

AN EXPLORATION OF TWICE-EXCEPTIONAL EDUCATORS' EXPERIENCES: A
HERMENEUTIC STUDY

by

Courtney McKnight

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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Abstract

This qualitative hermeneutic phenomenological study explored the lived experiences of educators supporting and instructing twice-exceptional (2e) students. This study was guided by the central research question: What are the lived experiences of teachers working with 2e students? The sub-questions explore the participants' experience regarding twice-exceptional students and how this knowledge affects student performance, the role a lack of teacher preparation has on an educator's self-efficacy, and their attitudes about the abilities of twice-exceptional students. Using a hermeneutic phenomenological approach, this topic was explored via snowball sampling within three school districts in the state of Georgia. The data collection methods included a survey, individual interviews, and a focus group. Data gathered was analyzed to find relevant themes that align with the phenomenon in conjunction with Heidegger's hermeneutic circle. Data from each collection method was triangulated and analyzed as one to gather a synthesis of descriptions to detail the essence of the participants' lived experience. The research was conducted via Microsoft Forms and Microsoft Teams to aid in capturing the rich thick descriptions of the participants lived experiences. The findings unveiled that the participants lived experiences of working with 2e students showed an overall lack of knowledge stemming from their education attained and university and their school districts, both of which provided little to no preparation for this population. These findings added to the literature of teachers and 2e students and the importance of knowledge with future research, including a broader geographic scope of educators and more balance between males and females.

Keywords: twice-exceptional, teacher preparation, higher education, training, lived experiences, self-efficacy, professional development

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Dedication

I dedicate this dissertation to God, my creator, from whom all good things flow!

I also dedicate this dissertation to my husband, who has supported me from the start, who believed in my abilities to accomplish my dreams and earn a doctorate.

Acknowledgments

I would like to acknowledge everyone who played a role in my academic endeavors and accomplishments. First, my husband, who supported and encouraged me. Without you, I could never have reached this level of success.

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List of Abbreviations

Individualized Education Plan (IEP)

Individuals with Disabilities Act (IDEA)

Institutional Review Board (IRB)

National Association for Gifted Children (NAGC)

National Twice-Exceptional Community of Practice (2eCoP) Twice-exceptional (2e)

Twice-exceptional (2e)

Twice-Exceptional Children's Advocacy (TECA)

CHAPTER ONE: INTRODUCTION

Overview

The term twice-exceptional (2e) refers to students identified as having a learning disability (being served in special education) and as gifted, creating a unique population that makes up only 6% of the entire U. S. student population served in a Kindergarten through 12th-grade public school setting (Bell, 2019). With such a unique and diverse population, it is vital to explore educators' knowledge of 2e students and how their knowledge affects their delivery of instruction and support through their individual experiences. Understanding teachers' experiences working with this population of students sheds light on the training and education teachers receive on 2e students, creating their knowledge base. The level of knowledge an educator has on 2e students has a perceived impact on their ability to serve and support this population adequately (Mayes & Moore, 2016; Missett et al., 2016; Ronksley-Pavia et al., 2019a). Taking a deeper dive into the teachers lived experiences, knowledge, and the deliverance of instruction provides a better understanding of how these combined aspects connect to the instruction and support of twice-exceptional students and how these factors play a role in teacher self-efficacy (Friedman & Kass, 2002; Karimy et al., 2016; Rutherford et al., 2017; Zee & Koomen, 2016). The content in this chapter includes a background discussion along with historical, social, and theoretical context as it relates to 2e students, the problem and purpose statements, the significance of the study, research questions, relevant definitions, and an overall summary of the chapter.

Background

Twice-exceptional students first made headlines in the 1970s as federal legislation created a definition for the children that met both the characteristics of "learning disabled" and

"gifted" (Baldwin et al., 2015a). While this group of students is federally recognized, little has been done to ensure mandatory training or minimum requirements of teacher knowledge for working with these students (Brigandi et al., 2019). Even with recognition by both federal and state departments of education, teacher understanding and knowledge of 2e students varies widely (Baldwin et al., 2015a; Bechard, 2019; Lee & Ritchotte, 2019; Rowan & Townend, 2016; Shahzad & Naureen, 2017). The problem arises from the lack of training educators have on teaching and serving 2e students in an educational setting. Through an exploration of literature, a historical context will be discussed relative to how this specific problem has evolved, a social context will explore how various entities and groups are affected by this problem, and a theoretical context will examine the theoretical underpinnings that have developed related to this issue.

Historical Context

The number of students identified as 2e had doubled since 2002 when studies showed that approximately 3% of the total student population were classified as 2e (Foley-Nicpon et al., 2013). With an increase in identified 2e students, it is essential to look at how far this population has come since the first group of students was identified in 1977 (Foley-Nicpon et al., 2013). As more students were identified as 2e, concern grew for serving and supporting this population in a school setting and whether teachers were prepared to serve them (Nielsen Pereira et al., 2015). Between 1984 and 2000, several federal projects and state grants were created, and organizations were formed to support and explore this specific population of students, including the Twice Exceptional Child Project and Project High Hopes (Baldwin et al., 2015a). In 2004 the Individuals with Disabilities Act (IDEA) was reformed to officially acknowledge that students

can be gifted and learning disabled, formally identifying them as 2e (Baldwin et al., 2015a). Aiming to explore both exceptionalities concurrently, this reauthorization encouraged using multiple data sources in conjunction with a team-based approach to problem-solving when identifying and serving 2e students (Smith, 2005). Given the recency of acknowledgment of 2e students, compared to students with disabilities initiation in 1966 and gifted education founded in 1901, the data and research are still being explored (Karnes & Nugent, 2002; Singh et al., 1997).

Social Context

Teacher knowledge and experience with this population influence the rate of success in the classroom and the delivery of classroom instruction (Baldwin et al., 2015b; Bechard, 2019; Josephson et al., 2018). When the teacher is serving a 2e student, teaching strategies geared toward the general education population may not always be effective in reaching this specific population (Dimitriadis et al., 2021; Josephson et al., 2018; Missett et al., 2016). A massive barrier to recognizing and supporting these students is a lack of understanding of twice-exceptionality (Bechard, 2019, p. 26). With this lack of understanding, the teacher is affected as it is their duty to create lessons and deliver instruction to students. Suppose a teacher does not have the general knowledge or understanding to serve this population, in which case, they are unable to provide ample instruction, wherein if the teacher has knowledge specific to teaching 2e students, their preparation and deliverance of instruction are likely to yield positive results (Amran & Majid, 2019; Clark & Newberry, 2019; Eberle II, 2011; Edgar, 2019; Friedman & Kass, 2002; Hoy et al., 2009). As the ones receiving instruction, 2e students are also affected if they are placed with a teacher that is unprepared or has a lack of knowledge of 2e students and are at risk of not being successful within the classroom (Bechard, 2019). A case study completed by Bechard (2019) interviewed 2e students, asking them to describe their experiences; “we are

misunderstood, and our ways of learning aren't often recognized and acknowledged," where the same student emphasized that "teacher training is crucial to prevent years of unnecessary trauma caused by being punished for not learning the same ways as the majority" (p. 36).

The uniqueness of 2e students leads to a lack of general knowledge and practices for serving this population (Baldwin et al., 2015b; Bechard, 2019; Josephson et al., 2018), as there is no common school-wide professional development or class to inform educators on best practices for serving and supporting them (Kaufman, 2018). Federal mandates establish precedence for guidance on the 2e population, but states retain the right to make educational decisions on this population, leading to unmatched requirements and procedures, making it harder to prepare educators to serve this population (Bechard, 2019). School educators, administration, and leadership can benefit from this proposed research as it brings to light the level of knowledge educators have of 2e students through understanding their experiences, highlighting the perceived impact lack of knowledge has on the student and instruction (Clark & Newberry, 2019; Eberle II, 2011; Edgar, 2019; Friedman & Kass, 2002; Hoy et al., 2009; Skaalvik & Skaalvik, 2010). The social context of serving 2e students can shed light on the inadequacies surrounding this population from the perspective of those working directly with them. While significant effort has been made to identify effective strategies for teaching this population (Brendle et al., 2017; Gierczyk & Hornby, 2021; Ronksley-Pavia & Townend, 2017; Sandholtz, 2011; Skaalvik & Skaalvik, 2010), this proposed research will add another layer of information exploring the experiences of teachers and their background knowledge and understanding of 2e students (Hiemstra & Van Yperen, 2015; Josephson et al., 2018; Gierczyk & Hornby, 2021; Lee & Ritchotte, 2018; Trail, 2021).

Theoretical Context

While a significant amount of research has been done on the importance of professional development and teacher training with 2e students, very few studies have been completed on the teacher's experience serving and supporting this population based on teacher knowledge, self-efficacy, and attitudes (Krausz, 2018; Lee, 2018; Lee & Ritchotte, 2019). In this study, knowledge refers to the understanding educators have of what it means to be 2e and how to support this population (Baum et al., 2014; Hiemstra & Van Yperen, 2015). Self-efficacy refers to the teacher's belief about their own abilities to support 2e students, which affects their delivery of instruction (Bandura, 1977). Additionally, the attitudes educators have toward the abilities of 2e students impact their instructional choices (Bandura, 1994; Bechard, 2019). John Dewey's (1998) theory of critical pragmatism in education asks teachers to continually re-examine and re-evaluate their teaching pedagogy and construct their curriculum to improve instruction for a practical outcome for the students. The roots of pragmatism indicate that one's beliefs guide their actions and should be judged on the outcomes based on "practical understandings' of concrete, real-world issues" (Kelly & Cordeiro, 2020, p. 1). Critical pragmatism emphasizes that teachers are expected to continually improve their knowledge of instructional practices and strategies to support their students, leading to the notion of self-efficacy where solid knowledge and understanding of a population will lead to positive beliefs about their capability to prompt student learning and engagement (Bandura, 1977; Baum et al., 2014, 2017; Ginsburgh, 2007; Hiemstra & Van Yperen, 2015).

The theory of critical pragmatism has contributed to this study by accentuating the importance of teacher knowledge and continual improvement of their knowledge to ameliorate their instructional practices, which will positively impact teacher self-efficacy, thus, student

outcomes (Dewey, 1998). As this proposed study aims to explore how a lack of teacher knowledge of the characteristics and needs 2e students can have a perceived impact on student outcomes, the underpinning of critical pragmatism is present, indicating that teacher training, knowledge, and experiences all play a role in student outcomes (Krausz, 2018; Lee & Ritchotte, 2019). This theory promotes examining teachers' experiences working with 2e students to understand where their basis of knowledge stems from and improve their practice, understanding, and deliverance of instruction to improve student outcomes. While critical pragmatism highlights a need for continual improvement, this study will extend that notion by demonstrating a pedagogical challenge when educators walk into the classroom with various levels of understanding, knowledge, and experiences in delivering instruction to 2e students (Dweck, 1999).

Problem Statement

The problem is all teachers lack the knowledge to effectively instruct 2e students (Bechard, 2019; Bell, 2019; Gierczyk & Hornby, 2021). With the uniqueness of this population, educator training, education, knowledge, and understanding of 2e students varies vastly from teacher to teacher (Bell, 2019; Gierczyk & Hornby, 2021). The preparation and training the educators receive can considerably change the trajectory of student learning in either direction (Amran & Majid, 2019). This study aimed to explore the teachers' experiences serving this population to better understand how professional experiences play a role in their ability to deliver instruction and the perceived impact on student outcomes. Educators are the frontline of our education system; they are the driving forces within a classroom and play the largest role in a student's ability to succeed (Ungar et al., 2018). Exploring the experiences educators have working with 2e students can uncover how variables such as education, training, and previous

experience impact their self-efficacy, thus a perceived impact on their ability to support this population within an instructional setting (Friedman & Kass, 2002; Karimy et al., 2016; Perera et al., 2019; Rouse, 1994; Rutherford et al., 2017; Zee & Koomen, 2016). Teacher self-efficacy indicates one's beliefs about their own capability to teach students, which can be impacted by the culmination of their knowledge and experience working with this population, which correlates to student outcome and achievement in the classroom (Bandura, 1977; Baum et al., 2014, 2017; Ginsburgh, 2007). Exploring the educator's perspective and background regarding 2e students brings about a unique perspective for a deeper understanding of the experiences of classroom teachers, providing first-hand accounts and insight into what goes on behind the scenes that can influence student outcomes and teacher self-efficacy (Friedman & Kass, 2002; Karimy et al., 2016; Rutherford et al., 2017; Zee & Koomen, 2016).

Purpose Statement

The purpose of this hermeneutic phenomenological qualitative study is to explore the lived experiences of educators supporting and instructing 2e students for K-12 teachers in the southern and western United States. At this stage in research, the knowledge educators have of 2e students is defined as their understanding of students identified as gifted and special education. Educator understanding will stem from relevant training, education, and knowledge serving this population, capturing their experiences, then exploring how their experiences have impacted student performance. While current research aims to find ways to best serve 2e students, the purpose of this study is to explore the gap in the literature and look deeper into how a lack of proper teacher training and education leads to a lack of knowledge, which can have a perceived impact on the learning and instruction of 2e students (Baldwin et al., 2015b; Bandura, 2012; Bechard, 2019; Bell, 2019; Elbaz, 2018; Fugate et al., 2020).

Significance of the Study

The theoretical significance of this proposed study aimed to contribute to the theoretical underpinning of self-efficacy (Bandura, 1977; Karimy et al., 2016; Zee & Koomen, 2016). The problem of teachers lacking the knowledge to effectively instruct 2e students aligns with the characteristics of self-efficacy (Bechard, 2019; Huang et al., 2019; Zee & Koomen, 2016). Current theoretical underpinnings indicate that a teacher's beliefs in their ability to serve 2e students directly impact student academic outcomes and achievement (Zee & Koomen, 2016). Bechard (2019) found that teachers who felt unprepared and lacked knowledge of 2e students shy away from providing ample support and creating an inclusive classroom. A teacher's confidence in understanding and serving this population "is highly significant because it can change their academic results" (Shahzad & Naureen, 2017, p. 54).

Through a hermeneutic phenomenological approach, this study will provide insight and meaning into the teacher's experiences working with 2e students and the perceived impact on student outcome based on their level of knowledge and training. The research contributed to the discussion of teacher self-efficacy by looking at the experience of a teacher serving 2e students and how their knowledge, education, and training create the foundation for their beliefs and ability to effectively manage tasks and challenges (Eberle II, 2011). The self-efficacy theory indicates that one's beliefs in producing and executing specific behaviors and achieving the desired result directly influence the outcome (Clark & Newberry, 2019). Utilizing the teacher's perspective will demonstrate that teachers' experiences and perceived student outcomes align with the principles of self-efficacy, adding that the teacher's education, training, and background knowledge on 2e students have a perceived impact on the said outcome. Highlighting the relationship between the teacher's belief in their ability to serve this specific population and its

direct correlation to student outcomes will extend on the theory of self-efficacy, and one's beliefs of their ability being tied to their experiences, education, and overall preparedness to serve 2e students (Baum et al., 2014, 2017; Ginsburgh, 2007; Hiemstra & Van Yperen, 2015).

The empirical significance of this study shows that the use and implementation of a hermeneutic phenomenological approach will allow exploration into current teacher experiences through their knowledge and understanding of 2e students (Willig, 2007). This approach added to the literature as the specific problem to be addressed through this proposed study is the lack of teacher knowledge of 2e students showing a perceived impact on student learning and outcome through the teacher's experiences, an approach which has not been readily researched. Current literature exists discussing the importance of understanding the learning needs of 2e students and ensuring that educators working with 2e students are appropriately trained (Krausz, 2018; Lee & Ritchotte, 2019). It is currently known that there is a lack of teacher training and preparation for serving 2e students, which leads to a lack of knowledge of suitable strategies and implementation of those strategies when working with this population (Bianco & Leech, 2011; Dimitriadis et al., 2021; Missett et al., 2016). Similar studies have also uncovered the need for teacher training to ensure all educators are equipped to serve 2e students in any given educational setting (Amran & Majid, 2019; Bechard, 2019; Ginsburgh, 2007; Hiemstra & Van Yperen, 2015; Louis, 2008; Proctor et al., 2011).

Related studies highlight the experiences of 2e students in an educational setting and the lack of teacher preparation. (Bianco & Leech, 2011; Ronksley-Pavia et al., 2019b). "A lack of understanding of twice-exceptionality is a huge barrier to recognizing and supporting these students" (Bechard, 2019, p. 28). While the importance of educator training and explorations of

2e student experiences can be found in literature, there is a gap when looking to understand the experiences of teachers serving this population and how their training, education, and experiences have a perceived impact on the learning outcomes of their 2e students (Bianco & Leech, 2011; Lee & Ritchotte, 2019; Ng et al., 2016). By describing teacher experiences working with these students, this study will add one more piece to the overall concept of serving 2e students by exploring the teachers' experience and highlighting how the culmination of factors plays a role in teacher self-efficacy, demonstrating how their level of preparedness can affect their perception of their abilities to serve these students, thus impacting student outcomes (Bandura et al., 2003; Barber & Mueller, 2011; Baum et al., 2014; Chakraborti-Ghosh, 2019; Gouwens & Henderson, 2021).

The practical significance of this study is to find a general basis of teacher knowledge of 2e students and how their understanding of this population can have a perceived impact on their ability to deliver instruction (Bianco & Leech, 2011; Lee & Ritchotte, 2019; Ng et al., 2016). The teacher's responsibility is to create a learning environment that provides opportunities for their students to succeed and grow (Bottiani et al., 2018). Bianco and Leech (2010) noted that teachers are tasked with teaching a wide variety of students in different educational settings, and because of this, teachers are not often cross-trained in specialty areas such as identification and support of students with multiple exceptionalities. The knowledge generated from this proposed study aims to affect change on a broader scale by diving into the teacher's experiences with serving and instructing the 2e population. The knowledge gained from this proposed study is significant to this unique population of students and is crucial to gathering new insights and perspectives on teacher understanding and knowledge of 2e to better support both students and teachers (Harwell, 2003).

Research Questions

Teacher knowledge regarding a specific population of students can be an integral part of student academic achievement. Teacher knowledge stems from several factors, including teacher preparation courses, county, or school-level professional development, continuing education courses, and their ideas and beliefs gathered throughout their time in the classroom (Elbaz, 2018). These factors play a pivotal role in the perceived impact on their ability to deliver student-oriented instruction.

Central Research Question

What are the lived experiences of teachers working with twice-exceptional students?

Sub-Question One

How does a teacher's knowledge of twice-exceptional students affect student academic outcomes?

Sub-Question Two

What role does a lack of teacher preparation and continued education on 2e students play in teacher self-efficacy?

Sub-Question Three

How do a teacher's attitudes about the abilities of twice-exceptional students impact their instructional choices?

Definitions

1. *Attitude(s)* – A teacher's attitude refers to their disposition about a student based on their beliefs, knowledge, resourcefulness, and willingness to learn and support (Bandura, 1995; Bechard, 2019).
2. *General/Special Education Setting (inclusion, co-taught)*– The term

combination of special education/general education refers to a co-taught setting where the student is in a general education classroom served by the available education teacher and special education within the same room (Brendle et al., 2017).

3. *Gifted Education Setting* – Students who meet the marked indicators for "giftedness" will receive gifted education classes utilizing enriched lessons on various subjects, studying in-depth topics utilizing creativity and intellectual ability within their instruction (VanTassel-Baska, 2018).
4. *Gifted (Giftedness)* – The use of the term gifted (or giftedness) within this study aligns with the United States Department of Education and the U.S. Federal Government's definition of "Gifted & Talented" (20 U.S.C. Section 7801) identified as students who show evidence of "high achievement capabilities" in the areas of (a) Intellectual (b) Creative (c) Artistic (d) Leadership and (e) Specific fields of academics (Foley-Nicpon et al., 2013).
5. *Knowledge*- the facts, skills, and information acquired by a person through their specific education or experiences and how these relate to an understanding of a subject (Bolisani & Bratianu, 2018).
6. *Learning Disability/Special Education Student(s)*– refers to a student who has a learning disability that meets one or more of the thirteen categories outlined under the Individuals with Disabilities Act (IDEA) (United States Department of Education Section 300.306).
7. *Self-efficacy* – refers to teachers' belief about their own capability to foster

student learning and engagement in all students (Bandura, 1977; Baum et al., 2014).

8. *Twice-exceptional Students (2E)* – The definition of "twice-exceptional" was adopted for this study from the National Association for Gifted Children (NAGC), in which twice- exceptional students are those who are identified and described as having the characteristics of gifted students, having a high potential for achievement while concurrently displaying evidence of one or more disability as specified by the eligibility criteria outline in the Individuals with Disabilities Act (IDEA) (Foley-Nicpon et al., 2013).

Summary

Making up only 6% of the population of school-aged students, teaching 2e students can present unique challenges as educators attempt to navigate both exceptionalities within the classroom (Baldwin et al., 2015a). The teacher's responsibility is to create a learning environment that provides opportunities for their students to succeed and grow (Bottiani et al., 2018). The problem to be addressed through this proposed study is teachers lack the knowledge to effectively instruct 2e students (Bechard, 2019). The purpose of this hermeneutic phenomenological qualitative is to explore the lived experiences of educators supporting and instructing 2e students. While current research notes a need for implementing professional development on the 2e population this research looks to understand the perceived impact educator knowledge has on instructing and supporting the 2e population through exploring the experiences of the teacher working with 2e students (Bianco & Leech, 2011; Lee & Ritchotte, 2019; Ng et al., 2016). Gaining insight into the teaching experience of working with 2e learners can lead to a deeper understanding of whether these educators received formal training within

their workplace or in a higher education setting and how their training and experiences have a perceived impact on classroom instruction. By exploring the teachers' experiences working with 2e students, deeper insight can be gained into how these factors form the basis of their self-efficacy, which can have a perceived impact on student outcomes (Bandura et al., 2003; Barber & Mueller, 2011; Baum et al., 2014; Chakraborti-Ghosh, 2019; Gouwens & Henderson, 2021).

CHAPTER TWO: LITERATURE REVIEW

Overview

A systematic review of the literature was conducted to explore how the needs of 2e students are being met in the academic setting, including the implementation and use of strategies and supports to serve this unique population best. This chapter presents a review of the current literature related to the topic of study. The first section discusses the theories relevant to serving 2e students in an academic setting, including approaching their learning best, the theory of strength-based learning, and the theory of positive psychology. The discussion of theories are followed by a synthesis of recent literature regarding 2e students and who they are, adequate support used within the classroom, and the influence a teacher's view can have on their education. Lastly, the literature surrounding the factors which lead to perceived effective learning for 2e students in any capacity are addressed with a gap in the literature being identified, presenting a viable need for the current study.

Theoretical Framework

The theoretical framework for this theory is grounded in Albert Bandura's social learning theory of self-efficacy. Albert Bandura was the first to demonstrate self-efficacy in 1977, indicating that self-efficacy is the belief in one's capabilities that influence what individuals do as a result, how much effort the individual puts into doing it, and their thoughts and feelings as they do it (Bandura, 1977). Bandura introduced this theory from the basis of human cognition concerning their social awareness and relative influences (Locke & Bandura, 1987). Research indicates that self-efficacy is an individual's belief in executing behaviors necessary to produce specific performance outcomes (Karimy et al., 2016). A 40-year synthesis of research on the effects of teacher self-efficacy on student academic achievement outlined the observed outcomes

that stem from teacher self-efficacy, illustrating that higher teacher self-efficacy is beneficial for student learning (Zee & Koomen, 2016). This theory will inform the literature on this proposed topic by exploring the teachers' lived experiences, their knowledge of this population, and how that knowledge has shaped their beliefs about 2e student abilities. This proposed topic aims to explore the lived experiences of educators and the perceived impact the factors of the teacher's knowledge, education, and preparation have on their ability to serve and support 2e students, indicating the presence of self-efficacy (Bandura, 1977). When an educator feels prepared and understands how to best support their student, their self-efficacy increases, which plays a key role in influencing their delivery of instruction and student support, which shapes student academic outcome (Perera et al., 2019; Zee & Koomen, 2016).

