

Hamline University

DigitalCommons@Hamline

School of Education and Leadership Student
Capstone Projects

School of Education and Leadership

Fall 2019

Supporting Twice Exceptional Students Within the General Education Classroom: Strategies for General Education Teachers

Rebecca Levi

Follow this and additional works at: https://digitalcommons.hamline.edu/hse_cp



Part of the [Education Commons](#)

Recommended Citation

Levi, Rebecca, "Supporting Twice Exceptional Students Within the General Education Classroom: Strategies for General Education Teachers" (2019). *School of Education and Leadership Student Capstone Projects*. 403.

https://digitalcommons.hamline.edu/hse_cp/403

This Capstone Project is brought to you for free and open access by the School of Education and Leadership at DigitalCommons@Hamline. It has been accepted for inclusion in School of Education and Leadership Student Capstone Projects by an authorized administrator of DigitalCommons@Hamline. For more information, please contact digitalcommons@hamline.edu.

SUPPORTING TWICE EXCEPTIONAL STUDENTS WITHIN THE GENERAL
EDUCATION CLASSROOM: STRATEGIES FOR GENERAL EDUCATION TEACHERS

by

Rebecca Levi

A capstone project submitted in partial fulfillment of the requirements for the degree of
Master of Arts in Education

Hamline University

St. Paul, Minnesota

December 2019

Capstone Project Facilitators: Jana Lo Bello & Patty Born Selly
Content Expert: Rachel McLaughlin

DEDICATION

For my sweet Amelia, who has taught me to see the world in a new way and has inspired me to continue to learn all that I can to provide all students with the best education possible. For my family, who have supported and encouraged me in everything I do. I would not be where I am today without you.

“Excellence in education is when we do everything that we can to make sure they become everything that they can”

-Carol Ann Tomlinson

TABLE OF CONTENTS

CHAPTER ONE: Introduction.....	6
Personal Experience.....	7
Professional Experience.....	11
Conclusion.....	12
CHAPTER TWO: Literature Review.....	14
Gifted and Talented Students: Who are they?.....	15
Twice Exceptional Learners: Who are they?.....	17
Best Practices for Students with Learning Disabilities.....	21
Advocacy.....	27
Student and Family Perspectives.....	30
CHAPTER THREE: Methods.....	35
Project Overview.....	36
Research Support.....	37
Setting.....	40
Target Audience.....	41
Project Description.....	41
Timeline.....	42
Conclusion.....	43
CHAPTER FOUR: Conclusion	44
Major Learnings.....	44
Literature Review	45

Project Description47

Project Limitations47

Project Implications48

Potential Future Research49

Author’s Reflection49

Conclusion50

REFERENCES51

CHAPTER ONE

Introduction

There are students who have both learning disabilities as well as outstanding skills in certain academic areas. These students are often called twice-exceptional (2e) learners. This term is given to these students because they are exceptional in two different ways: they are gifted as well as having at least one disability. According to the National Association for Gifted Children (National Association for Gifted Children, n.d.), these disabilities may include specific learning disabilities, speech and language disorders, emotional/behavioral disorders, physical disabilities, autism spectrum disorder, or other impairments such as attention deficit hyperactivity disorder.

2e students are similar to other gifted learners in that they are extremely knowledgeable in at least one area. However, this knowledge and talent often gets overlooked and overshadowed due to their disabilities. These learners tend to really struggle in a school setting as the disabilities interfere with their ability to stay organized, participate in class, or use long-term planning skills. While twice exceptional students can be very curious, strong problem-solvers, extremely creative, and highly verbal, they tend to have difficulty keeping up with the pace and demands of school. This can lead to frustration and inconsistency with academic performance. Researchers have found that the disabilities 2e students have can often mask their abilities, causing them to never receive any gifted education.

I have witnessed 2e students struggle and fall behind in school throughout my career as a student and my career as an educator. Watching both students and teachers struggle with this has caused me to question the way the classroom is run. How can we improve our schools so the gifts of twice-exceptional students are not hidden by their disabilities? What changes can be

made in the classroom to help 2E students succeed? These questions have all led me to my research project.

My research question is, *How can educators best support and challenge twice exceptional students within the general education classroom?* The goal of this project was to identify methods of teaching that will help 2e students be successful in the classroom as well as continuing to challenge them. I planned to uncover strategies for teachers to implement with their 2e students and published the information on a website for teachers, parents, and anyone else who works with twice exceptional students.

In this chapter, I will describe my personal and professional experience with twice-exceptional learners and provide rationale as to why it is important to research and discover what these students need to be successful in school. I will introduce you to two different students who are considered twice exceptional whom I have worked with in the past. My experience in my own schooling along with my experience with these two children is what has influenced me to create this thesis.

Personal experience

When I was growing up, I loved going to school. I was a very successful student and I thrived in the school environment. Everything always felt very easy to me and I often found myself bored in class. I was often frustrated when I was in class as teachers tended to have me teach the other students what we were learning. Instead of learning something new and growing, I was teaching my peers things that I already knew. The best part of my day was when I was pulled to work with the “Math Boosters” group or go to *Jr. Great Books*. During these times, I felt like I was being challenged and I had a lot of fun working on the harder material.

During my third grade year, I was pulled from class more often than normal to work on what they called a “special test.” I was not sure what the test was for but I do remember having a lot of fun taking it and enjoying all the tricky questions I was asked. In the end, it turned out that the test was to see if I would be eligible to attend a brand new school in the fall. A new gifted and talented magnet program was opening up at a different school within my district. I was accepted to the program, along with one of my best friends, and we decided that we would attend.

The choice I made to change schools was one of the best choices I ever made. I was challenged every single day and I fell in love with school all over again. I learned that things would not always be easy and that it was ok to fail when learning something new. Throughout my previous elementary years, I rarely failed at anything. Academics were easy for me and this lack of failure started to turn me into a perfectionist. This perfectionism was detrimental to my mental health and I needed to learn to accept my mistakes and failures. Attending this new school helped me do just that. I was learning high level algebra, learning how to count and do math in different bases, learning new languages, and reading texts far beyond the typical elementary school level. All of this challenging work lead to many “failures” for me which I learned was ok. I was able to see that these “failures” meant I was finally being challenged and learning something new! This school truly impacted my life. I made a lot of new friends and was in classes with peers who I had more in common with.

The one thing I did not expect when I switched programs was how many “naughty” students there would be in my class. In my nine year old brain, it did not make any sense that these students who were always causing problems and not doing what they were supposed to do

in class, were considered gifted. For me, it just felt like they were ruining fun activities and making our teacher angry. As a child, I considered behaviors like being distracted, not completing your work, and being disruptive as naughty. As I reflected on these students throughout my education program at Hamline, I realized that many of these students probably had other underlying conditions that contributed to these behaviors such as ADHD, ASD, and behavioral disorders. The kids that I always thought were naughty were probably 2E. The troubles that they had in class were due to their disabilities, not the giftedness. I reached out to some of these peers in the past year and learned that two of them had been diagnosed with attention deficit hyperactivity disorder (ADHD) and another one received a diagnosis of Autism Spectrum Disorder (ASD). I cannot help but think if our classroom teacher had known about different methods of teaching and strategies that help students with these disabilities in the classroom, it would have been a different year for both those students and the teacher.

Another person in my life that has peaked my interest in 2e students is my niece Lucy. Lucy was diagnosed with ASD when she was just two years old. She developed typically from birth until her first birthday. After her first birthday, we noticed that development seemed to be slowing down drastically and she was not hitting the same milestones that other children her age were reaching. My sister decided to take her to the doctor and after a variety of testing, she was diagnosed. It was devastating for my sister and her husband, as well as the rest of my family. They were not sure if Lucy would ever speak and if she would ever reach the same milestones as other children.

