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# Academically Gifted University Students with Learning Differences: A Qualitative Exploration of the Experiences and Perceptions of Twice Exceptional University Students

Stephanie L. D'Souza  
stephanie.d'souza@uconn.edu

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of the Experiences and Perceptions of Twice Exceptional University Students

Stephanie Lynn D'Souza

University of Connecticut, 2014

Twice exceptional learners are typically defined as learners who fit the description of gifted while also meeting the parameters for a learning difference, such as learning disabilities, autism spectrum disorders, emotional disturbances, attention deficit hyperactivity disorder, etc. These students have special social/emotional needs and special needs in education, and are at particular risk of underachievement and not meeting their full academic potential. The bulk of the previous research has focused primarily on gifted students with learning disabilities, and also has been conducted principally in primary and secondary education settings. This study examined four gifted post-secondary students with a variety of learning differences in a qualitative exploration of their perceptions and experiences. The study utilized basic interpretive qualitative methodology, and gathered data using an open-ended questionnaire and one-on-one semi-structured interviews with the students to gain information relating to the students' perceptions and experiences as a twice exceptional learner. The findings of this study suggest that many twice exceptional learners have negative experiences and endure traumas related to their diagnosis in the school setting. It was also found that these learners are often unsure of their place in peer groups and feel different from others; they are often hesitant to disclose their diagnosis due to concerns of judgment or misunderstandings. In spite of these traumas, the findings indicate that the learners in this study display resiliency and are able to overcome obstacles. It was found that family support, developing compensation strategies and coping mechanisms, stress management, and accommodating school staff were found to play a large

role in student academic success. This dissertation compares this study's findings to previous research, discusses the implications of these findings, and offers suggestions for future research.

Academically Gifted University Students with Learning Differences: A Qualitative Exploration  
of the Experiences and Perceptions of Twice Exceptional University Students

Stephanie Lynn D'Souza

B.A., University of Oklahoma, 2007

M. Ed., University of Oklahoma, 2009

A Dissertation

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

at the

University of Connecticut

2014

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2014

APPROVAL PAGE

Doctor of Philosophy Dissertation

Academically Gifted University Students with Learning Differences: A Qualitative Exploration  
of the Experiences and Perceptions of Twice Exceptional University Students

Presented by

Stephanie Lynn D'Souza, B.A., M.Ed.

Major Advisor

---

Orville Karan

Associate Advisor

---

Robin Grenier

Associate Advisor

---

Melissa Bray

Associate Advisor

---

Joseph Renzulli

Associate Advisor

---

Sally Reis

University of Connecticut, 2014

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## **Chapter One**

### **An Introduction and Overview of the Study**

Richard Branson, Temple Grandin, Charles Darwin, Emily Dickinson, these are all examples of twice exceptional individuals who were diagnosed with a learning difference and worked to overcome it (Trail, 2011). Yet, what causes these individuals to excel when others fail? This study not only investigated what twice exceptional learners view as helping or hindering their success, but also their perceptions and experiences regarding their strengths and weaknesses, and being labeled as different. Twice exceptional learners are generally defined as learners who fit the description of gifted while also meeting the parameters for a learning difference, such as learning disabilities, physical disabilities, autism spectrum disorders, emotional disturbances, attention deficit/hyperactivity disorder, etc. These students have unique social-emotional (Barber & Mueller, 2011; Neu, 2003; Reis & Colbert, 2004) and educational needs (McEachern & Bornot, 2001; Neu, 2003; Reis & Renzulli, 2004). Sadly, they are at particular risk of social-emotional difficulties, underachievement, and often do not reach their full academic potential (Neu, 2003; Reis & Colbert, 2004). Much of the existing research has focused primarily on gifted students with learning disabilities and the difficulties these students face in early education or secondary education settings, yet there is very little research that focuses on twice exceptional post-secondary students (Baum, 1994; Ferri, Gregg, & Heggoy, 1997; Reis, Neu, & McGuire, 1995). Chapter Two provides an in-depth review of the relevant literature regarding twice exceptional learners.

#### **Statement of Problem**

Research has shown that students with learning differences are at particular risk for underachievement (McEachern, & Bornot, 2001) and social-emotional difficulties (Barber &

Mueller, 2011; Neu, 2003; Reis & Colbert, 2004), and twice exceptional learners face unique challenges because they must cope with risk factors for their learning differences, as well as the risk factors that gifted students typically face. There is a dearth of research that focuses on twice exceptional learners in a post-secondary setting. Additionally, most studies of the twice exceptional population focus solely on gifted individuals with learning disabilities. The experiences and perceptions of twice exceptional learners investigated in this study will help form a more complete and useful portrait of twice exceptional individuals and may potentially shed light on suggested ways to help these individuals.

### **Research Questions**

The following research questions guided this study:

1. What are the self-perceived strengths and weaknesses of gifted university students with learning differences?
2. What are the experiences of this population regarding the effects of labeling and their treatment by others and others' perceptions of them?
3. With regard to this population, what do participants describe as helping or hindering their success in an academic environment?

### **Research Design and Methodology Overview**

A further discussion of the research design, methodology, data collection, and data analysis is summarized in Chapter Three. Basic interpretive qualitative methodology was used in this dissertation study to investigate the participants' perceptions and experiences surrounding their status as a twice exceptional learner. In-depth semi-structured interviews and an open-ended questionnaire were utilized to gather information, and to form as accurate as possible picture of the participants' experiences.

This dissertation study is a partial replication of a qualitative study conducted by Reis, Neu, and McGuire (1995) that focused on twelve university students with learning disabilities. Portions of the original interview protocol and participant questionnaires were utilized, however alterations were done to reflect changes in the research questions and in the participants. The original study focused solely on university students with learning disabilities, whereas the current study included those with learning disabilities, as well as those with other learning differences, such as emotional/behavioral and sensory disorders. Therefore, where the phrase “learning disability” was used, it was replaced with “learning difference.”

#### **Sample overview.**

Four currently enrolled university students who met the sampling criteria comprised the sample for this research study (see Table 3.1). These students all were currently receiving services from the Center for Students with Disabilities (CSD) at a large northeastern university, had at least one score in the superior range on an intelligence or cognitive ability inventory, and were experiencing success in the university environment.

#### **Data collection overview.**

As referenced in the original study (Reis, Neu, & McGuire, 1995), multiple data sources, or triangulation, allow the researcher to form a more accurate interpretation than when utilizing a single data source (Guba, 1978; Jick, 1983; Van Maanen, 1983). Data for this study were collected using three methods: records and testing information, written responses to an open-ended questionnaire, and in-depth semi-structured interviews with each participant. The number of interviews was determined by the need to reach data saturation, or the point when no new data were emerging (Merriam, 2009). Prior to the interview process, the participants were provided with an open-ended questionnaire to gather information about their demographics, background,

goals, and identification status. The questionnaire also served to help tailor interview questions to the individual participant and provided insight into potential topics to investigate. All interviews were tape-recorded and transcribed. I composed research notes after each interview was completed to record any impressions, behaviors, and/or insights gained from the interview; these were also transcribed and added to the transcriptions. Interviews and all other data collection procedures followed the guidelines suggested by Grbich (2007) and Merriam (2009).

### **Data analysis overview.**

Data analysis was conducted utilizing inductive analysis techniques described by Grbich (2007). As recommended (Grbich, 2007; Thomas, 2006), data analysis was concurrent with data collection and affected the collection of additional data.

All data, including questionnaires, interviews, and research notes, were transcribed and cleaned and then coded using two levels of coding: open coding and axial coding. The open coding phase took place early in the stages of data collection and helped begin to form concepts. The axial coding phase took place once the categories were developed and attempted to examine emerging relationships between the categories. Once all relationships were examined and no further condensing was possible, findings that related to the research questions were generated. A peer coder, who is trained in qualitative research techniques, was used to verify the data collection and data analysis processes, as well as the coding schemes and category formations. This study also utilized member checking to monitor accuracy of participant data and early analysis. Chapter Three provides more information relating to the methodology used in this study, as well as the procedures for sampling, data collection, and data analysis. Additionally, this dissertation had limitations, which are also discussed in Chapter Three.

Chapter Four of this dissertation includes a summary of the findings, as well as a discussion of the emerging findings related to each research question. Chapter Five provides a discussion of the findings that were generated from the data. Chapter Five also addresses this dissertation study's findings in regards to the ways in which they support or challenge the previous research. The significance and implications of this research are also addressed and suggestions for future research are discussed.

## **Chapter Two**

### **A Review of the Literature**

The following literature review is presented in five sections beginning with an investigation of the debate on definitions and components of giftedness, followed by examinations of the following topics: definitions and implications of the status twice exceptional, findings in populations of students with learning differences, findings in populations of twice exceptional students, and conclusions.

Twice exceptional individuals are generally defined as persons who fit the general definition for gifted, which will be discussed below, while also fitting the definition for special needs (Barber & Mueller, 2011). These special needs are typically in the form of a learning disability (LD), Attention-Deficit/Hyperactive Disorder (ADHD), Autism Spectrum Disorder (ASD), an Emotional Disturbance (ED), physical disability, or other special need (Neu, 2003). In order to thoroughly explore the literature that addresses twice exceptional individuals, the definition of giftedness must first be investigated.

#### **Defining Giftedness: A Continued Debate**

Currently, there is no single consensus on the definition of giftedness; in fact there are a variety of conceptions with different theoretical orientations (Sternberg & Davidson, 2005). The following discussion focuses on the debate surrounding gifted identification and education. The first school of thought that will be described is the psychometric approach.

Historically, giftedness was described as exceptional cognitive ability as related to physical age. This psychometric approach can be traced back to the work of Francis Galton (1869) and Lewis Terman (1925). Terman advocated the use of IQ measures to determine giftedness in his longitudinal study of 150 individuals with an IQ of at least 140 on the Stanford-

Binet Intelligence Test. He found that gifted students tended to score well consistently on aptitude assessments and do well in academic environments. However in later analysis, he admitted that IQ may not actually predict student achievement and IQ does not take into account other factors that can influence gifted behavior (Terman, 1959).