Teacher self-efficacy is a vital aspect of the education world and can lead one either positive or negative outcomes for both the teacher and the student (Bandura, 1977; Lazarides & Warner, 2020; Perera et al., 2019; Zee & Koomen, 2016). A teacher's self-efficacy is the teacher's belief in their own ability or capability to engage the students in their learning even with students that are considered difficult or unmotivated. This is found within the context of the social learning and social cognitive theory as developed by Albert Bandura (1977). Research indicates that teachers with higher levels of self-efficacy are found to be more open to new teaching methods, they display a higher level of organization and planning, they tend to direct more of their efforts towards solving problems that arise or are found within the classroom (Bandura, 1977; Lazarides & Warner, 2020; Perera et al., 2019; Zee & Koomen, 2016). Teachers with higher self-efficacy often seek more assistance and guidance from their administration or their coworkers as well as set themselves more challenging goals and adjust their teaching

strategies when faced with student difficulties to bring about student success (Friedman & Kass, 2002).

Teacher self-efficacy is relevant to the context of teaching in that teachers with lower self-efficacy often find themselves faced with burnout and are less satisfied with their jobs (Friedman & Kass, 2002). A study done by Lazarides and Warner (2020) noted that teachers with lower self-efficacy show a lack of motivation indicating that they are not adjusting their academic deliverance in order to promote student achievement. This lack of self-efficacy leads to a hindrance in the education of the students and consequently the decline of student achievement (Friedman & Kass, 2002).

This proposed topic will utilize the theory of self-efficacy within the research questions, as they aim to explore the teacher's experiences working with 2e students and how factors such as knowledge, previous experience, and training play a role in the beliefs of their ability to deliver instruction, demonstrating a perceived impact on student outcome. The data collection methods present in this study align with the research questions as they aid in delving into the teachers' experiences and uncover the teacher's beliefs about their abilities based on their previous experiences, education, and training, highlighting how these factors play a role in the perceived effect on student outcomes. The self-efficacy theory will also be present in the reporting results and framing of discussions as exploring the teachers' experiences demonstrates how their thoughts and beliefs about their abilities and capabilities to serve and work with this population influence the outcomes (Bandura, 2012). Aiming to add to the body of existing literature, this proposed topic will extend the theoretical framework of self-efficacy, highlighting that one's knowledge and belief about their ability to serve 2e students is gained from their experiences, training, and education. By looking specifically at the experiences of teachers

working with 2e students, this proposed research will fill in the blanks regarding a general understanding that teachers possess, where and if they were exposed to or provided strategies for working with 2e students, and how they feel their culmination of knowledge correlates to their ability to deliver instruction. Teacher self-efficacy has been readily researched and is found in current literature, but this proposed study will extend the theory by exploring the topic of teacher-self efficacy serving and supporting 2e students (Friedman & Kass, 2002).

Related Literature

Serving 2e students in an educational setting can be explored by looking into related literature that focuses on the various aspects of perceived effective learning and teaching, teachers' understanding and background knowledge of this unique population, and how to serve them. When deciding how to serve this population, it is essential to understand what makes a child 2e (Baum et al., 2017) and understand that the students' experiences and academic self-concept can produce knowledgeable insight when determining effectiveness. This unique population requires a unique set of strategies and supports that focus not only on their needs but their strengths as well (Baldwin et al., 2015b). A teacher's knowledge of 2e students and how to serve them directly impacts the success of student learning and achievement within the classroom, correlating with the effectiveness of implementing strategies (Dimitriadis et al., 2021; Missett et al., 2016). Understanding teachers' knowledge of 2e students, the influence their knowledge of lack of has on student learning and understanding, and the unique strategies and support that can be implemented to support 2e students will be reviewed in this section.

Twice-Exceptional Students

Twice-exceptional students are considered a unique population, making up approximately 6% of the student population who qualify as both learning disabled and gifted (Bell, 2019). The term 2e describes a student whose learning pattern shows both a learning disability and high ability (Baum et al., 2017). The National Twice-Exceptional Community of Practice (2eCoP) defines twice-exceptionality as an individual who demonstrates exceptional ability and disability that results in an uncommon and unique set of circumstances (Coleman & Roberts, 2015). Twice-exceptionality is present among all socio-economic and ethnic groups. An exceptionality in education is defined as learners whose behavioral, physical, or cognitive performance differs from the “norm” that requires additional support and services that meet the student’s needs (Kalbfleisch, 2012). This definition is not limited to students with disabilities alone but students who have a higher cognitive performance than their same-age peers and require the support of gifted education to meet their individual needs (Reis et al., 1995). The combination of exceptionalities creates challenges that teachers, parents, and staff face.

The combination of dual exceptionalities within a student demonstrates a unique connection between the two sides of education (Josephson et al., 2018). Due to the student’s giftedness in certain cognitive and academic areas and their demonstration of high aptitude levels qualifies them for their school's gifted program to receive gifted education services, services that academically challenge and push them above grade level standards and norms. (Josephson et al., 2018). In contrast, their disability qualifies them for special education services under the Individuals with Disabilities Act (IDEA) (Florian & Camedda, 2020), both of which are served in separate settings from one another (Amran & Majid, 2019). A student’s disability that qualifies them for special education services can include Attention Deficit Hyperactive Disorder

(ADHD), Autism, or a Specific Learning Disability in certain areas, the most common special education disability that is seen in twice-exceptional students is Autism Spectrum Disorder, Other Health Impairment, which includes the diagnosis of ADHD, and Dyslexia, which is served under the category of Specific Learning Disability (Josephson et al., 2018). Gifted learners are typically labeled high achievers, while special education students are labeled low achievers (Coleman & Roberts, 2015; Ferri et al., 1997; Foley-Nicpon et al., 2011; Heller & Hany, 2004). Having both exceptionalities at the opposite ends of the spectrum of abilities creates a challenge as all involved are challenged to find ways to support the above grade level strengths (giftedness) and remediate the below grade level deficits (special education) (Makel, 2022; National Association for Gifted Children, 2013; Qvortrup & Qvortrup, 2018). Josephson et al. (2018) furthered the struggle of supporting 2e students by adding that one exceptionality will often mask the other, making it difficult to identify their strengths and needs related to both exceptionalities if one is not familiar with them the concept. These challenges perplex many educators (Bottiani et al., 2018; Brownell et al., 2009; Correa et al., 2014; Decker & McGill, 2021). With the concept of having two exceptionalities being uncommon, services for each exceptionality are set up separately, with a typical student receiving support in a single capacity; the dynamic of multiple exceptionalities creates a push and pull struggle between both modalities of support.

The parents of 2e students indicate that they feel their child's education is never a right fit (Park et al., 2018). Often the special education services only focus on the student's deficits, while the gifted services focus solely on their academic strengths, without either crossing the boundary of the opposite exceptionality, but a 2e student needs an education that includes both types of support (Park et al., 2018; Steiner, 2011; Wang & Neihart, 2015). With both giftedness and a learning disability, the parents of 2e students are struggling to ensure their student has

access to an education that meets both their strengths and needs (Dare & Nowicki, 2015). Parents play a crucial role in their child's educational and home environment, where advocacy and persistence are necessary as they navigate the unique characteristics of having a child with multiple exceptionalities, ensuring their child is receiving education and support for the academic strengths as well as their deficits and weaknesses (Prewett et al., 2019). The parents notice the push and pull struggle of ensuring their child is being served in both areas, making advocacy vital to the issue.

Twice-exceptional students feel similar pressures in their environments as they attempt to navigate life with multiple exceptionalities (Lee & Ritchotte, 2018; Mayes & Moore, 2016; Ronksley-Pavia et al., 2019a). Within the classrooms, 2e students are victims of bullying and social isolation as their teachers and peers negatively target the 2e student(s) in a class by ignoring the student, calling out their differences, and openly treating the student differently (Ronksley-Pavia et al., 2019a). Similarly, in a study done by Bechard (2019), a 2e student reflected on her experiences, stating that it "is crucial to prevent years of unnecessary trauma caused by being called out and openly punished and targeted for being different and not learning the same ways as the majority" (p. 26). While research indicates bullying from both teachers and peers, there are currently no statistics indicating the amount affected or the specific types that go beyond what is noted in specific case studies. Therefore, further research needs to be conducted for a clear picture of bullying statistics on 2e students.

Understanding the Strengths and Needs of Twice-Exceptional Learners

Understanding and recognizing 2e students are a key factor in addressing their strengths and needs (Baldwin et al., 2015b, Decker & McGill, 2021; Fugate et al., 2020; Krausz, 2018; Phillips-Pula et al., 2011). Once a teacher has a basic understanding of what it means to be

labeled 2e and has pertinent access to the student's files and relevant resources such as previous student data, anecdotal notes, and student psychological testing that gives insight into the students' overall capabilities and deficits, they can then observe and recognize the students' strengths and needs. The purpose of recognizing 2e students is to accurately and employ strategies that meet the students' individual needs (Baum et al., 2017) that are vast in nature due to having dual exceptionalities (Yssel et al., 2020). With academic giftedness, the 2e student will have strengths related to specific subjects or concepts that are markedly above the average field of intellect, where their special education exceptionality brings about needs that are related to their disability (Foley-Nicpon et al., 2013; Krausz, 2018; Silverman, 2005). A typical student will display strengths and needs within their grade level (Ghufron & Ermawati, 2018), whereas a 2e student will show strengths above grade level with needs below grade level (Stodden, 2001). Thus, it is crucial to understand the vastness of strengths and needs possessed by a 2e student to better support them in a learning environment. A challenge that often arises when working 2e students is one exceptionality masking the other or both exceptionalities masking each other, making it difficult to assess strengths and needs (Josephson et al., 2018). While this challenge is identified, there is a gap in the literature that provides a solution to the problem of masked exceptionalities and uncovering student-specific strengths and needs.

Future Outcomes of Twice-Exceptional Students

This growing population accounts for a percentage of the enrolling students within colleges and universities; however, they display lower levels of retention and degree completion than their typical peers without multiple exceptionalities, leading to a growing number of dropouts in the first year of post-secondary education, with those that do complete an undergraduate degree taking six years in total (Belch, 2004; Horn et al., 1999; Orr & Goodman,

2010; Smyth, 2017; Stodden, 2001). Contributing factors to these climbing dropout rates include inadequate academic preparation (Horn et al., 1999), a lack of support during the transition between secondary and post-secondary, and a lack of professor knowledge and use of accommodations and in the post-secondary classrooms (Malakpa, 1997; Villarreal, 2002). Future outcomes of 2e students and statistics on college entrance and dropout rates contain little existing research, with the bulk of research on 2e students focusing on early and secondary education (Baum, 1994; Ferri et al., 1997; Reis et al., 1995).

Little to no research has been conducted within the job market depicting the future outcomes of 2e students as they graduate high school and begin searching for their careers. In a study conducted exploring the experiences of 2e students during secondary education, an overwhelming majority of participants indicated that by the time they reach high school, they display low self-esteem, poor work ethic, and frustration towards school as they feel constantly misunderstood and unheard (Wang & Neihart, 2015), leading to poor habits that impact their success in post-secondary education and their future careers (Ronksley-Pavia et al., 2019a). Further research is required to assess 2e students within the job market.

Educating the Twice-Exceptional Student

Meeting the needs of 2e students poses several challenges as teachers are not trained across specialty areas and do not have the qualifications and skills necessary to educate and support this unique population (Bianco & Leech, 2011). According to Amber Bechard, Ph.D. (2019), “teachers’ training programs on gifted, general, and special education often lack explicit instruction on this population as well” (p.26). Similarly, a study completed by Bianco and Leech (2011) raises concern about the obstacles hindering the education of 2e students, with the most prolific obstacle being the lack of teacher training in higher education on 2e. While it is noted

that ensuring our teachers are trained to educate 2e students is vital, there is a gap in the literature for suggesting a solution that goes beyond identifying the lack of training (Fernandez-Rivas & Espada-Mateos, 2019; Kaufman, 2018; Krausz, 2018; Shahzad & Naureen, 2017; Smith et al., 2019). Therefore, the continued lack of explicit training in teacher preparation programs leads to teachers entering the classroom unprepared to educate this population, requiring further research to find a solution that requires educator preparation courses to include instruction on educating 2e students (Friedman & Kass, 2002; Gierczyk & Hornby, 202; Harwell, 2003).

Educating a 2e student can be deemed as a challenge to educators as research indicates the need to recognize the student's giftedness as well as their disability (Fernandez-Rivas & Espada-Mateos, 2019; Kaufman, 2018; Krausz, 2018; Shahzad & Naureen, 2017; Smith et al., 2019). Despite the challenges that the student faces they should be allowed to engage in a curriculum that plays to their strengths (Friedman & Kass, 2002; Gierczyk & Hornby, 202; Harwell, 2003). Educating 2e students involves differentiating the curriculum present to meet the needs of the student in that specific setting whether that is a general education, a special education, or a gifted education classroom setting (Bianco & Leech, 2011; Friedman & Kass, 2002; Gierczyk & Hornby, 202; Harwell, 2003). Additionally, it is important to note and understand that each 2e student will require a different type or amount of differentiation and that no two 2e students are the same (Bechard, 2019; Bianco & Leech, 2011). Research indicates that there is a myriad of support and differentiation that can be given to a 2e student based on their specific strengths (Bianco & Leech, 2011; Friedman & Kass, 2002; Gierczyk & Hornby, 202; Harwell, 2003). These supports that should be prevalent based on the needs of the students are integrating technology, addressing social and emotional needs, and providing guidance ((Bianco & Leech, 2011; Lazarides & Warner, 2020). When educating a tool, it is important to take into

account the student specific strengths and needs as well as their type of disability and level of giftedness (Friedman & Kass, 2002; Gierczyk & Hornby, 202; Harwell, 2003).

Placement of Twice-Exceptional Students

Twice-exceptional learners are a unique mix of multiple exceptionalities; with these multiple exceptionalities comes a need for placement that meets the needs of all exceptionalities (Ronksley-Pavia et al., 2019b). Having multiple exceptionalities means that these students require different modes of instruction and support than an atypical learner. Trail (2008) notes that an atypical learner, or a student with no exceptionalities, learns in a general education classroom for the entirety of their day, while 2e learners will often be placed in a gifted education setting and a general education inclusion setting. The National Association for Gifted Children (2013) outlines a typical school day for a 2e learner, splitting their day between their gifted education classroom and their inclusion classroom. While Meghan Alvarado (2013) agrees that the 2e student splits their day between the gifted and inclusion setting, she raises concern that the student may not be receiving continual support for both exceptionalities between the two settings. For example, she states that within a gifted placement, the students are served via the “pull out” method, meaning that only a gifted certified teacher is providing instruction, someone who is not trained to serve a student with disabilities, wherein in an inclusion placement instruction is delivered by a general and special education teacher, neither of which are trained to provide gifted instruction (Alvarado, 2013). While each placement may meet the needs of one exceptionality, research indicates there is not ample placement for supporting 2e students (Baldwin et al., 2015b; Lee, 2018; Steiner, 2011; Trail, 2021). Therefore, it is crucial to understand each placement and the lack of teacher training that hinders educators from meeting this unique population's needs in their current environments.

Gifted. The term gifted was federally defined in The Education Amendments of 1969 as children who display outstanding intellectual abilities or possess a creative talent, which requires special services that are not usually provided by the local education agencies to further develop these abilities or talents (Stephens & Karnes, 2000). Similarly, The National Association for Gifted Children (2013) defines giftedness as those individual students achieving above grade level and average intelligence with same-age peers. While there is a definition set forth by The Education Amendments of 1969 and the definition set forth by the National Association for Gifted Children, each state also has its definition of giftedness (Stephens & Karnes, 2000). A study showed that 43 out of the 50 states placed a specific emphasis on the intellectual and academic abilities of the student, whereas only half of these states considered the potential abilities of a student as part of the definition of giftedness. According to the National Association for Gifted Children (2013), 10% of the student population from Kindergarten through 12th grade are identified and served as gifted. While an emphasis is placed on the definitions and those that provide services, there is a gap in the research that discusses those states that do not emphasize giftedness and the impact on their students.

Gifted students are served in a separate classroom environment from the inclusion setting (Hiemstra & Van Yperen, 2015; Lee & Ritchotte, 2018; Smith et al., 2019). Parks (2021) states the teaching method within a gifted education classroom is designed around Bloom's Taxonomy upper two levels: creating and evaluating. For example, students participate in designing a game, composing a writing piece on a current event topic, or conducting an experiment (Parks, 2021). Similarly, Coleman and Hughes (2009) discuss the supports that are provided in a gifted education setting include tiered assignments, which are based on student readiness and allow higher functioning students to work on harder or more difficult assignments, and repeated

practice assignments for students that are struggling to grasp the concept, assignments which never dip below grade level ability. For example, a tiered math assignment would allow the higher functioning students to work on math problems coming up in the next chapter to give them a challenge, while the struggling students would remain working on the current math problems to grasp the concept. The most frequently mentioned gifted education supports push students above grade level and continuously challenge their abilities (Coleman & Hughes, 2009; Parks, 2021; Smith et al., 2019). While these supports focus on challenging the student, it only focuses on the student's strengths, forgoing their needs. A typical gifted student does not have academic challenges but a need to be challenged academically (Parks, 2021). This environment alone does not meet the needs of a 2e student as the structure does not provide support for their needs related to their disability and their special education exceptionality.

Special Education. The term “special education” refers to a set of services that are provided to students who experience or exhibit a learning disability as outlined and governed by the law under the Individuals with Disabilities Act (IDEA) (Yell & Drasgow, 2007). IDEA outlines eligibility to receive special education services under thirteen specific categories of disabilities. These services include instruction specifically designed to meet the unique needs of the student's disability (Zigmond, 2003). According to the Nation Center for Education Statistics, approximately 7.1 million students have an Individualized Education Plan (IEP) and are supported with special education services (Sanderson & Goldman, 2021). This specifically designed instruction is documented in an Individualized Education Plan, which is the foundation of special education (Petek, 2019) and includes all relevant information about the student and their disability and their least restrictive environment special education setting. All students placed in special education have been diagnosed with a learning disability that impacts how they

learn or interact with others. While each school provides special education services, those services will differ depending on the student's specific needs (Osborne & Russo, 2020).

Over half of the special education population, 64%, are taught in an inclusion setting (Gierczyk & Hornby, 2021). The strategies used to meet the needs in this setting are geared toward the student's deficits and providing support to enable them to reach grade level (Florian & Camedda, 2020; Shahzad & Naureen, 2017). Florian and Camedda (2020) indicates that supports used include scaffolding up to grade level, implementing the IEP supports and accommodations, and differentiation of grade level and below grade-level instruction. Qvortrup & Qvortrup (2018) agree, noting that an inclusion classroom, which includes general education students, is focused on ensuring students meet grade-level standards. While this setting will meet the needs of the student's disability, an inclusion setting is not an appropriate environment to meet the needs of their gifted exceptionality, which requires above grade level enrichment.

Inclusive General Education Classroom

An inclusive general education classroom is a classroom with students with disabilities and students without disabilities who learn together (Qvortrup & Qvortrup, 2018). In school settings, this type of classroom is referred to as "co-teach" or "inclusion," where both a general education certified teacher and special education certified teacher are working together to meet the needs of the students in the class (Qvortrup & Qvortrup, 2018). More than 30% of school classrooms are comprised of students with an IEP (Sanderson & Goldman, 2021). The rule of thumb is a 70/30 split in an inclusion setting, with 30% of the students within that specific class being served under IDEA (Jordan, 2018). This number may vary depending on the district and school, varying upwards of a 50/50 split in an inclusion setting (Jordan, 2018). This type of educational setting allows for a diverse academic experience for all students, providing various

levels of support for their academic, social, communication, and emotional needs (Wasserman, 2013). Students identified as 2e are placed in an inclusion setting where they can interact with their same-age general education peers and teacher but still receive the support needed from the special education teacher for their disability (Florian & Camedda, 2020; Sanderson & Goldman, 2021). An inclusion setting benefits 2e students, such as an increased social network, shared learning opportunities, increased collaboration and participation, and readiness for inclusion outside of school (Gierczyk & Hornby, 2021). Adversely Shahzad and Naureen (2017) indicate that inclusion classrooms also come with a unique set of challenges that include a lack of opportunity for individual support from the teacher, a lack of challenging curriculum for those who are excelling, and a greater opportunity for alienation and social stereotyping from their non-disabled peers. Inclusion settings alone do not provide adequate instruction for 2e students as they typically address only one exceptionality (Baum et al., 2004; Ronksley-Pavia et al., 2019a; Silverman, 2005). Josephson et al. (2018) echo Shahzad and Naureen that 2e students often have one exceptionality masking the other or masking each other, making it extremely difficult for an educator in an inclusion setting to determine how to support and provide instruction to the student. The most frequently noted solution indicates that all 2e students can be successfully taught in an inclusion setting so long as they can access the necessary special education accommodations and appropriate strategies and programs for gifted education (Assouline & Whiteman, 2011; Baldwin et al., 2015b; Gierczyk & Hornby, 2021; Shahzad & Naureen, 2017). While this solution is common across numerous studies (Assouline & Whiteman, 2011; Baum et al., 2004; Gierczyk & Hornby, 2021; Josephson et al., 2018; Ronksley-Pavia et al., 2019a; Silverman, 2005), there are no practical applications found for this

solution in the research that indicates how gifted education will be provided in an inclusion setting

Strategies for Supporting Twice-Exceptional Learners

Serving this unique group of students requires strategies that acknowledge their strengths while supporting their weaknesses (Amran & Majid, 2019; Bechard, 2019; Ginsburgh, 2007; Hiemstra & Van Yperen, 2015; Louis, 2008; Proctor et al., 2011). Gierczyk and Hornby (2021) report that for 2e students to make adequate progress in their learning environment, the primary strategic focus should be developing their skills and utilizing their strengths. A traditional learning environment focuses solely on the student's weaknesses and asks what they did wrong and "why won't they learn" (Baum et al., 2014; Chakraborti-Ghosh, 2019; Steiner, 2011). Creating a deficit driven learning strategy threatens the student's self-efficacy (Gouwens & Henderson, 2021), only showing them what they did wrong, whereas strength-based learning focuses on what they did right, equating their strength with success, thus increasing their self-efficacy and drive to keep learning (Bandura et al., 2003; Barber & Mueller, 2011; Baum et al., 2014; Chakraborti-Ghosh, 2019). Identifying needs alone is insufficient to support the student; concurrently identifying strengths and needs allows for a strength-based approach, utilizing the student's strengths (and interests) to support the needs or deficits (Lee & Ritchotte, 2018). Amber Bechard (2019) highlights teachers' perspectives on the effectiveness of strategies, noting that out of the 60 participants interviewed, 57 identified the most successful and effective strategy to use when teaching 2e students as strength-based learning. Hiemstra and Van Yperen (2015) agree that strength-based learning directs students' attention toward the positive aspects rather than the negative ones of their ability; indicating that the impact of strength-based strategies on be similar to the effects of positive feedback as opposed to negative feedback with several

theorists noting that positive feedback is beneficial for learning because it strengthens students' perceived competence or self-efficacy. For example, a strength-based learning approach looks at what the student can do and can succeed at and shifts the focus from "this kid just will not learn" to "this student shows other areas of strength, what skill is lacking here" (Assouline et al., 2006; Austin, 2005). A strength-based approach is praising the student for what they can do academically, rather than only focusing on what they cannot do. Through the conceptualization of a dual-lens view where both exceptionalities are viewed on an equal plane, strategies such as strength-based learning can be implemented that will provide the appropriate academic, emotional, and social supports within the classroom, ensuring that the student(s) have ample opportunity to successfully participate in their learning (Ginsburgh, 2007). Several studies conclude that focusing on the student's strengths or what they are doing well raises student self-efficacy, encouraging them to work hard at their deficits, and 2e students being gifted have vast strengths (Baum et al., 2014, 2017; Ginsburgh, 2007; Hiemstra & Van Yperen, 2015). Further research is required to examine the gap between the understanding that the strength-based learning strategy works and providing teachers with the skills and tools to effectively implement this strategy in the classroom. Nevertheless, utilizing a strength-based learning approach allows the students to lean on their abilities, encouraging them to achieve academically (Lopez & Louis, 2009).