Lucy was enrolled in an Autism therapy center shortly after her diagnosis. She went to “school” for 8 hours a day, 4 days a week to begin working on ways to help her communicate.

She received Applied Behavior Analysis (ABA) therapy, in which therapists use their understanding of how behavior works to help increase behaviors that are helpful and decrease behaviors that are harmful or affect learning (Autism Speaks, 2019). Lucy also attended occupational therapy, where her therapists helped her with her social skills as well as taught her how to complete important daily activities such as brushing her teeth. Finally, Lucy received speech and language pathology where her therapist worked to help diagnose and treat Lucy's troubles with speech and worked on different skills to help Lucy talk.

Attending her therapy center has helped her grow in so many ways but she is still very behind in her speech. Due to this, her parents have decided to continue sending her to her therapy center, rather than their public school. However, Lucy is very smart which is clear to everyone who is with her. She communicates extremely well, even if it is not always through spoken words, and she is very creative. She knows all of her letters, does very well with numbers, and has started to read words.

The way she has progressed so quickly has always made me think that she could become a 2e student, with her disability hiding her giftedness. I hope that by continuing research on how to help 2e students, Lucy will be able to find success in a public school one day and others will be able to see how talented and smart she truly is. The perspectives of the various family members of 2e students are so important to consider when discussing and analyzing the twice exceptional school experience. In my literature review, I will look at these perspectives to see how families feel their 2e student is being treated in school and if they believe their student is receiving all of the services that they need to be successful

Professional experience

After receiving my teaching license from Hamline, I was lucky enough to return to the gifted and talented program I had attended in elementary school as their new second grade teacher. I could not believe that I was being hired to work at my dream job as a brand new teacher! I knew that this was the school where I was meant to be and I could not wait to start my career and give back to the school that gave so much to me.

The first two weeks of teaching in the program were blissful. I had a wonderful class of 20 students who were excited to be at school and ready to learn every single day. They were curious, intuitive, hard-working, and fun to be around. We were going to have a great year! But after the first two weeks, I found out that I would be receiving a new student. I was informed that my new student would be challenging and he was most definitely twice-exceptional. I knew that this would change the atmosphere of my classroom but felt confident that with such a good group of students, he would fit right in and we would continue down this amazing path that we were already on.

I was so very wrong. He did not fit right in with the class at all. It was as if a tornado walked into my perfect little classroom and destroyed the whole room. This student had zero intentions of doing what I asked and he was not going to make things easy for me. He refused to do almost everything I asked of him, would not participate in class, tried to run away and almost escaped the building on multiple occasions. He was angry with me and yelled at me constantly, he would rip up papers and throw things in the classroom, and he disrupted every lesson I taught.

At first, I spent a lot of time at home crying, feeling pretty worthless, and believing that I was a failure as a teacher. I vented to my loved ones and told them all about how I was failing at my dream career, but they did not believe me and told me that I could do it. They reminded me of other challenging children I had worked with in the past and how I had been able to help them. It was time to stop feeling sorry for myself, so I decided to work harder and make a change. This student had attended many different schools during his short time in school and teachers who had him never required him to do much as he “already knew the grade level material.” He was used to getting his way and not having to work for anything. I knew that with some hard work and help from my peers, I could help him be successful in my classroom.

It was a long, hard year, but by the halfway point, this student had begun to work hard in class and actually enjoyed coming to school. By the end of the year, I was sad to see him go and unbelievably proud of how much he had changed over the year. As I reflected on what I had done to help him be successful, I realized that there is not a lot of information for teachers on how to help a student like this. I went through a lot of trial and error, with the help of my colleagues, to find different strategies for him and it was a difficult process. More information is needed to help teachers who are in similar situations.

Conclusion

Twice exceptional students are often missed in the public education system. The disabilities these students have cause their magnificent abilities and giftedness to be hidden in the shadows. If educators and administrators do not become more educated on the subject and start addressing the needs of 2e children, many students will struggle throughout their education. I often worry about Lucy and how she will experience education as she begins her public school

career next year. Will she only be seen through the lense of her disability or will her teachers be able to see the gifts she has as well? As educators, it is our job to advocate for our students and their abilities. We need to find out how we can best support these students and help them succeed in school.

In the following chapter, I will examine different research surrounding twice exceptional students. I will analyze the different disabilities 2E students can have, review which methods of teaching work well for these students, and which methods have been found to be unsuccessful. The previous research will shape my thinking on best practices for general education teachers and a final product will be a guide for educators to use in their own classrooms.

\

CHAPTER TWO

Literature Review

Introduction

Twice exceptional students can be extremely challenging for general education teachers. A lack of knowledge on how to help these students succeed is what creates this challenge and it is the reason I am investigating the following question: *How can educators best support and challenge twice exceptional students within the general education classroom?*

In the following literature review, I will examine various characteristics of the twice exceptional student and their education to help find how teachers can best support and challenge these students. The first pieces of literature will cover who gifted and talented students are. What does it mean to be gifted and how does that impact one's school experience? After examining research on giftedness, next the paper will examine who twice exceptional students are and how their disabilities impact their schooling experience. The knowledge of gifted students and twice exceptionality has grown greatly over the past one hundred years, with the field of twice exceptionality developing more recently so this information will also cover the findings and discoveries made in this field.

After covering what it means to be gifted and what it means to be twice exceptional, the research will focus on best methods for educating those with a disability, advocacy for this group of students, and the perspectives of 2e students and their families.

Gifted and Talented Students: Who are they?

The National Association for Gifted Children defines a gifted child as one whose ability is significantly above the norm for their age (National Association for Gifted Children, n.d.). Giftedness can be seen in just one domain or across many: intellectual, creative, artistic, leadership, or even in specific academic fields such as math or language arts. These students have often posed a challenge for their teachers who are concerned, not only with challenging gifted students, but also with making sure the other students in the classroom are also learning what they need to know. The needs of gifted students can often be put on hold, as educators try to juggle the needs of their peers. Sometimes these students can be left to become teachers for their peers or not expected to do anything at all while in school. Without anything challenging them, they can quickly become bored and tired of attending school. Gifted students strive for a challenge and need this to continue to grow in education.

Gifted students can be found inside each and every general education classroom. According to Renzulli, there are three traits of giftedness that can be considered when looking at these students: above average ability, high levels of task commitment, and high levels of creativity (as cited by Young and Balli, 2004). Above average ability can be described as the ability to think abstractly as well as being able to get information quickly by sorting the relevant from the irrelevant. High levels of task commitment means that these students exhibit enthusiasm, perseverance, and high standards for their work. Creativity can be seen as the ability to solve problems through multiple approaches and not necessarily by the same means that most people would. These unique traits of gifted students call for a different way of educating; can

these students benefit from the typical method of teaching inside a general education classroom? Gifted students need challenging experiences that help them grow these traits and abilities.

Gifted students have a wide range of experiences in school. Each school and teacher is different and can choose to approach gifted education from a variety of different perspectives. One of the big ideas surrounding gifted education is differentiated instruction. In a book by Tomlinson (2003), the author discusses the benefits of differentiated instruction for all students. She talks about how differentiated instruction gives students the opportunity to learn and demonstrate their knowledge through multiple different pathways. This method can be used for students who are high ability, low ability, or somewhere in between. A sixth grader named David described his experience with differentiated instruction:

Some GATE students have certain subjects that they are good at and some GATE students are good at all subjects. He gives us special assignments in the things we are gifted in. Just the GATE students do the depth and complexity projects... not the whole class. We get to choose a subject and what we want to do. I chose photosynthesis and made a website" (Young & Balli, 2014, p. 241).