There are a variety of instruments used to measure general intelligence, but the Stanford-Binet Scales, Woodcock-Johnson, Weschsler Intelligence Scale-Adult or Child form (adult form: WAIS, child form: WISC) are examples of prominently used forms of intelligence assessment. Perhaps the most persuasive argument for psychometrics is the predictive usefulness of assessments. IQ tends to be stable throughout the lifespan in most individuals and many studies suggest that there is a predictive relationship between IQ and future grades (Bridgeman, Burton, & Cline, 2001; Robinson, 2005). In general, proponents of this theoretical orientation argue that the use of psychometrics to determine giftedness provides a flexible (in choice of instruments), effective, and statistically valid method of identifying gifted individuals. The psychometric approach has been criticized for its one-dimensional view of giftedness and the possibility of overlooking poor test-takers, underachievers and special needs groups (Gordon & Bridglall, 2005; Renzulli, 1978, 2005; Sternberg, 2005).

Many theorists are shifting from the historical base of IQ scores to conceptions that postulate that giftedness cannot be assessed in one dimension, instead suggesting that giftedness has multiple components that require a holistic view (Borland, 1989, Gardner, 1993, Renzulli, 2005; Sternberg, 2005). This suggestion includes Gardner's (1993) multiple intelligences theory, Renzulli's (1978, 2005) Three-Ring Conception, and Sternberg's (2005) WICS conception. Gardner's multiple intelligences theory states that individuals do not simply have one solitary intelligence score, but intelligence can be present in a variety of modalities including

logical/mathematical, spatial, linguistic, body/kinesthetic, musical, interpersonal, intrapersonal, naturalistic, and existential intelligences. The multiple intelligence theory has gained popularity, in part, because it allows for individualized strengths and weaknesses. However, the theory has been criticized for a lack of empirical support (Gottfredson, 2004).

Renzulli's (1978, 2005) Three Ring conception is currently used in many school systems as a method of identifying students for gifted services. The Three-Ring theory states that gifted behavior occurs when above average academic ability, task commitment, and creativity converge. Sternberg's (2005) WICS conception is similar, as it posits that giftedness occurs when wisdom, intelligence, and creativity are in synthesis. The multiple criteria conceptions emphasize that more students are able to receive services because selection criteria is more flexible, however some researchers contend that the selection criteria is too malleable and undefined (Robinson, 2005).

Finally, some theorists are contending that giftedness is not only academic ability but also involves a humanistic portion that involves social capital, leadership, and altruism (Goleman, 2006; Renzulli & D'Souza, 2012; Renzulli, Koehler, & Fogarty, 2006; Sternberg, 2005). This is a relatively new addition to the field of gifted education, and emphasizes the goal of not only challenging gifted students, but also creating a drive to change and improve the world.

To summarize the discussion of giftedness, there are many accepted definitions that vary on their assessment criteria, focus, and theoretical orientation. The current federal definition of gifted comes from the No Child Left Behind Act (2004) and defines gifted students as, "individuals who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services or activities not ordinarily provided by the school in order to fully develop those capabilities" (p.

107). This definition incorporates aspects from a variety of conceptions, however due to the exhaustive nature of defining giftedness it can be assumed that the definition will continue to evolve.

### **Defining Twice Exceptional**

Similar to the definition of gifted, the definition of twice exceptional individuals continues to change and grow. The general definition of twice exceptional, or 2E, is individuals who simultaneously meet the definition and guidelines for giftedness, as well as the criteria for a special need that makes learning difficult (Barber & Mueller, 2011; Baum, 1994; Brody, & Mills, 1997; Morrison, 2011; Neu, 2003). The bulk of twice exceptional students are gifted and also have a learning disability (LD), but twice exceptional can include any learning difference such as attention disorders, emotional disturbances, physical disabilities, or autism spectrum disorders (Neu, 2003). Although the general description of twice exceptional is agreed upon, there is more contention with how these individuals are identified (Lovett & Lewandowski, 2006; Lovett & Sparks, 2010; McCoach, Kehle, Bray & Siegle, 2001; Neu, 2003).

McCoach, Kehle, Bray, and Siegle (2001) examined the criteria for twice exceptional identification and offered a critique of the idea of masking and profile analysis. The practice of masking “refers to the principle that many gifted students with learning disabilities have patterns of strengths and weaknesses that make them appear to have average abilities and achievement” (p. 405). McCoach et al. argue that masking does not have sound theory and has conceptual statistical problems such as regression to the mean on IQ inventories.

The practice of profile analysis “refers to the practice of interpreting differences among subtests [on cognitive assessment instruments] as evidence of differential and distinct pattern of cognitive functioning in a student” (p. 407). Although some researchers support profile analysis

(Sattler, 1992; Truscott, Narrett, & Smith, 1993), McCoach et al. (2001) and others (Lovett & Lewandowski, 2006) argue that the benefits do not compensate for the lack of empirical evidence and statistical support. McCoach et al. (2001) advocate for a multifaceted approach of identifying twice exceptional students using valid measures of achievement and ability, as well as measures of achievement in the classroom. They also argue for the use of longitudinal study of students to assess if the twice exceptional students show a pattern of declining achievement test scores and classroom grades, paired with indications of above average cognitive abilities. Conversely, Lovett and Lewandowski (2006) argue that the criteria for giftedness and qualification for twice exceptional status is unclear and not standardized. The authors do agree with McCoach et al. (2001) that profile analysis is not statistically valid, and strongly advocate for the discontinuation of the practice. Lovett and Lewandowski (2006) instead urge for more research on the twice exceptional population to better define the population parameters.

As part of a Project High Hopes Javits grant, Neu and others (2003) created the Talent Discovery Assessment Process (TDAP), with the specific goals of identifying gifted behaviors in special needs students. The program was based on the philosophy that potential talent is most accurately predicted by observations of behaviors over time when students are engaged in authentic activities within specific domains. Neu emphasizes that his work corresponds highly to Renzulli's (1978, 2005) Three Ring conception of giftedness and utilizes similar terminology. The TDAP utilizes domain specific activities designed to elicit the following behaviors: academic ability, creativity and task commitment. In Neu's (2003) study, eighty 90 minute sessions were conducted with groups of 10 or fewer students and trained observers documented occurrences of target behaviors. There was a focus on creating a comfortable environment for students using strategies such as low student-teacher ratio, deliberate physical space

arrangements to help keep students focused, little to no emphasis on reading/writing, and the teacher role was conceptualized as a guide, rather than an instructor. The study ran experiential activities designed to promote problem solving and encouraged lively discussion. Neu found that students' gifts were emphasized rather than the students' special needs.

Some researchers (Baum, Owen, & Dixon, 1991; Brody, & Mills, 1997; McCoach et al., 2001) theorize that there are three types of twice exceptional students. The first type includes gifted students with subtle learning disabilities who often do well academically and receive gifted services, and therefore the giftedness masks the disability. The second type includes gifted students who are identified as having learning difficulties, but do not receive gifted services, therefore the disability masks the giftedness. Finally, the third type includes gifted students who do not receive services for giftedness or for their learning difficulties. In this case the components mask each other. The idea that giftedness or a learning difference can go unnoticed because of the interaction between the two needs does partially explain findings that show many twice exceptional students are not identified until later in life (Ferri, Gregg, & Heggoy, 1997; Reis, Neu, & McGuire, 1995).

There are multiple methods of identifying twice exceptional students, and there is no consensus on the correct method or even the definition of the terms. There is a need for literature relating to the effectiveness of identification methods, as well as the experiences of twice exceptional students to attempt to bridge the gap between rigorous and statistically valid methods, and ensure students do not remain unidentified.

### **Students with Learning Differences Findings**

The general definition of twice exceptional students is individuals that fit both the characteristics for gifted and learning differences. However, this brings about the question of

whether twice exceptional students are more similar to one group than the other? A study done by Barber and Mueller (2011) attempted to answer this question and investigated group similarities and differences among twice exceptional students, gifted students, non-identified students, and students with learning disabilities. They found that twice exceptional students' social and self-perceptions closely resemble those of students with learning disabilities.

Additionally, twice exceptional students appear to have less positive self-concepts than either the gifted students or the non-identified students; however they had similar levels of self-concept as the students with learning disabilities. This finding reaffirms the previous belief (King, 2005) that twice exceptional students suffer under a unique burden of not truly fitting in with either the gifted students or the students with learning disabilities, and their unique needs and concerns seem to mimic those of students with learning disabilities (Barber & Mueller, 2011). Due to these findings, this literature review begins its discussion of twice exceptional students' needs with an examination of the needs of students with learning differences.

### **Needs of Students with Learning Differences**

Orr and Hammig (2009) state, "one out of every 11 postsecondary undergraduates reports having a disability, and students with learning disabilities are the largest and fastest growing subgroup of this population" (p. 181). Although this population makes up a growing percentage of the university student body, these students display markedly lower levels of retention and degree completion than typical students, and many drop out in their first year of post-secondary training (Belch, 2004; Horn, Berktold, & Bobbitt, 1999; Orr & Goodman, 2010; Stodden, 2001). Various studies have found that there are a variety of factors that influence the obstacles that students with LD face, such as inadequate academic preparation (Horn et al., 1999), a lack of transitional supports between high school and college as well as inconsistency in the services

provided to the student (Frieden, 2004), and lack of faculty knowledge and use of proper accommodations and modifications in the classroom (Malakpa, 1997; Villarreal, 2002).

In a study by Cawthon and Cole (2010), 110 undergraduate students with learning disabilities completed a survey about their experiences coping with the transition from high school to college. Using a Chi Square analysis, Cawthon and Cole found that the students did have some stability of resources from high school to college, but often did not utilize or have knowledge of the resources on campus. Additionally, the students typically only interacted with their Office for Students with Disabilities to obtain disability accommodation letters, and often did not take advantage of other services.

Cawthon and Cole's (2010) results also supported previous research findings that students with learning disabilities frequently feel that faculty viewed them as incompetent, and not belonging (Kurth & Mellard, 2002). The importance of student and faculty awareness of the needs of students with learning disabilities was also supported in a study by Troiano, Liefeld, and Trachtenberg (2010). The authors found that students with learning disabilities who utilized the campus resources, such as the academic support center, had higher overall grade point averages and higher rates of graduation. Additionally, it was found that those who had failing grades typically attended 50% or less of their scheduled academic support appointments. Orr and Goodman (2010) extended these findings after completing a qualitative exploration of the experiences of college students with learning disabilities and/or attention difficulties. Orr and Goodman found a major finding of "emotional legacy" comprised of the difficulties these students experience, such as feeling stupid and incompetent beginning at an early age, as well as feeling embarrassment and distress that ultimately led to a poor self-esteem (p. 217). The researchers also found that strong support networks and interpersonal relationships were vital to

mitigating the stressors of coping with a disability. Participants reported feeling benefits from a variety of social outlets, such as joining student groups, reaching out to professors, and creating mentoring relationships. Creating relationships with professors seemed to be particularly relevant, as participants reported that it often helped them approach professors about accommodations in the classroom. This finding supports Madaus' (2006) previous assertion that college students with LD would value having a mentoring relationship, particularly with working adults with LD to help them gain advice and insight into the transition out of postsecondary education.

