6	5	5	5	5	5	4	5	5	5	4
7	1	2	4	2	3	3	3	4	1	5
8	4	5	5	4	3	5	4	5	5	5
9	4	5	3	4	2	3	4	5	2	4

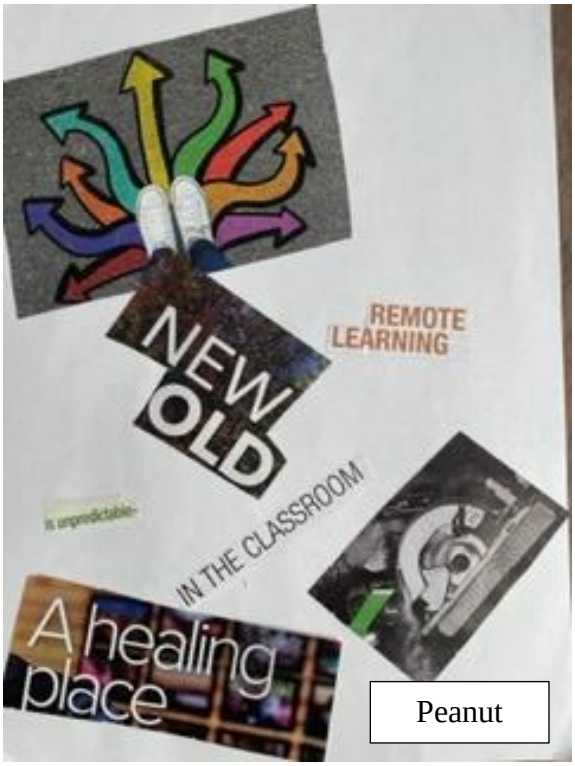
*Some researchers remove this item as most students no longer use the library.

Self-Efficacy for Self-Regulated Learning scale, and Self-Efficacy for Academic Achievement scale (Zimmerman et al., 1992, p. 668)

Appendix E: Collage Prompt and Directions

The prompt stated: You are being asked to create a collage which shows how being considered 2e makes you feel about school. There are only a few rules for students to follow when doing this. First, there are no right or wrong answers for this project as everything chosen is based on personal perceptions. Students will be asked to tear out and paste onto the provided construction paper at least 15 images and words from the various magazines provided for them. Magazines will include, but not be limited to, teen, food, décor, and news styles. Participants will be asked to choose words and images which define their school experience in light of their 2e identification.