This type of education results in students doing work that is meaningful, thus providing gifted students with a good experience in school.

In a different study, Fisher and Frey (2012) discovered that gifted students in the general education classroom often noticed that teachers did not engage in guided instruction with them. Their teachers were very attentive and spent much of the class time visiting groups of students,

checking in with them and seeing how they were progressing. The teachers offered guidance to small groups of students who were working below grade-level and used this guided instruction as a form of remediation. However, the gifted students felt strongly that this type of instruction should be provided to them as well. This would allow them an opportunity to deepen their knowledge and explore more advanced ideas surrounding the topic they were studying.

While differentiated instruction and guided instruction can help enrich learning and make school exciting for GT students, not all schools provide this for their students. A 6th grader named Alexander reports feeling bored when he is at school: “Sometimes I feel bored when I finish [my assignments] so fast and I have nothing to do” (Young & Balli, 2014, p.240). Other students report that they become bored when their teacher must teach a concept multiple times. They learned it after the first lesson, so learning about it again and again, for the sake of their peers, is both boring and frustrating. Some educators are unaware of how to best provide instruction for these students that keeps them engaged, motivated, and excited.

Not all gifted students have the same experiences in school. Much of their experience is attributed to their teachers and the resources that their teachers have been provided. These students benefit from differentiated instruction, which allows them to continue learning at a high level and to use their creativity in the process.

Twice Exceptional Learners: Who are they?

Twice-exceptional (2e) learners are becoming more and more common in today’s classrooms. These 2e students are students who have been identified as both gifted in some domain as well as having some type of learning disability. These unique learners also have unique needs and challenges, different from the “typical” student. Due to this, working with 2E

students has been a challenge for educators. In order to best understand how to help these students, educators need to first understand what it means to be twice-exceptional.

Twice-exceptionality is the meeting point of special education and gifted and talented education. This area of education has been developing for almost 100 years. The understanding of twice exceptionality began with the understanding of giftedness. Once researchers were able to give a definition to giftedness and began studying gifted students more, they began to notice gifted students with learning disabilities as well. They continued to learn more about these students over the last 100 years, publishing new research, helping to pass different educational acts, and creating different organizations. Below is a table, adapted from Baldwin, Baum, Pereles, and Hughes (2015), which outlines the history of Twice Exceptionality.

Table 1.

Year	Occurrence	Significance to 2E
1923	Hollingworth published her book <i>Special Talents and Defects: Their Significance for Education</i>	Coined the term “gifted” Some highly gifted students demonstrated learning difficulties
1944	Asperger defined a new personality disorder (Asperger Syndrome)	Hypothesized that his syndrome was more likely to appear in children of high intelligence and superior abilities
1947	Strauss and Lehtinen published <i>Psychology and Education of the Brain Injured Child</i>	Learning deficits could be traced to minimal brain damage incurred before, during, or after birth. Children diagnosed as brain-injured demonstrated problems in areas of perception, perseveration, conception, or behavior. Learning difficulties are not associated with low intelligence.
1966	Gallagher published <i>Children with Developmental Imbalances: A Psychoeducational Definition</i>	Discussed the peaks and valleys that show patterns of strengths and weaknesses for children with learning

		disabilities, foreshadowing gifted with learning disabilities.
1973	Elkind published <i>The Gifted Child with Learning Disabilities</i>	Introduced the idea of gifted children with learning disabilities.
1975	PL-94-142 the Education for All Handicapped Children Act was passed	Mandated a free, appropriate public education (FAPE) for all children with disabilities Ensured due process rights. Mandated Individualized Education Programs (IEPs) Introduced the concept of Least Restrictive Environment (LRE) Defined “learning disabled.”
1977	Council for Exceptional Children published Maker’s <i>Providing Programs for the Gifted Handicapped</i>	This first book addressed program implications for 2E
1978	The Gifted and Talented Education Act, H.R. 11533 was passed	Established a National Training Institute. Set up a federal office of gifted and talented. Defined “giftedness.”
1978	Meisgeier, Meisgeier, and Warblo published <i>Factors Compounding the Handicapping of Some Gifted Children</i>	Learning disabled student with superior abilities needed remediation, enrichment, and special counseling to address unique emotional problems. Severity of emotional issues resulted from discrepancy between strengths and weaknesses.
1980-1995	Publications focused on gifted students with difficulties: Whitmore (1980) Whitmore and Maker (1985) Fox, Brody, Tobin (1983) Daniels (1983) Dixon (1983) Gallagher (1986) Baum (1991)	These publications explored the combination of gifts with areas of disabilities showing the unique characteristics and needs of individuals who have both.

	Special issue of the <i>Journal of Secondary Gifted Education</i> focused on gifted/learning disabled students, spring 1994, guest edited by Mary Ruth Coleman	
1980 – 1999	Programs for gifted students with learning disabilities in Westchester County, NY, Montgomery County, MD, Prince George’s County, MD, Albuquerque, NM, were developed	Growth of public school programs
1984 – 2000	Federal projects and state grants were initiated	Jacob Javits Grants: The Twice Exceptional Child Project Project High Hopes, A.C.E.S. Colorado state grants to Cherry Creek Schools and Littleton Public Schools
1985 – 1999	Organizations were formed	Association for the Education of Gifted Underachieving Students and the Special populations division of the National Association for Gifted Children were formed.
2004	Individuals with Disabilities Education Improvement Act (IDEA) was reauthorized	Acknowledged that students with learning disabilities can also be gifted. Twice-exceptional students were listed as a possibility for grants. Minimize the use of the discrepancy formula for the identification of specific learning disabilities; encouraged the use of a comprehensive team-based, problem-solving approach with multiple data sources.
2000-2015	Policy guides were disseminated and Jacob Javits grants for underserved populations of gifted learners were supported	Several states published policy guides to identify and serve 2e students (Colorado, Idaho, Maryland, Montana, Ohio, Virginia)
2014	National Twice-Exceptional Community of Practice (2e CoP) formed	Collaboration of professional with expertise and interest in twice

		exceptionality created and published definition
--	--	---

Although major advances have been made in the area of twice-exceptionality over the last one hundred years, there are still aspects of 2e that can be confusing and difficult for educators. One of these difficulties is the identification of 2e students. Amend and Peters (2015) discuss this difficulty from the perspective of a clinical psychologist. Psychologists see asynchrony in gifted individuals all of the time, which is the mismatch of cognitive, emotional, and physical development in gifted individuals (NAGC, n.d.). It is actually quite common in gifted students. However, when the asynchrony is extreme, it can lead to individuals with abilities far above average in some areas as well as abilities that are average, or well below average. This can cause major discrepancies in test scores and mixed reports from educators. Overall, the giftedness these students have can cause their disabilities to be masked or vice versa, causing the students to never be identified as 2e and not allowing them to get the help that they need.

Twice exceptional students experience both extremes in their education: giftedness in some areas with disabilities in others. These extremes can be confusing and difficult to navigate for the students, their parents, and their educators. Continuing to understand who these students are and their history in the United States can only help us further progress in creating an education system where 2e students receive what they need to be successful in school.