Research (Garner, 2008; Gerber, Ginsberg, & Reiff, 1992) has shown that there are additional factors that may increase the chances of success for students with LD, such as student desire, goal orientation, persistence, learned creativity, and social supports. Multiple studies (Gardner, 2008; Gerber et al. 1992; Hitchings, Luzzaro, Retish, & Horvath, 1998; Orr & Goodman, 2010) have shown that some degree of comprehension of their diagnosis and awareness of strengths and weaknesses can help students form compensation strategies.

### **Supports for Students with Learning Differences**

As stated previously, much of existing literature on postsecondary students with learning differences focuses on students with learning disabilities; however there is a growing body of work that looks at the needs of students with other learning differences. Reaser, Prevatt, Petscher, and Proctor (2007) examined the learning and study strategy needs of postsecondary students with learning disabilities compared to students with attention difficulties and students with no disabilities or difference. They found that although there are some similarities, each group has unique needs. The study used the Learning and Study Strategies Inventory, 2<sup>nd</sup> edition (LASSI) and found that the students with attention difficulties had lower scores than the groups

with learning disabilities and non-identified groups on time management, concentration, selecting main ideas, and test strategies. Additionally, the groups with learning disabilities and those with attention difficulties both scored lower on motivation, anxiety, information processing, and self-testing than the non-identified group. These findings help support the idea that all students with learning differences need academic and emotional supports when faced with transition and challenges; however these students have unique needs and cannot simply receive sweeping uniform supports.

In order to best serve students with learning differences the focus cannot only be on the student, but also on student support services and staff. Murray, Flannery, and Wren (2008) investigated the attitudes towards students with learning disabilities in postsecondary institutions. They found that although faculty responded that they had a fairly positive attitude towards students with LD and general willingness to offer appropriate accommodations, the faculty also felt that there was a lack of training and professional development regarding the needs of students with learning differences. These findings correspond to previous work by Skinner (2007) on postsecondary faculty willingness to provide accommodations. Skinner found faculty ratings were generally “willing to accommodate” to “neutral” about providing most accommodations, however most responded negatively to accommodations in the form of extra credit. However, it was noted that most accommodations received an average “neutral” rating, rather than “willing to accommodate” so there is still resistance to reasonable accommodations.

Although these studies demonstrated that postsecondary faculty reported a willingness to accommodate, as previously discussed, postsecondary students appear to receive a different impression, and often feel that their professors view them as misunderstood, stupid, and incompetent (Cawthon & Cole, 2010; Kurth & Mellard, 2002; Orr & Goodman, 2010). Orr and

Hammig's (2009) review of the postsecondary teaching strategies literature found that in "12 of the 38 studies, instructor behavior was seen as a powerful contributor, perhaps even determinant of, the quality of SWDs' [students with disabilities] experiences in postsecondary education...faculty members appear to be more receptive to working with students with physical and sensory disabilities than with students with LD" (p. 193). Although the literature shows that there are improvements in the attitudes of faculty and the willingness to provide accommodations, it also makes a strong statement to the importance of public and faculty awareness of the unique needs of students with learning differences.

As the research surrounding students with learning disabilities grows, it raises more questions and avenues of research. There have been strides in discovering how to best optimize the environment for the success of students with LD, but there are still many questions regarding their unique needs and how to best educate those working with this population.

### **Twice Exceptional Students Findings**

As referenced previously, the twice exceptional population does share a significant amount of similarities with the learning differences population (Barber & Mueller, 2011); however, there has been a significant amount of work that focuses on the unique needs of the twice exceptional population (Brody & Mills, 1997; Mendaglio, 1993; Reis, Neu, & McGuire, 1995; Reis & Renzulli, 2004). There is a distinct lack of research done with twice exceptional students at the university level, so this section of the literature review includes findings from populations from postsecondary and non-postsecondary settings.

Ferri, Gregg, and Heggoy (1997) attempted to create an assessment profile of postsecondary students who fit the criteria for twice exceptional and students who fit the profile for a LD. The study found that twice exceptional students tended to exhibit a distinctive pattern

of high verbal comprehension and abstract thinking, and were likely to not be identified as LD until later in life. Ferri, et al. (1997) stated, “we do not as yet have a single profile for individuals demonstrating G/LD [gifted with learning disabilities]...a clear understanding of the constructs of learning disabilities and giftedness by all professionals in the field of education and assessment is crucial to the process of establishing better criteria for defining G/LD” (p. 558). Partially due to a lack of a clear profile, it is common that twice exceptional students are not diagnosed with a learning difficulty or recognized as gifted until later in life (Brody & Mills, 1997; Reis, Neu, & McGuire, 1995).

Twice exceptional individuals are not limited to those who are gifted with learning disabilities, it can include any diagnosis that impedes learning and makes it more difficult to observe gifted behavior (Neu, 2003). However, the bulk of the research done with twice exceptional students focuses solely on gifted students with learning disabilities (Baum, 1994; Reis, Neu, & McGuire, 1995) or gifted students with attention difficulties (Delisle, 1995; Webb & Latimer, 1993). That is why it is beneficial to expand the research body to include other twice exceptional populations. Morrison (2001) completed a review of the literature surrounding twice exceptional students who were diagnosed with emotional/behavioral disabilities and found that this particular population of twice exceptional students is more at risk for not being identified as gifted and is at higher risk for depression, anger, and anxiety. These findings were supported by a study done by Reis and Colbert (2004) that also found that twice exceptional students are at high risk for feelings of inferiority, lack of self-confidence, unrealistic expectations for themselves, high levels of anxiety and social-emotional issues. Obviously, these findings are alarming, especially when combined with the findings that students with learning disabilities are at higher risk for dropping out of college and poor grades (Belch, 2004; Horn, Berkold, &

Bobbitt, 1999; Stodden, 2001). Morrison (2001) also found that ignoring the giftedness of twice exceptional students typically leads to the exclusion of students from gifted programming.

Additionally, it was found that when twice exceptional students do not have their intellectual needs met, they tend to act out and perpetuate their exclusion from gifted programming.

Twice exceptional students are often at particular risk for difficulties in their social/emotional development (Mendaglio, 1993; Peterson, 2006; Reis & Colbert, 2004; Reis & Renzulli, 2004). These students can have impaired social skills, and are often misunderstood and frequently struggle to reconcile their high cognitive abilities with their learning difficulties. Reis and Renzulli (2004) advocate that interventions such as support and encouragement of accelerative learning experiences, time to learn with others of similar abilities, engagement in areas of interest, mentoring or counseling to cope with stress and social difficulties, early emphasis of career development, and social-emotional development training help encourage the development of social skills and also inspire accelerated achievement and desire to learn. Peterson (2006) advocates group work, focus on developmental challenges, and the development of expressive language in order to provide students with tools to adequately explain their feelings, emotions, and challenges.

Additionally, these students often have unique counseling needs and thus school counselors, school psychologists, and other hands-on personnel must have a working knowledge of counseling gifted and twice exceptional students (Mendaglio, 1993; Peterson, 2006).

McEachern, and Bornot (2001) emphasize that staff working with twice exceptional students must have a good knowledge base on the needs of twice exceptional students because they are often advocates to parents, teachers, and other school professionals. Ultimately, there is very little research that focuses on the counseling and social-emotional needs of twice exceptional

students, and the existing literature predominately offers recommendations at a secondary education level (McEachern & Bornot, 2001; Peterson, 2006; Reis & Renzulli, 2004). There is very little discussion of the social-emotional needs of the postsecondary twice exceptional student.

## **Conclusion**

As discussed in previous sections, the bulk of research on twice exceptional students has focused on those that fit the criteria for gifted and for learning disabilities (Baum, 1994; Ferri, Gregg, & Heggoy, 1997; Reis, Neu, & McGuire, 1995). Additionally, there is an absolute dearth of research that examines the twice exceptional population in postsecondary settings. Overall, studies have shown that twice exceptional students are at risk for social-emotional issues (Barber & Mueller, 2011; Neu, 2003; Reis & Colbert, 2004; Reis & Renzulli, 2004) and academic difficulties and underachievement (McEachern, & Bornot, 2001; Neu, 2003; Reis & Renzulli, 2004). However, much of these works focus on secondary education settings and primarily offer interventions and strategies for secondary educators. There have been several studies of postsecondary students with learning disabilities that offer insights in the challenging academic and social-emotional difficulties these students face (Cawthon & Cole, 2010; Garner, 2008; Orr & Goodman, 2010; Orr & Hammig, 2009; Reaser et al. 2007), however this literature represents only one side of the twice exceptional student. Gifted students with learning differences need to have not only their learning difference needs met, but also their gifted learning needs. This dissertation addressed some of the questions raised in this review of the research and has the potential to contribute to the effort to better understand and serve twice exceptional students.

## **Chapter 3**

### **Methods and Procedures**

This chapter summarizes the methodology, sampling procedures, instrumentation, and provides in-depth information on the questionnaire and interview protocol that were used for data collection in this study. Complete descriptions of each participant are provided and the data collection and data analysis processes are discussed. The chapter concludes with a review of the limitations of this study.

#### **Methodology**

Basic interpretative qualitative methodology was used as the structure of inquiry in this study and was utilized to investigate the participants' perceptions and experiences as a twice exceptional learner. Basic interpretative qualitative methodology was an appropriate choice for this study because I attempted to gain an understanding of how the participants make meaning of their perceptions and experiences (Merriam, 2009).

#### **Sampling procedure.**

To help ensure accurate and useful data, the study utilized purposeful sampling. As detailed by Lincoln and Guba (1985), this procedure involves selecting participants for the study based on specific criteria. The participants for this study were four above average academic ability university students with documented learning differences. The participants in this study met the following guidelines:

1. The participant is currently enrolled or graduated within the last year at a university.
2. The participant must meet the criteria of "gifted", evidenced by at least one score on an intelligence or cognitive ability inventory in the superior range. A list with the appropriate superior range scores from a variety of cognitive and intellectual abilities

inventories was provided to the CSD staff members who had access to the student files and completed the sampling. Many students who receive services with CSD have their cognitive intellectual abilities inventory scores in their files; these assessments were done prior the start of this study.