Positive psychology is another strategy supported by growing evidence demonstrating its effectiveness for student academic success (Bandura et al., 2003; Seligman et al., 2009; Seligman & Csikszentmihalyi, 2000). Positive psychology is similar to strength-based learning in that it is grounded in focusing on positive attributes or what the student is doing well (Bandura et al., 2003). Seligman and Csikszentmihalyi (2000) concur, emphasizing that positive

psychology means not only looking at the positive attributes of a 2e student but allowing the student the opportunity to reflect on their positive attributes and strengths, which significantly impact their academic success through building and supporting their self-efficacy (Donaldson et al., 2019).

Positive psychology means acknowledging what the student is doing correctly and having the student acknowledge their successes (Hiemstra & Van Yperen, 2015). For example, implementing positive psychology in the classroom might be as simple as praising the student for what they are doing correctly but also includes interventions such as having the student write a gratitude journal or having them write their daily strength awareness (Carr et al., 2021; Francis et al., 2021). Current research on positive psychology demonstrates the importance of its implementation (Seligman et al., 2009) but also provides support and examples that can be directly implemented in the classroom to increase the 2e student's self-efficacy by giving the student the notion that they can conquer complex tasks related to their deficits (Carr et al., 2021; Krausz, 2018; Seligman & Csikszentmihalyi, 2000), strengthening their belief in themselves as a student (Bandura et al., 2003). Focusing on the student's positive qualities allows them to be more confident in their abilities, increasing their self-efficacy and drive to succeed while encouraging a safe and thriving classroom environment (Carr et al., 2021; Francis et al., 2021; Krausz, 2018). Therefore, positive psychology allows the students to grow in confidence by acknowledging their abilities and using that positivity to create the notion that they can succeed when they are strengthening their deficits.

There are numerous strategies available for supporting 2e students (Carr et al., 2021; Francis et al., 2021; Krausz, 2018). It is imperative that when an educator is deciding which strategies to use and implement to best support their 2e student that they are considering and

recognizing the student's giftedness as being a top priority even when a learning disorder is acknowledged (Baum et al., 2014, 2017; Ginsburgh, 2007; Hiemstra & Van Yperen, 2015). This leads into the notion of strength-based learning where the focus is shifted from what the student cannot do to what the student can do (Ginsburgh, 2007). A study done by Oak Crest Academy (2022) found that the traditional classroom and the way a traditional classroom is run is not ideal for 2e students (Vick, 2022). For this population of students to be successful the strategies implemented should be based on the students' strengths and their specific needs rather than focusing on remediation that does not address either of these aspects (Hiemstra & Van Yperen, 2015). These strategies allow for individual learning to take place within the two east student that facilitates higher levels of abstract thinking and unique problem solving add caters to the students preferred learning style (Carr et al., 2021; Francis et al., 2021; Krausz, 2018; Seligman & Csikszentmihalyi, 2000).

Learning for Twice-Exceptional Students

Twice-exceptional students face a unique set of challenges typically falling into three categories: (1) their giftedness masks their learning disability, (2) their learning disability masks their giftedness, and (3) their learning disability and giftedness mask each other (Josephson et al., 2018). For students with both a disability and giftedness, their strengths and needs will vastly differ from their same-age peers in any setting. Serving and supporting this group of learners requires knowledge and insight into what it means to be 2e and a deep dive into individual students' data (Baldwin et al., 2015b). The 2eCoP, along with Twice-Exceptional Children's Advocacy (TECA), has created guidelines for 2e student learning that include utilizing specialized methods to identify the interaction of both exceptionalities and recommendations for enriched education opportunities that will provide opportunities for the student to develop their

interests, gifts, and talents while simultaneously meeting their learning needs (Lee & Ritchotte, 2018). Similarly, Wang and Neihart (2015) add that effective learning arises from understanding the individual student and collaboration and communication between the parents, student, and teachers involved in the learner's education, emphasizing the importance of communication between all parties to unmask both exceptionalities. Research notes that masked exceptionalities can occur and recommends learning more about the student and speaking with others, following the guidelines to serve this population. Understanding the student and both of their exceptionalities is crucial for learning.

Importance of Implementing Strategies

Implementing effective strategies is imperative for teachers (Gierczyk & Hornby, 2021; Lee & Ritchotte, 2018; Trail, 2021). For a strategy or intervention to be effective, it must be tailored to the student's unique needs (Amran & Majid, 2019) and address the struggles of each exceptionality (Foley-Nicpon et al., 2011). An example of an important strategy is providing a structure that promotes organization within the classroom (Amran & Majid, 2019; Josephson et al., 2018). For example, aim to keep a similar schedule daily, promoting routine and rigor, and color-coding materials can aid in helping 2e student find their belongings and remain organized (Josephson et al., 2018). Organizational skills are a known deficit of the 2e population; thus, creating an organized classroom environment eliminates the added stressors of finding materials or transitioning to other subjects (Nielsen, 2002). Baldwin et al. (2015a) recommend using project-based and inquiry-based approaches that establish short-term deadlines but allow the students the flexibility to lean on their unique strengths to complete assignments. These strategies, along with strength-based learning and positive psychology, work because they bring to light what the students can do, focusing on their strengths and guiding them to use their

strengths to support their deficits, encompasses both exceptionalities (Hiemstra & Van Yperen, 2015). Therefore, it is important to implement strategies to provide the students with ample learning opportunities.

Ineffective strategies only focus on one exceptionality over the other and, by definition, do not produce the desired result (Hiemstra & Van Yperen, 2015). For example, only instructing the student as if they are gifted means they are not getting the support for their disability, whereas only instructing the student for their disability and not utilizing their strengths from being gifted can pose just as futile (Bechard, 2019; Hiemstra & Van Yperen, 2015; Ronksley-Pavia & Townend, 2017; Sandholtz, 2011). Bechard (2019) indicates that ineffective teaching strategies stem from ineffective instruction, instructional strategies, and a lack of teacher knowledge regarding the students and content. Similarly, Judith Sandholtz (2011) completed a study that examined 290 preservice teachers at the end of their combined master's and teacher preparation program, where 53% of the participants indicated they were taught ineffective strategies related to delivering instruction to 2e students in a way that resonates with the students. Out of those same participants, 17% said their strategies were ineffective because they did not know and understand enough about the student, and the study found that commonly, the preservice teachers "misjudged students' abilities and prior knowledge," highlighting the importance of understanding 2e students to implement effective strategies (Sandholtz, 2011, p. 37). Thus, the predominant view characterized by several authors indicates that teachers are not being given the appropriate preparation and education to implement effective and successful teaching strategies for 2e students, leading to the use of ineffective strategies (Ronksley-Pavia & Townend, 2017). If no strategies or inappropriate strategies are used, no student learning is

taking place; therefore, for teachers to provide effective strategies, they need a proper understanding of 2e to positively impact learning.

Impact on Learning

Effective learning is described as a method of teaching that actively engages the students through appropriate teacher behavior, teacher knowledge of the subject matter, and students and teacher beliefs, which lead to the desired academic outcome (Brendle et al., 2017; Gierczyk & Hornby, 2021; Ronksley-Pavia & Townend, 2017; Sandholtz, 2011; Skaalvik & Skaalvik, 2010). When these key components are compromised, a negative perceived impact on learning occurs, creating an ineffective learning environment (Mayes & Moore, 2016; Missett et al., 2016; Ronksley-Pavia et al., 2019a). Lee and Ritchotte (2019) conducted a study that provided professional development to educators, providing them the foundation knowledge, and understanding of 2e that can be utilized within the classroom. Several authors have categorized that teacher preparation and professional development are valuable for shaping and re-shaping teacher skills, knowledge, understanding, and attitudes of 2e students, ensuring they are well-equipped to deliver instruction and support, creating a positive impact on learning (Bandura, 1994; Bechard, 2019; Rowan & Townend, 2016). When a teacher feels unprepared to instruct a student, that feeling will influence their “choice of activities, how much effort is expended on an activity and how long people will persevere when confronting obstacles” (Skaalvik & Skaalvik, 2010, p.8). Therefore, it is crucial to aptly prepare educators to ensure a positive impact on learning. However, further research is needed to address the gap in the literature on the improvement rate of the learning impact of trained and untrained educators.

Negative beliefs and expectations about a 2e student's academic ability are one of the main factors that limit the teacher's ability to effectively serve the student, thus creating a

negative impact on learning (Bianco & Leech, 2011; Lee & Ritchotte, 2018; Missett et al., 2016; Reis et al., 1995). A case study conducted by Missett et al. (2016) looked deeper into the phenomenon of negative beliefs and lower expectations of the academic abilities of students with disabilities, regardless of giftedness. “Such negative beliefs and expectations, even in the absence of data to support such expectations, have also been shown to influence teachers’ instructional choices for students in classrooms when structured, making the teachers reluctant to implement instructional strategies known to be effective” (Missett et al., 2016, p. 21). Similarly, several studies addressed the same concept that leads teachers to overlook a student’s abilities and focus solely on the negative academic behaviors and weaknesses and their remediation, having a negative impact on learning as only one exceptionality is being addressed (Bianco, 2005; Bianco & Leech, 2011; Hallahan et al., 2012). Unprepared or misinformed educators can negatively impact student learning and outcome by being ineffective at delivering instruction (Missett et al., 2016). Ergo, to positively impact the student and their learning, the teacher needs to be prepared to work with and support 2e learners.

Teacher Knowledge of Educating the Twice-Exceptional Student

Teachers are the ones who society has tagged to be the givers of knowledge (Baldwin et al., 2015b; Bandura, 2012; Bell, 2019; Elbaz, 2018; Friedman & Kass, 2002). Teachers are the frontline of our education system and oversee delivering instruction to a multitude of students (Beames et al., 2021). Similarly, Bechard (2019) states that teachers are expected to have the necessary knowledge to ensure that successful learning can occur with this task. Teachers are responsible for student learning and the individual outcomes of their students. Since teachers are responsible for educating students, providing instruction and meeting their needs, educators should have the knowledge necessary to accomplish these tasks set forth (Bechard, 2019).

Knowledge

Knowledge is defined as the facts, skills, and information acquired by a person through their specific education or experiences and how these relate to understanding a subject (Baldwin et al., 2015b; Bechard, 2019; Bolisani & Bratianu, 2018; Dimitriadis et al., 2021; Locke & Bandura, 1987; Fugate et al., 2020; Josephson et al., 2018). The power of knowledge is the power or ability to see beyond deception, maintain integrity, and the power to know things that others cannot see (Rouse, 1994). Adding to Rouse's concept of knowledge, Fernandez-Rivas & Espada-Mateos (2019) indicate that knowledge is cumulative and continually growing and includes recall, recognition, understanding, evaluation, application of concepts and patterns, and facts. For example, if a teacher is knowledgeable in a specific subject, meaning they understand, recall, and can apply the necessary skills equated with the subject, they can create attentive and effective learning and teaching environment (Dimitriadis et al., 2021; Fugate et al., 2020; Joo et al., 2018; Josephson et al., 2018; Ungar et al., 2018). Adversely, if a teacher does not possess knowledge of a specific subject, meaning they lack a general understanding, recognition, and ways to apply the necessary skills, they will lack the ability to effectively teach students (Lee, 2018; Sandholtz, 2011; Ungar et al., 2018). This culmination of research brings forth a solid notion among all that teachers are in a powerful spot, and holding the most influence within a classroom, are expected to know of each of their students and how to best support them, whether that student is gifted or has a disability (Fernandez-Rivas & Espada-Mateos, 2019; Lee, 2018; Rouse, 1994; Sandholtz, 2011; Ungar et al., 2018). Therefore, if teachers are known to be in a powerful position within the classroom, their knowledge needs to extend to 2e students.

Teacher's Knowledge of Educating the Twice-Exceptional

There is a strong correlation between teachers' knowledge of educating the 2e and teacher self-efficacy (Clark & Newberry, 2019; Eberle II, 2011; Edgar, 2019; Friedman & Kass, 2002; Hoy et al., 2009). Khurram Shahzad's (2017) study on teacher self-efficacy and student academic achievement found that a lack of teacher knowledge about a particular discipline directly correlates to decreased teacher self-efficacy. Skaalvik & Skaalvik (2010) agree, stating that it has "long been argued that a teacher's lack of knowledge about a particular discipline area can lead to decreased self-efficacy, showing that teachers will likely avoid tasks with which they have low confidence and self-efficacy" which has a negative impact on student learning (p.8). In the field of business, managers who possess knowledge relevant to their strategic marketing plan have markedly higher self-efficacy and feel more capable in their abilities to carry out the marketing plan than their noted counterparts who lack the relevant knowledge, thus presenting with lower self-efficacy (Lee & Ritchotte, 2019). These studies show the strong correlation between knowledge and self-efficacy and lack of knowledge and lack of self- efficacy, which directly translates into teacher self-efficacy within the classroom (Bechard, 2019). While research has been done on teacher self-efficacy within the classroom and its correlation to knowledge, there are no practical applications for increasing teacher self-efficacy.

Teacher's Lack of Knowledge

A lack of teacher knowledge stems from a lack of teacher preparation programs and professional development training for 2e students (Bechard, 2019; Lee & Ritchotte, 2019; Rowan & Townend, 2016; Shahzad & Naureen, 2017). A lack of education and training on 2e students being provided to teachers correlates to a lack of understanding of what it means to be 2e, creating barriers to recognizing and supporting these students (Bechard, 2019; Lee &

Ritchotte, 2018). With teachers not being trained in specialty areas, they often do not recognize the unique characteristics and profiles of 2e students, thus failing to provide appropriate support (Nielsen Pereira et al., 2015). Melinda Musgrove, Director of the Office of Special Education Programs for the United States Department of Education, published a “Letter to Delisle” (2013) where she specifically mentioned that a lack of understanding of twice-exceptionality being a barrier to recognizing and supporting this population. When teachers lack knowledge, they feel unprepared, and preparedness leads to a decline in self-efficacy. According to Bandura (1995), self-efficacy plays a role in the way people think, behave, and are motivated; also influencing people’s choice of activity, with low self-efficacy being associated with helplessness, anxiety, and stress while strong self-efficacy being associated with higher cognitive processes and performance, “people’s self-efficacy beliefs determine their level of motivation, as reflected in how much effort they will exert in an endeavor and how long they will persevere in the face of obstacles” (Bandura, 1989, p. 176). Similarly, Rowan and Townend (2016) indicate that a lack of knowledge or education on 2e students leads to low teacher self-efficacy in the classroom. The most frequently mentioned correlation to low teacher self-efficacy is their lack of knowledge of what it means to be 2e and how to serve and support this population, highlighting that the teachers feel out of place and unsure when faced with a lack of knowledge (Bechard, 2019; Lee & Ritchotte, 2018; Nielsen Pereira et al., 2015). Therefore, for teachers to be effective in the classroom and feel confident in their abilities, they need to have proper preparation and training to understand what it means to be 2e.

Effects of Teacher Preparation on Knowledge

Teacher preparation is a crucial first step to ensuring that teachers have appropriate knowledge and are prepared to serve 2e students (Bechard, 2019; Missett et al., 2016; Ronksley-

Pavia & Townend, 2017; Sandholtz, 2011; Townend & Pendergast, 2015). It has been shown that both initial teacher education and ongoing professional development have a direct impact on teachers' classroom practices (Rowan & Townend, 2016). In a generalized context, teacher knowledge of what it means to be 2e is limited due to a lack of information in teacher preparation and development during their education (Dimitriadis et al., 2021). Educating this specific population of students requires that general, gifted, and special education preservice teachers receive specialized training on 2e students, and while researchers within the field agree, this has not become a mainstream requirement (Assouline & Whiteman, 2011; Baldwin et al., 2015b; Foley-Nicpon et al., 2013; National Association for Gifted Children, 2013). Bechard (2019) voices agreeance with the lack of mainstream requirement for higher education by stating, "2e students often receive no explicit mentions in general education or special education teacher preparation standards with inconsistencies found in legislation that supports pre-service and in-service teacher preparation for these students" (p. 28). Typically, general education and gifted education teaching degrees do not fully address students with disabilities, specifically 2e students, nor does it address this population's characteristics and how to best serve them (McClurg et al., 2021). The National Association for Gifted Children and the Council for Exceptional Children have issued separate preparation standards for gifted and talented education and special educators, respectively (Assouline & Whiteman, 2011). General education teaching degrees focus on the subject and the general grade band(s) (Leysner et al., 2011), while gifted education teaching degrees focus on ways to challenge and excel students academically, and special education programs do address students with disabilities, the concept of 2e is merely addressed through a single assignment, rather than a full course (Dyenia et al., 2020). This lack of overall teacher preparation, breakdown of degrees, and requirements create a divide among

educators when tasked with serving the same student. Therefore, teachers must be supplied with universal knowledge on 2e students to create a positive learning environment where all involved feel knowledgeable.

Lack of knowledge regarding 2e students can also be traced to teacher preparation within a college, university, or school districts in the form of professional development and training (Bechard, 2019; Bianco & Leech, 2011; Correa et al., 2014; Horn et al., 1999). Colleges and university do not offer proper training and education on the topic of 2e students to any educator preparation program (Bechard, 2019). There is no standard of education or training that is required to earn a degree in education (Bechard, 2019). With the population of 2e students being only 6% of the total student population, there are little to no professional development opportunities offered to educators or staff within school districts for support and strategies specific to 2e students (Bell, 2019). A study conducted within a Colorado School district found that although the 2e population was 5.3%, there was a consistent lack of knowledge of what it means to be 2e and way to best teach and support them within the classroom, a lack of knowledge which span across teachers, administrators, and district personnel alike (Lee & Ritchotte, 2019). While Josephson et al. (2018) agrees, he raises the concern that when teachers are unprepared, they rely on what they understand about the student, and depending on the specific student, an understanding typically favors one exceptionality over the other, often determined by the exceptionality that is more prominent, or masks the other one which negatively impacts student learning within the classroom (Bianco & Leech, 2011). If a teacher has no background knowledge or experience regarding 2e students to rely on, then they are put in situations that leave them unprepared and lacking confidence which leads to the teachers not being able to deal with their current situations and ultimately effects their overall performance in

being able to give 2e students the instruction that they need to be successful. Henceforth, the overarching focus indicates that a lack of teacher knowledge through continued and ongoing training negatively affects student learning within the classroom.

Teacher Perceptions of Twice-Exceptional Students

Teacher perceptions play a vital role in their beliefs of a student's ability, thus influencing their deliverance of instruction and support (Brandmiller et al., 2020; Missett et al., 2016; Prewett et al., 2019; Redding, 2019). A teacher's negative perception of a 2e student can stem from a lack of understanding or a misunderstanding regarding a student and their ability or disability (Missett et al., 2016), stemming from "the idea that a student can be gifted and also have a disability seems contradictory to many teachers" (Bechard, 2019, p. 29). A teacher's perception is also made up of their own knowledge or lack thereof, and their prior experiences with students in the past, whether that student was gifted, special education or 2e (Brandmiller et al., 2020). Just as one is made up of their own personal life experiences, teachers' perceptions are made of their prior teaching experiences (Brandmiller et al., 2020). A study completed by Missett et al. (2014) found that teachers were less likely to utilize and implement effective instructional strategies such as ability grouping and acceleration when they had negative beliefs about the capability of the 2e student in their classroom, believing that the student was not capable of academic acceleration or higher ability work. Similarly, Ronksley-Pavia et al. (2019b) conducted a case study of teacher perceptions on 2e students, highlighting a 2e student and teacher within an English classroom. Within this study the student displayed superior writing and discussion abilities; thus, the teacher perceived the student as only gifted, treating him as such, expecting that level of work in all areas. This notion creates an adverse perceived impact on a student's educational performance from the teacher, when their instruction and expectations are

geared towards one exceptionality over the other and can impact the student's motivation and ability to achieve, learn and succeed, when their deficits are not being address or met within an academic setting. Often, teachers only view one exceptionality or the other, typically the more prominent one (Josephson et al., 2018). Teacher perceptions of 2e students lend to the self-fulfilling prophecy, which is the notion that a false understanding or definition of the student can evoke new behavior from the student which then makes that false understanding or definition become a true one (Merton, 1948). This prophecy means that the students will either live up or down to the teacher's predictions, expectations, and perceptions regarding their academic performance, which can have a negative impact on the student's academic achievements and outcomes based on the initial understanding of the teacher (Boehlert, 2005; Merton, 1948). A teacher's perception of a 2e student dictates how they interact, instruct, and support that student, often to the disadvantage of the student and based on the teachers own understanding of what it means to be twice-exceptional.

Summary

Adequately serving 2e students in inclusion and general education settings are challenging as there are several factors that aid in determining what types of instruction and support a student with multiple exceptionalities needs to be successful in an academic setting (Bechard, 2019). While current research aims to find ways to serve these students best, the purpose of this study is to explore the lived experiences of educator supporting and instructing 2e students and how educating this population, incorporating learning strategies, and lack of proper teacher training and education can have a perceived impact on the learning and instruction of 2e students (Fugate et al., 2020). Having both giftedness and a learning disability poses unique challenges to parents and educators alike (Baum et al., 2017).

Educating 2e students requires a multitude of supports that meet both the gifted exceptionalities and the special education exceptionalities (Shahzad & Naureen, 2017). Finding a placement that suits both exceptionalities can be tricky and usually occurs within an inclusive general education classroom. The 2e students are mixed with the general education students and receive instructional support from the special education teacher and general education teacher (Bianco & Leech, 2011). Strategies have been identified for supporting this population but can pose challenges if not implemented (Lambert & Tan, 2020).

Learning for 2e students requires educators serving and supporting this group of learners to have knowledge and insight into what it means to be 2e, diving deep into individual students' data (Baldwin et al., 2015b). This unique population can have a wide range of disabilities that earn them special education support and a higher aptitude in one or more academic areas that qualify them for gifted education (Foley-Nicpon et al., 2011). To best support 2e students, it is imperative to know the relevant strategies, the importance of implementing them, and the implications if they are not used (Baum et al., 2017).