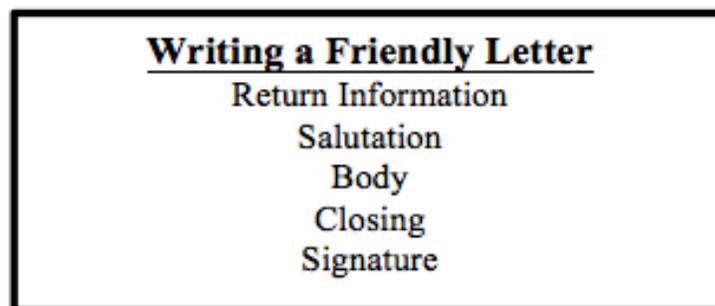
Best practices for students with learning disabilities

A disability is some kind of disadvantage or handicap that can limit a person's ability to accomplish a task. There are a variety of disabilities that have an impact on education: speech

and language disorders, emotional/behavioral disorders, physical disabilities, attention deficit hyperactivity disorder, specific learning disabilities, and autism spectrum disorder. Each of these disabilities can be a part of a 2e student's life. These disabilities come with different challenges that can make it difficult for a child to be successful in a school setting.

One aspect that students with learning disabilities often have trouble with is managing academic and behavioral tasks and using self-regulation strategies (Conderman & Hedin, 2011). Related to these issues with self-regulation is inability to continuously monitor their progress towards goals (personal or academic), check on outcomes, and redirect any unsuccessful efforts. One way to help with this issue is the use of cue cards in the classroom. Cue cards work well because they are portable devices that contain written and/or visual steps, prompts, processes, abbreviations, or mnemonics. Conderman and Hedin (2011) suggest that this tool is helpful to students with learning disabilities for three reasons: they help the students compensate for their disability, they help students access the general education curriculum, and they promote independence for the student. As the authors state, when students with learning disabilities, including 2e students, receive their instruction within the general education classroom, they are expected to meet the academic, social, and behavioral requirements of the room. Cue cards can help with these issues and easily fit within multiple learning environments. An example of one type of cue card adapted from Conderman and Hedin (2011), is shown in figure 1.

Figure 1.



Another area that students with learning disabilities may struggle with is written language. Often, students are able to verbalize their ideas but have trouble writing their ideas down. There are a variety of ways teachers can help accommodate this learning disability and still provide authentic learning. One option for this is the integration of technology. Fahsl and McAndrews (2012) suggest allowing students to audio-record their writing or journal entries and having them transcribe these entries later. This method allows the students to focus on what they want to say, without the daunting task of writing their thoughts down at the same time. Some students can also benefit from typing their answers, rather than handwritten work, leading to a better end product.

Authors Crepeau-Hobson and Bianco (2013) offer another method to help students with learning disabilities: the response to intervention (RTI) model . An RTI model would provide students with increasingly intensive levels of support. RTI focuses on early intervention and remediation of students' learning challenges. The reason this is suggested as a model for 2e

students specifically is that previous learning disability identification methods have failed to serve this population well. Aptitude models tended to exclude gifted students with a possible learning disability from receiving gifted education services. In addition to this, the gifted abilities of many of these students hide their learning disability, thus excluding them from special education services as well. If an RTI model were to be used, this could help teachers identify and best serve their 2e students.

Bianco, Carothers, and Smiley (2009) offer strategies specifically targeted towards 2e students with Asperger Syndrome (AS). The authors describe something they call dually differentiated curriculum, meaning that the curriculum considers the full range of the students' abilities and limitations. They believe that gifted students with AS would benefit the most from a strength-based curriculum. This type of instruction is designed around the students' interests and passions and includes interdisciplinary thematic instruction. Strength-based curriculum focuses on the students' passions and helps motivate and excite them about learning. When the focus is on the students' deficits, rather than their strengths, this reduces the motivation to learn and also puts the student at risk of academic failure and depression. The following table was adapted from Bianco et al. (2009) as a guide to help solve some problems experienced by gifted students with AS using strength-based strategies.

Table 2

Problems	Print Resources	Strength-Based Strategies and Accommodations to Explore
Communication: Refers to impairments in pragmatic language skills such as taking turns, selecting topics appropriate to the	<ul style="list-style-type: none"> • Koegel, R.L. (2007) • Moore, S.T. (2002) 	<ul style="list-style-type: none"> • Use visual strengths and create, or have students create, a photo essay or video, along with narrative descriptions of students engaged in social interactions.

<p>conversational partner, and initiating and terminating conversations</p>		<ul style="list-style-type: none"> ● With teacher supervision and guidance, have the student create his or her own Social Stories and Comic Book Conversations with photos taken of classmates. With supervision, the student can write and direct peers in a short play using these social stories. ● Student can pick short clips from favorite movies (that include conversations), transcribe the dialogue, and ask a friend to help re-enact those scenes. Teacher can create a visual representation of the conversation and facilitate learning by helping the student recognize the reciprocity in the conversation. ● Offer student opportunities to participate in structured (and timed) speech and debate on topics of interest.
<p>Central coherence: Refers to the ability to attend to details as well as the whole</p>	<ul style="list-style-type: none"> ● Winner, M. (2002) 	<ul style="list-style-type: none"> ● To limit confusion, provide written or other visually based directions for assignments, projects, or expectations. ● Demonstrate relationship of part to whole using graphic organizers. ● Create a visually based conceptual framework or overview of content material to help students conceptualize the part to whole relationship. ● Emphasize mastery of concepts and minimize attention to unimportant detail and drill and practice. ● Provide opportunities for real-world investigations and

		experiences to expand restricted interest area and help make connections to skills, concepts, and career exploration.
Executive functioning: Refers to problems with prioritizing, planning, shifting attention, and using working memory, among other cognitive functions	<ul style="list-style-type: none"> • Myles, B.S., Ferguson, H., & Hagiwara, T. (2007) • Verte, S., Geurts, H.S., Roeyers, H., Oosterlaan, J., & Sergeant, J.A. (2006) 	<ul style="list-style-type: none"> • Teach students how to use a personal digital assistant for remembering homework assignments and general time management. • Provide training in cognitive behavior modification, enabling the student to self-monitor, self-evaluate, and self-reinforce for the performance of desired tasks or nonperformance of undesired tasks • Provide attribution retraining to assist the student in perceiving himself or herself as making and following through with appropriate decisions and reinforce verbal self-regulation. • Use mnemonic study strategies to help students with choice and decision making tasks. • Allow students to email himself or herself assignments or reminders.
Writing composition and handwriting	<ul style="list-style-type: none"> • Griswold, D.E., Barnhill, G.P., Myles, B.S., & Simpson, R.L. (2002) 	<ul style="list-style-type: none"> • Use Inspiration and Kidspiration software to help students organize writing ideas and compose products. • Use student's interest areas for teaching narrative, descriptive, expository, persuasive, and creative writing skills. Encourage the student to share writings on topic of interest with peers, mentor,

		and real audiences related to interests.
Emotional regulation: Refers to the individual's capacity to self-monitor his or her physiological arousal and emotional states	<ul style="list-style-type: none"> • Myles, B.S., & Southwick, J. (1999) 	<ul style="list-style-type: none"> • Create visually based organizers to serve as reminders and a tool for self-monitoring. • Use advanced organizers and provide outlines for class work. • Team the student with a well-organized student for collaborative projects. • Teach student to self-monitor and graph reactions to situations that typically elicit meltdowns.

While all of these authors indicate what they have found to be best practices for students with learning disabilities or 2e students, each 2e student is very different. 2e encompasses a wide range of learning disabilities as well as a wide range of giftedness. There are practices that may work with some 2e students but not others. It is important to continue to research, discuss, and share best practices, as well as practices with minimal success, with educators around the globe. These conversations are what will help us discover what tools our 2e students need to thrive in school.