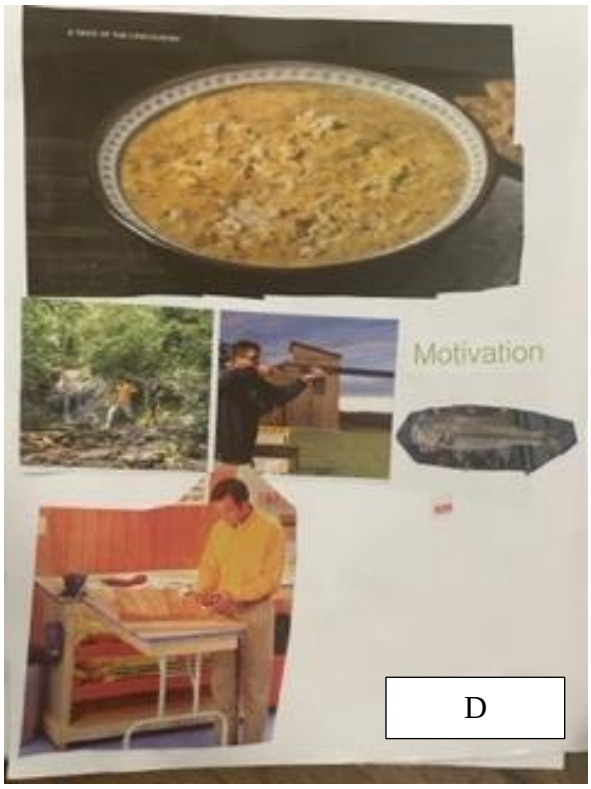
Appendix F: Referenced Collages



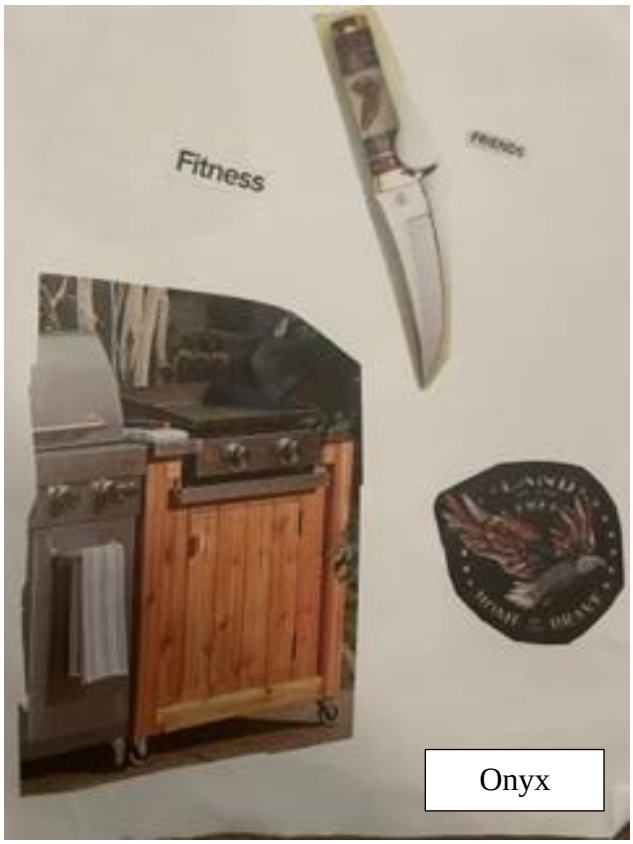
Peanut

Paige

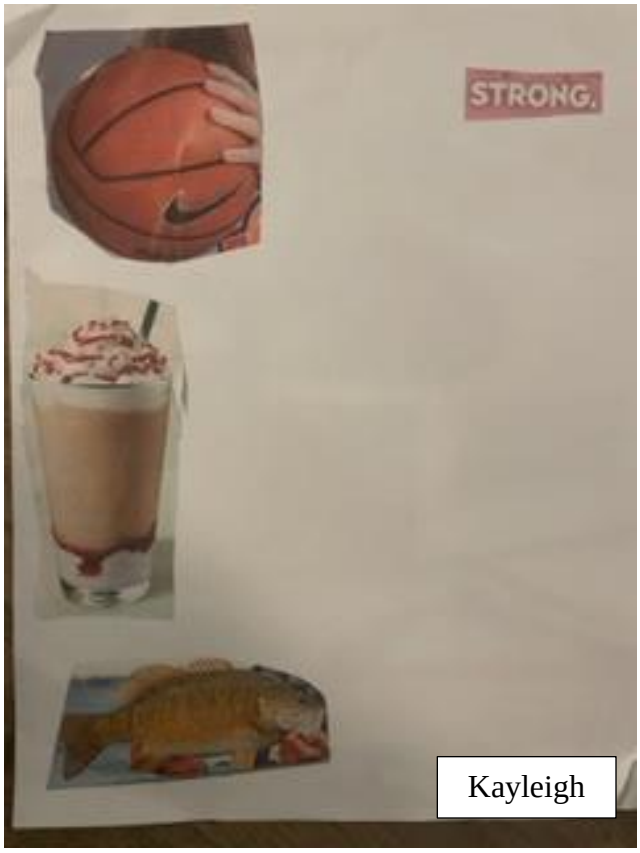
Roy



D



Onyx



Kayleigh

Timothy

Lilly