Teachers' knowledge and lack of knowledge of 2e students have implications within the classroom. There is an overwhelming lack of educators with specific knowledge of 2e and what it means to be 2e (Bechard, 2019). Current research indicates a high need for professional development on 2e students and an understanding of the strategies and supports this population requires to succeed (Josephson et al., 2018; Lee & Ritchotte, 2019). A teacher's influence can change the classroom environment for the students involved, creating a shift in dynamics that can affect student motivation and learning (Clark & Newberry, 2019). Imposing a negative impact on a student can stem from a lack of understanding or a misunderstanding regarding a student and their ability or disability (Missett et al., 2016). When a teacher does not have a preset

notion of what to expect from a 2e student, their expectation is the disability and the deficits that arise from this disability without considering the strengths of the disability or the other exceptionalities (Missett et al., 2016). The practical significance of this study aims to find a general basis of teacher knowledge of 2e students and how their understanding of this population can have a perceived impact on their ability to deliver instruction (Josephson et al., 2018).

Through exploring the teachers' lived experiences, new insight and perspective can be gained that proves crucial to gathering a basis of teacher understanding of these students to affect change to better support the 2e students and the teachers serving them. Teachers are the frontline of the education system. To better support them and provide a solution to the problem, one first needs to understand their experiences and the role their experiences play in shaping the basis for knowledge and general understanding (Ungar et al., 2018). While the importance of educator training and explorations of 2e student experiences can be found in literature, there is a gap when looking to understand the experiences of teachers serving this population and how their training, education, and experiences have a perceived impact on the learning outcomes of their 2e students (Lee, 2018). Looking to fill the gap in the literature, this topic will take the theoretical framework of self-efficacy, looking deeper into teacher self-efficacy and the elements and characteristics that can affect a teacher's self-efficacy within the classroom, highlighting that one's knowledge and beliefs about their ability to serve 2e students are gained from their previous experiences, training, and education (Joo et al., 2018). By diving deeper into the experiences of educators, this study aims to understand how factors such as knowledge, self-efficacy, and attitudes of 2e students which influences student outcomes.

CHAPTER THREE: METHODS

Overview

The purpose of this hermeneutic phenomenological qualitative study is to explore the lived experiences of educators supporting and instructing 2e students. Exploring the experiences educators have when working with 2e students will uncover how variables such as education, training, and previous experience impact their self-efficacy and thus have a perceived impact on their ability to support these students within an instructional setting. The research design highlights a hermeneutic phenomenological study. The central and sub-research questions are included and discussed in alignment with the research design and theoretical framework. The procedures detail the permissions, recruitment plan, and data collection procedures utilizing a survey, individual interviews, and focus group. Finally, the data analysis sections describe how the data will be coded and analyzed via triangulation to produce the final findings. This chapter also includes a discussion on trustworthiness, credibility, transferability, dependability, conformability, and ethical considerations, with a chapter summary bringing it to a close.

Research Design

Qualitative research design investigates a phenomenon by using a “critical reflection of one’s assumptions and expectations of a teacher” (Piantanida & Garman, 2009, p. 3). Phenomenology is the study of human experiences and focuses on the direct experiences of the participants, and because various people have diverse experiences, phenomenological research allows for a first-person investigation (Gallagher, 2012). A qualitative phenomenological design allows the researcher to describe an individual’s lived experiences, emphasizing the influence of a specific phenomenon, and allows the researcher to establish common themes and patterns by focusing on participants in their natural setting (Creswell, 2013).

The specific type of design utilized within this study is hermeneutic phenomenology. Heidegger's (1962) hermeneutic phenomenology focused on identifying a phenomenon wherein the researcher, being a part of the world and understanding the phenomenon, collected data from participants who had a common lived experience. Heidegger (1962) also believed that we are always in a world with others, and there is no way to remove ourselves from experiences and emphasized the importance of Dasein, which means "being there" and being present in the world. Through this, he developed the hermeneutic circle; a description of interpreting and revising one's interpretations by looking at the whole of the phenomenon, analyzing the whole to look at the individual parts, clustering and synthesizing this information and then repeating as many times as needed until the researcher understands the phenomenon (Gadamer, 1977; Heidegger, 1962). Understanding the lived experiences through a hermeneutic approach allows for one to interpret and understand by moving back and forth from specific to general within the circle, making the researcher thoughtfully aware of the experiences of the participants while simultaneously reflecting on one's own until the phenomenon can be understood (Vieira & De Queiroz, 2017). A hermeneutic approach acknowledges the importance of incorporating and relying on the ideas of Husserl (1999), encompassing the notion that "natural knowledge begins with experience and remains within experience" (p. 9). Thus, highlighting the importance of finding the clear essence of the experience (Husserl, 1999).

The purpose of this hermeneutic phenomenological qualitative study is to explore the lived experiences of educators supporting and instructing 2e students. Although qualitative and quantitative research exists on the experiences of 2e students and their parents, little research

exists that highlights the experiences of educators serving and supporting 2e students within the classroom (Assouline et al., 2006; Bechard, 2019; Ng et al., 2016; Park et al., 2018; Ronksley-Pavia et al., 2019a). A hermeneutic phenomenological approach is an appropriate design for the proposed topic as it studies a shared lived experience with participants' while seeking to gain a deeper understanding of the meaning as it relates to the phenomenon (Heidegger, 1962). By implementing a hermeneutic phenomenological study, this shared phenomenon can be considered through the different perspectives of educators and begin to identify relevant themes as they relate to the topic through the hermeneutic circle (Gadamer, 1977).

Research Questions

The research questions seek to explore the experiences of educators working with 2e students and how various aspects of teacher preparation, education, and teacher knowledge have a perceived impact on teacher self-efficacy and the delivery of classroom instruction. Using intersubjectivity within the research questions allows sharing of subjective experiences, which is essential in producing social meaning and context (Thompson, 2005). Additionally, the research questions are the foundation of this study highlighting teacher self-efficacy when looking into the connection between teacher's knowledge and beliefs to perceived impact (Bray-Clark & Bates, 2003).

Central Research Question

What are the lived experiences of teachers working with twice-exceptional students?

Sub-Question One

How does a teacher's knowledge of twice-exceptional students affect student academic outcomes?

Sub-Question Two

What role does a lack of teacher preparation and continued education on 2e students play in teacher self-efficacy?

Sub-Question Three

How do a teacher's attitudes about the abilities of twice-exceptional students impact their instructional choices?

Setting and Participants

This section aims to describe the setting and participants utilized for this study. The setting section will provide enough detail so that the reader may visualize where and how data collection will take place. The participants participated via a virtual setting; their location was a quiet secluded area free of distractions. The data collection took place via Microsoft Teams. The participant's section will describe the applicable characteristics and requirements for participants chosen to participate in this study. The setting and participants are deliberately selected based on how to best inform the research questions and improve understanding of the phenomenon (Sargeant, 2012).

Site

This study looked at educators from Southern and Western states. These states and school districts were chosen as they are larger in number based on the population of current students and teachers. Choosing counties with larger student populations will provide the study with an ample participant sample pool to ensure that numbers are not limited, and enough participants can be gathered to meet the needs of the study and ensure saturation (Shetty, 2018). The counties all include public schools at the elementary, middle, and high school levels, with educators from each school level making up a sample pool of participants. These three divisions represent

31,692 students and 12,913 teachers (GaDOE, 2022). Each school is run by a Principal and Assistant Principal(s) tasked with overseeing all day-to-day functions of the school, including all staff within the building, students, and parents. All three county school districts are run by their Board of Education, which consists of elected officials and a Superintendent. The role of the Board of Education is to help create and review policies and procedures to ensure that the district is a good steward of the public money and that they are maintaining the best interest of the students being served (Chichura, 1989).

The site for the study was within the online world, in a digital and virtual setting. All communication was done via email, phone, or a Teams meeting. The interviews and focus group took place through Microsoft Teams in a virtual setting, in a distraction-free setting, away from others. This online environment provided the flexibility necessary to eliminate specific time constraints that arise from face-to-face environments time constraints and allow the participant to choose a physical location where they feel most comfortable (Malterud et al., 2016).

Participants

The participants in this study were educators who teach general education, special education, and gifted education classes or courses at a K-12 public school. While women are more prevalent in education, making up 76% of the teacher population (Tasner et al., 2017), the teachers chosen for this study ranged in age, ethnicity, and gender. The criteria for participation included teachers identified as having experience, within the last three years, teaching a 2e student.

To achieve saturation, the sample size of this study began with a minimum of 10 participants ranging to a max of 15 (Malterud et al., 2016), This will ensure elements of the phenomenon can be competently explored and an adequate amount of data can be gathered to

gain an understanding of the phenomenon being studied; less than 10 participants may not provide sufficient information to inform the phenomenon (Malterud et al., 2016). Saturation will be used, beginning with 10 participants, and increasing the number until I have reached a point where adding participants does not give any further insight into the study (Hennink & Kaiser, 2019; Saunders et al., 2018; Sargeant, 2012; Shetty, 2018).

Researcher Positionality

The motivation for conducting this study aligns with the social constructivist framework basis that knowledge is gathered through our experiences (Creswell, 2013). This section will outline the social construction framework's alignment to the chosen topic of teacher experiences working with 2e students. This section will also detail the three philosophical assumptions that will guide the study, including ontological, epistemological, and axiological. Incorporating a discussion of the framework and philosophical assumptions will allow the reader to understand my motivation to pursue this research and explain my perspective on this topic as it aligns with the interpretive framework and philosophical assumptions.

Interpretive Framework

Social constructivism is the interpretive framework on which this study will be based. The social constructivism lens seeks to understand experiences through interacting with others (Qutoshi, 2018). Creswell (2013) states that this framework emphasizes the notion that the nature of our reality is created through collaboration with others, sharing meanings, and constructing realities based on these interactions. To understand one's reality, we must first acknowledge that realities vary depending on our experiences and that the knowledge we have gained comes from our interactions with others around us, where we then create meaning through these interactions (Creswell, 2013; Qutoshi, 2018). Through a social constructivist lens, we take this understanding

and correlate it with the notion that human development is socially rooted and that our knowledge is constructed through our interactions with others (Creswell, 2013). Therefore, this study is based on the notion that different people have different experiences with 2e students, and their experiences have shaped their understanding and knowledge of these students.

Philosophical Assumptions

The philosophical assumptions utilized within this study are ontological, epistemological, and axiological. The beliefs about the nature of reality, knowledge, and how claims are justified will describe how my values as the researcher are known, creating the philosophical assumptions provided in this section (Killam, 2013). These assumptions are discussed to demonstrate the importance of the research and the choices being made that are applied to the purpose of the study, the design, methods, analysis of data, and the final interpretation (Killam, 2013).

Ontological Assumption

The ontological belief of this study is based on the notion that multiple realities are constructed by way of our lived experiences (Aliyu et al., 2015). These realities are also constructed and formed based on our interactions with those around us; we all carry a different perception of what is happening to us, thus creating different realities (Creswell, 2013; Qutoshi, 2018). Similarly, Cupchik (2001) concludes that human activity and interaction create and build our reality, defining our understanding and definition of reality. Thus, the realities that we have come to know and believe are solely based on our experiences throughout our lives.

As educators, our view on the reality of our classroom and experience stems from our interaction with those around us (Creswell, 2013; Qutoshi, 2018). The knowledge I have and what I have come to understand regarding serving and supporting 2e students is derived from my education and my firsthand experience in the classroom, creating my reality. While this has come

to be my reality, supporting, and noting the needs of 2e students, this reality is not the same for other educators (Smith, 2004). Their reality depends on their own life, education, and classroom experience, creating their worldview (Cupchik, 2001; Lenclud, 2014). Our interactions with those around us, be it professors, colleagues, or students, aid in shaping our reality and what we know and understand about education (Zanotti, 2018). Therefore, the lack of knowledge or education on 2e students may alter one's reality from my own. While we all may experience all or part of the same phenomenon, the reality we experience differs.

Epistemological Assumption

The epistemological assumption is the study of subjective evidence gathered from participants and the time spent getting to know the participants, understanding, and explaining what we know and how we know it (Bahari, 2010; Usher, 2002). As the researcher, I immerse myself in the field with participants, aiming to lessen the distance between myself and the topic (Spencer et al., 2014). Epistemological beliefs are the notion that reality is constructed between me as the researcher and the participants as we explore the phenomenon together (Ahmed, 2008). By exploring the individual experiences of those participating in the study, their knowledge claims are justified based on the evidence and reasoning on the topic instead of false or misinformation (Spencer et al., 2014). Therefore, within this study, knowledge will be considered any information the educators have that aligns with the phenomenon, the experiences educators have gained through training, education, or in-classroom experiences that will allow me as the researcher to explore the phenomenon from their experiences.

The relationship between what is being researched and myself is a common interest in 2e students. As the researcher, I have personal experience working with and serving 2e students. The research in this proposed study aims to explore the experiences of other educators'

knowledge on serving and supporting 2e students. To best understand the epistemological assumption, I will immerse myself in the lives of these educators through a survey, individual interviews, and focus group to fully grasp their knowledge and how their claims are justified (Aliyu et al., 2015).

Axiological Assumption

The axiological assumption within a qualitative study is the researcher's subjective values, including intuition and acknowledging my own biases and those present during the study (Spencer et al., 2014). As a current special education teacher who has worked with 2e students, I bring my experiences and values of the importance of knowledge and understanding for this population. With my knowledge and experience serving and supporting this population, I have seen firsthand how the vast gap in knowledge between other educators has a perceived impact on the education of 2e students. Alternatively, I have seen how those educators with knowledge of 2e students have a unique set of skills and knowledge to serve the students and meet their needs with perceived effectiveness.

Researcher's Role

As the human instrument within this hermeneutic phenomenological research design, it is my responsibility as the researcher to understand the experiences of the participants, collect data, and then analyze the data by determining themes relevant to the phenomenon, and finally, communicating my research (Piantanida & Garman, 2009). My role was that of a researcher as I currently do not work with any participants, nor do I have any authority over them. Being a special education teacher, I brought my own experiences of working with 2e students and seeing firsthand the interactions between teacher and student, and while I have my own experiences, I used the hermeneutic circle as I review and analyze data (Gadamer, 1977; Gripsrud et al., 2018;

Heidegger, 1962). Being an educator who has experience teaching 2e students and working with other teachers as they navigate serving and instructing 2e students, my biases are that teachers do not have enough knowledge to properly instruct 2e students. Another bias is that schools and districts do little to support educators instructing 2e students. Having taught a 2e student, I understand my lack of knowledge and its impact on entering the situation and the lack of knowledge my co-teachers had, presenting a bias.

Procedures

This section will outline the procedures that will be used for this study. The procedures include the permission obtained from any relevant sites and information regarding the Institutional Review Board (IRB) approval and gathering participant's informed consent. The procedures within this study describe the plan for obtaining appropriate permissions and outline the plan for recruiting ample participants who meet the qualifications to gather credible data for analysis and synthesis (Bonisteel et al., 2021). The participants chosen for this study each teach at a location I have never taught before. I have no relationship with the schools and districts in which the participants teach, as I have never taught in these schools before, nor have I attended any schools myself.

Permissions

The IRB is charged with ensuring the protection of the human participants' rights and welfare within the study (Bankert & Amdur, 2006). The first step was to obtain permission to conduct the study from the Liberty University IRB, which was attained prior to any data collection. The IRB approval letter can be found in Appendix A. The permissions needed for this proposed study include consent from the participants. Site permissions were not required as snowball sampling were utilized, and schools were not used to recruit. Informed consent is a

principle of research ethics and refers to the voluntary agreement of the participant regarding the role they will play within the study after they are fully informed (Mandal & Parija, 2014).

Informed consent ensures that permission is granted in the knowledge of consequences, risks, or benefits.

Recruitment Plan

In qualitative research, recruitment refers to how the researcher will obtain participants (Bonisteel et al., 2021). Snowball sampling is a non-random sampling method where the participants involved in the study nominate other potential participants (Palinkas et al., 2013). Snowball sampling was used to identify participants due to the pool spanning three counties. Criterion sampling involves selecting participants that meet the predetermined criterion of importance (Patton, 2015, p.238). Criterion sampling ensured that the potential candidates meet the specific criteria outlined of having previous experience working with 2e students within the last three years.

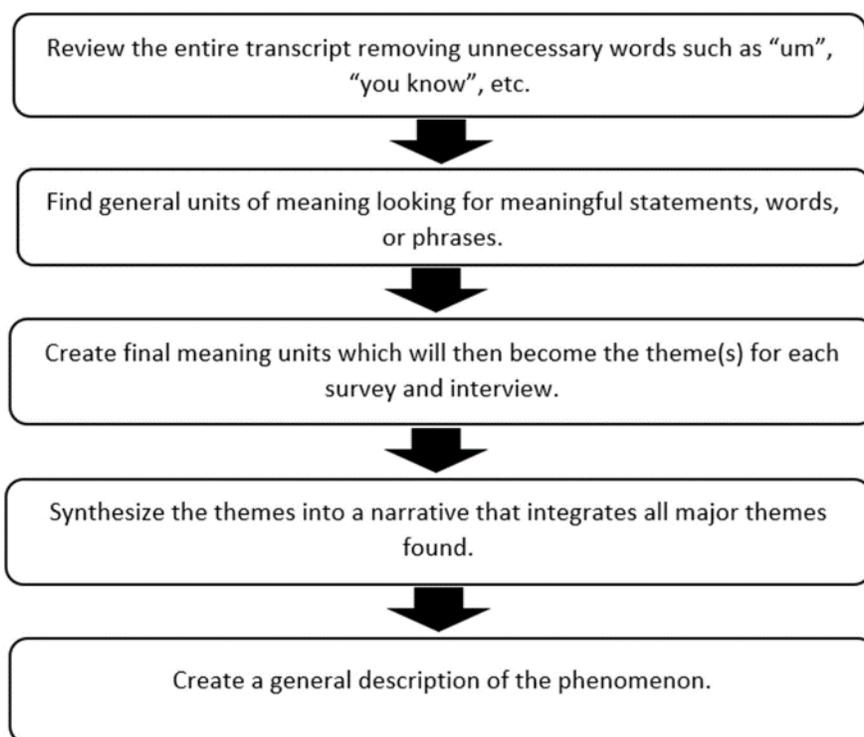
To recruit participants, I began by emailing former colleagues with whom I taught to ask if they would be willing to participate in my study. The email described the purpose of my study, the criteria, the requirements, the ethical considerations pertinent to the participant, and the consent form, found in Appendix B. The participants were given two weeks to respond. After one week, participants who had not submitted their consent form indicating that they have read the giving consent received a reminder email. If they did not respond, I did not contact them further. To snowball, I asked these colleagues if they could recommend someone who meets the criteria to participate in the study. This continued until I had 10 participants.

Data Collection Plan

This qualitative inquiry includes a rigorous application of various data collection strategies (Creswell, 2013; Moustakas, 1994). The data collection strategies within this study include a Likert survey, individual interviews, and focus group, each detailed in their subsection to be collected. The data collection plan also includes the specific items or questions that will be used and a data analysis plan specific to each method.

Figure 1

Data Analysis Flow Chart



Hermeneutic phenomenology data analysis focuses on the interaction between the data and the researcher (Peoples, 2020). The rationale for this type of data analysis is to organize and draw out meaning from the data gathered through the data collection methods by translating the

researcher's experiences by comparing and contrasting the accounts of other participants as they discuss their experiences (Nicholas et al., 2003). The first step of the hermeneutic circle is one's initial understanding of the topic based on prejudgment, lived experiences, and personal viewpoint (Heidegger, 1962). A hermeneutic phenomenological data analysis then involves using the hermeneutic circle to view the experience as a whole, pulling out themes into specific parts, then synthesizing those themes as a whole again to create a new understanding of the experiences, using the hermeneutic circle as many times as necessary until the researcher understands the phenomenon (Heidegger, 1962; Peoples, 2020). These analysis steps will be taken for each data collection method.

Survey

A qualitative survey is used to collect data to describe the topic, focusing on the opinions, views, and impressions of the participants in a less structured format, allowing for a new insight to be gained into their thoughts, motivations, and attitudes towards the topic (Jansen, 2010; Nardo, 2003; Nicholas et al., 2003; Peoples, 2020). A survey is useful because it provides flexibility for the participants to respond on their own in an online format (Nicholas et al., 2003). Weiss (1995) suggests that using a survey as the first method of data collection provides the researcher with demographic information about the participants and information that may be used to inform the interview questions to ensure that rich data related to the phenomenon is gathered to clarify the frame of the study before the initial interviews. While there were several surveys on teachers and 2e learners individually, none were found for the teacher's experience working with 2e students (Foley-Nicpon et al., 2013; Kopcha & Sullivan, 2007; Reynolds-Keefer et al., 2009). Due to the lack of qualitative resources regarding teachers' experiences with 2e students, I made a qualitative survey titled, *Teacher Experiences with 2e Students Survey*.

The *Teacher Experiences with 2e Students Survey* will include a Likert scale. In qualitative research, a Likert scale is used to understand participants' opinions, behaviors, and attitudes through simple statements (Chimi & Russell, 2009). This Likert survey included four demographic questions and twelve close-ended items. A minimum of four items are recommended for this type of survey to ensure enough data can be gathered (Chimi & Russell, 2009; Nicholas et al., 2003). The four demographic questions gathered background information on the participants to inform the study. The twelve Likert items included answer choices that ranged from 1 to 5, where the participant was asked to choose the response that most accurately describes themselves. 1 represents “strongly disagree,” 2 represents “disagree,” 3 represents “neither agree nor disagree,” 4 represents “agree,” and 5 represents “strongly agree.” Including both positively and negatively phrased items in the survey ensured the reliability and consistency of the participant response (Johns, 2010). A pilot survey was not needed as it does not guarantee the success of the main study (Van Teijlingen & Hundley, 2001). The purpose of this survey was to elicit the extent of the knowledge (Barua, 2013), preparation (Harry & Lipsky, 2014), and attitudes (Nicholas et al., 2003) of the teachers working with 2e students.

The *Teacher Experiences with 2e Students Survey* was created in Microsoft Forms so that participants can complete the survey electronically. To distribute the survey to participants, I sent one email to each participant that included the survey link and an explanation of the purpose of the survey. The survey was estimated to take approximately 20-30 minutes to complete and can be found in Appendix C. Each completed survey was confidential through the use of pseudonyms. Microsoft Forms is password controlled and only I, as the researcher, have the username and password for this survey. Once the participants submitted the survey, Microsoft

Forms sent me an email alert that a response has been submitted. To view results, I logged in to Microsoft Forms with my unique username and passcode, to which only I have access to.

Teacher Experiences with 2e Students Survey

Demographic:

1. What areas(s) are you certified to teach?

General Education Special Education Gifted Education

2. How many years have you been a teacher?

3-4 5-6 7-8 9+

2. How many years have you taught 2e students?

1-2 3-4 5-6 +7

4. How many courses did you take in your educator preparation program that pertained to 2e students?

0 1-2 3-4 5+

Survey Items:

Please rate how much you personally agree or disagree with these statements listed below. Use the following scale: (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree (5) strongly agree.