Advocacy

Twice-exceptional students are often missed in the education system. Their disabilities can mask their great abilities and giftedness. This often means that these students are not getting what they need from school and they are not being challenged appropriately. It is important for educators to be informed about 2E students so they can help identify these students in their classes and advocate for them. It is also important that parents know what it means to be twice

exceptional as well so they can advocate for their child and make sure that they are getting help with both their disabilities and their abilities.

Lee and Ritchotte (2018) discuss the laws and acts that impact the education of 2e students in the United States. In March of 2017, an important Supreme Court ruling helped to showcase the need for a higher level of education for students who have disabilities.

The Supreme Court declared, “[A] student offered an educational program providing ‘*merely more than de minimis*’ progress from year to year can hardly be said to have been offered an education at all” (*Endrew F. v. Douglas County School Dist. RE-1*, 2017, p. 14). This affirmation from the Supreme Court holds merits for providing educational services to twice-exceptional students. These students, if formally identified for special education services, now must receive meaningful educational services that will extend their learning beyond a minimum threshold and afford them the opportunity to achieve to their full potential in school.

This ruling by the Supreme Court was important in that it illustrated the needs of these students, while also making sure that it was understood that equity in education for 2e students was not an option but a requirement and an obligation. It is the obligation of schools, educators, and parents to make sure that twice exceptional students are receiving all of the services they need. With the coexistence of giftedness and disability, there are obviously many needs that these students must have met to receive a quality education. While it is always important to focus on educating the whole child, this issue becomes extra important when it comes to the needs of our 2e students.

Reis, Baum, and Burke (2014) also point out the need for advocacy for twice exceptional students. The authors state that even when these students are correctly identified, they often fail

to receive services for both their giftedness and their disabilities. Enrichment and talent development is critical for these students, as well as receiving special education services for any difficulties that they do possess. In addition to these needs, 2e students also need to receive social and emotional support. This support is necessary due to their asynchronous development and the emotional struggles that come along with this asynchrony. As 2e students get older, they are often anxious and will refuse accommodations because they believe this is “cheating.” In order to get rid of this stigma, it is important to continue to advocate for these needs to show students that serving both their giftedness and their disability is equally important.

The best method to fulfill the needs of our 2e students is still unclear. Researchers, educators, students, and parents must continue to work together to find the best options for these students. Creative research is necessary in order to fully explore all of the options available. So much is still unknown about how to best serve these students and their families. In addition to this, it is important that the national policy states in very clear terms that 2e students have a right to the same interventions as any child with special needs and they also have the right to any enrichment or extensions given to GT children (Coleman & Gallagher, 2015). It truly takes a team to continue working on this issue. Those who are committed to the issue and continue to fight for more research and policy change will be the ones who make a huge impact on this aspect of education.

Wiskow, Fowler, and Christopher (2011) discuss the needs for appropriate services for all gifted learners. The authors discuss the need for change in education policy and a continuance of commitment and investment in advocacy for these students. The authors quote Gallagher and Gallagher (1994) to help show the value of gifted education:

Failure to help gifted children reach their full potential is a societal tragedy, the extent of which is difficult to measure but which is surely great. How can we measure the loss of the sonata unwritten, the curative drug undiscovered, or the absence of political insight? These gifted students are a substantial part of the difference between what we are and what we could be as a society.

The importance of gifted students is so clearly seen in this quote. These students have the ability to change the future of this country and of the world, if they are only given the tools and the education to succeed. Our policies must change in order to help provide these services and we must continue to advocate for their needs in the education system.

Student and Family Perspectives

While educators and researchers can form their own opinions on what methods and strategies work best for 2e students in school, no one can truly understand their experiences and their needs unless they have had these difficulties themselves. Parents, families, and 2e students themselves have shared their own opinions on what their schooling experience has been like. These opinions are important to look at when deciding what strategies to employ with 2e students as they give great insight into what it is like to be a 2e student or a family member.

One area of schooling that many students have expressed issues with is testing. In 2013, Willard-Holt, Weber, Morrison, and Horgan collected data from many twice exceptional students about their experiences in school. One student in their study, Joel, talked about how testing limited him due to his disability:

I don't like how it's... they test you by marks across the board for putting you in enrichment. You know, because I don't do very well in visual arts, as you might expect, and that really skews my average so they don't let me in. (p.254)

This method of testing and identifying giftedness can hold many students back and not allow them to be challenged at school. Joel is not the only student who experienced their disability masking their giftedness – at least in the mind of the education system. Another parent talks about the issues they saw in their child's writing assessments:

When you saw his writing, he had incomplete sentences, and sometimes he would just finish writing without presenting all the knowledge he could share. I realized he had complete thoughts, he had a lot more to say, and that's when I realized it wasn't because he was being lazy, it was something else. So I had him tested by a psychologist. (Park, Foley-Nicpon, Choate, & Bolenbaugh, 2018, p. 310)

In the case of both of these students, their disabilities were prevalent during assessment, which limited them from sharing all of the knowledge they possessed. Due to this, they were unable to receive the gifted programming they deserved, thus not reaching their full potential.

Not all 2e students have experienced their disability masking their giftedness. For many of these students, their giftedness is what covers their disability, and they never receive the special education services that they so greatly need to succeed.

Author and parent Michelle Brownstein (2015) shares her story of parenting and advocating for her three 2e children. She found herself taking her children to multiple tutors, doing personal research on twice exceptionality, attending conferences, talking with other parents, and constantly meeting with school staff, including teachers and administrators. One thing that she makes very clear is that as a parent, you need to take the time to figure out what is really going on with your child. She was told that her child was struggling but it was “developmental.” While this can be true in some cases, it was not true for her children. They had disabilities that needed to be treated in order for them to succeed.

Many parents have worried about their children not being able to benefit from special education services. Amend and Peters (2015) shared a quote from a special education director, Melody Musgrove, that shows the concern these parents feel.

...we continue to receive letters from those with children with disabilities with high cognition... expressing concern that some local education agencies (LEA) are hesitant to conduct initial evaluations to determine eligibility for special education services and related services for children with high cognition... remind each LEA of its obligation to evaluate all children, regardless of cognitive skills, suspected of having one of 13 disabilities...

This letter illustrates the injustice in the system. These students are being punished for their high cognitive abilities. Our education system is required to provide each and every student

with the services they need and provide students with a high level of education, no matter what their cognitive ability is.

Most people who are educators choose this career because they are passionate about serving youth and helping pave their future. However, the lack of education surrounding 2e students and their needs has left educators unprepared and unaware of these students. A twice exceptional student, Beth, said this of her schooling experience, “The school system struggled to understand that even though I was smart, I still needed extra support to learn and be successful in school” (Lee & Ritchotte, 2018). In order to change the experience of these students, for the better, we need to begin better educating their teachers. Teachers need to be more prepared for these students and should have the tools they need to help them be successful and feel supported in school.

Conclusion

In conclusion, there are many different aspects that makes schooling and education more complicated for twice exceptional students. Gifted students and students with disabilities both experience school differently. When a student has both disabilities and giftedness, this adds a whole new level of difficulty to their education. These students are hard to diagnose, due to the duality of their giftedness and disability, but helping them receive both special education services and gifted services is essential to their education and growth. Without this, they will never be able to reach their full potential.