3. The participants must meet the criteria of having a validated learning difference, as defined by the Center for Students with Disabilities (CSD) at their university.

4. The participant must be currently experiencing/experienced success in the university setting. In this study, success was defined as currently maintaining a grade point average (GPA) above academic probation levels; at the participants' university this was defined as a GPA above a 2.0

In qualitative research a key informant acts as an expert on the topic of study, and can provide assistance identifying potential participants. In this dissertation study I met with the key informant prior to the start of sampling and discussed issues that twice exceptional students face in post-secondary education and the available population at the large northeastern university. The key informant was considered an expert in this study because at the time of the study, they were functioning as the assistant director for CSD, had attained a doctor of psychology (Psy.D.) in the subject area, and specialized in working with twice exceptional students.

The CSD at a large northeastern university with more than 30,000 students was used as the primary source for purposeful sampling. The key informant with access to student testing information identified 64 potential participants who met all of the sampling criteria. Due to the importance of protecting student data, I did not at any point have access to student information, test scores, or the identified students who met the sampling criteria. After the key informant identified potential participants, she sent out a recruitment email (see Appendix C) to determine

if the potential participant was interested in participation. Four students from this pool of potential participants responded to the key informant that they would like to participate.

Attempts were made to recruit additional participants by offering a \$10 incentive to a local campus store. The updated IRB protocol (#H13-189) received approval on January 3<sup>rd</sup>, 2014. However, no additional students agreed to participate before data collection was completed. Although additional participants would have been ideal, data saturation (Merriam, 2009) was reached and further data collection was not necessary.

### **Sample.**

The sample of this study consisted of four enrolled university students who fit the label of a twice exceptional individual. As recommended by Lincoln and Guba (1985), the researcher utilized a purposeful sampling method with specific criteria for selection. As stated previously, although all of the participants had at least one score in the superior range on an intelligence or cognitive inventory, I did not at any point have access to this information so the participant test scores and/or specific inventories are not included. In Table 3.1 the participants' demographics are provided; Table 3.2 displays a summary of the information I gathered from the questionnaires.

Table 3.1

#### *Participant Demographic Information*

<b>Participant</b>	<b>Age</b>	<b>Sex</b>	<b>Semester</b>	<b>University Program</b>
Rebecca	19	Female	3	Chemistry
James	18	Male	1	Applied Mathematics
Lisa	22	Female	9	Speech, Language, and Hearing Sciences

Sarah	18	Female	1	Psychology
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Table 3.2

*Summary of Questionnaire Data*

<b>Participant</b>	<b>Nature of Learning Difference</b>	<b>When was Learning Difference Identified?</b>	<b>Identified as Gifted? When?</b>	<b>Personal Goals</b>
Rebecca	Autism Spectrum Disorder, Non-Verbal Learning Disorder, Non-Hyperactive Attention Deficit Disorder	Middle School	Not identified as gifted	Computer scientist, becoming financially independent, improving social skills
James	Autism Spectrum Disorder	Preschool	Not identified as gifted	Learning strategies and creating social networks
Lisa	Attention Deficit Disorder	3 <sup>rd</sup> grade and re-evaluated in high school	Not identified as gifted	Speech pathologist, working with those who come from multicultural and low SES backgrounds
Sarah	Autism Spectrum Disorder, Attention Deficit Disorder, Sensory Processing Disorder, Anxiety Disorder	4 <sup>th</sup> grade	Not identified as gifted	Special education teacher, working with children with Autism

### **Participant descriptions at the time of study.**

*Rebecca.* Rebecca is 19 years old, and is an upbeat, funny, and talkative young woman. She has a fun fashion sense and wore a leopard printed shirt with bright pink sneakers during our interview. She wears glasses and tends to play with her hair when she is speaking. She is a sophomore at a large northeastern university and is currently a chemistry major, but plans to switch majors soon. She felt that she, “kind of stunk at chemistry and chemistry stunk both literally and figuratively in my opinion.” She took a computer science class and really enjoyed it and plans on switching her major to computer science in the college of engineering once she raises her grades. Rebecca was diagnosed with Autism Spectrum Disorder, a Non-Verbal Learning Disorder, and Non-Hyperactive Attention Deficit/Hyperactivity Disorder (ADHD) in middle school. She was never identified as gifted, but feels that she is smart in certain areas like math and technology.

Rebecca attended an advanced high school, which she called, “a nerd school,” that offered high level and unique STEM courses such as photonics, nuclear physics, and material science. She enjoys math and science, but struggles in English and reading, particularly when she is required to interpret writings. She describes herself as inquisitive, and says that she loves thinking and learning.

Rebecca currently receives accommodations for her learning difference and is allowed double time on exams, reduced distractions, and is able to take less than 12 credits to be considered a full time student. She also receives priority registration for classes. She did not receive accommodations in middle school and describes that time as, “not having any idea what was going on” but did have accommodations after that point. She is currently experiencing

success in the university environment and would like to get involved in undergraduate research, become financially independent, pursue a math minor, and take a high workload without sacrificing performance. Her long-term goal is that she would like to work in the computer science field.

*James.* James is an 18-year-old young man, and presents as somewhat quiet and reserved, yet becomes more open, humorous, and talkative when talking about his favorite subjects of drama and math. He is average height with dark hair, and fiddled with his hooded sweatshirt string often during our interview. He demonstrated some difficulty maintaining eye contact and would often look away when speaking, but genuinely seemed interested in talking about his experiences. He is a freshman at a large northeastern university and is currently an applied mathematics major in the college of liberal arts and sciences. James was diagnosed with Autism Spectrum Disorder in preschool. He was never identified as gifted, but does feel he is smart in certain areas, particularly math.

James received accommodations throughout his scholastic career and continues to receive the accommodations of a note taker for classes, and extra time on tests. Although, he admits that he has not used any of his accommodations, this is not particularly surprising since he is in his first semester at the university level and the data collection interviews occurred early in the semester.

James describes himself as a hard worker, determined, and a good student, but he admits that he struggles in English, reading, writing, and reading social cues. He also admits stress is a big issue for him and that it is a trigger for him not doing well. James became particularly animated and excited when talking about his experience in drama and musical theater productions. He expressed interest in joining similar groups while at the university. James stated

that he did not have any careers goal yet, but would like to learn more about learning strategies and create social networks.

*Lisa.* Lisa is 22 years old, and is a friendly, outgoing, and bubbly young woman. She is open and animated when discussing a variety of subjects and is particularly talented at painting vivid pictures during her stories and descriptions. She is fun to talk with and answers questions easily and without reservation. Lisa is currently a senior in the speech, language, and hearing sciences program and plans to graduate in December 2013. She was diagnosed with Attention Deficit/Hyperactivity Disorder (ADHD) in 3<sup>rd</sup> grade and was re-evaluated and maintained her diagnosis in her junior year of high school. She was never identified as gifted, but states that she does feel that she is smart in certain areas, particularly things that utilize her strength areas such as creativity, math, and social sciences. She enjoys working with people and prefers learning about subjects that involve people, such as anthropology, political science, and education. She states that, “it’s just really helpful to figure out where other people are coming from.” She also enjoys math, but has not taken any math courses in quite some time. She values her creativity and has taken classes in signing, dancing, ballet, and jazz. She admits that she struggles with science, reading, memorization, and focusing on tasks.

Lisa describes her mother, a registered nurse, as a driving force in helping her get a 504 plan and accommodations while growing up. Lisa states that she did well in school growing up, but then moved schools and experienced difficulty coping with the transition and did poorly her 9<sup>th</sup> grade year. She “buckled down” her sophomore year and was on the honor roll and caught up on credits by her junior year. Once she graduated high school, she attended a smaller university first and experienced financial difficulty, which resulted in her transferring to a 2-year college. She experienced success at the 2-year college, and then transferred to her current large

northeastern university to finish her bachelor degree. She has received accommodations throughout college and currently receives extra time on exams, reduced distractions for exams, and a note taker.

Lisa has plans to attend a graduate program in language pathology and is planning on spending a month in an enculturation program in a Central American country where she will learn Spanish. Once she completes her graduate degree, she would like to work as a speech pathologist and work with children who have communicative deficits, multicultural/bilingual children, and low socioeconomic background populations.

**Sarah.** Sarah is 18 years old, and is animated, talkative, and presents as a very intelligent young woman. She frequently references knowledge on a large number of subjects and often mentions how she loves learning. She easily answers questions about her experiences and became visibly emotional when describing her experiences being bullied. She is currently a freshman psychology honors student at a large northeastern university. Sarah was diagnosed with Autism Spectrum Disorder, ADHD, Anxiety Disorder, and a Sensory Processing Disorder in 3<sup>rd</sup> grade when she had a neuropsychological evaluation. Although her neuropsychological evaluation showed superior intelligence with the possibility of very superior intelligence, she was never identified as gifted. However, she does feel that she is smart in certain areas and states that, “I love learning. I just love new information. I just love it and I love discussing it and talking to people who know about it and debating ideas.” She also describes herself as very creative and is talented in art and sewing. She admits that she often struggles communicating her ideas into words, maintaining focus, and has difficulty with reading, and spelling.

Sarah attended a small, private school from kindergarten through the 3<sup>rd</sup> grade, and was then homeschooled using an accredited homeschooling curriculum through 8th grade. She

attended a small, all-girls school during high school and experienced several instances of bullying from both staff and other students, and states that her educational needs were not being met. Throughout her scholastic career, Sarah has done very well and graduated in the top tier of her high school class.

Sarah hopes to become a special education teacher and would like to work with children with Autism Spectrum Disorders. She feels that she has insight into their struggles and enjoys working with children with special needs. She is interested in doing research and, “wants to describe, evaluate, and treat the symptoms of autism.”

### **Data collection**

As in all forms of qualitative research, the researcher was the primary instrument for data collection and analysis in this study (Merriam, 2009). In an effort to subvert my subjectivities and biases, I identified and monitored them in order to observe how they were altering the data collection and analysis. For example, I identified my prior counseling training as a subjectivity; this was monitored throughout the interview process to ensure the interviews acted as a tool to gather data and did not become a counseling session. This study attempted to ensure validity through a variety of strategies that are supported by research (Grbich, 2007; Merriam, 2009). The study utilized a peer coder who was trained in qualitative methods and data analysis to ensure the accuracy of the proposed codes and categories. Additionally, the study included member checking, as referenced in Merriam (2009), to safeguard that the researcher was obtaining as accurate as possible picture of the participants' experiences.