1. I know how to design instruction for students who are both gifted and have a learning disability. SQ1

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

2. I understand the needs of students who are both gifted and have a learning disability.

SQ1

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

3. I feel confident about my teaching abilities when working with a student that is both gifted and has a learning disability. SQ1

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

4. Working with students who are both gifted and have a learning disability has posed challenges I felt unprepared to handle. SQ1

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

5. My lack of knowledge of students who are both gifted and have a learning disability impacts my ability to deliver instruction effectively. SQ1

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

6. My college/university experience prepared me to work with students that have both a learning disability and giftedness. SQ2

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

7. My school/district provides me with professional development(s) on students who are both gifted and have a learning disability. SQ2

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

8. Other teachers come to me for advice about how to work with students who are both gifted and have a learning disability, and I am able to provide them with helpful ideas and tips. SQ2

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

9. I have had to “learn the hard way” when it comes to teaching students who are both gifted and have a learning disability. SQ3

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

10. A student who is **both** gifted and has a learning disability benefits from my teaching pedagogy. SQ3

Strongly disagree *Disagree* *Neither agree nor disagree* *Agree* *Strongly agree*

11. I know what I am doing when it comes to creating meaningful lessons for students who are both gifted and have a learning disability. SQ3

Strongly disagree *Disagree* *Neither agree nor disagree* *Agree* *Strongly agree*

12. In the last three months, I have Googled information for teaching students who are both gifted and have a learning disability. SQ3

0 1-2 3-4 5+

The demographic questions provided background information on the participants and their experiences that can be used to inform the rest of the data collection procedures. Items 1, 2, 3, 4, and 5 align with sub research question one, addressing how their knowledge has a perceived impact on students within the classroom (Bechard, 2019; Clark & Newberry, 2019; Eberle II, 2011). Items 6, 7, and 8 align with sub-question two, exploring the college/university and professional development experiences the participants had pertaining to 2e students, which led to their self-efficacy (Bechard, 2019; Missett et al., 2016; Ronksley-Pavia & Townend, 2017; Sandholtz, 2011; Townend & Pendergast, 2015). Items 9, 10, 11, and 12 align with sub-question three, exploring the role of teacher attitudes and the impact on their instructional choices (Bechard, 2019; Josephson et al., 2018; Missett et al., 2016).

Survey Data Analysis Plan

The responses from the Likert survey were downloaded from the Microsoft Form into a spreadsheet to visualize and organize the data gathered (Weems & Onwuegbuzie, 2001).

Microsoft Forms provides the option to download the information from all participant submissions into an excel spreadsheet. Once the data was downloaded, I was able to see the level of agreement each participant had with each item. Due to the Likert style survey, coding aligned with the response of the degree to which the participant agreed or disagreed, with the same codes used for each item (Weems & Onwuegbuzie, 2001). The data from each survey was coded based on the specific responses of agreement, taking note of both positively and negatively phrased items (Heidegger, 1962; Johns, 2010). The items from the Likert survey served as the themes for this data collection method. The data was analyzed to find the most common response for each item to identify common themes among the participants (Lee & Kolodge, 2020; Nicholas et al., 2003). If a majority of the participants had the same response to an item, this signifies a pertinent theme (Fink, 2003). Due to positively and negatively phrased items, I ensured that each item was reviewed individually, separating the positively phrased items from negatively phrased items (Johns, 2010). Analysis of the survey results involved studying each survey to understand the participants' feelings and attitudes towards the phenomenon considering the researcher's perspective (Parse, 2001, p. 53). The themes found in each survey were then reviewed as a whole (Heidegger, 1962). Identifying the common themes across all results, I used the hermeneutic circle to go from the whole of the survey results into the parts and then gather the relevant themes, looking at the whole again, creating a narrative that integrates all major themes (Peoples, 2020). The major themes from the Likert survey were synthesized into a final narrative that were used to create a general description of the phenomenon (Peoples, 2020). The data analysis flow chart found in Figure 1 will guide the analysis process (Peoples, 2020).

Individual Interviews

The second data collection approach utilized within this study were individual interviews.

Moustakas' (1994) data collection methods commonly utilized long interviews for “evoking a comprehensive account of the person’s experience of the phenomenon” (p. 114). Individual interviews are one-to-one meetings that collect data via open-ended questions that align with the study's research questions, allowing the researcher to explore the participants' experiences related to the phenomenon (Adhabi & Anozie, 2017; Grossoehme, 2014). Using a semi-structured interview approach, a set of questions were asked, but deviation from the questions to include related topics was permitted as it allowed for further exploration of the topic and any sub-topics that relate to the phenomenon. This approach also allowed the teachers an opportunity to describe their experiences in a broader manner (Grossoehme, 2014). This approach is appropriate for this hermeneutic phenomenological qualitative study as it allows the opportunity to gather data on the experiences of educators’ knowledge working with and serving 2e students.

The interviews took place via Microsoft Teams and are expected to take 45-60 minutes depending on the depth of the conversation, which can be found in Appendix D. The time and date of the interviews were scheduled based on the participant's availability and their chosen time on the Signup Genius link sent; the participant's physical location was up to them but preferably somewhere quiet without distractions. 24-hours prior to the scheduled meeting time, the participant received the Teams meeting link with a reminder of the time, the topic being discussed as their knowledge and experience working with 2e students, and a reminder that their participation is voluntary. Only the participant and I were admitted into the virtual meeting at the time of the meeting, which was safeguarded by enabling the waiting room to ensure that unwanted guests do not enter the live meeting. With consent from the participant, this meeting was audio recorded for transcription. The audio recording was saved to an external hard drive and locked in a filing cabinet that only I have access to.

Individual Interview Questions

1. Please describe your educational background and career in your current position. C.R.Q.
2. What experience do you have working with students who are both gifted and have a learning disability? C.R.Q.
3. Describe successes when working with students who are both gifted and have a learning disability in your classes. SQ1
4. Describe your challenges when working with students who are both gifted and have a learning disability. SQ1
5. How would you describe the perceived impact your knowledge of students who are both gifted and have a learning disability has on your ability to provide support and instruction? SQ1
6. How would you describe your experience working to meet the needs of students who are both gifted and have a learning disability in your classroom setting? SQ1
7. What courses or assignments did you complete during your educational degree program that dealt twice-exceptional students? SQ2
8. What type of training/support does your district provide for serving students who are both gifted and have a learning disability? SQ2
9. How do you feel your education, training, and support affect your belief in your ability to deliver instruction and support this population? SQ2
10. How does your preconceived understanding of students who are both gifted and have a learning disability play a role in your instructional decisions? SQ3

11. How does your preconceived understanding of students who are both gifted and have a learning disability play a role in your beliefs about your own ability to implement supports for this population? SQ3
12. What else would you like to add to our discussion of your experiences with students who are both gifted and have a learning disability that we have not discussed? C.R.Q.

Question 1 asked the participant to describe their educational background and career, which allows them to provide the grand tour questions to create the foundation for having the participants speak on their experiences (Banner, 2010; Leech, 2002; Spradley, 2003). Question 2 asked the participant to describe their experiences working with 2e students, which serves to gather a general understanding of the participant's lived experiences, which is rooted in the central question (Clark & Newberry, 2019; Eberle II, 2011; Edgar, 2019; Friedman & Kass, 2002; Hoy et al., 2009). Questions 3 and 4 asked about their experiences through exploring the successes and challenges faced serving a 2e student (Baldwin et al., 2015b; Josephson et al., 2018; Silverman, 2005). Question 5 focused on the training of the participant's knowledge of 2e students and the perceived impact their knowledge had on their ability to deliver instruction (Bechard, 2019; Lee & Ritchotte, 2019; Rowan & Townend, 2016; Shahzad & Naureen, 2017). Question 6 asked the participants to describe their experiences as they work to meet the needs of 2e students in their classroom (Baldwin et al., 2015b; Bandura, 2012; Bell, 2019; Elbaz, 2018; Friedman & Kass, 2002). Questions 7, 8, and 9 focused on the training and preparation the participants received on 2e students and how they feel the specific types of preparation affected their self-efficacy, which is linked to sub-question two (Bechard, 2019; Missett et al., 2016; Ronksley-Pavia & Townend, 2017; Sandholtz, 2011; Townend & Pendergast, 2015). Questions 10 and 11 were grounded in sub-question three, looking at the teachers' attitudes and how they

play a role in their ability to serve 2e students (Bechard, 2019; Josephson et al., 2018; Missett et al., 2016). Question 12 served as a closing interview question to ensure the participants have the opportunity to communicate all relevant thoughts, feelings, and opinions (Stroh, 2000).

Individual Interview Data Analysis Plan

This type of data analysis aimed to organize and draw out meaning from the data gathered through the interviews. The first step to analyzing individual interviews was to gather the transcripts for each interview, reading and deleting irrelevant information such as “um,” “you know,” “well.” (Roulston, 2014). Once irrelevant information has been deleted the transcriptions were then uploaded to Delve where the next step was to find units of meaning and code each transcript based on the units of meaning found, using the data analysis flow chart recommended by Peoples, (see Figure 1) (Peoples, 2020). Using the qualitative research software tool Delve, I used the hermeneutic circle as I analyzed the data, and looked for meaningful statements, words, or phrases (Peoples, 2020). The analysis of the interview transcripts involved studying each transcript to search for meaning, interpreting the sentences, phrases, or words with consideration of the researcher’s perspective (Parse, 2001, p. 53). Once I gathered the meaningful statements, phrases, or words from the transcription, they became my codes. Then I assigned a named code to those identified parts. Next, I looked for similarities and groupings in my codes (Peoples, 2020), that then became the themes. Once each interview had been coded, the transcripts will be reviewed as a whole, taking the common codes identified and translating them into themes that are relevant to the phenomenon (Peoples, 2020; Sloan & Bowe, 2014). Once the themes were identified and synthesized, a spreadsheet was used to notate the themes found within the analysis and create a narrative that includes all major themes (Peoples, 2020). I implemented the hermeneutic circle as I observe dasein, “being in the world” with others and understanding how

they experience the phenomenon (Gadamer, 1977; Peoples, 2020). This new understanding was then used to revisit the phenomenon where the new context results in a new insight or an opened view compared to the initial perspective based solely on a personal viewpoint (Gadamer, 1977; Heidegger, 1962).

Online Focus Group

The third data collection approach was an online focus group. A focus group is a form of a group interview that is centered around a discussion between the participants to generate data (Patton, 2015; Peoples, 2020). Instead of asking each person to respond to a question, the participants are asked 5 questions to guide the discussion and are encouraged to talk to one another, exchange anecdotes, and comment on each other's point of view and experiences to examine not only how they think, but why they think that way (Morgan & Hoffman, 2004; Patton, 2015; Peoples, 2020; Stancanelli, 2010). A focus group offers benefits such as measuring participant reactions, providing an opportunity for rich conversation, interacting as a group to share common experiences, and posing follow-up questions to clarify any necessary data (Patton, 2015; Peoples, 2020; Stancanelli, 2010). Additionally, focus groups enhance the quality by allowing the participants to monitor themselves and each other, with a lack of discussion on certain topics revealing just as much information (Gibbs, 1997; Patton, 2015). It is expected that during the initial interviews, further exploration will be needed on the descriptions provided during the initial interview process on recurring themes and to further the discussion of certain prevalent topics (Kendall, 2008; Peoples, 2020). Utilizing this method will allow me to clarify the preliminary information gathered and gather any additional data that will add to the richness of the study (Peoples, 2020).

The focus group occurred online via Microsoft Teams and served to further the discussion between participants to generate and uncover rich data (Stancaelli, 2010), which will be protected with a waiting room that only I had access to ensure confidentiality and audio and video recorded for transcription. I lead the focus group which consisted of 4-8 participants (Robinson, 2020) and will include 3-4 open-ended questions (Morgan & Hoffman, 2004). The approximate time for the focus group was 60-90 minutes, depending on the level of discussion. The participants were chosen for the focus group based on their individual interview results, highlighting either a gap in their descriptions or the frequency of relevant themes that need further exploration (Kendall, 2008; Peoples, 2020). The participants were notified after their initial interview, where I worked with the chosen participants to find a time and date that works best for the majority. Once a date and time were selected an email was sent out with a meeting invite and Microsoft Teams link with a reminder email sent 24 hours prior to the scheduled time.

Focus Group Open-Ended Questions

1. What is it like to teach students who are twice exceptional? CRQ
2. What university course, professional development and/or training do you wish you had before you started to work with 2e students? SQ2
3. Self-efficacy is simply the belief in your ability to complete a task successfully. When considering your experience with 2e students, what things positively contributed to your self-efficacy? SQ3
4. Going back to the definition of self-efficacy, which in the believe that you can complete a task successfully, what things do you feel negatively impact your self-efficacy when teaching students who are 2e? SQ1

5. Finally, based on your experiences, what advice would you give future teachers of 2e students? CRQ

Question 1 and 5 aligns with the central research question of uncovering the educator's lived experiences (Banner, 2010; Leech, 2002; Spradley, 2003). Question 2 aligns with sub-question two looking at the type of training and professional development provided to teachers (Bechard, 2019; Josephson et al., 2018; Missett et al., 2016). Question 3 aligns with sub-question three, exploring how educators' knowledge may influence student outcomes (Bechard, 2019; Clark & Newberry, 2019; Eberle II, 2011). Question 4 aligns with sub-question one looks at the role their knowledge plays in their self-efficacy (Bechard, 2019; Missett et al., 2016; Ronksley-Pavia & Townend, 2017; Sandholtz, 2011; Townend & Pendergast, 2015).

Focus Group Data Analysis Plan

The data analysis for the focus group followed the data analysis flow chart found in Figure 1 and which guided the analysis process (Peoples, 2020). The focus group was analyzed first beginning with the transcriptions of the audio and video recording so that I could evaluate each transcription based on the participant. Next, the transcriptions were uploaded and coded using Delve, to identify and highlight prevalent and reoccurring themes found that related to the open-ended questions (Peoples, 2020). The analysis consisted of drawing together similar themes discussed by the participants, and similarities in responses which were further explored per Heidegger's methodology and hermeneutic circle, recognizing, and understanding any pre-interpretation of the phenomenon, and using the hermeneutic circle to observe new information, revising my understanding (Gadamer, 1977; Heidegger, 1962).

Data Synthesis

This study's data synthesis aimed to identify and establish the common themes from the survey, individual interviews, and focus group. Heidegger (1962) emphasized the use of the hermeneutic circle to interpret and revise one's interpretations by looking at the whole of the phenomenon, analyzing the whole to look at the individual parts, clustering and synthesizing this information, and then repeating as many times as needed until the researcher understands the phenomenon (Gadamer, 1977; Heidegger, 1962). Each data collection method aimed to explore the participants' lived experiences and find the essence of the truth of the phenomenon through shared experiences. Once each data collection method was analyzed individually, and themes relevant to the study were identified, triangulation was used to synthesize all three data collection methods. The purpose of triangulation was to enrich the research by offering various data to explain the various aspects of the phenomenon (Creswell, 2013). Triangulation helped to explain the study results and gives more confidence to research findings by using different data collection methods that approach the same topic, compare their results, and find similar themes, increasing the study's validity (Guion et al., 2011). The findings from the three data collection methods were triangulated by comparing the themes found in each method to determine their similarity and frequency of occurrence (Flick, 2004; Jonsen & Jehn, 2009). Once the conclusions from all three data collection methods were found to be the same and similar themes were found, validity was then established (Guion et al., 2011). The triangulated findings were then synthesized into a composite description of the phenomenon, which became the essence of lived experience (Heidegger, 1962).

Trustworthiness

Trustworthiness is one of the foundational concepts of quality within a qualitative study. Trustworthiness is established by credibility, transferability, dependability, confirmability, and ethical considerations (Lincoln & Guba, 1985). As the researcher, I attempted to create these conditions and achieve the markers for the criteria. Anney (2014) states that the reader makes the subjective determination to show how trustworthy the research is. As the researcher, I must attempt to establish trustworthiness through credible, transferable, dependable, and confirmable research. This section describes the measure taken to ensure the study's rigor meets the trustworthiness criteria described by Lincoln and Guba (1985).

Credibility

Credibility was utilized to establish trustworthiness within the aspects of this study. Credibility is how a study's results or findings accurately describe the phenomenon's reality according to the truth in the participant's experiences (Lincoln & Guba, 1985). To demonstrate the credibility of this study in three ways: (a) persistent observation, (b) triangulation, and (c) member-checking. The three data collection methods described were triangulated to ensure that a comprehensive understanding of the phenomenon is developed. As a special education teacher, I have five years of in-field experience teaching and supporting 2e students, contributing to the study's credibility.

Persistent Observation

As the researcher, my focus was on the characteristics and experiences relevant to the phenomenon of working with and serving 2e students (Onwuegbuzie & Leech, 2007). Through the data collection plan of a survey, individual interviews, and focus group, I will have a deeper understanding of the educator's experience. Persistent observation ensures the depth of the

research by prolonged engagement with the participants exploring the phenomenon (Onwuegbuzie & Leech, 2007). Using persistent observation within data collection procedures allowed the focus to be on the characteristics and main aspects of the phenomenon being discussed, providing depth to the research (Lincoln & Guba, 1985; Onwuegbuzie & Leech, 2007).

Triangulation

Within this study, I used triangulation to incorporate the data collection methods and multiple data sources, investigating and exploring teachers' experiences who have worked with 2e students (Creswell, 2013). Triangulation is vital to a study as it enriches the research by incorporating various data collection methods that all explain and support the phenomenon (Breitmayer, 1991). The method used for this study included a hermeneutic phenomenological approach to explore what the educators experienced related to serving and supporting 2e students within the classroom (Khan, 2014). Triangulation was achieved through data collection methods, including a Likert style survey that includes four demographic questions and twelve close-ended items where the educators are asked to note their level of agreeance with each; individual interviews of teachers who have worked with 2e students in an educational setting, individual interviews, and focus group to further explore prominent themes from the individual interview. The responses from the focus group were analyzed in alignment with the themes found in the survey and individual interview (Patton, 2015). Triangulation was then be used, which involved comparing the results of each data collection method to look for similarities. If the conclusion from all three data collection methods is the same, validity is established (Guion et al., 2011). The findings of triangulation were then gathered and presented in a discussion format identifying the common themes across all three data collection methods in alignment with the phenomenon

and making relevant interpretations based on the themes identified, linking them to the purpose of the study (Heidegger, 1962; Phillips-Pula et al., 2011).

Member Checking

The final technique utilized to establish credibility within this study was member checking. Member checking refers to having the participant review the transcripts to ensure the accuracy of the information noted (Birt et al., 2016; Peoples, 2020). This technique was used at the end of the individual and focus group to ensure validation by confirming accurate transcriptions were recorded so that I was able to code the information appropriately (Birt et al., 2016).

Transferability

The transferability of this study indicates that the findings may be applicable in other contexts or can be generalized and transferred to other contexts (Lincoln & Guba, 1985). The descriptions given by the participants working with 2e students provided details to paint a picture of their experiences within the classroom. The role of the researcher was to create the conditions for the transferability of the study by providing in-depth descriptions of the educators and their experiences. Ensuring rich, thick descriptions of this study's setting and participants will improve the transferability of the study, allowing it to be conducted in a similar setting and reaching similar conclusions (Shenton, 2004).

Dependability

Dependability refers to consistent findings within the study and can be repeated (Lincoln & Guba, 1985). Dependability also indicates the consistency and reliability of the findings, including the documentation and thorough description of procedures utilized within this study (Slevin & Sines, 1999). At Liberty University, the dissertation committee and the Qualitative

Research Director will use an inquiry audit to determine the dependability through an analysis review of the process and products within the research. Dependability was also addressed through rich, thick descriptions of themes and member-checks of the findings.

Confirmability

Confirmability is how the study's results can be confirmed based on the data collected and the methods used (Shenton, 2004). Confirmability is also how the study results are shaped by participant responses, not by researcher bias, motivation, or interest (Lincoln & Guba, 1985). To establish confirmability within my research, I utilized an audit trail that allowed for the procedures, data analysis, and final reporting to be triangulated. Reflexivity was also included to ensure that my position as a researcher is not held back by a bias, removing any prior assumptions, prior experiences, and beliefs that may potentially influence the research process (Shenton, 2004). Confirmability within this study was addressed through rich, detailed descriptions of topics and member-checks of findings.

Ethical Considerations

Ethical considerations are principles used to guide the research design requiring the researcher to adhere to a certain code of conduct when working with participants and collecting data (Peoples, 2020). Ethical principles include voluntary participation, informed consent, anonymity, confidentiality, and communicating the results (Childress et al., 2005). The ethical considerations made within this study included obtaining informed consent from each participant via a drawn-up letter of consent that will outline the details of the study, requesting a digital signature of agreeance to participate in the study, which can be found in Appendix B. Participants were informed that their participation in the study is voluntary, and they reserve the right to withdraw from the study at any time (Childress et al., 2005; Peoples, 2020). Participant

confidentiality used pseudonyms rather than actual participant names. Electronic data gathered from the research was stored in an external hard drive locked in a filing cabinet. Any data gathered will be destroyed after three years. Possible risks of this study include psychological risks such as guilt when discussing working with 2e students. Mitigation of this risk included providing the participant with ample information about the nature of the study, the method, design, and data collection methods that will be used, and ensuring confidentiality at every step (Pietila et al., 2020). It is believed that the benefits for the participants outweigh the potential risks. The IRB reviewed this study proposal to ensure the protection of the human participants' rights and welfare (Bankert & Amdur, 2006). Data collection did not begin until IRB approval was obtained.

Summary

The purpose of this hermeneutic phenomenological qualitative study is to explore the lived experiences of educators supporting and instructing 2e students. This approach provided the opportunity to illuminate specific details and identify the phenomenon through the perceived experiences and impacts as detailed by the participants (Peoples, 2020; Piantanida & Garman, 2009). A hermeneutic phenomenological approach was an appropriate design for the topic as it studies the participants' shared lived experiences while seeking to gain a deeper understanding of the meaning related to a shared phenomenon (Gadamer, 1977; Heidegger, 1962; Peoples, 2020). By implementing a hermeneutic phenomenological study, one can consider this phenomenon by analyzing the experience as a whole, pulling out themes into specific parts, then synthesizing those themes as a whole again to create a new understanding of the experiences, using the hermeneutic circle as many times as necessary until the researcher understands the phenomenon (Heidegger, 1962). Data was collected through three different methods: a survey, individual

interviews, and focus group. By incorporating these three data collection approaches, I had the opportunity to delve deeper into the experiences of educators who have worked with 2e students (Harwell, 2003), learning more about their knowledge of 2e students (Baldwin et al., 2015b; Bandura, 1977; Bechard, 2019; Bolisani & Bratianu, 2018; Dimitriadis et al., 2021; Fugate et al., 2020; Josephson et al., 2018), the role teacher preparation and continued education play in their ability to support and serving 2e students (Bechard, 2019; Missett et al., 2016; Ronksley-Pavia & Townend, 2017; Sandholtz, 2011; Townend & Pendergast, 2015), and how their attitudes about the learners' abilities impact their instructional decisions within the classroom (Brandmiller et al., 2020; Elbaz, 2018; Missett et al., 2016; Prewett et al., 2019; Redding, 2019). Triangulation was achieved through data synthesis from the three collection methods (Creswell, 2013), identifying recurring items, feelings, thoughts, and themes that align with the phenomenon being studied (Khan, 2014). The data was analyzed as one and not analyzed separately to ensure that each method is producing relevant data that aligns with the topic through triangulation (Heidegger, 1962; Phillips-Pula et al., 2011). The individual interviews served as the foundation for the study, whereas the Likert survey and focus group will serve as data support for the themes (Weiss, 1995).