In the following chapter, I will describe my capstone project which will compile the information and teaching strategies discussed in this chapter into an online resource for teachers, parents, and students to access. This resource will not only include best practices for teachers,

but also information on twice exceptionality for parents and students as well as ideas on advocacy.

CHAPTER THREE

Methods

Introduction

Throughout my time educating children in a variety of different settings, I have always strived to find a way to support the children I am teaching while also creating a challenge for them, allowing them to learn and grow at all times. During this past year as an elementary school teacher, I had a student who challenged me and I consistently worked hard to figure out what I could do to be a better educator for him. This student was twice exceptional which prompted me to answer the question, *How can educators best support and challenge twice exceptional students within the general education classroom?* For my Capstone project, I created a website using Wix, that can be accessed by educators, parents, and students. This website helps to provide best practices for teachers who are looking to support these students in their classrooms. It also includes information on twice exceptionality for parents and students to read as well as information about advocacy. In addition to this information provided, the website includes a blog page where I will continue to post new information I find about 2e students and ideas for teachers to implement in the classroom, as well as an open forum for educators to discuss their thoughts and ideas. Based on research by Billingsley, Israel and Smith (2011) online tools are a great resource for educators, especially those who are new to education. The authors specifically looked at special education teachers the online resources they could use in order to help solve any classroom issues and serve each of their students well. They found that the online resources available were able to provide assistance in addressing questions and solving problems. These resources worked well for teachers due to the fact that they are readily available, cost nothing for

teachers to use, and are easily shareable with mentors and peers. The authors suggest using websites as a way to enhance teacher and student performance in the classroom.

It can be difficult to find clear information on the relatively new field of twice exceptionality due to the abundance of sources on the internet. In addition to this, many websites contain information about twice exceptional students but lack information on what practices work best for these students. The goal of my website is to create a user-friendly source that can be beneficial to all educators, whether they are just learning about what it means to be 2e or if they are looking for new ideas and strategies to employ in their classrooms to use with these students. This chapter includes an overview of the project, research, the setting and target audience, a project description, and a timeline for project completion.

Project Overview

My project is the creation of a website for educators, parents, and students using Wix. This resource helps to provide educators with a clear, user-friendly guide on some of the best practices to use with 2e students. In addition to this, the website will also include information on what it means to be twice exceptional, how to advocate for 2e students in the community, and a forum for educators to discuss their experiences with 2e students. The website I created provides a variety of information for those who are using it. The main page gives the user a choice to navigate to one of the following pages: what does it mean to be twice exceptional, best practices for 2e students, or advocating for 2e students. In addition to those pages, the navigation tool at the top of the page also gives the user the option of visiting my blog or heading to the discussion forum. From there, users will be able to access a menu that helps the user navigate to the information they are searching for.

One of the main goals for this project was to create a website that is clear, concise, and effective. When teachers are looking for information on this subject, they do not want to have to dig for the information. Based on the research by Billingsley, Israel and Smith (2011), teachers are looking for online resources that are clear, have no cost associated, and are shareable with others. This lead me to believe that creating a website that makes it easy for users to find what they want is the most important aspect of the website. I needed to properly plan and test my website to make sure it held up to these standards and was a resource teachers will look forward to using.

Research Support

The literature review begins by discussing what it means to be gifted and talented and who gifted and talented students are. The National Association for Gifted Children defines a gifted child as one whose ability is significantly above the norm for their age (National Association for Gifted Children, n.d.). However, some of these gifted students have other factors that can have an effect on their education. Some gifted students also have one or more disabilities which can impact how they learn. These students are known as twice exceptional (2e). An overlap of giftedness and disabilities has been noted for many years but the development of the field of twice exceptionality has been more recent. In his book published in 1973, *The Gifted Child with Learning Disabilities*, Elkind introduced the idea of gifted children with learning disabilities (Baldwin, Baum, Pereles, & Hughes, 2015). It wasn't until 2014, when the National Twice-Exceptional Community of Practice (2e CoP) was formed, that an official definition of twice exceptional was published.

Twice exceptional (2e) individuals evidence exceptional ability and disability, which results in a unique set of circumstances. Their exceptional ability may dominate, hiding their disability; their disability may dominate, hiding their exceptional ability; each may mask the other so that neither is recognized or addressed. (The Association for the Education of Gifted Underachieving Students, n.d.)

Twice exceptional students are often missed in the education system – their giftedness often masks their disability or vice versa. It is important to understand the background information about this field and who these students are in order to properly diagnose and find these students. Psychologists see asynchrony in gifted individuals quite often, and when the asynchrony is extreme, it can cause students to have abilities in some areas that are far above average while other areas are just average or even below average. This can cause discrepancies in test scores and generate mixed reports on the students from educators (Amend & Peters, 2015). This is one of the main reasons why it can be so difficult to identify 2e students.

When students have disabilities, learning needs to be differentiated to help account for these disabilities. Some of the disabilities that impact 2e students include speech and language disorders, emotional/behavioral disorders, physical disabilities, attention deficit hyperactivity disorder, specific learning disabilities, and autism spectrum disorder. Conderman and Hedin (2011) consider the use of cue cards to help these students to manage academic and behavioral tasks and well as implementing self-regulation strategies. Cue cards can be an extremely useful tool when working with 2e students. Fahsl and McAndrews (2012) provided ideas for students who struggle with written language including audio recording and typing. Authentic learning is

still happening for students when they use these methods. Another idea is supplied by Crepeau-Hobson and Bianco (2013) who found that a response to intervention (RTI) model was beneficial to 2e students.

Educators often struggle to see and properly guide their 2e students. These students are sometimes hidden by their disability or their giftedness. Once teachers know that their students are twice exceptional, they can become better prepared to serve these students. Understanding who 2e students are and what they need to succeed is the first step in creating best practices for teachers to use in their general education classrooms. We can continue to learn more about 2e students and what practices are successful by continuing to research and learn more about the field and by listening to the experiences and perspectives on education that twice exceptional students share.

In order to continue learning about 2e students and their needs, I created a website for educators to access. I used the following resource as a guide: “Web Design: 11 Characteristics of User-Friendly Websites.” (Singh, 2013) This source focuses on the top 11 ways to create a successful resource for visitors to use. These characteristics are:

1. Mobile compatibility
2. Accessibility for all users
3. Well planned information architecture
4. Well-formatted content that is easy to scan
5. Fast load times
6. Browser consistency
7. Effective navigation

8. Good error handling
9. Valid mark-up and clean code
10. Contrasting color scheme
11. Usable forms

By following this guide and considering all of these characteristics, I was able to create a user-friendly website that educators will look forward to using as a resource on twice exceptional students and teaching practices.

Setting

This project took place at a public elementary school, serving students in preschool through fifth grade where 27.8% of students are Hispanic or Latino, 0.9% are American Indian or Alaska Native, 5.8% are Asian, 13.5% are Black or African-American, 42.7% are White, and 9.4% are two or more races. There are 20 teachers on staff, 5 other licensed professions, 2 paraprofessionals, 1 administrator, and 6 other staff members. The ratio of students to licensed teachers is 17:1 with average class sizes being 20-25 children. During the 2018-2019 school year, I had 21 students in my class. This elementary school has 45% of its students receiving free/reduced price meals, 11.4% of the students in special education, 14.6% of students are English learners, and 0.3% of students are homeless.

Within this school, there is also a magnet gifted program, which draws students from outside of the district. To become a part of the magnet program, students must undergo multiple tests and be accepted into the program. This GT program, while within the school, uses different curriculum to help accelerate their students.