### **Questionnaire and interview protocol.**

The brief questionnaire (see Appendix B) and the interview protocol (see Appendix A) were developed using the current literature and the questionnaire and interview protocol from the

Reis, Neu, and McGuire (1995) study. The revised questionnaire and interview protocol used in this study were given to five faculty members at a large research university who all provided feedback on the questions. This study was a partial replication of Reis, Neu, and McGuire's original study, but changes were made to reflect alternations in the research questions, and the desired sampling population.

The questionnaire asked open-ended questions about the participants' demographics, current university program and course load, the nature of their learning difference, when their learning difference was identified, if they were identified as gifted, and the participants' career and personal goals (see Appendix B). After consent to participate was obtained, I emailed the participants the questionnaire and they emailed me their responses back. All participants completed this questionnaire prior to the start of interviews, and the responses helped me tailor the interview questions to each participant and also provided insight into potential topics to investigate. For example, Sarah's questionnaire mentioned instances of bullying and this topic was extensively followed up on in the interviews.

The interview protocol probed a variety of areas, mainly relating to the participants' perceptions and experiences regarding their status as a twice exceptional learner. Open-ended questions were asked about their self-perceived strengths and weaknesses, their perceptions of the experience of being labeled as having a learning difference, and their perceptions of things/people/programs/events that helped or hindered their academic success. The participants' academic history and ease of receiving accommodations was also investigated.

#### **Data collection procedures.**

This study worked in collaboration with the Center for Students with Disabilities (CSD) at a large northeastern university with more than 30,000 students. The CSD staff acted as key

informants and had prior access to testing and diagnostic data. I provided the purposeful sampling criteria and a list of appropriate cognitive and intellectual ability inventory superior range scores.

During the fall of 2013, I met with each participant individually to go over and provide a copy of the consent form (see Appendix D), to answer any questions about the study, and to obtain consent for participation. The participants were emailed the pre-interview survey (see Appendix B), and were asked to email it back to me prior to the agreed interview day and time. All participants in the study were required to sign an informed consent form and this study was approved by the Institutional Review Board (IRB), Protocol #H13-189 on August 13, 2013, the revision including the \$10 incentive for participation was approved January 3, 2014.

All participants returned the pre-interview survey prior to the start of interviews. I utilized the responses to help shape the interview questions to each participant, and also as a guide for any additional topics to investigate. Interviews were scheduled at a time and place of the participants' choosing and took place predominately at the CSD office in a private room or at the local coffee shop. Prior to the start of each interview, I obtained consent to audio-record the interview. The interview protocol was used as a guide for questions during the semi-structured interviews, and probes and additional questions were used where appropriate. At the culmination of each interview, I emphasized that the participant should feel free to contact me if she/he had any questions, concerns, or additional comments. Each interview was transcribed and cleaned of identifiers. The number of interviews was determined on a case-by-case basis and was contingent upon the need to reach data saturation (Merriam, 2009). Rebecca and James both stated that they would prefer to answer all the interview questions in one sitting, whereas Lisa and Sara both completed two interviews. After each interview I noted behaviors from the interview, additional

topics to investigate, and/or general thoughts and impressions. These research notes were also transcribed and included in data analysis.

### **Inductive Analysis**

This study utilized inductive analysis to analyze the data. Inductive data analysis is a systematic approach that involves no preconceived notions or prior theories to make sense of the data; instead, the analysis generates hypothesis and allows findings, trends, and patterns to emerge from the data (Grbich, 2007). Inductive analysis stresses the importance of the researcher bracketing their subjectivities, thus, in this study I made attempts to bracket underlying biases and subjectivities by identifying them and monitoring them for effects on data collection or data analysis.

Additionally, the inductive approach emphasizes that data analysis, “is an ongoing process which is undertaken every time data are collected” (25), therefore, data analysis was concurrent throughout the data collection process. There were multiple purposes of the ongoing analysis in this study; for example, concurrent analysis helped me identify that more feedback was needed regarding parental support and involvement. This process also allowed me to reword a question that dealt with the effects of labeling early in the data collection process as the original wording seemed confusing to participants.

### **Data coding and analysis.**

As referenced in the original study (Reis, Neu, & McGuire, 1995) triangulation allows the researcher to form a more accurate interpretation than when utilizing a single data source (Guba, 1978; Jick, 1983; Van Maanen, 1983). As in the original study (Reis, Neu, & McGuire, 1995), multiple sources of data were used to ensure an accurate representation. Data for this study were collected using three methods: records and testing information, written responses to

an open-ended questionnaire, and in-depth semi-structured interviews with each participant. These data, along with the research notes that were written throughout the data collection process, were transcribed and coded using inductive open and axial coding. Inductive coding indicates that the researcher had no prior theories relating to the data prior to the coding process (Grbich, 2007).

The coding process began with open coding of all data. As stated in Grbich (2007), “open coding involves word by word, line by line analysis questioning the data in order to identify concepts and categories which can then be dimensionalized” (74). The open coding process began with a close reading of the data and consideration of the multiple meanings within the data. During this stage of coding, I occasionally interrupted the coding process and wrote theoretical memos to record thoughts and insights regarding emerging relationships and findings.

The following is an example of a theoretical memo that was written while coding the data:

There appears to definitely be some sort of relationship between and among the ways these learners are trying to compensate for their learning differences. Lisa talked a lot about how she uses several calendars, reminders, etc. to help her stay on track and not forget anything. Is this compensating for the ADHD lack of focus difficulties? It seems like all of the participants had some methods that they have developed to help them in school. Sadly, it doesn't seem like anyone is helping these learners develop these strategies, it is all on their own. Counselors should have some expertise in this area, maybe teachers as well. Why is no one helping these kids accommodate for their difficulties?

After no further codes were emerging, I began to identify relationships between and among the codes and began the process of axial coding.

Axial coding refers to, “taking one category which has emerged in open coding and linking it to all the subcategories which contribute to it” (79). The goal of axial coding is to reduce overlap and redundancy among the codes until the final categories or findings, typically 3 to 8, are distinct, refined, and provide insight into the research questions (Creswell, 2002). For

example, on research question one regarding the self-perceived strengths of the participants, the initial open codes of insight into own needs, self-awareness, and thinking about thinking, were all combined into the axial code of metacognition. The axial code and resulting category of metacognition reduced the redundancy between the codes of insight into own needs, self-awareness, and thinking about thinking without losing the inherent meaning.

Once no further condensing of categories was possible, I utilized the highly condensed categories and attempted to generate findings that related to each research question. In this study, I coded and analyzed all the data. As recommended by Lincoln and Guba (1985), to help verify the codes and to increase the trustworthiness of the findings, a peer coder, trained in qualitative research and analysis, reviewed the study's data, coding process, finding generation, and provided insights and feedback. The peer coding process took place over two days and greatly helped the final category formation and finding generation. An example of the insights developed during this process was the fact that the peer coder identified that not only was the category of bullying appropriate, but also the bullying incidents all took place in a public setting, typically the classroom, and a modification was made to the category. Additionally, after in-depth discussion with the peer coder, I determined that the categories of others lacking confidence in the student could be combined with the category of negative perceptions of the student since both categories relayed the damaging assessments that twice exceptional learners encounter.

This study also utilized member checking (Merriam, 2009) to assess the trustworthiness of the data. The member checking process involved contacting the participants with the emerging categories and findings to see if they felt they were an accurate representation of their experiences and perceptions. Two of the participants did not respond to the member checking

process request. The remaining two participants responded and were satisfied with the emerging impressions from the data and did not have anything additional to add.

### **Limitations**

This dissertation study does have limitations. As detailed in Merriam (2009), there are a variety of challenges that must be addressed in qualitative research. As stated previously, this study consisted of four university students and therefore is not a representative sample of the population and does not have statistical power. The initial study design included a maximum of twelve students who fit the sampling criteria; however there were difficulties in obtaining participants. An amendment to the IRB protocol offering each participant a \$10 incentive was approved by the IRB, but no additional participants were recruited before data collection was terminated due to time constraints. The Center for Students with Disabilities (CSD) identified 64 students who fit the sampling criteria, and four responded to inquiries regarding participation in research. Although the sample of the study is small, it makes up 6.25% of the identified population at the university and data saturation was reached, however the small sample size does present a significant limitation of the study.

Additionally, the findings in this dissertation are not generalizable to the population, however the findings will be transferable due to the fact that data have been gathered from a variety of sources, multiple data collection techniques were used, and data are provided for the reader using rich and thick description (Lincoln & Guba, 1985). In qualitative research, the transferability of findings is defined as, “the extent to which the findings can be transferred to other settings or groups” (Polit & Hungler, 1999, p. 717). To help ensure credibility of this dissertation, triangulation was used to enhance interval validity (Merriam, 2009). As previously detailed, this dissertation used a peer coder to check for accuracy of coding schemes, and also

used member checks to monitor accuracy of participant data. This dissertation study is also limited by the study design and chosen methodology. This study used basic interpretative qualitative research and the findings from this study would be strengthened if they were also supported by quantitative research, such as evaluations of the academic struggles of twice exceptional students or program data indicating any positive or negative changes after educational support programs are put in place.

Another limitation of this study is that all of the data were collected using self-report measures in the form of a questionnaire and an interview. The data collection and data analysis process assumes the accuracy of the data, however the validity of the data analysis is contingent on the trustworthiness of the participants and their reliable recall of events. For the purposes of this study, it was assumed that each participant's self-report was honest and the resulting data were accurate.

Finally, the demographics of the participant sample represent a significant limitation to this study. The sample was made up of three females and one male, who all self-described as Caucasian. All of the participants attended the same large university in the northeast and received services from the same CSD organization. In future research, a more robust and representative sample could potentially yield more meaningful and transferable findings.

In Chapter Four the findings of this study are presented. The research questions are restated and findings are summarized for each question, including the categories and associated participant data for each research question.

## **Chapter 4**

### **Findings**

In this chapter, the findings of this dissertation study are described. The chapter is divided into three sections. Each section includes the findings for each of the following research questions:

- 1) What are the self-perceived strengths and weaknesses of gifted university students with learning differences?
- 2) What are the experiences of this population regarding the effects of labeling and their treatment by others and others' perceptions of them?
- 3) With regard to this population, what do participants describe as helping or hindering their success in an academic environment?