CHAPTER FOUR: FINDINGS

Overview

The purpose of this hermeneutic phenomenological study is to describe the experiences of teachers working with 2e students. Chapter four begins with an account of the experiences of 10 participants, all of whom are teachers with experience working with this population. Experiences were elicited through a survey, an individual interview, and an online focus group. The two main themes that emerged from the data collection methods were identified using the data analysis steps outlined in Figure 1 in conjunction with Heidegger's hermeneutic circle. Outliers found are included based on the data, followed by the discussion of the central research question and each of the three sub-questions. Chapter four concludes with an overall summary.

Participants

The following tables show significant statements from each of the 10 participants in this study. These statements share the overall experiences of teachers working with 2e students. Participants were identified as eligible for the study by teaching at least one 2e student within the last 3 years. Once the participants were identified using criterion and snowball sampling, they provided voluntary consent via the recruitment email and consent form sent by email. Through a Likert-style survey, open ended interview questions and participation in an online focus group, the researcher formed narratives needed to analyze the educators' overall experiences. Pseudonyms have been used and any identifying characteristics were removed to ensure the confidentiality of all participants within the study. The participants consisted of 10 teachers from kindergarten through 12th grade in the southern and western United States. Table 1 includes the demographics of each participant. A detailed description of each participant's experience can be found in Appendix G. These descriptions are included to allow the reader to gain a deeper

understanding of the experiences, giving context beyond a general synopsis of themes (Peoples, 2020). Having context allows for the reader to connect with the participants, understand the reasoning behind the themes, and engage with the phenomenon.

Table 1

Participant Demographics

Pseudonym	Years Taught	Number of Courses Taken in Higher Education	Area Certified	Years Taught a 2e Student	Training Provided by District
Allison	19	1-2	Special Education	7+	No
Beth	23	0	General Education	1-2	No
Cate	31	1-2	General & Gifted Education	7+	No
Darlene	9	0	General & Special Education	3-4	No
Ethel	5	0	General Education	1-2	No
Francis	20	0	Special & General Education	3-4	No
Greta	6	0	Special Education	3-4	No
Harriet	24	0	General & Special Education	7+	No
Ingrid	25	1-2	General & Gifted Education	7+	No
Jack	11	0	General Education	7+	No

Table 2*Significant Statements*

Participants	Significant Statements about Lack of Training	Significant Statements about Teacher Initiated Learning	Significant Statements about Self-Efficacy
Alison	<i>"I understood what gifted was, but I had no background working with gifted students or 2e students."</i>	<i>"I had to do my own research on 2e students and reached out to my network of teachers and educators at different levels to find information and ideas on how to support this population."</i>	<i>"I had low self-efficacy as I felt unprepared to work with my student and I know my instruction suffered as a result."</i>
Beth	<i>There was no formal training provided to me through my education or school district regarding twice-exceptional students.</i>	<i>"Due to this lack of training, I had to take it upon myself to get to know the 2e students better through learning about their strengths in academics as well as their struggles, whether academically or socially, making sure we were aware of his struggles, but we also made sure that they were getting what they needed. When he was getting what he needed, the triggers were not there."</i>	<i>"When first working with my 2e student, I did not know that he was both gifted and had a learning disability and ended up having to learn the hard way how to support this student in an academic setting."</i>
Cate	<i>"I didn't know that a special education student with learning disabilities could be in a gifted class, I had no formal training or exposure to 2e students."</i>	<i>"I had to take a course on my own to learn about teaching 2e students."</i>	<i>"Because I didn't know a thing about these students, I felt massively unprepared to teach them."</i>
Darlene	<i>"I had no formal training provided to me through my college or district regarding twice-exceptional students."</i>	<i>"Due to this lack of training and education, I had to complete my own research and learn more about this specific population of students to best support them in the</i>	

		<i>classroom.”</i>	
Ethel	<i>“I received no preparation for twice-exceptional students during my degree programs, nor did my district offer their teachers any training on this population.”</i>	<i>“I felt entirely unprepared to instruct these students, I knew I had to do something so I went out on my own and started Googling everything I could about twice-exceptional.”</i>	<i>“I knew immediately that I did not create a lesson to meet this student's strengths and needs and that I was well out of my depth of knowledge.”</i>
Francis	<i>"I have several degrees and am certified in general education, special education, and leadership. I did not even hear the term twice-exceptional mentioned in one of the assignments or courses I completed for any of my degrees or certificates. Term aside, the notion that a student can be both special education and gifted was not a topic I had ever heard discussed until I received a twice-exceptional student one year and his previous teacher came to me during pre-planning to inform me.</i>	<i>"I had to figure it out on my own. I went to his previous teacher for support and spent many nights and weekends doing my research because I knew I had to figure out how to support this student; he was relying on me to teach him."</i>	<i>"I felt like I was failing him and myself as a teacher. I knew I had to overcome these challenges even if that meant learning the hard way or relying on trial and error."</i>
Greta	<i>"I worked at three school districts, and neither of these districts provided training or even the mere mention of twice-exceptional students. I also received no education on this population while earning her degree."</i>	<i>"I spent late night searching twice-exceptional, watching videos and reading articles because I knew I had to do something to learn how to teach this population.”</i>	<i>"I feel as though my university and my school districts have not only let me down as educator but have also let down twice-exceptional students. As their special education teacher, I am supposed to be their support and advocate; how can I be this when I had no idea they existed?"</i>

<p>Harriet</p>	<p><i>"I had never heard of the term, nor did I know exactly what it was referring to."</i></p>	<p><i>"I had to do my research because teaching twice-exceptional brought about a lot of challenges I was not prepared to handle."</i></p>	<p><i>"I had no preconceived notions, no attitudes or beliefs about their ability because I did not fully understand twice-exceptional myself. My lack of training on these students made it more challenging to instruct them the first time."</i></p>
<p>Ingrid</p>	<p><i>"I only had one college class that covered everything from severe disability to gifted in one semester."</i></p>	<p><i>"While I was aware of the various possibilities from my own experiences as a student, I was not aware of accommodations that might be expected from the teacher, so I had to learn for myself."</i></p>	
<p>Jack</p>	<p><i>"No one mentioned the term twice-exceptional in either my university or my school district; I was left in the dark until I had a twice-exceptional student on my roster."</i></p>	<p><i>"The first thing I did was Google how to teach a student who was gifted and special education, which is when I realized there was a whole population of students that I did not know existed. I spent a lot of my pre-planning time reviewing resources and watching videos for best practices on how to teach this student."</i></p>	<p><i>"My self-efficacy or the confidence I had in myself was directly tied to my knowledge of this student. On my first day teaching him, I was so nervous because I did not know what to expect; I knew my lesson was a bit off, but once I got to know the student and had more time to put my practice to work, I felt more confident in my abilities and my lessons definitely improved."</i></p>

Results

This section includes the analysis and triangulation of the three data collection methods: a Likert-style survey, an individual interview, and a focus group. All participants were given the same 15-item survey, which included 4 demographic questions and 12 Likert-style items and were asked the same 12 questions in the interview. The participants chosen for the focus group were asked 5 questions, with each participant having the opportunity to respond. The data collection methods were analyzed to identify relevant words, phrases, or sentences which described their experiences within the phenomenon, which were then coded and used to identify pertinent themes (Heidegger, 1962; Phillips-Pula et al., 2011). These themes provided the framework for the phenomenon of exploring educators' experiences working with 2e students.

I used Delve software to code the themes from the Likert-style survey, individual interviews, and the focus group, identifying the codes and then categorizing them into groups of similar responses (Creswell, 2013). The themes then arose from the categorization of the codes, providing answers for the central and sub-research questions that were investigated within this study (Creswell, 2013). The themes were generated from the data analysis to understand and explore the participants' experiences working with 2e students, their level of knowledge, their self-efficacy, and how their attitudes influence instruction. The two main themes for this study include lack of teacher knowledge and teacher self-efficacy.

Themes and Sub-Themes Explored in Surveys

The Likert-style survey was provided to each participant. The survey included 5 demographic questions, which can be found in Table 1. The results from the survey were organized using the Delve software that included coding, finding units of meaning which were then organized under the themes of the survey items. Eight survey items served as the themes

and included both positively and negatively worded statements to ensure alignment with the themes could be found. Four themes emerged after the first 4 participant survey responses. Survey responses for participants five through ten resulted in two major themes. The two major themes were identified by 100% of the participants responding with the same answer on the survey items. After coding the responses two sub-themes emerged. The sub-themes of understanding the needs of 2e students and learning the hard way were identified with 80% of the participants having similar responses and the base concept as the main themes. Appendix G includes detailed narratives of the participant responses to these items.

Lack of Knowledge

Based on the results of the survey, the theme of lack of knowledge arose. Seven participants reported that they had zero courses in their educator preparation program, with 3 participants noting 1-2 courses in their educator preparation program, as seen in Table 1. With the majority of participants stating they had 0 courses on teaching 2e students, this highlighted the theme of lack of knowledge. Harriet, Ingrid, Jack, Beth, Cate, Allison, and Ethel agreed with the statement "My lack of knowledge of students who are both gifted and have a learning disability impacts my ability to deliver instruction effectively", they also disagreed with the statement "I know how to design instruction for students who are both gifted and have a learning disability" indicating that their lack of knowledge impacts their ability to deliver instruction and that their lack of knowledge leaves them not knowing how to design instruction for 2e students. Their responses show that teachers do not have sufficient knowledge of 2e students prior to serving them and that this lack of knowledge impacts their ability to deliver what they feel is adequate instruction.

Understanding The Needs Of 2e Students. Allison, Beth, Cate, Jack, and Ingrid agreed with the statement, "I know how to design instruction for students who are both gifted and have a learning disability," and agreed with the statement, "I understand the needs of students who are both gifted and have a learning disability." While Darlene, Ethel, Francis, Greta, and Harried disagreed with the statement, "I know how to design instruction for students who are both gifted and have a learning disability," and disagreed with the statement, "I understand the needs of students who are both gifted and have a learning disability." There was our relationship found between the responses of each of the 10 participants, indicating that their understanding of 2e students was connected to their knowledge of how to design instruction for this population. If they agreed that they knew how to design instruction, they also agreed that they understood the needs of 2e students, whereas if they disagreed that they knew how to design instruction then they disagreed that they understood the needs of 2e students. With the entirety of the participant pool providing aligning responses, this sub-theme emerged connecting their understanding of this population to their knowledge on how to design instruction.

Table 3

Understanding The Needs Of 2e Students

<i>Allison</i>	<i>Beth</i>	<i>Cate</i>	<i>Darlene</i>	<i>Ethel</i>	<i>Francis</i>	<i>Greta</i>	<i>Harriet</i>	<i>Ingrid</i>	<i>Jack</i>
<i>I know how to design instruction for students who are both gifted and have a learning disability</i>									
<i>X</i>	<i>X</i>	<i>X</i>	<i>O</i>	<i>O</i>	<i>O</i>	<i>O</i>	<i>O</i>	<i>X</i>	<i>X</i>
<i>I understand the needs of students who are both gifted and have a learning disability.</i>									
<i>X</i>	<i>X</i>	<i>X</i>	<i>O</i>	<i>O</i>	<i>O</i>	<i>O</i>	<i>O</i>	<i>X</i>	<i>X</i>

X = Agree O= Disagree

Learning the hard way. All 10 participants indicated that they had to "learn the hard way," regarding 2e students, which aligns with the survey results of each participant indicating that they were not provided any training from their college or school district on 2e students. These results show that teachers were left to their own devices to instruct these students and had to search for a means to gather the appropriate knowledge for assisting their students.

Self-efficacy

The theme of self-efficacy arose after an analysis of the survey results. The survey included positive and negative statements to surmise the participants' self-efficacy. Allison, Jack, Cate, and Beth indicated that they felt confident in their teaching ability and that their 2e students benefit from their teaching pedagogy. Adversely, the other 6 participants indicated that they did not feel confident in their ability to teach 2e students, also suggesting that they did not feel their students benefited from their pedagogy. These responses indicated a correlation between teachers' preparedness and providing students with solid instruction. The participants who disagreed with the statement "I feel confident about my teaching abilities when working with a student that is both gifted and has a learning disability" agreed with this statement "My lack of knowledge of students who are both gifted and have a learning disability impacts my ability to deliver instruction effectively." Adversely those who agreed with the first statement disagreed with the second statement. Their responses to these two items highlight the theme of self-efficacy as their level of knowledge is tied to their confidence in their abilities to instruct this population.

Table 4*Teacher Self-efficacy*

Allison	Beth	Cate	Darlene	Ethel	Francis	Greta	Harriet	Ingrid	Jack
<i>I feel confident about my teaching abilities when working with a student that is both gifted and has a learning disability</i>									
X	X	X	O	O	O	O	O	O	X
<i>My lack of knowledge of students who are both gifted and have a learning disability impacts my ability to deliver instruction effectively.</i>									
O	O	O	X	X	X	X	X	X	O

X= Agree O= Disagree

Themes and Sub-Themes Explored in Individual Interviews

Ten participants participated in a 12-question interview. Review and analysis of the interview transcripts included finding units of meaning within the transcripts and coding those units of meaning. The codes were then grouped to identify themes relevant to the topic. In the initial analysis, four themes emerged within the first four interviews; no new themes emerged in the analysis of interviews 5 through 10. Interviews 5 through 10 provided confirmation of the previously identified themes. For example, "lack of education at the college level" and "lack of training provided by a school district" were combined into "lack of knowledge." This created two themes and three sub-themes. The themes were created when 100% of the participants provided the same responses, indicating a commonality. The sub-themes were identified with 80-100% of participants with the same responses to questions, noting a trend, but were ultimately categorized under the main theme to ensure relevance. A description of each participant narrative is found in Appendix G, highlighting their responses in alignment with the major themes found.

Lack of Knowledge

All 10 individual interview results indicated that each participant lacked knowledge regarding 2e students, finding that neither their school district nor their universities provided them with any training or support for this population. Allison stated, "I chose 1-2 courses on the survey, but in reality, it was one assignment in one class that mentioned twice-exceptional students; other than that, there was nothing provided to me on this population." Greta echoed that statement by adding, "I have a master's degree in special education; I had never heard of twice-exceptional from my districts or my university until I walked into the first day of school and there he was, my special education student, getting pulled out for gifted support and I was utterly confused." Each participant answered that they had no training or education during their degrees or from their school districts.

Knowledge Gathering. A follow-up question was asked to each participant based on the survey results, diving deeper into how they became more confident in teaching 2e students; all 10 participants noted that they had to initiate their own learning on this population. Ingrid said, "I had to do my own research; I couldn't teach my lessons and just hope the student understood them; it was my duty as their teacher to provide them with the instruction they understand." Greta answered similarly, "no one else cared enough to teach us about this population, so I had to do it myself. I spent hours on the weekends learning all I could about twice-exceptional students because it was not going to be my lack of knowledge that caused this student to fail." All 10 participants noted that they went out on their own to learn more about 2e students through conducting their own research via Google

Teachers helping other teachers. All 10 participants noted that they relied on using a search engine or speaking with another teacher who had previously had their student or who they

thought might be knowledgeable to learn more about 2e students. Teachers going out on their own to ensure that their students have the opportunity to receive a solid education shows the dedication teachers have towards their craft. Greta stated, "I relied heavily on my twice-exceptional students' previous teacher; she was a wealth of knowledge for me." Darlene echoed that statement by including "when I was at a loss I would just start going up to teachers and asking if they knew anything about these students." Allison added, "once I knew what I was doing, I would go up to every teacher I knew that had a twice-exceptional student and offer my support, so they didn't have to go through the trial-and-error phase of supporting these students."

Self-efficacy

Self-efficacy was a central topic in the results of the interviews, as each participant discussed the connection between their level of knowledge and how well they felt they were teaching. With all 10 participants discussing self-efficacy in relation to their level of knowledge, the result indicated the emergence of this theme. Beth stated, "at first, I was at a loss, and my lessons were awful, but once I felt more confident in my knowledge, my lessons were amazing, and I knew the student felt it too." Jack noted during his interview, "my first time working with a twice-exceptional student, I felt horrible; I was out of my depth of knowledge. I was not confident in my ability to help this student because I honestly didn't know what I was doing." Allison responded similarly to Jack by saying, "I felt like a horrible teacher and that I directly attribute to my lack of knowledge. I had no confidence in my abilities anymore because I was so lost on what to do."

Poor Teacher Confidence. A sub-theme emerged during the interviews regarding the participant's attitudes about their abilities to teach 2e students. Teachers had low confidence in their abilities to work with this population. Ethel described working with this population as

challenging, "my first time working with a twice-exceptional student, I was at a total loss, my lack of education and training on this topic left me unprepared, and my perceived impact was that I was failing this student." Greta matched that statement by noting, "I had a poor attitude about myself, I dreaded writing lessons when I was unsure of how to teach this student, and it was quite evident in my instruction." Overwhelmingly, the teachers' attitudes about their abilities to support these students impacted their level of confidence in themselves, as their attitudes were dependent on their level of knowledge of 2e students.

Themes and Sub-Themes Explored in the Focus Group

The online focus group yielded results that provided saturation for the data. Allison, Cate, Greta and Jack participated in the focus group. This approach allowed for a deeper discussion and understanding of the experiences of educators working with 2e students. By analyzing the transcript from the focus group using Delve, I could find units of meaning that were then coded. The codes that appeared the most were then turned into themes. The sub-themes were derived from the codes that aligned with the themes. Two main themes emerged after analyzing each participant responses and through this analysis, two sub-themes also emerged in alignment with the main themes.

Lack of Knowledge

Of the four participants in the focus group, each participant noted that they wish they had been provided education or training on 2e students before starting their career. Their lack of knowledge was a main topic of discussion, illuminating the theme for the focus group. Allison stated, "If I had been given even the smallest amount of preparation while earning my teaching certificate, it would have saved me a lot of time and stress as I was conducting my own research on these students, now I know what I was doing, and I help as many teachers as I can." Cate

added, "I had nothing to go on when I found out I had a twice-exceptional student in my class; my first thought, "a what?" was when I knew I was going to face some challenges." Each participant showed that they had little to no knowledge on 2e students.

Teacher Initiated Learning. After discussing a lack of knowledge on 2e students, the focus group discussion turned towards how they went about learning of 2e students, thus resulting in a sub-theme of having to conduct their own research. Cate said, "I had to do my research; I signed up for workshops and seminars to learn about twice-exceptional students." Jack, Allison, and Greta all nodded in agreement, with Greta adding, "I did the same; I used Google and watched as many videos and read as many articles as I could to learn how to teach these students." Cate continued the conversation by adding, "once I knew more about these students, I knew I could tailor my lessons to them. I regained my confidence and let all my coworkers know of the resources I found." Because of their lack of knowledge, the participants were left to learn about this population for themselves.

Self-efficacy

Teacher self-efficacy was another theme that emerged based on the results of the focus group discussion. The topic of self-efficacy emerged following the conversation about lack of knowledge and how that lack of knowledge impacts the participants' views of their abilities. Greta stated, "my self-efficacy took a huge hit when I realized I had a twice-exceptional student. At that moment, I no longer felt confident in my ability to teach this student. Admittedly my first instinct was to shy away from him and teach an "easy" lesson, which I knew was not a solution, so, like Allison, I took the internet to find out all I could." Allison agreed, "having a lack of knowledge negatively contributed to my self-efficacy as an educator. How can I believe in my ability when I have no idea what twice-exceptional even meant?" Jack furthered that thought by

adding, "my belief in my ability to teach these students was low at first, but once I got my feet under me, that belief increased."

Instructional Choices. During the focus group, it was evident that all participants' instructional decisions were tied to their self-efficacy, resulting in a sub theme. Allison stated, "when I felt like I couldn't adequately teach my twice-exceptional student, I took the easy way out and planned something super simple, something that I knew would work." Jack agreed by adding, "I simplified my lessons; I also took the easy way out at first when I knew nothing about twice-exceptional. I was scared to push the student because I had no clue what to expect." Greta followed that thought: "I did the exact same thing, but once I felt confident in my knowledge and abilities to teach a twice-exceptional student, my instructional choices changed for the better."

Triangulated Themes

The following includes the major findings triangulated across the three data collection methods. The themes and sub-themes were derived from the participant responses, and their detailed experiences. A description of each participant's experience can be found in Appendix G.

Level of Knowledge

After triangulating all results from the three data collection methods, the theme of teacher knowledge was apparent in all three, resulting in an overarching theme that teachers are provided with little to no training on the 2e population. Data from this research shows a lack of knowledge regarding 2e students. This notable lack of knowledge aligns with Bianco and Leech (2010) and Bechard (2019), who noted that a lack of educator knowledge of 2e is a major contributing factor within the education system. All participants indicated that their college or university provided little to no education on 2e students across general and special education degrees. With this lack of preparedness exiting college, the participants had no knowledge to rely

on when assigned a 2e student. Allison had the most 2e teaching while in college provided by a university, who stated, "all I had was one assignment that mentioned the topic of 2e."

Additionally, all participants noted that their school district provides no training or professional development on anything relating to 2e students. Ethel stated, "my university provided me no education regarding twice-exceptional; they did not even use the term. My school district is very similar in that no training is provided, and unless you have one of these students, you don't really know they exist." With no training and education provided at any point in their careers, the participants were left unprepared to teach this population.

Teacher Initiated Learning

Due to the lack of knowledge, training, and education provided to teachers, all 10 participants turned to their own self-initiated learning to ensure they could properly and adequately instruct this population. Stemming from the theme of knowledge, the participants each noted that they had to do their own research on the 2e population to fill the gaps of knowledge. Cate, a gifted education teacher, noted that "although I had some training on twice-exceptional in my gifted endorsement course, when I knew I was going to have a special education co-teacher in my gifted class, I knew I had to do more on my own to support these students, so I signed up to take special education courses at my local education agency in hopes of combining my knowledge of both exceptionalities." Allison echoed this statement: "I knew I was completely unprepared to work with a twice-exceptional student, so I did my research to ensure I could instruct these students." With a lack of knowledge, the participants were left to learn about the 2e population on their own, through Googling, reading studies, and connecting with peers who had previous experience.

Teacher Self-efficacy

After triangulation of all three data collection methods, the theme of self-efficacy was present, indicating an overarching theme. The theme of teacher self-efficacy related to each participants thoughts about their ability to instruct was present across all participants. Teacher self-efficacy stems from their level of knowledge and how confident they are in their ability to teach this population based on that level of knowledge. Bandura (1995) stated that teachers' attitudes about themselves impact their choice and instruction delivery. Beth indicated during her interview that "when I felt confident in my understanding of twice-exceptional students, I knew I could provide great instruction." Ethel and Jack echoed these sentiments by noting that their beliefs about their abilities took on a negative viewpoint when they lacked knowledge on 2e students. Adversely Francis indicated that "because I lacked the knowledge of twice-exceptional and I had no experience with them before my first twice-exceptional student, I did not feel as though I could provide adequate instruction to him, I did not feel confident in my own abilities, and I know that caused my instruction to suffer."

Helping Other Teachers

With teacher self-efficacy aligning with their beliefs about their ability to instruct twice-exceptional students, each one of the participants noted that once they conducted their own research and built their knowledge base, they felt confident enough to aid their peers in their research. Allison indicated that "after doing my own research and gaining experience working with twice-exceptional students, I felt very confident in my ability to support this student, so confident that I went to his other teachers offering them support and sharing my knowledge with them, which they seemed grateful to have." Cate and Greta also agreed that once they felt knowledgeable about 2e students, they began to help other educators. Francis noted that "while I

was the teacher who did not know what she was doing at first, I found the teachers that did, and they were of great help to me in the beginning stages of my journey teaching 2e students."