Target Audience

This project was aimed at all general education teachers who work with twice exceptional students. The strategies and methods discussed in the project mostly focus on elementary education, however, they can be applied to students of all ages. This project also focused on getting information out to parents about what it means to be twice exceptional and how they can help their child feel successful in school. The overall goal of this project was to make sure educators, parents, and students all feel informed and are able to find methods that help them better their education.

Project Description

The website that I created will give out basic background information on twice exceptionality. It explains what it means to be 2e and how to identify if you, your child, or your student might be twice exceptional. This background information will help to inform educators and parents and prepare them for the next steps in education.

After defining twice exceptional, the website provides different resources and strategies for educators to use in their classroom to help their 2e students. These teaching strategies have been found to help with both disabilities and with encouraging gifted students to continue learning and being curious about the world around them. I anticipate that this portion of the website will always be growing and changing as we continue to learn more about the twice exceptional population and which strategies they prefer. I also created an area where educators who access the resource can provide feedback and input on these strategies. I see this area of the website becoming a place where educators of differing experience and from across the globe can share and ask questions.

Finally, there is a section about advocacy. Advocating for 2e students is essential and important. 2e students are often missed in our education system so it is important for parents and teachers to know what they can do to help identify these students. Identification is the first step to getting these students on track with their education.

Timeline

My project was created during the fall and winter of 2019. During the early fall, I began designing the website I have described. The beginning stages of web design included planning for the website. I needed to decide what themes to use to make the site appealing, how to make the information flow and easy to access, and what specific information the website will include. After completing plans for the website, I was able to begin creating the actual website using Wix. While I was creating the site, I also began to work on writing the final chapter of my capstone project. I planned to complete my website in November 2019 while also reviewing/revising the content of my four capstone chapters. All pieces of my capstone project were completed and submitted in December 2019.

Content revisions and expert feedback	August 2019
Begin designing website	September 2019
Continue designing/creating website and begin writing chapter 4	October 2019
Complete website and rewrite/review content	November 2019

Complete Capstone project/submit Capstone project for assessment	December 2019
--	---------------

Conclusion

Chapter three focuses on the Capstone project I created, along with web design frameworks, research theories, the setting, target audience, and timeline for the completion of my project. In the next chapter, I will reflect on what I have learned throughout the capstone process, review the pieces of literature, write about new connections and understandings I have found, and look into future research related to my project.

CHAPTER FOUR

Conclusion

Chapter Overview

My research question is, *How can educators best support and challenge twice exceptional students within the general education classroom?* For this project, I created a website for both educators and parents to access to help them with twice exceptional students. The website includes the definition of twice exceptional and what it means to be a twice exceptional student, how to advocate for 2e students in the community, and best practices to use with 2e students.

This chapter will include my major learnings from this project, a review of important literature that informed the project, implications of this project, and limitations of the project. After this, I will discuss the possibility of future research, how the project can be beneficial to the teaching profession, and then end with a conclusion.

Major Learnings

This project was very near to my heart as I have always felt a connection to gifted learning as well as personal connections to learning disabilities. Not only do I work with 2e students daily in my career but I also have family members who are a part of the 2e community. I want nothing more than to make sure I can help provide the most beneficial educational environments for all of these people.

As I began my research on 2e students, the most important thing that I learned is that all 2e students are different. There is not one correct answer for how we can help these students

thrive in the classroom. There are a variety of different strategies we can use to help these students become successful but there is not one magic strategy that will work for everyone. I originally set out to create a manual of what you can do to help your students but I think I have found this to be unrealistic. This group of students is so unique that there could never be one manual to present everything you could possibly need to know to successfully teach them.

I realized through many conversations with my colleagues and advisors that the best way to help educators who are working with 2e students is to continue to have open conversations with each other. We need to be able to test out strategies and then share our findings. Twice exceptional students deserve educators who are working to meet their educational needs and this can only be done if educators work as a team and continue to communicate with each other.

Literature Review

For my literature review, I reviewed countless articles, journals, and studies on the twice exceptional student. I researched gifted and talented students, learning disabilities, best practices for students with learning disabilities, advocacy, and the perspectives of 2e students and their families. My goal was to not just understand what it means to be twice exceptional but to fully understand the experience of twice exceptional students. I desired to know what their schooling experience was like, which aspects of school they liked and which they did not, and what they needed to feel successful. I intended to create a list of what teachers should do in their classrooms to teach these students but what I really found was a set of suggestions, ideas for the future, and the need to continually advocate for and support these students.

According to the National Association for Gifted Children, twice exceptional learners are students who are gifted, as well as having at least one disability. These disabilities may include

specific learning disabilities, speech and language disorders, emotional/behavioral disorders, physical disabilities, autism spectrum disorder, or other impairments such as attention deficit hyperactivity disorder (n.d.). It wasn't until 2014, when the National Twice-Exceptional Community of Practice (2e CoP) was formed, that an official definition of twice exceptional was published.

Twice exceptional (2e) individuals evidence exceptional ability and disability, which results in a unique set of circumstances. Their exceptional ability may dominate, hiding their disability; their disability may dominate, hiding their exceptional ability; each may mask the other so that neither is recognized or addressed. (The Association for the Education of Gifted Underachieving Students, n.d.)

What is the most surprising about 2e students is how often they are missed in the education system. Their giftedness can mask their disability, not allowing them to receive special education services, or their disability can mask their giftedness, not giving them access to the level of education they need. This creates a challenge for educators and is why these students are often missed.

When students have learning disabilities, differentiation needs to take place in order to account for these disabilities. Conderman and Hedin (2011) offer the use of cue cards to help students with self-regulation. Fahsl and McAndrews (2012) examined the use of audio recording and typing to help with students who have difficulties with written language.. Crepeau-Hobson and Bianco (2013) found that using the response to intervention (RTI) model with 2e students

was extremely beneficial. All of these different pathways can help create a stronger, more beneficial learning environment for our 2e students.

The definition of 2e students and the different methods being used to help educate these students have helped me to form my capstone project. My project will include the ideas I found in my research but will also continue to grow as other contribute to the field of twice exceptional education.

Project Description

For my project, I have created a website for educators and parents to use in order to learn more about twice exceptional students. This website includes the definition of twice exceptionality, signs that a student might be twice exceptional, information on advocacy for these students, and practices currently being used by educators with 2e students. One of the aspects of my project is a forum for visitors to submit their ideas and experiences. I think this part is the most important as it will help keep a dialogue going about 2e education and will help provide educators with even more ideas to consider when working with their 2e students.

Project Limitations

While completing research for my project, I found that while there was information on what it means to be twice exceptional, there was not a lot of information for teachers on how to serve their 2e students. In order to find best practices for these students, I ended up needing to focus more on specific disabilities that are under the 2e umbrella. By focusing on certain disabilities, I was better able to find strategies for teachers to implement with their students.

Project Implications

The research question that my project focused on was, *How can educators best support and challenge twice exceptional students within the general education classroom?* I had originally planned on creating a project with concrete answers to this question. What I found through my research was that while there are many different ideas, strategies, and practices educators can implement with their twice exceptional students, there is no “right” answer to this question. The field is constantly growing and changing, with new ideas being added all of the time.

With that being said, the digital resource I created does help to answer this question by providing educators with a definition of twice exceptional students, providing strategies that educators can use with these students, and creating an open conversation among educators to discuss their experiences with 2e students and which strategies and practices they found most helpful. By providing educators with researched strategies as well as ideas from peers, they are able to select the practices that they think will work best for them and the child they are serving.