#### **Overview of the Findings**

An overview of the findings of this study suggests that twice exceptional students do not consistently have their learning needs or social-emotional needs met. Many of them experience trauma in the form of others' negative perceptions and attitudes towards twice exceptional students, general lack of understanding of learning differences, and potentially, public bullying. Twice exceptional students describe utilizing support systems, most often in the form of family and close friends, to overcome and cope with obstacles. The data show that developing coping mechanisms played a large role in learning to accommodate for individual learning differences. Also, the data suggest that these learners generally feel different from others and feel that they do not fit into any group, whether it is gifted, disabled, or "normal," and experience social isolation as a result.

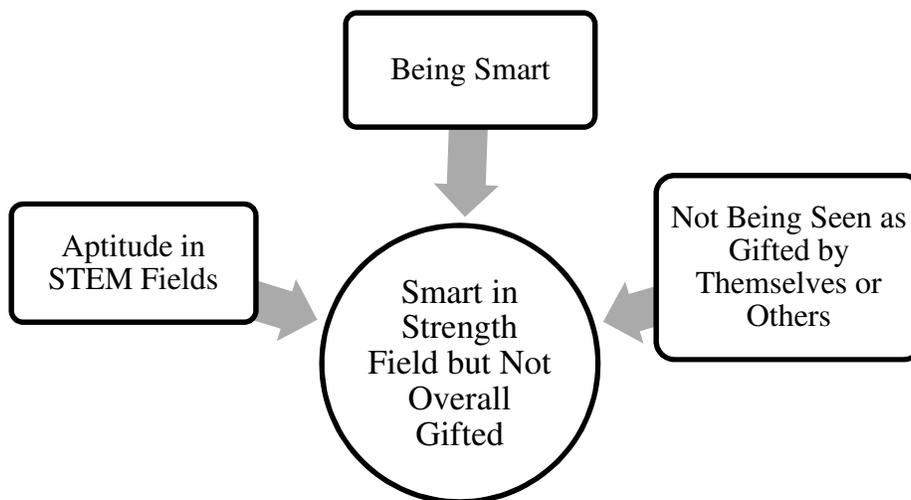
## Findings Relating to Research Question One

*What are the self-perceived strengths and weaknesses of gifted university students with learning differences?*

### **Smart in strength field but not overall gifted.**

The learners in this study perceive themselves to be smart, particularly in their area of aptitude and view this as a personal strength, however they do not perceive themselves as gifted. Figure 4.1 depicts the contributing data categories represented in this finding; it is evident that these learners describe themselves as smart in their strength field and have an aptitude for STEM fields, however none of the participants reported feeling that they are gifted.

Figure 4.1 *Finding One: Smart in Strength Field but Not Overall Gifted*



***Twice exceptional learners in this study describe their aptitude in STEM related fields as strengths.***

All of the participants described enjoying and perceiving themselves as smart in STEM related fields, typically defined as math, science, technology, and more recently, social sciences,

however it was also found that the participants in the study had a natural aptitude for STEM related material.

Rebecca strongly preferred STEM fields and talked about how her, “favorite classes are all STEM related...I like hard sciences...I tend to be good in math.” She felt she had a “knack for math and science. I have always liked the hard maths, the hard sciences. They are fun and I can pick them up naturally.” When I asked her about why she was thinking about changing her major from chemistry to computer science, she said, “I think I will be successful. I mean, it’s still STEM so I think I will be fine.” She echoed her interview statements in her pre-interview questionnaire responses and wrote, “I do think I am strong in certain areas (then again, who doesn’t?). I have found that it was easier for me to learn things like math.”

Sarah had similar sentiments and described how, “I never worried about how I would do in my math and science classes, it just always came so easily. I could sit down and look at the material and pick it up and understand it really quickly.” Lisa preferred the social sciences and math in STEM fields and stated:

I like any sort of course that is centered on people, so anthropology classes, classes about religion, I just feel like it is really helpful to figure out where other people are coming from and the anthropology courses I have taken helped me be a better person by being able to understand different cultures and backgrounds.

In Lisa’s pre-interview survey she added, “I often find success in courses that focus on humanity, such as anthropology, political science or education. In high school, most of my electives were mathematical courses because I enjoyed working with numbers.”

James was somewhat difficult to draw into extended conversation during the interviews, but he became open and excited when talking about math. He stated, “I am really good at math and I have always really liked it.” When asked about a time he felt successful he said, “when I got a 4 on my AP Calculus exam. I thought I was going to do really badly because I didn’t study

at all.” Additionally, all the participants’ career and personal goals involve further exploration of STEM fields with many of them wanting to be involved in STEM based research. Not only did all of the participants prefer learning about STEM related materials, but they described how they possessed a natural or learned ability and aptitude for these areas.

***Twice exceptional learners in this study describe being smart as one of their strengths.***

The four participants were never identified as gifted in school and never received advanced curriculum or services related to their advanced academic abilities, however all the participants self-described as smart when they were asked how they would describe their strengths and if they thought they had any special abilities. Rebecca said, “I would say that I am smart, but I guess I am not really sure, like I am not a genius but yeah, I am smart. I know my parents would say I am smart, but they are biased.”

When asked how he would describe himself as a student James replied, “I am good student, get pretty good grades. I consider myself smart I guess.” Sarah felt comfortable describing herself as smart and described seeing her neuropsychological evaluation results, “I realized that I was really smart, I mean my verbal IQ is in the 140s...I’m a really good student and would say that I am smart.” Lisa discussed how she struggled academically for a period in high school after she changed schools and said, “for a long time I didn’t think I was smart, just you know, average. But once I finally turned my grades around I was like, yeah, I can do this, I’m really smart and then I did it.”

***Twice exceptional learners in this study describe not being seen as gifted by themselves or others as a weakness.***

All of the participants self-described as smart when asked about their strength areas, but none of them self-described as gifted. In the pre-interview survey all the participants indicated

that they were not identified as gifted at any point in their education. James stated, “I was not identified as gifted, but I do feel that I am smart in certain areas.” When I asked James about this in the interview, he said, “I am not sure if I am gifted. I have a hard time with a lot of stuff so I don’t know.”

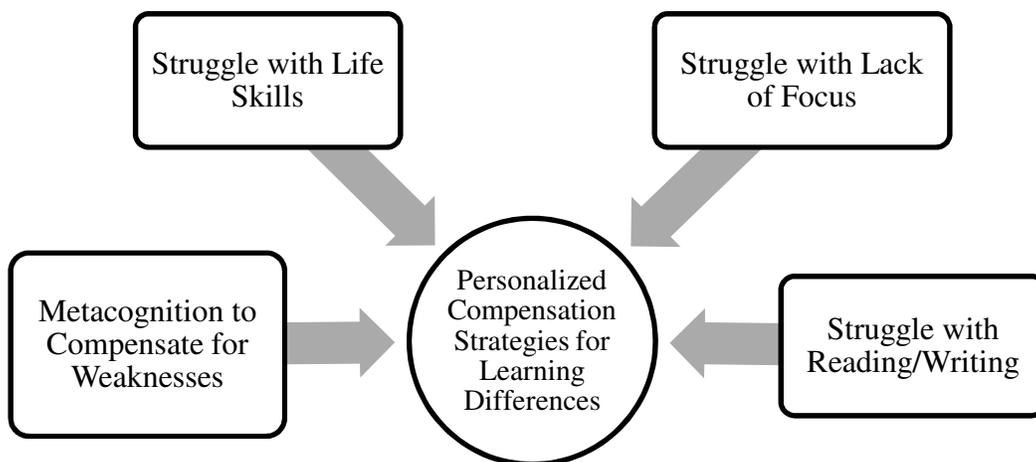
Rebecca also responded that she was “not identified as gifted” on her pre-interview survey and then in the interview added, “I don’t think of myself as gifted, I am just me.” Lisa echoed these sentiments and wrote in her survey, “I was not ever identified as gifted and I am not sure if I ever thought I was particularly gifted. I am generally an average student.” When I asked her about this in the interview she said, “I do well in school but sometimes I feel I’m pretty mediocre so I wouldn’t say I am gifted.” In her pre-interview survey Sarah stated that she was “not identified as gifted” and “I didn’t really believe that I was smarter than anyone else.” During the interview she added, “It’s funny like talk about being gifted because I never thought I was. It is weird for me to understand that I’m really good at something.”

At one point in the interviews, Rebecca pointed out that some people are confused by her and say things like, “How can you be so smart and so dumb?” when she struggles with simple tasks. The data suggest that these learners share some of their peers and school staff’s disbelief and confusion about the disconnect between their above average academic gifts and learning difference challenges, and feel that their struggles somehow prohibit them from being truly gifted. When I asked the Rebecca if she was identified as gifted she said, “No, never. I think of gifted as someone who is super smart who can just do stuff. At my school the gifted ones were the ones who just got stuff really quickly and didn’t need to ask questions and that’s not me.”

### **Personalized compensation strategies to accommodate for learning differences.**

These learners display self-awareness of their weaknesses and utilize their insight into their abilities to form personalized compensation strategies to accommodate for their areas of difficulty. The participants identified struggles with life skills, lack of focus, and reading and writing in particular, but it was found that they use their strengths of metacognition to help form compensation strategies. The figure 4.2 below depicts the contributing data used to formulate this finding. The data indicated that the participants described struggles and weaknesses in life skills, maintaining focus, and reading and writing, yet they felt that their metacognitive abilities helped them form personalized compensation strategies to accommodate for their areas of weaknesses.

Figure 4.2 *Finding Two: Personalized Compensation Strategies to Accommodate for Learning Differences*



***Twice exceptional learners in this study describe using metacognition to compensate for weaknesses as one of their strengths.***

Metacognition is generally defined as knowledge about one’s cognitive processes and the efficient use of self-awareness to regulate cognitive processes (Brown, 1987). Metacognition was

prevalent throughout the interview process and it became clear that it played a large role in participants' ability to create cognitive strategies for success. Rebecca addressed her metacognition and stated, "I just think...I am good at thinking in general and sometimes I just think about how I am thinking." When I asked Rebecca about coping strategies she uses to overcome her learning difference she responded, "I try to notice things, to figure out why people do what they do, that sort of thing. I try to think of something that seems out of place and then figure it out....I try to pick up cues."

James also described, "I know what methods work for me and I know what methods don't work so I try to just use the methods that work to stay focused." Later in the interview when James was talking about things that help him succeed he displayed his self-awareness and stated:

I know I need a lot of breaks. The first few weeks of college I was working full days with no breaks and that wasn't working for me. I knew it wasn't working because I couldn't focus and I was always really tired. I know that I need to work harder now and find new ways to study because what I was doing in high school no longer works.