Teachers' Attitudes Impact Their Instructional Choices

Based on the data gathered, all 10 participants showed an overwhelming response that their attitudes about their own abilities impacted their instructional choices. This sub-theme stemmed from their self-efficacy, and how the participants' level of self-efficacy altered their instructional choices based on how comfortable and knowledge they felt about the student's giftedness and disability. When they felt unprepared their instructional choices displayed this by choosing "safe" lessons, or simple lessons. When the participants felt prepared, they chose rich challenging lessons to academically challenge the student while still meeting their needs. Jack stated, "it was not my attitude about the student's ability that impacted my instructional choices; it was my attitude about my own ability that had the impact." Darlene echoed Jack's statement by adding, "when I felt unprepared, or when I knew I lacked the knowledge of these students, my instructional choices changed as I found myself choosing simple lessons and activities until I could figure out what this student was capable of. I stayed on the "safe side" until I felt confident in myself as a teacher to instruct this student."

Outlier Data and Findings

Two outlier data findings were present. The teachers who were gifted endorsed received 2e training through their gifted certification course and one educator had prior knowledge of 2e from her K-12 school experience as a student.

Gifted Endorsement

The gifted certified educators indicated during their interviews that the gifted certification course included a section on twice-exceptional students. Ingrid stated, "I did not earn my gifted

certification until I was 15 years in with teaching, and that is when I finally got some type of formal training on twice-exceptional students within the classroom, albeit brief, it was something." Cate echoed Ingrid's statement with her own, "I was on my 10th year of teaching when I had the opportunity to earn my gifted endorsement through my school district, I was sitting in the live lecture when I first heard the term. Until this point, I had not taught a 2e student, but I knew they were unique, so I took the little bit of information they gave us even though it was focused on how to support them from the gifted side."

Previous Exposure to 2e

The outlier finding stemmed from Ingrid. She is the only noted participant who had prior knowledge of twice-exceptional from her experiences growing up. Ingrid stated, "I was aware of the possibilities of twice-exceptional students from my own experiences as a student." While she never received formal training in higher education or from her school district, she was aware of what 2e meant from seeing them from her own perspective as a student.

Research Question Responses

The central and sub-research questions guided the research. These questions were designed to explore the lived experiences of educators working with 2e students. The goal of these research questions was to explore the educators' level of knowledge, their self-efficacy, and their attitudes. This section shows the alignment between the themes and the research questions.

Table 5*Significant Meanings*

Research Questions	Significant Meaning	Themes	Sub-themes
What are the lived experiences of teachers working with twice-exceptional students?	-Teachers are not provided with training. -Lack of knowledge creates challenges for educators.	Level of Knowledge	Teachers Conducting their own Research
How does a teacher's knowledge of twice-exceptional students affect student academic outcomes?	-Teacher's level of knowledge effects student outcome. -A teacher's level of preparedness alters their instructional choices.	Level of Knowledge Teacher Self-efficacy	Teachers Conducting their own Research Helping Other Teachers Teachers' Attitudes Impact Their Instructional Choices
What role does a lack of teacher preparation and continued education on 2e students play in teacher self-efficacy?	-Lack of knowledge leads to low self-efficacy. -Low self-efficacy effects the instructional decisions within the classroom.	Level of Knowledge Teacher Self-efficacy	Teachers Conducting their own Research Helping Other Teachers Teachers' Attitudes Impact Their Instructional Choices
How do a teacher's attitudes about the abilities of twice-exceptional students impact their instructional choices?	-Teachers attitudes are focused on their own abilities, not the abilities of students. -Their attitudes are derived from their own level of preparedness.	Teacher Self-efficacy	Helping Other Teachers Teachers' Attitudes Impact Their Instructional Choices

Central Research Question

What are the lived experiences of teachers working with twice-exceptional students? The participants' experiences indicated that working with 2e students can be challenging. Cate noted, "working with twice-exceptional students was probably my most challenging and rewarding time as a teacher. I walked in with zero knowledge and had to learn how to work with this group of students. Still, once I understood them, it was the best experience." All participant experiences showed that they were not provided with knowledge on 2e students. They had no formal training or preparation, but were expected to teach, nonetheless. This lack of knowledge impacted the way they viewed themselves as educators, making them feel unprepared and inadequate. Jack stated, "my experience taught me a lot about myself as a teacher and solidified the fact that we are not prepared to work with these students. Still, it was up to me to figure it out." During her interview, Greta added, "my experience working with twice-exceptional students yielded growth for me as an educator, a growth that I was then able to pour into the student." The lived experiences of the educators are one that are full of challenges; challenges that arise from a lack of knowledge on 2e students, which creates a ripple effect that impacts their instructional choices and their beliefs about themselves as teachers.

Sub-Question One

How does a teacher's knowledge of twice-exceptional students affect student academic outcomes? The participants' perspective is that their level of knowledge on 2e students affected student academic outcomes. A teacher's knowledge of 2e students affects student outcomes as their level of knowledge changes their instructional choices and deliverance of instruction. A change in the deliverance of instruction can alter how students understand the lesson, thus affecting their academic outcomes. The participants indicated that when they lacked knowledge,

they felt as though their lessons were not up to par, with Greta stating, "my first time working with a 2e student I had no knowledge of the population, due to my lack of knowledge I felt my lessons were not quality, and I knew the student did not understand my instruction and his academic outcomes were lacking." Jack countered Greta's statement by noting "when I finally had a solid understanding of twice-exceptional and knew how to best instruct and support my student, I knew my lessons were reaching them, and that was certified by their high marks on their academics assignments and tests; showing me that my level of knowledge on the student can have an effect on the student outcomes within my class." A teacher's level of preparedness is related to the knowledge they possess on 2e students, which alters their instructional choices. When teachers possess knowledge of 2e students, their lessons are rich and engaging; when teachers lack knowledge, their lessons are simple and lackluster, both of which affect how the students learn and their academic outcome.

Sub-Question Two

What role does a lack of teacher preparation and continued education on 2e students play in teacher self-efficacy? This question turned into a main theme for the study. The participants' experiences are that their self-efficacy is directly tied to their level of preparation and continued education. When teachers feel unprepared, it is because they lack knowledge; when they lack knowledge, they do not feel they are adept enough to teach this population, that they lack the necessary skills to support the students in a meaningful way. Francis said, "I received no education or preparation on twice-exceptional students, so when it came time to instruct and support them, I felt massively unprepared and frankly a little out of my depth, leaving me feeling like I could not do the child justice." On the other hand, when teachers have knowledge of 2e students they feel prepared, they feel confident in their own abilities to teach the student. They

have the skills necessary to support the students academically. Harriet noted that, "I ended up having to do my own research when I knew they were going to be in my class, because of the research I did, I felt very prepared to instruct them, and felt confident in my own abilities as a teacher, which was evident by my lessons." Both responses highlight the correlation between the lack of preparation and their level of self-efficacy. Additionally, teacher self-efficacy directly correlates to the level of knowledge they have of 2e students, knowledge which is derived from teacher preparation and continued education.

Sub-Question Three

How do a teacher's attitudes about the abilities of twice-exceptional students impact their instructional choices? Based on the results of the three data collection methods, it is apparent that it is not a teacher's attitudes about the abilities of twice-exceptional students that impact their instructional choices, but rather the teachers' attitudes towards their own abilities to work with 2e students that impact instructional decisions. When teachers lack knowledge on 2e students, it affects their level of preparedness, which in turn leads to poor self-reflection in being able to educate a 2e student. Harriet stated, "my first time working with a twice-exceptional student, I had no background knowledge, I felt unprepared to give them what they needed, so I chose to teach with what I call a "safe" lesson until I felt more confident in my own self to give the student what they needed." Ethel furthered this notion by adding, "when I don't believe in myself as a teacher, I don't put my all into my lessons, and I know that because of this, the students suffer." The teachers' attitudes regarding their own abilities to teach 2e students is what impacts the instructional decisions within the classroom.

Summary

Chapter Four discussed the detailed experiences of the participants and the findings based on the collected and analyzed data. The themes that emerged within this chapter were the teacher's lack of knowledge and their self-efficacy. The teachers' lack of knowledge stemmed from a lack of preparation provided by their university and a lack of training and professional development provided by their school district(s). This lack of knowledge forced teachers to initiate their own learning regarding the 2e population. Their self-efficacy was affected by their level of knowledge, which altered their beliefs about their own abilities to teach this population. Teachers with a higher self-efficacy who possessed knowledge of 2e students often reached out to others to share information. Teacher self-efficacy impacts the teacher's attitudes, which impacts their instructional choices. Overall, teachers lack knowledge of 2e students which directly contributes to their beliefs about their own abilities to serve this population.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this hermeneutic phenomenological study is to explore the lived experiences of educators working with 2e students in the southern and western United States. The goal of this study is to explore the educators' level of knowledge regarding the 2e population and the perceived impact of this knowledge on their self-efficacy, delivery of instruction, and attitudes. Chapter five begins with a discussion of the findings in alignment with themes uncovered in the data analysis. This chapter also includes the implications for findings, limitations, and delimitations and concludes with recommendations for future research.

Discussion

This section discusses the themes that emerged while examining the educators' experiences working with 2e students. The discussion begins with a summary of each theme, my interpretation of the findings, the implications for policy and practice, the empirical and theoretical implications, and limitations and delimitations. The teachers' experiences have a foundation in their level of knowledge, which was thoroughly explored within this study.

Interpretation of Findings

The interpretations of the findings begin with a summary of the two main themes found from the analysis of each data source and triangulation of the three data collection methods discussed in Chapter Four. An overview of the interpretations of the themes is included along with the two significant interpretations: the lack of knowledge educators has on 2e students and teacher self-efficacy having a perceived impact on student instruction.

Summary of Thematic Findings

The themes uncovered for this study were the lack of knowledge teachers had on 2e students and teacher self-efficacy. The participants yielded very similar results based on the data analysis, indicating saturation and the validity and reliability of the data collected. Their experiences led to the interpretations and summaries of the themes described within this section. Both the themes and sub-themes were a result of the analysis of the three data collection methods.

Knowledge. Through the data collection methods, I was able to gain a clearer understanding of educators' experiences working with 2e students. It is evident from the data collection methods that teachers have a lack of knowledge regarding 2e students, stemming from their teacher education/preparation programs and school district provided trainings. Current literature notes that a lack of knowledge regarding 2e students can be traced to teacher preparation within a school or district in the form of professional development and training (Bechard, 2019; Bianco & Leech, 2011; Correa et al., 2014; Horn et al., 1999). This study went one step further to find that no training or professional development is provided by any of the school districts associated with the participants. Allison noted “I had one assignment in one class at the specialist degree level that mentioned twice-exception, but that was the first and only time I was exposed to the term outside of my own research.”

My interpretation of these findings is that a lack of knowledge on 2e students makes it more challenging to provide instruction, with all participants agreeing with this statement. Jack stated, “It is absolutely a challenge teaching a population of students which have such vast differences in their strengths and needs, let alone when you had no idea they existed.” Based on the participant responses from the data collection methods, this lack of knowledge leaves

teachers unprepared to work with this population. It appears that a lack of training and education on 2e before entering the field of education has made it more challenging to provide instruction. This lack of knowledge forces teachers to conduct their own research to learn more about this population to instruct them adequately.

Every participant indicated that they had to go out of their way to learn more about 2e, whether researching this population online, reaching out to others who worked with the students, or taking courses independently. Even though no teacher is exempt from having a 2e student in their class, there is a significant lack of training, preparation, or standard of knowledge that a teacher requires. Yet, the educators are expected to support these students. Ingrid voiced during the focus group “we are expected to successfully teach all of our students, yet every higher education institution and school district I have been a part of fails to mention this population, a population in my opinion that requires specific knowledge and training to best support.” It is quite evident from the data that teachers are willing to go above and beyond to ensure that they have a solid knowledge base to work with this population and that they can best support their students. While gifted endorsements provide information on 2e, this endorsement is earned outside of college through the school district. It can be acquired at any point in their teaching career, so it does not serve as a solid solution to the issue of lack of knowledge. Every educator may teach a 2e student, but none of them are provided with any training or education.

Self-efficacy. The results from the data collection methods showed a direct alignment between a lack of teacher knowledge of 2e students and their self-efficacy, affecting their level of confidence and their attitudes about their ability to deliver adequate instruction and support to this population. I mentioned this second since the lack of knowledge is the most prevalent theme found, with this occurring as a follow up. According to Bandura (1995), self-efficacy plays a role

in the way people think, behave, and are motivated, influencing people's choice of activity, "people's self-efficacy beliefs determine their level of motivation, as reflected in how much effort they will exert in an endeavor and how long they will persevere in the face of obstacles" (Bandura, 1989, p. 176). Based on the teachers' experiences, there is a direct correlation between a lack of knowledge and them feeling unprepared to work with this population, making them doubt their ability to provide ample instruction to their 2e students. Ethel noted "I was completely at a loss for how to begin preparing a lesson for this student. Even after my own research I was not confident in my abilities to create a lesson with this student in mind and I know my lesson suffered because of my insecurities around my own abilities and knowledge."

During further exploration of this concept within the individual interviews and focus group, the notion of self-efficacy being tied to the teacher's level of knowledge was solidified when each of the participants stated that the more knowledge and information, they had regarding 2e students, the better prepared they felt to work with and instruct their students. Thus, the better they feel they taught their lessons. During the focus group, Darlene stated "once I got my feet under me and felt confident in my own knowledge and ability to work with this student, my lessons were fantastic, and I could tell the student was feeling this positive change by their demeanor and level of work complete." My interpretation is that the correlation emphasized the importance of ensuring that teachers have an excellent knowledge base and are aptly prepared and trained to work with these students. Providing teachers with preparation before working with this population will ensure that teachers feel confident in their own abilities, leading to the delivery of more appropriate instruction to their 2e students.

My interpretation of the findings is that when teachers feel unprepared and lack knowledge of 2e students, they feel as though they are not teaching their best and their lessons

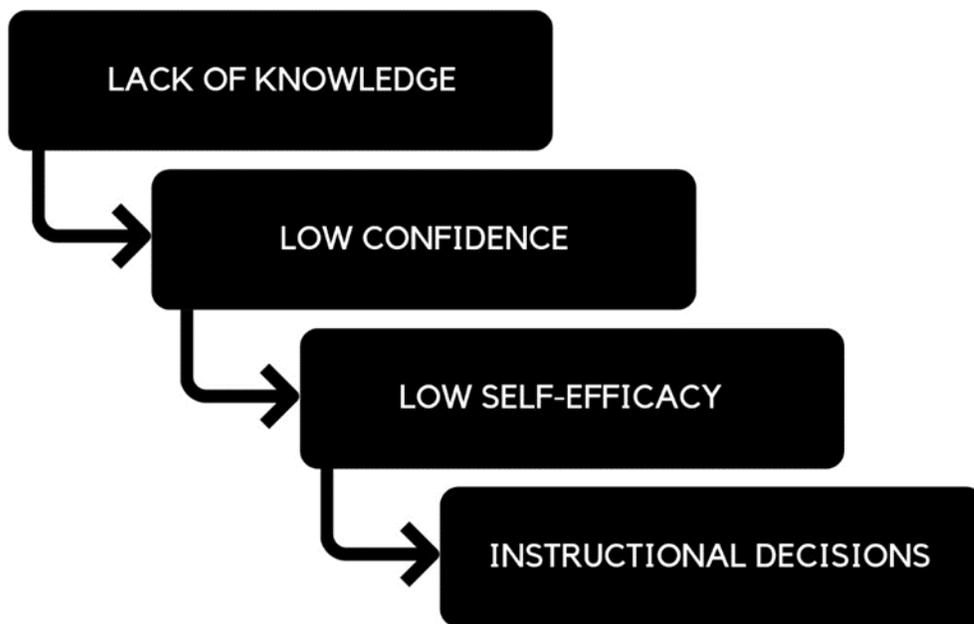
are not up to par, with several participants noting that when their self-efficacy is low, they feel as though they are letting down their students. The literature echoes this statement by including that unpreparedness leads to a decline in self-efficacy (Bandura, 1995, Rowen & Townend, 2016). Adversely, the data notes that when teachers feel prepared and confident in their knowledge base regarding 2e students, they feel assured in their ability to deliver instruction and, in turn, feel they can instruct and support the student better. The teacher's knowledge is directly tied to self-efficacy and the level of self-efficacy influences their attitudes and belief about their own ability, which in turn plays a role in their instructional choices.

Relationship Between Knowledge and Self-efficacy

The problem is teachers lack the knowledge to effectively instruct 2e students (Bechard, 2019). Current research notes a need for implementing professional development on the topic of 2e students (Bianco & Leech, 2011; Lee & Ritchotte, 2019; Ng et al., 2016). Research also indicates that teachers in general have higher levels of self-efficacy are found to be more open to new teaching methods when they are prepared and knowledgeable (Bandura, 1977; Lazarides & Warner, 2020; Perera et al., 2019; Zee & Koomen, 2016). This study looked at both aspects of knowledge and self-efficacy through the teacher's experiences, detailed in Appendix G, finding that lack of knowledge on 2e students leads to lower confidence in themselves, which leads to low self-efficacy, effecting their instructional decisions.

Figure 2

Relationship Between Knowledge and Self-efficacy



Lack of knowledge. The problem found through literature is the lack of knowledge a teacher has on 2e students, stemming from exposure at their university to professional development provided by their school district. This study found that only 3 out of the 10 participants heard the term “twice-exceptional” during their time earning their teaching degree, and of the three the term was merely mentioned in one assignment or one class. All 10 participants have never received professional development from their current or previous school districts on teaching and supporting 2e students. This lack of knowledge sets the teachers up for challenges, as they are left to navigate on their own, with no guidance or support.

Low confidence. With a lack of knowledge, teachers are unprepared to teach this population. Unpreparedness led to low levels of confidence in the participants which affects their perception of themselves (Dimitriadis et al., 2021; Fugate et al., 2020; Joo et al., 2018; Josephson et al.,

2018; Ungar et al., 2018). Their perception of themselves is dependent upon their level of knowledge and preparedness, which reflected lower self-worth as an educator, affecting their self-efficacy.

Low self-efficacy. The participants felt that with this lack of knowledge and low confidence that they were not capable of providing ample instruction to their 2e students, they lacked belief in themselves. Low self-efficacy showed a lack of belief in their own abilities to teach and support this population of students (Bianco, 2005; Bianco & Leech, 2011; Hallahan et al., 2012). Low-self efficacy in teachers can change the way they interact with the students and the way they structure their lessons and materials (Bianco & Leech, 2011; Lee & Ritchotte, 2018; Missett et al., 2016; Reis et al., 1995).

Instructional decisions. Low self-efficacy among the participants affected the participants instructional decisions. This study found that when they felt unprepared and lacked confidence and belief in their abilities as an educator, they relied on lessons that were simple, and not academically challenging. These instructional choices had a perceived impact 2e student outcome by not providing the students with an ample opportunity to be academically challenged in the classroom.

Implications for Practice

This section includes my interpretations of the study. Included are discussions of implications for policy and practice to improve the experiences of educators with 2e students. The summaries found in this section contain recommendations for higher education institutions that offer teacher preparation programs, education degrees, and school districts.

Implications for Practice

This study helps to support the need for teachers to be aptly prepared for working with 2e students. Current literature discusses the importance of understanding the learning needs of 2e students and ensuring that educators working with 2e students are appropriately trained (Krausz, 2018; Lee & Ritchotte, 2019). Bechard (2019) found that teachers who felt unprepared and lacked knowledge of 2e students shy away from providing ample support and creating an inclusive classroom. The barrier found from this study, highlighted by participant experiences in Appendix G, is a lack of knowledge educators have of 2e students and its ripple effects down to the students, as seen in Figure 2. This lack of knowledge creates low confidence with the teachers which then leads to low self-efficacy and a negative belief about their abilities to teach and support this population. Low self-efficacy affects the instructional decisions made, meaning that a teacher's lack of knowledge directly affects instructional decisions within the classroom. It is recommended that educators are provided information, resources, and training regarding 2e students, to better prepare them prior to entering the classroom. The findings may have practical significance for various stakeholders, including teachers, administrators, higher education administration, and faculty. The participants' lived experiences, found in Appendix G, may also provide recommendations for each of these groups to aid in discovering, creating, and implementing new practices to facilitate education and training for all teachers. This study may also serve as a foundation to further the discussion of 2e students, making others aware of their existence.

Theoretical and Empirical Implications

The theoretical framework for this study was rooted in Albert Bandura's (date) theory of self-efficacy. Previous studies indicate that teachers' beliefs in their ability to serve 2e students

directly impact student academic outcomes and achievement (Zee & Koomen, 2016). Bechard (2019) found that teachers who felt unprepared and lacked knowledge of 2e students shy away from providing ample support and creating an inclusive classroom. A teacher's confidence in understanding and serving this population "is highly significant because it can change their academic results" (Shahzad & Naureen, 2017, p. 54). The problem of teachers lacking the knowledge to instruct 2e students effectively aligns with the characteristics of self-efficacy, as seen in Figure 2 (Bechard, 2019; Huang et al., 2019; Zee & Koomen, 2016). Lack of knowledge has impacted the educator's level of confidence, which then impacts their level of self-efficacy and finally making its way to impacting their instructional decisions within the classroom. This study contributed to the theory of self-efficacy by exploring the effect a teacher's level of knowledge has on their thoughts of their own ability to adequately work with and instruct 2e students, furthering the notion of teacher self-efficacy. This study extended the research by confirming that a teacher's self-efficacy is impacted by their level of knowledge regarding 2e students (Mayes & Moore, 2016; Missett et al., 2016; Ronksley-Pavia et al., 2019a) and how their level of knowledge has a perceived impact on student outcomes, both positively and negatively (Bianco & Leech, 2011; Lee & Ritchotte, 2019; Ng et al., 2016).

The empirical implication of this study shows that utilizing a hermeneutic phenomenological approach allowed for an exploration into teachers' experiences working with 2e students through understanding their level of knowledge regarding this population (Willig, 2007). Current literature discusses the importance of understanding the learning needs of 2e students and highlighting the importance of ensuring that educators working with 2e students are appropriately trained (Krausz, 2018; Lee & Ritchotte, 2019). While the importance of educator training and explorations of 2e student experiences can be found in literature, there is a gap in the

literature when looking to understand the experiences of teachers working with this population and how their training, education, and experiences have a perceived impact on their beliefs of themselves as educators thus impacting outcomes of 2e students (Bianco & Leech, 2011; Lee & Ritchotte, 2019; Ng et al., 2016). This study added to the literature as the specific problem to be addressed through this study is the lack of teacher knowledge of 2e students showing a perceived impact on student learning and outcome through the teacher's experiences as seen in Figure 2, an approach which has not been readily researched. This study aims to close that gap by exploring the teachers' experiences working with this population, highlighting the factors that are affected by a teacher's lack of knowledge, such as their level of confidence, and their self-efficacy and perception of their abilities, all of which have a perceived impact their instructional decisions.

Limitations and Delimitations

The limitations of this study included the participant sample and the assumption that all teachers are willing to do their own research when it comes to working with 2e students. The participant sample was majority women, with one male participant found to have met the requirements. The delimitations of this study were the participant requirements of having worked with a 2e student within the last three years to aptly define the study's boundaries to ensure that the participants could adequately recall their experiences. I chose Hermeneutic Phenomenological study since I also have experience working with 2e students within the last three years.