I believe that this website will help teachers become more knowledgeable about 2e students. When I first began looking for information about 2e students to help in my personal practice, I found it very hard to find any information. The internet has so many different sources and it can be difficult to weed through the many different websites to find the one with the most relevant information. I believe that my website will help with this issue by having all of the information in one place and providing the most up to date information on the topic.

Potential Future Research

The field of twice-exceptionality is one that is extremely complex. 2e students have various abilities and disabilities which makes it difficult to both diagnose and teach these students. The field is growing and more research needs to be done to continue to find the best methods to support all of these students.

I think future research in this field should focus on communicating to educators which teaching strategies impact 2e students with specific learning disabilities. For example, if you have a 2e student and you know that their learning disability is ADHD, which teaching practices best benefit these students? I also wonder if the strategies that work for non-gifted students with ADHD would have the same benefits for gifted students with ADHD?

Author's Reflection

This project has become extremely important to me over the past six months. When I began this project, I decided to focus on 2e students due to my experience during that school year and my experience with my niece. I felt strongly that I wanted to do something that would make education better for other students who were like these two. I did not realize how passionate I would become about this topic and I have truly found joy in creating this capstone project.

While I thoroughly enjoyed creating this project, I also found it extremely challenging. Researching a topic without solid answers was overwhelming, as well as taking in the perspectives of multiple professors, editors, and colleagues. During the last three months of the project, I began a new school year with a new group of students. This group has been beyond challenging which made it difficult to focus on the project. However, the challenges I am facing

with this group of students has also motivated me to continue work on this project as I think the implications of this project will help these students in the future.

I hope to continue updating my website and plan to share it with my colleagues. I think that this topic is so important, not just for teachers working in gifted education, but also for teachers in general education classrooms. It can be very difficult to support a 2e students and having a digital tool to ease the pressures of creating supports for these students would be beneficial.

Conclusion

In this chapter, I reflected on my experience creating this capstone project and answering the research question, *How can educators best support and challenge twice exceptional students within the general education classroom?* I focused on this question due to my personal experience with gifted education and special education. These two worlds meet in a twice exceptional student which can cause difficulties for the student and for the teachers who are doing their best to educate these students. I was frustrated by the lack of accessible information for educators to help them support these students and provide them with the best education possible. Spending time researching this topic helped me to discover ideas for educators and learn more about how I can advocate for my twice exceptional students. I believe that the website I created will continue to help educators and parents learn more about twice exceptionality and help them to provide support for these students.

REFERENCES

- Amend, E. R., & Peters, D. (2015). The role of clinical psychologist. *Gifted Child Today*, 38(4), 243-245. doi:10.1177/1076217515597286
- Applied Behavior Analysis (ABA). (n.d.). Retrieved from <https://www.autismspeaks.org/applied-behavior-analysis-aba-0>
- The Association for the Education of Gifted Underachieving Students. (n.d.). Retrieved July, 28, 2019 from <https://www.aegus1.com/our-work>
- Baldwin, L., Baum, S., Pereles, D., & Hughes, C. (2015). Twice-exceptional learners. *Gifted Child Today*, 38(4), 206-214. doi:10.1177/1076217515597277
- Bianco, M., Carothers, D. E., & Smiley, L. R. (2009). Gifted students with asperger syndrome. *Intervention in School and Clinic*, 44(4), 206-215. doi:10.1177/1053451208328827
- Billingsley, B., Israel, M., & Smith, S. (2011). Supporting new special education teachers. *TEACHING Exceptional Children*, 43(5), 20-29. doi:10.1177/004005991104300502
- Brownstein, M. (2015). A 2e parent's journey. *Gifted Child Today*, 38(4), 223-225. doi:10.1177/1076217515597279
- Coleman, M. R., & Gallagher, S. (2015). Meeting the needs of students with 2e. *Gifted Child Today*, 38(4), 252-254. doi:10.1177/1076217515597274

- Coleman, M. R., & Roberts, J. L. (2015). Defining twice exceptional "2e". *Gifted Child Today*, 38(4), 204-205. doi:10.1177/1076217515597273
- Conderman, G., & Hedin, L. (2011). Cue cards: A self-regulatory strategy for students with learning disabilities. *Intervention in School and Clinic*, 46(3), 165-173.
doi:10.1177/1053451210378745
- Crepeau-Hobson, F., & Bianco, M. (2013). Response to intervention. *Intervention in School and Clinic*, 48(3), 142-151. doi:10.1177/1053451212454005
- Fahsl, A. J., & McAndrews, S. L. (2012). Journal writing. *Intervention in School and Clinic*, 47(4), 234-244. doi:10.1177/1053451211424602
- Identifying Twice Exceptional Children. (n.d.) Retrieved November 15, 2019, from <https://blog.brainbalancecenters.com/2015/02/identifying-twice-exceptional-children>
- Johnsen, S. K. (2012). Standards in gifted education and their effects on professional competence. *Gifted Child Today*, 35(1), 49-57. doi:10.1177/1076217511427430
- Kucheriavy, A. (n.d.). What Makes a Website User-Friendly? [Blog]. Retrieved on July 27, 2019, from <https://www.intechnic.com/blog/what-makes-a-website-user-friendly/>
- Mann, R. L. (2006). Effective teaching strategies for gifted/learning-disabled students with spatial strengths. *Journal of Advanced Academics*, 17(2), 112-121.
doi:10.4219/jsge-2006-681

National Association for Gifted Children. (n.d.). Retrieved June 23, 2019, from
<http://www.nagc.org>

Olinghouse, N. G., & Colwell, R. P. (2013). Preparing students with learning disabilities for large-scale writing assessments. *Intervention in School and Clinic, 49*(2), 67-76.
doi:10.1177/1053451213493172

Parenting and teaching the gifted (2003). . Portland: Ringgold, Inc. Retrieved from
<https://search.proquest.com/docview/199725371>

Park, S., Foley-Nicpon, M., Choate, A., & Bolenbaugh, M. (2018). “Nothing fits exactly”: Experiences of asian american parents of twice-exceptional children. *Gifted Child Quarterly, 62*(3), 306-319. doi:10.1177/0016986218758442

Park, S., & Steve Oliver, J. (2009). The translation of teachers' understanding of gifted students into instructional strategies for teaching science. *Journal of Science Teacher Education, 20*(4), 333-351. doi:10.1007/s10972-009-9138-7

Reinisch, S. A. B., & Reinisch, L. (1997a). One year at a time: Parents' perspective on gifted education. *Peabody Journal of Education, 72*(3), 237-252.
doi:10.1207/s15327930pje7203&4_14

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

Singh, K. (2013). Web Design: 11 Characteristics of a User-Friendly Website [Blog].

Retrieved from

<https://www.socialmediatoday.com/news/web-design-11-characteristics-of-a-user-friendly-website/464881/>

Strategies to Assist Students with Writing Difficulties. (n.d.). Retrieved November 1, 2019,

from <https://www.ldatschool.ca/strategies-for-writing-difficulties/>

Twice-Exceptional at Home and School. (n.d.). Retrieved November 10, 2019, from

<https://www.nagc.org/twice-exceptional-home-and-school>

Willard-Holt, C., Weber, J., Morrison, K. L., & Horgan, J. (2013). Twice-exceptional

learners' perspectives on effective learning strategies. *Gifted Child Quarterly*, 57(4), 247-262. doi:10.1177/0016986213501076

Wiskow, K., Fowler, V. D., & Christopher, M. M. (2011). Active advocacy: Working

together for appropriate services for gifted learners. *Gifted Child Today*, 34(2), 20-25. doi:10.1177/107621751103400207