When I asked James about what has helped his academic success he stated, "figuring out exactly what works for me, like what kind of classes to take, how I should study, stuff like that. I think I have been able to sort of work around the things I am really bad at." Sarah echoed these sentiments and said, "sometimes I catch myself thinking about things and getting off track so I try to pull myself out of that since I know I get off task easily." Lisa also discussed her attempts to regulate her attention:

I struggle with day dreaming so I try to catch myself and bring my thoughts back to where they should be, I try to notice my thought patterns and pick up on my drifting before I am completely off task. It's helpful to think about the things that distract me and then figure out how to reduce that.

*Twice exceptional learners in this study describe their struggle with life skills as a weakness.*

Students in the study struggled with relating to organization skills and social skills. The participants described difficulties keeping organized and the common occurrence of missing things and struggling to keep organized. Rebecca said, “I sometimes miss things, like miss the bus, miss deadlines...I struggle with keeping organized.” Lisa also noted the struggle to keep organized and stated, “I try to keep organized but it’s tough for me. I am always trying to figure out what my best chances for doing better are so I keep trying different ways like calendars, planners, different ways to taking notes.” Also, all of the participants described difficulties navigating social interactions. Sarah described, “I have trouble with open friendships...I have trouble being around people my own age.” Lisa also shared Sarah’s difficulties and said:

I was just very awkward and shy growing up. I was just shy and I would overthink it, like should I say this, should I not say that. I was making myself anxious and nervous about any little social thing.

James stated that he “struggles with meeting people” and talked about how it is difficult to make friendships and take social risks. I noted James difficulty maintaining eye contact and dialogue during our interview in my research notes:

Research Notes from James 1 Interview:

I noticed that James seemed a little uncomfortable with me so I spent some time developing a rapport and that seemed to help. He shows some difficulty with eye contact, not surprising given his diagnosis of Autism Spectrum Disorder. He talked about how he has trouble meeting people and he does seem shy. He told me that he has not really made any new friends in college but he does have some plans in place to meet people.

Rebecca also stated that she “struggles with social skills”, she said she didn’t have very many friends in high school, “I mostly left other kids alone and most of the other kids left me alone.” Both James and Rebecca listed a desire to improve their social skills on their pre-interview questionnaires regarding their personal goals, showing that they were aware of their

struggles in this particular area. Overall, organizational and social skills make up a large amount of the life skills necessary to function in society. Interestingly, although the participants discussed their difficulties in these areas, they all stated that they were working to improve and often implemented strategies to increase their competency, such as Lisa's idea of "using a calendar" to help her meet deadlines and not miss anything important; James' desire to "join groups to meet people" to help him improve his social skills; and Rebecca's struggles to, "try to keep consistent in study habits." It is suggested that these participants were able to recognize their difficulties and tried to process and create strategies to overcome them.

*Twice exceptional learners in this study describe their struggle with lack of focus as a weakness.*

The participants overwhelmingly described their difficulties maintaining focus on school work and academic pursuits and being easily distracted. In Lisa's pre-interview survey she wrote about her struggle with focusing:

I am diagnosed with ADHD. I have difficulty focusing on tasks, I am so easily distracted, have avoidance tendencies and I get frustrated when tasks are difficult...I try to avoid places that are noisy or particularly distracting when I need to focus on something but it's not uncommon for me to stare off, day dreaming or in deep thought.

I followed up on these comments during our interview and Lisa laughed as she said, "I definitely struggle with distractions. I get so distracted. I know I need to focus but it's like, oh look a puppy!"

Rebecca stated, "daydreaming is definitely a problem for me...I miss things and don't pay attention to my surroundings. But if I try to focus on too many things, I end up dragging everything else down." James had similar difficulties and said, "I don't focus a lot. I know I focus better in the morning but sometimes I can't focus all day." Lack of focus was a prevalent struggle for all the participants and was evident in the interviews themselves as the researcher

frequently had to guide the participant back to the topic at hand. I observed from Sarah's first interview, "She is easily distracted and tended to look at anything moving. She got distracted by the audio recorder and my phone alarm went off once and it definitely made her lose focus."

James and Lisa participated in interviews at the local coffee shop and my research notes capture the occasional lack of focus during the interviews:

Research Note from Lisa 1 Interview:

Lisa was very open during her interview and seemed to have no problem telling me about her life and experiences. She came across as really positive and had an optimistic outlook but seemed to get distracted pretty easily. She has ADHD so this is not entirely surprising so I think I will suggest our next interview take place at a quieter location. We met around 1pm so the coffee shop had lots of students grabbing lunches so it was loud at times and Lisa sometimes would trail off and ask what we were talking about. I am guessing some of this may be from the distractions.

Research Note from James 1 Interview:

I think the coffee shop was a bad choice for an interview spot. James seemed distracted at times and would lose focus when speaking about his experiences. At one point, the espresso machine started making a loud noise and it seemed to really throw him off balance and he kept looking over at it. I offered to move the interview to the CSD office but he said he was fine with the current setting. The coffee shop was pretty quiet by the middle to end of the interview so I don't think it was a huge issue but his behavior definitely demonstrated some attention issues. He seemed pretty comfortable by the end of the interview and was making jokes.

***Twice exceptional learners in this study describe their struggle with reading and writing as a weakness.***

Each participant stated that they struggled with, and did not enjoy the subject areas of reading or writing. Rebecca stated, "I am not a fan of reading or writing...they are hard for me. I am not a fan." Lisa also echoed these sentiments and stated, "I am really not good at keeping up with reading, I am so slow so I get super anxious about it and if I have to read 5,000 pages in 4 days I just know it's not going to happen."

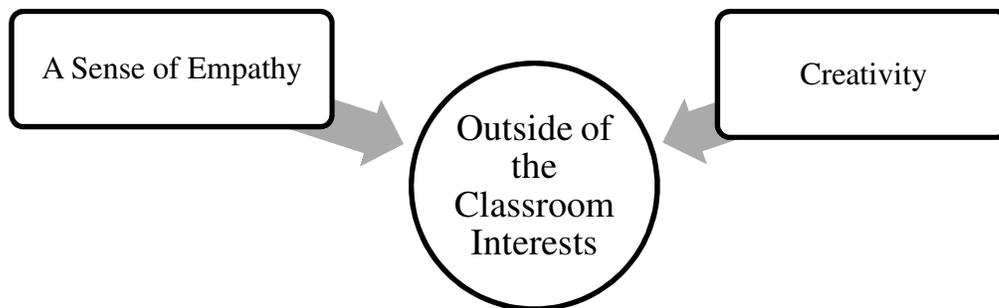
When I asked James about struggles he encounters, he responded, "My biggest weaknesses is anything with a lot of reading, like English classes. It is my least favorite class. I

don't like reading or writing...I definitely struggled in high school with all the required English...I coped with it by getting some help from the teacher and going over what I read but even then it was hard." Sarah also struggled with aspects of reading and writing, in her pre-interview survey she wrote, "I have always had difficulty getting my words on paper for writing assignments in school, and my spelling can get rather interesting at times."

### **Outside of the classroom interests.**

The learners perceive that they have strengths outside the classroom such as creativity and a sense of empathy that provide them with a source of pride and achievement. Figure 4.3 depicts the data categories that contributed to this finding; non-academic strengths of empathy and creativity helped form the idea of outside of the classroom interests.

Figure 4.3 *Finding Three: Outside of the Classroom Interests*



### ***Twice exceptional learners in this study describe a sense of empathy as a strength.***

A finding that emerged from the data was the common thread of empathy. All of the participants described experiences where they found value in helping others, particularly those with special needs. In James' pre-interview survey, he noted that, "I consider myself to be a nice person. I will help anyone who needs it." I followed up on this comment in the interview and he

replied, “yeah, some people have been not helpful to me and that doesn’t feel good so I try to help when I can.”

When I asked Rebecca about her strengths she stated, “I am nice. I mean, I am totally biased, but yeah, I try to help people and be nice to everyone.” Sarah described her experiences volunteering in a special needs classroom:

I love working with kids with disabilities, especially kids with autism. I volunteered at a school for kids with severe special needs and so there are a few of us, like volunteering in a classroom, and there’s one kid who had autism, classic autism, and he was just kind of having a rough day. The teachers couldn’t quite figure it out, and as I was going over the day in my head I realized that first of all, there are four strange people in the room and then they moved a table from one end of the room to the other and sat him at that table. So those things were very obvious to me as changes that would make it really hard for someone with autism but they weren’t obvious to the teacher.

In Sarah’s story, she showed her insight into the feelings and needs of others, especially those with autism. She related another experience from when she was working at an arts camp for students with special needs:

I noticed that this girl with autism would stiffen when she had her costume fitting and I do that sometimes with clothing, like I just stiffen because it bothers me so much and I can’t move. I noticed that she was trying to explain that she really didn’t like the dress but the director thought it was just she didn’t like the look of it. But then I was able to explain to the director why she didn’t like it and that she would need a different costume so I love being able to help people out like that.

In both stories, Sarah had empathy for those around her and was able to relate based on her own experiences, later in the interview she added, “I guess it’s weird, seeing things and other people and like looking for it and being able to help them and wanting to help them all the time. I guess I am really good at that.” Lisa also described valuing empathy and stated, “I just like to understand why people act the way they do and where they’re coming from. I feel like today there’s a lot of hustle and bustle and people don’t take the time to really get to know people.” When asked about what aspects she values, Lisa answered, “empathy for sure, it is such an

important trait and I try to be as empathetic as I can.” She displayed her empathy and desire to help others in her pre-interview survey response inquiring about her personal goals:

Right now I am working in a supported living home for an older woman with an Intellectual Disorder, Cerebral Palsy, and Epilepsy and I want to continue to do things like that after I graduate. Helping others is something really important to me. I eventually want to work with children who have communicative deficits and those who come from multicultural and low socio-economic status backgrounds.

During the interview Lisa described working with special needs populations and stated:

So I then started working at an elementary school working in our autistic program and our behavioral program and I enjoyed that a lot, it has helped me develop patience...I have been told I am a particularly patient person and I try to empathize with people, like say someone acts pretty rude I say oh, well, maybe something is going on.

***Twice exceptional learners in this study describe creativity as a strength.***

The participants identified creativity as a personal strength and area of interest and they all had at least one creative outlet, and many of them discussed multiple creative pursuits. James was fairly reserved during much of the interview; however he seemed proud and became animated, straightened his posture and smiled broadly when talking about his experiences in acting and musical theatre:

I like acting. I was part of a theatre group outside of high school that was all musicals. I was in *Wicked* and had a big part. I like singing and acting a lot. I am thinking about joining an improvisation group but I am not sure.