Recommendations for Future Research

The recommendations for future research are gender and location. Further research should be explored to discover the extent of the male versus female teacher experiences when

working with 2e students and how it may tie in with teacher self-efficacy and their willingness to go above and beyond, completing their own research to best support this population.

Incorporating both genders may bring about results that uncover more dimensions of the experiences of a teacher working with 2e students. Do male teachers' experiences differ from those of females regarding their thoughts on their own abilities as an educator working with this population?

The second recommendation includes utilizing a geographically more expansive participant pool. While teachers can attend various colleges across the U.S. online, widening the locations of participants may uncover more information regarding the training and professional development provided by states or districts on 2e. Expanding the location of participants will also encompass more universities attended, which will give more insight into higher education courses/assignments implemented on the topic of 2e students. Are there specific colleges that require courses dedicated to 2e students? Is this topic being discussed in all certification areas? Are there school districts that require their teachers to go through training on 2e students?

The third recommendation for future research is to explore the level of training that gifted endorsement offers. The two participants who had a gifted certification noted that through their certification, they received training on 2e students. Expanding the experience requirements of a participants list to include those with the gifted certification can explore the level and type of training provided. Do all gifted certification endorsements provide 2e training? Does the training vary depending on whether the certification was earned through a school district, like these two participants or does it differ if it was earned through a university?

A fourth recommendation for future research is that more quantitative and qualitative studies should be conducted to test the validity of the relationship between knowledge and self-

efficacy in Figure 2. Examining the validity of the relationship of knowledge and self-efficacy with multiple size participant groups and various ethnicities of participants will broaden the scope of results to better understand the relationship between a 2e teacher's knowledge, their self-efficacy, and how that leads to instructional decisions.

Conclusion

This hermeneutic phenomenological qualitative study aimed to explore educators' lived experiences supporting and instructing 2e students for K-12 teachers in the southern and western United States. The study's theoretical framework was Albert Bandura's theory of self-efficacy (Bandura, 1977). The participants for this study were selected based on criterion sampling to ensure that they had relevant experience to the purpose of this study. The data collection methods utilized within this study were a Likert-style survey, individual interviews, and a focus group. In addition to the hermeneutic circle (Heidegger, 1962), the data were analyzed via coding and grouped into themes (Peoples, 2020). The trustworthiness of this study was achieved via member checking and triangulation. Data analysis revealed the themes of a teacher's level of knowledge and self-efficacy. The study's results implied that teachers are not provided adequate education and training to support their knowledge base and that their level of knowledge directly correlates to their self-efficacy within the classroom. As seen in Figure 2: Relationship Between Knowledge and Self-efficacy, a teacher's lack of knowledge has a ripple effect to their level of confidence, self-efficacy and ultimately affecting their instructional choices. Further research was suggested, which included a more diverse male-to-female ratio of participants and a geographically more expansive participant pool to understand the trends in knowledge and self-efficacy of 2e educators across the United States as well as conducting more quantitative and qualitative studies to measure the of Figure 2.

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Appendix A: IRB Application

Date: 8-4-2022

IRB #: IRB-FY21-22-1098

Title: AN EXPLORATION OF TWICE-EXCEPTIONAL EDUCATORS' KNOWLEDGE: A HERMENEUTIC STUDY

Creation Date: 5-13-2022

End Date:

Status: Approved

Principal Investigator: Courtney McKnight

Review Board: Research Ethics Office

Sponsor:

Study History

Submission Type Initial	Review Type Limited	Decision Exempt - Limited IRB
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Key Study Contacts

Member Andrea Bruce	Role Co-Principal Investigator	Contact [REDACTED]
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Member Courtney McKnight	Role Principal Investigator	Contact [REDACTED]
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Member Courtney McKnight	Role Primary Contact	Contact [REDACTED]
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Appendix B: Informed Consent

Title of the Project: AN EXPLORATION OF TWICE-EXCEPTIONAL EDUCATORS' EXPERIENCES: A HERMENEUTIC STUDY

Principal Investigator: Courtney McKnight, Special Education Teacher M.A.T, Doctoral Student- School of Education, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be an educator who teaches general education, special education, and/or gifted education classes or courses at a K-12 public school, with experience teaching a twice-exceptional student (both gifted and having a learning disability) within the last three years. Taking part in this research project is voluntary. Please take time to read this entire form and ask questions before deciding whether to participate in this research.

What is the study about, and why is it being done?

The purpose of this study is to explore the lived experiences of educators' experiences supporting and instructing twice-exceptional students (both gifted and have a learning disability). Understanding the teacher's experience serving this population of students will allow a closer look into higher education training as a pre-service teacher, relevant professional development, on-the-job training and experiences, and continuing education courses that aid in determining a level of knowledge and preparedness to instruct and support this unique population.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following things:

1. Take a survey via Microsoft Forms that is expected to take 20-30 minutes to complete.
2. Participate in an individual interview via Microsoft Teams that is expected to take 45-60 minutes and will be audio recorded.
3. Participate in a focus group via Microsoft Teams (for 4-8 participants, if deemed necessary by the researcher for additional information) that is expected to take 60-90 minutes and will be audio and video recorded.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study. Benefits to society include an increased understanding of overall educator experiences that include education and training regarding twice-exceptional students and how educators are trained or learn to serve this unique population as well as looking into how the educator's level of knowledge has a perceived impact on student outcome and a direct impact on teacher self-efficacy.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you 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.

- Participant responses will be kept confidential through the use of pseudonyms. The focus group and interviews will be conducted in a location where others will not easily overhear the conversation.
- Data will be stored in a password-protected folder on an external hard drive that will be locked in a filing cabinet. After three years, all electronic records will be deleted.
- The interviews and focus will be audio and video recorded and transcribed. Recordings will be stored in a password-protected folder on an external hard drive locked in a filing cabinet for three years and then erased. Only the researcher will have access to these recordings.
- Confidentiality cannot be guaranteed in focus group settings. While discouraged, other members of the focus group may share what was discussed with persons outside of the group.

Does the researcher have any conflicts of interest?

The researcher serves as a special education teacher at Texas Tech University K-12. To limit potential or perceived conflicts, the study will be conducted outside of this institution. This disclosure is made so that you can decide if this relationship will affect your willingness to participate in this study. No action will be taken against an individual based on his or her decision to participate or not participate in this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or your county of employment. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose 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, data collected from you 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 Courtney McKnight. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [REDACTED] or [REDACTED]. You may also contact the researcher's faculty sponsor at [REDACTED].

Whom do you contact if you have questions about your 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.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

By signing this document, you are agreeing 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 of 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.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

- The researcher has my permission to audio-record and video-record me as part of my participation in this study.

Printed Subject Name

Signature

Appendix C: Survey

Teacher Experiences with 2e Students Survey

Demographic:

1. What areas(s) are you certified to teach?

General Education Special Education Gifted Education

2. How many years have you been a teacher?

3-4 5-6 7-8 9+

3. How many years have you taught 2e students?

1-2 3-4 5-6 +7

4. How many courses did you take in your educator preparation program that pertained to 2e students?

0 1-2 3-4 5+

Survey Items:

Please rate how much you personally agree or disagree with these statements listed below. Use the following scale: (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree (5) strongly agree.

13. I know how to design instruction for students who are both gifted and have a learning disability. SQ1

Strongly disagree Neither agree nor disagree Agree Strongly agree

14. I understand the needs of students who are both gifted and have a learning disability.

SQ1

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

15. I feel confident about my teaching abilities when working with a student that is both gifted and has a learning disability. SQ1

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

16. Working with students who are both gifted and have a learning disability has posed challenges I felt unprepared to handle. SQ1

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

17. My lack of knowledge of students who are both gifted and have a learning disability impacts my ability to deliver instruction effectively. SQ1

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

18. My college/university experience prepared me to work with students that have both a learning disability and giftedness. SQ2

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

19. My school/district provides me with professional development(s) on students who are both gifted and have a learning disability. SQ2

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

20. Other teachers come to me for advice about how to work with students who are both gifted and have a learning disability, and I am able to provide them with helpful ideas and tips. SQ2

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

21. I have had to “learn the hard way” when it comes to teaching students who are both gifted and have a learning disability. SQ3

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

22. A student who is **both** gifted and has a learning disability benefits from my teaching pedagogy. SQ3

Strongly disagree *Disagree* *Neither agree nor disagree* *Agree* *Strongly agree*

23. I know what I am doing when it comes to creating meaningful lessons for students who are both gifted and have a learning disability. SQ3

Strongly disagree *Disagree* *Neither agree nor disagree* *Agree* *Strongly agree*

24. In the last three months, I have Googled information for teaching students who are both gifted and have a learning disability. SQ3

0 1-2 3-4 5+

Appendix D: Interview Questions

1. Please describe your educational background and career in your current position. C.R.Q.
2. What experience do you have working with students who are both gifted and have a learning disability? C.R.Q.
3. Describe successes when working with students who are both gifted and have a learning disability in your classes. SQ1
4. Describe your challenges when working with students who are both gifted and have a learning disability. SQ1
5. How would you describe the perceived impact your knowledge of students who are both gifted and have a learning disability has on your ability to provide support and instruction? SQ1
6. How would you describe your experience working to meet the needs of students who are both gifted and have a learning disability in your classroom setting? SQ1
7. What courses or assignments did you complete during your educational degree program that dealt twice-exceptional students? SQ2
8. What type of training/support does your district provide for serving students who are both gifted and have a learning disability? SQ2
9. How do you feel your education, training, and support affect your belief in your ability to deliver instruction and support this population? SQ2
10. How do your preconceived understanding of students who are both gifted and have a learning disability play a role in your instructional decisions? SQ3

11. How do your preconceived understanding of students who are both gifted and have a learning disability play a role in your beliefs about your own ability to implement supports for this population? SQ3
12. What else would you like to add to our discussion of your experiences with students who are both gifted and have a learning disability that we have not discussed? C.R.Q.

Appendix E: Focus Group Questions

1. What is it like to teach students who are twice exceptional? CRQ
2. What university course, professional development and/or training do you wish you had before you started to work with 2e students? SQ2
3. Self-efficacy is simply the belief in your ability to complete a task successfully. When considering your experience with 2e students, what things positively contributed to your self-efficacy? SQ3
4. Going back to the definition of self-efficacy, which in the believe that you can complete a task successfully, what things do you feel negatively impact your self-efficacy when teaching students who are 2e? SQ1
5. Finally, based on your experiences, what advice would you give future teachers of 2e students? CRQ

Appendix F: Recruitment Email

Dear Recipient:

As a Doctoral Candidate in the School of Education at Liberty University, I am conducting research as part of the requirements for a Ph.D. in Special Education. The purpose of this study is to explore the lived experiences of educators' supporting and instructing twice-exceptional students (both gifted and having a learning disability). This study will be guided by the central research question: What are the lived experiences of teachers working with twice-exceptional students? The sub-questions explore the participants' knowledge regarding twice-exceptional students and how this knowledge has a perceived impact on student performance, the role of teacher preparation in an educator's ability to serve twice-exceptional students, and teacher self- efficacy. I am writing to invite eligible participants to join my study.

Participants must be an educator who teaches general education, special education, and/or gifted education classes or courses at a K-12 public school, with experience teaching a twice-exceptional student (both gifted and have a learning disability) within the last three years. Participants, if willing, will be asked to take a 15-item survey via Microsoft Forms which will take 20-30 minutes to complete, participate in an individual interview, via Microsoft Teams which will take 45-60 minutes, and participate in a focus group if deemed necessary by the researcher for additional clarification which will take 60-90 minutes via Microsoft Teams (for 4-8 participants). Names and other identifying information will be requested as part of this study, but the information will remain confidential.

To participate, please reply to this email with your signed consent document. After I receive your consent form, I will email you the survey link and directions.

A consent document is attached to this email. The consent document contains additional information about my research. If you choose to participate you will need to sign the consent document and return it to me at cmcknight9@liberty.edu. To sign the consent form please type your name in the first box and you may either type or draw your name using the Microsoft Word drawing tools found under the draw section at the top left-hand side.

Sincerely,

Courtney R. McKnight

Ph.D. Candidate

Appendix G: Participant Vignettes

Allison

Allison has an educational specialist and a master's degree in special education. Her most recent position was as co-teacher at the high school level, primarily in grades 10, 11, and 12 within the science department. She was also a case manager of 12 to 18 students with varying levels of disability. She has at least nine years of experience with students on her caseload and in her classrooms that were twice exceptional, noted as gifted, but also need an IEP for different reasons such as learning disabilities or autism. Allison indicated during her survey, interview, and focus group that she had no formal training provided to her through her college, with just one assignment in one class at the specialist level based on 2e students or the school district regarding 2e students. Due to a lack of training and education provided, Allison would do her research on 2e students or reach out to her network of teachers and educators at different levels to find information and ideas on how to support this population. She feels confident in her abilities to instruct 2e students based on the amount of research she has done over the years but states that during her first time working with a 2e student, she felt unprepared and nervous. Since then, she has used trial and error when working with 2e students.

I used trial and error because each of the twice exceptional students was a little different in how they handled their giftedness and learning disability. At the high school level, the students are more aware of their own needs, and then the other thing that was really very helpful was partnering with the parents to get information about their students. That also helped give background information to know where to start and meet their needs.

Allison stated that working with her first 2e student; she had no preconceived notions because she was unfamiliar with this population, so she approached instruction from a special education

perspective during her experience first working with a 2e student. As a certified special education teacher, she understood what gifted was but had no background working with gifted students or 2e students; through years of working with these students, networking with co-workers, and doing her own research, she understands that each 2e student is different. Her positive self-efficacy as a teacher has stemmed from her own willingness to research and learn more about this population in order to best serve and support the students. She does admit that with her first 2e student, she had low self-efficacy as she felt unprepared to work with him and knows her instruction suffered as a result. Allison ended the interview by providing an insightful perspective that "there is a distinct difference between the perception of a general education teacher who is gifted certified and a special education teacher who is special education certified with a disconnect on both ends for how to serve twice-exceptional students."

Beth

Beth has a bachelors in secondary education with a specific area in composite social studies allowing her to teach 4th through 12th-grade social studies subjects. She also has a master's degree in Curriculum and Instruction with an emphasis on Special Education. She has taught in the public school system for 20 years, all in high school. Beth indicated during her survey and interview that there was no formal training provided to her through her education or her school district regarding twice-exceptional students. Due to this lack of training, she had to take it upon herself to get to know the 2e students better through learning about their strengths in academics as well as their struggles, whether academically or socially, "making sure we were aware of his struggles, but we also made sure that they were getting what they needed. When he was getting what he needed, the triggers were not there."

Prior to working with her first 2e student, Beth had no idea what the term "twice-exceptional" was or that these students existed. When first working with her 2e student, she did not know that he was both gifted and had a learning disability and ended up having to learn the hard way how to support this student in an academic setting. She did her own research to find out the student's strengths and needs, his triggers, and what would specifically work for him so he could be successful in the classroom.

Cate

Cate has an undergraduate degree in biology and a master's degree in secondary education with a teaching certificate. Her most recent position was as a gifted science teacher for all sciences earning her gifted certification roughly 20 years ago. She has taught for 31 years, teaching all sciences and Advanced Placement courses at the high school level. She has more than seven years of combined experience working with 2e students. Cate indicated during her survey and interview that there was no formal training she provided through her college regarding twice-exceptional students, nor was she offered training at the district level on 2e students specifically. The training she received to become gifted certified included information on supporting this population in a gifted setting. To best support her students, Cate took classes at her local education agency on special education to combine her knowledge of giftedness with special education in conjunction with the training provided on 2E from her gifted certification endorsement program to best support her students. Her research allows her to feel confident in her ability to instruct this student population. "Being in high school is a different experience because, by this time, the students know their accommodations, they know all the tricks of the trade, they were very much advocates for themselves, they spoke up. Older students in my gifted classes already knew how to overcome most of their struggles."

Cate had no preconceived notions because before her first experience with a 2e student, she had no knowledge or education that would suggest this population exists. "I didn't know that a special education student with learning disabilities could be in a gifted class." Because of the courses she took on her own and the bit of training she received earning her gifted certification endorsement, she felt confident in her abilities to provide instruction to twice-exceptional students indicating that this knowledge left her with a positive self-efficacy. "If you don't have background knowledge on the students, then you're not going to be able to come up with accommodations that take them to the depth or the breadth of what they want to learn."

Darlene

Darlene has a bachelor's in K-8 general education degree and a master's in special education. She has primarily taught at the elementary school level, with three years of experience working with 2e students and nine total years of teaching experience. During her survey and interview, Darlene indicated that she had no formal training provided to or through her college or district regarding twice-exceptional students. Due to this lack of training and education, Darlene completed her research and learned more about this specific population of students to best support them in the classroom. She learned that once her 2e student's needs were met and supported, his academics were able to soar, and "he was higher than the rest of the class, so we had to find ways to address the academics part once we got the behaviors in line." Since then, she has used trial and error to find a way to meet students' needs and encourage academic achievement.

Darlene had no preconceived notions of 2e students; she knew each exceptionality existed separately but had no experience or working knowledge of them. She attributes some of her success working with this population to her working in a project-based learning environment.

"When I was in general education, I'd come from a school that was focused heavily on project-based learning, so that was a great experience to pull from when working with the gifted part of these twice-exceptional students."

Ethel

Ethel has a master's in teaching in secondary education and is an educational specialist in curriculum and instruction. She has five years of teaching experience, all at the high school level, teaching general elective courses. Ethel indicated during her survey and interview that she received no preparation for 2e students during her degree programs, nor did her district offer their teachers any training on this population. Due to this lack of training and education, Ethel felt entirely unprepared for instruct these students displaying negative self-efficacy, noting during her interview that "I knew immediately that I did not create a lesson to meet this student's strengths and needs and that I was well out of my depth of knowledge." She stated that due to her lack of knowledge, she did not feel confident in her abilities to provide adequate instruction, so she had to lean on her research to learn how to work with this population. Through trial and error, she found that using the instructional technique of comprehensible input allowed this population to excel in her classes. "In my experience, most kids with IEPs and learning disabilities do well in my class because of how I teach." Before working with her first 2e student, Ethel had "no idea that these students existed much less that they needed to have a teacher with a solid understanding of them to succeed academically."

Francis

Francis has a bachelor's degree in special education adaptive curriculum, a master's degree in special education interrelated, a specialist in curriculum instruction management, and a certificate in educational leadership. Francis has 20 years of teaching experience at the

elementary school level. She indicated during her survey, interview, and focus group that she received no education on 2e students from her universities or school district. Francis stated, "I have several degrees and am certified in general education, special education, and leadership. I did not even hear the term twice-exceptional mentioned in one of the assignments or courses I completed for any of my degrees or certificates. Term aside, the notion that a student can be both special education and gifted was not a topic I had ever heard discussed until I received a twice-exceptional student one year and his previous teacher came to me during pre-planning to inform me." Francis also added that the first year she taught a 2e student was full of challenges. "I had to figure it out on my own. I went to his previous teacher for support and spent many nights and weekends doing my research because I knew I had to figure out how to support this student; he was relying on me to teach him." Francis indicated that during her first few weeks with this student, she knew her teaching was not what he needed, and her self-efficacy turned negative, "I felt like I was failing him and myself as a teacher. I knew I had to overcome these challenges even if that meant learning the hard way or relying on trial and error." Francis stated she had no preconceived notions about 2e students because she had no idea they existed before her first student. "I was so overwhelmed with this student that had a combination of exceptionalities I didn't know existed that I had no time to prejudge him; my time and energy were spent trying to wrap my brain around the fact that these students exist, and I had no idea how to teach him."

Greta

Greta has a master's degree in special education and six years of teaching experience at the elementary and middle school levels. Greta indicated that she had not received professional development or training from her school districts. "I worked at three school districts, and neither of these districts provided training or even the mere mention of twice-exceptional students." She

also noted that she received no education on this population while earning her degree. Due to this lack of training and education, Greta stated, "I was completely unprepared. I had no idea that this population existed, let alone how vastly unique they were, which requires a different set of skills to support them appropriately", she continues to say "I feel as though my university and my school districts have not only let me down as educator but have also let down twice-exceptional students. As their special education teacher, I am supposed to be their support and advocate; how can I be this when I had no idea they existed?" Greta used trial and error, conducted her research, and partnered with the parents to ensure she could provide the best academic experience for her students. "I had no preconceived notions about the students' abilities because I did not know they existed; the moment I learned of their existence, I learned of both the ability and disability simultaneously, but I was more concerned with figuring out how to teach them than worrying about my own biases."

Harriet

Harriet has a bachelor's and master's in health education, a special education specialist, and educational leadership specialist. She has 24 years of teaching, with 22 years in special education at the elementary, middle, and high school levels. 7+ of those years has been working with 2e students where she indicated that she received no training from her school district and no education or preparation from any of her degrees. She stated that before her first time working with a 2e student, "I had never heard of the term, nor did I know exactly what it was referring to." She stated that she feels as though she was not "...adequately prepared to work with these students" she said, "I had to do my research because teaching twice-exceptional brought about a lot of challenges I was not prepared to handle." She continued to say that she felt like she was "winging" until she understood this population better. "I had no preconceived notions, no

attitudes or beliefs about their ability because I did not fully understand twice-exceptional myself. My lack of training on these students made it more challenging to instruct them the first time". Harriet shared that because of this lack of knowledge; she still wanted to be the best version of herself for her student, so she did her research on 2e, finding instructional strategies and ways to provide support.

Ingrid

Ingrid has a master's degree in instructional technology and is an educational specialist in leadership. She has 25 years of teaching experience at the high school level, teaching general education and gifted courses. Ingrid indicated that she received no training or professional development from her school district regarding 2e students specifically, and "I only had one college class that covered everything from severe disability to gifted in one semester." She indicated that her knowledge of 2e came from her gifted certification endorsement course taken through her district, where she "became more familiar with expectations" when working with and instructing 2e students. As for her preconceived notions, she stated that "while I was aware of the various possibilities from my own experiences as a student, I was not aware of accommodations that might be expected from the teacher, so I had to learn for myself." Utilizing her experience with 2e students in her gifted training and doing research on her own, she felt confident in her ability to provide adequate instruction to her 2e students.

Jack

Jack has a bachelor's degree in history and a master's degree in secondary education. He has 11 years of teaching at the high school level. During the data collection methods, Jack indicated that he received no training from his university or school district, "no one mentioned the term twice-exceptional in either my university or my school district; I was left in the dark

until I had a twice-exceptional student on my roster." Jack shared that "I was concerned when I reviewed this student's records and saw that he was both gifted and special education, concerned that I, as the educated teacher, had no idea that this combination was possible." He also noted that "the first thing I did was Google how to teach a student who was gifted and special education, that is when I realized there was a whole population of students that I did not know existed. I spent a lot of my pre-planning time reviewing resources and watching videos for best practices on how to teach this student." During the individual interview and focus group, Jack indicated that his self-efficacy as a teacher was tied to his level of knowledge, "my self-efficacy or the confidence I had in myself was directly tied to my knowledge of this student. On my first day teaching him, I was so nervous because I did not know what to expect; I knew my lesson was a bit off, but once I got to know the student and had more time to put my practice to work, I felt more confident in my abilities and my lessons definitely improved."