When I asked him how his creative accomplishments made him feel, he said, “they make me feel proud of myself. I would definitely describe it as something that makes me feel successful. It is kind of an outlet you know? I think I said this earlier but I get stressed sometimes and acting is not stressful and is fun.”

Lisa also described herself as creative and stated:

I feel like I am pretty creative, I like to do lots of different things, like projects. Over the summer I was taking singing lessons, the summer before that I was taking jazz and ballet.

Sometimes I will go through times where I just want to paint all the time or I just want to cook all the time.

Lisa mentioned her creativity in her pre-interview survey as well and wrote, “I have been described by others as particularly curious and creative. I would probably agree with that and would say it’s an area that I am strong in.” Sarah also discussed her creative pursuits and she said she excels in frequent art projects and advanced sewing, and said:

I am very creative. I have made my own sewing patterns and I have taught myself advanced techniques. I make my own projects...I really enjoy my art classes, one time, I worked on a project all year and I exhibited at a fair and got best in show.

The subject of creativity came up when I was interviewing Rebecca when she said:

I remember my dad was reading this book that was about how people with autism were more likely to be intelligent and more likely be creative in their field, but I am not 100% sure it’s true because pretty much anyone can write a book. I do think I am creative in some ways though. I’m apparently creative with computers. I think of these things that aren’t so obvious and other people have described them as elegant or eloquent, one of those. So I guess I am really creative in that way.

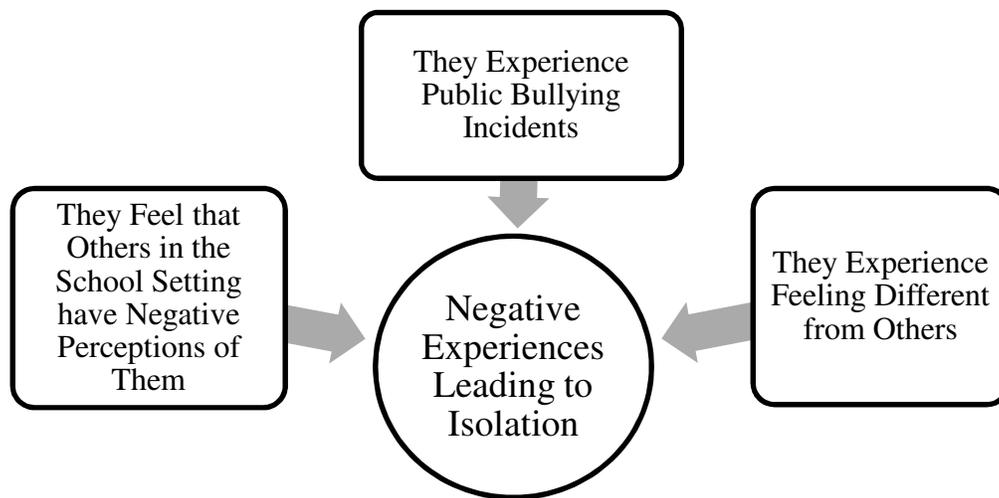
## **Findings Related to Research Question Two**

*What are the experiences of this population regarding the effects of labeling and their treatment by others and others’ perceptions of them?*

### **Negative experiences lead to isolation.**

Twice exceptional learners in this study endure negative experiences and perceptions in the school setting partially due to their label of having a learning difference and these traumas contributed to these individuals feeling different from others and socially isolated. Figure 4.4 represents the contributing data categories that helped develop this finding; these learners feel different from others and experience bullying, and feel that others have negative perceptions of them, these negative experiences and perceptions lead to their continued social isolation.

Figure 4.4 *Finding Four: Negative Experiences Leading to Isolation*



*Twice exceptional learners in this study feel that others in the school setting have negative perceptions of them.*

Although all of the participants were able to recall one or more positive interactions with empathic and compassionate people in the school setting, the bulk of the described experiences were negative interactions and experiences. The participants felt that they were seen as Sarah stated, “getting an unfair advantage”, with their diagnosis by receiving accommodations and others often did not have confidence in their abilities. In her pre-interview survey, Sarah described facing difficulties receiving her accommodations and how, “during the first two years of high school, one of the staff members at the school acted on her idea that I was trying to get away with things, and that someone needed to stop me in regards to accommodations.” I followed up on this during the interview and she stated:

This staff member wouldn’t let me go meet with another teacher to review for an exam during study hall although I had permission. So I had to take the test without a review. I don’t know why she would do that. She seemed to think I was getting an advantage and it wasn’t fair. She was always doing things like that.

It was also shown in the data that the participants sometimes were grouped together with the students with severe behavioral problems. Rebecca described the setting of receiving her extended time accommodation in high school:

The teachers had all the behavior problem kids, as well as the kids that need to focus in the same room. That was not good. It became difficult to concentrate because they were loud and would act up. I think it was more for kids that needed help with the actual work instead of just needing time to focus on stuff.

Lisa had a similar experience where she felt like she was grouped with learners, who needed extra assistance, not just accommodations:

So the 504 study hall was half like I could do whatever I wanted and then half was teaching study skills and guided, but there were four or five students in my class and they were way, way below average. So I didn't get much out of it, definitely not as much as I could have if I was with other higher functioning students. I didn't feel like I was pushed at all

In both Lisa and Rebecca's experiences, they were not getting the full advantage of their accommodations because they were grouped with students who were seen as "problem students." Partially in Rebecca's case, this grouping had a probable negative effect on her academic performance, whereas Lisa felt she was not pushed and did not get the full advantage out of her accommodations.

The participants identified multiple experiences where they felt that others in the school setting saw them as taking advantage of their diagnosis. James described that, "sometimes I would ask a teacher for help and they would look at me like I am already getting too much help and tell me that I should do some of this by myself." Lisa described similar experiences and said:

There were two teachers I can think of in high school who gave me services but it almost seemed begrudgingly. They would look at me funny like I was getting an advantage over the kids or like, is she cheating by going in there? One time, this girl in my class knew that every time there was an exam I left, and other people would get angry about it. She talked to my teacher and then my teacher was questioning me about cheating so that was really frustrating.

The participants reported feeling that others in the school setting did not have confidence in their abilities. Rebecca recalled feeling like her high school counselor did not have faith in her abilities when the counselor tried to steer her away from applying to larger colleges, “The counselor thought I would never make it in a large school for college but the thing is, I like large schools. There is so much more that they can offer and more stuff for you.”

James also expressed his annoyance when others lacked confidence in him and stated, “sometimes teachers think I can’t do things and it’s really frustrating. If I feel like I can do it, I will still try to do it.” Lisa also felt that others had skewed opinions of her and described:

The school staff just didn’t expect me to go to college...she later told me when she first had me on the team she thought I was going to be pregnant by the time I was 16 and that I would drop out of school...I wasn’t exceptional on paper but I wanted to show them that I had come from somewhat a student that was performing low and failing to someone who turned it around and worked really hard. It wasn’t easy, I think a lot of the teachers in my school had me pegged as a kind of bad kid.

***Twice exceptional learners in this study experience public bullying incidents.***

Perhaps the most alarming finding was that many of the participants were able to recall bullying incidents. The marked cruelty of these experiences is the fact that they most often occurred in public with little to no intervention from staff. When I asked James if he felt he had ever been bullied he first said, “no, not really” and then seemed deep in thought and continued, “it was never big things or anything physical, just little stuff like knowing that people are talking about you, people laughing when I said things that were not meant to be funny.” Rebecca also experienced more subtle, social shunning bullying incidents, she stated:

I didn’t think of it as bullying at the time but looking back, yeah, I was bullied some, nothing that was a big deal, mainly just everyone would ignore me even when I said hi or tried to make small talk. I guess they thought I was strange.

Lisa and Sarah experienced more overt bullying in their school settings. Lisa shook her head and seemed disgusted as she described her teacher telling her mother that she should be

tested for learning differences in 3<sup>rd</sup> grade and her feelings of shame as she was bullied by her teacher:

I guess it's pretty common for people with learning disabilities to just cram stuff in their desks, to be very disorganized. I guess it was kind of like, out of sight, out of mind for me so I would just shove stuff in my desk. My desk was ridiculous; you couldn't fit anything in there. I remember being really embarrassed and the teacher had my mom come in for a meeting so that she could talk to her about it. She wanted me to be tested and she dumped my desk over in front of me and I was mortified. One, because I just wanted to please people. I don't know, I didn't keep my desk clean and now it's all over the floor and now my mom sees all of the papers that I don't finish. I don't think I should have been there for that. I definitely don't think I should have been there for that conversation.

Sarah experienced multiple episodes of bullying from her peers and staff at her high school.

During the interview she had described how she didn't fit in with her peers and others seemed to see her as "weird", which was evident in her many of her stories:

One time in class, these girls were being really mean to me, muttering things under their breath to each other. One of the girls was across the room and noticed me and said "do you have something to say" and I said "oh yes" and just got mad. I remember one thing she said, "well at least I don't answer all those stupid questions in history class" I would answer questions. I didn't really understand why that was a bad thing. I would raise my hand whenever I knew the answer and that did not go over well. Actually, one teacher told me in the middle of class, "stop raising your hand." Like, in front of everyone and that was really embarrassing. She could have taken me aside after class but she said it in the middle of class... One time one of the juniors walked by and said "whoa you're bringing home a lot of books" and I went "yeah" and one girl said "yeah because Sarah's a freaking smartass.

Sarah described being brought to tears from the bullying and very little being done about it from any school staff:

We were talking about how a bill becomes a law and the teacher said, "Okay, what is something we can outlaw?" One girl said "goats." I had goats, and like I would talk about them in biology because we were studying animals and maybe I'd bring them up other times or whatever. But I really like my goats, and I mean I brought in goat kids every spring to school and everyone loved that. I still remember them saying like, "Goats are stinky and smelly and people who own them are stinky and smelly." I started crying in class and no one did anything, not even the teacher. It was just really hurtful.

Sarah elaborated and said:

I have so many stories, it is crazy but it was a lot of little things like one time the only seats left in class were at table I was sitting at alone and because those were the only seats left these girls made a huge deal about having to sit down with me. It was so ridiculous... Like I get dizzy and nauseous if I change seats in a classroom and I guess they knew that because a couple of class periods later one girl went and sat in my seat and wouldn't move and so I had to sit where she would normally sit and it was just hard. The next day she did it again.

***Twice exceptional learners in this study experience feeling different from others.***

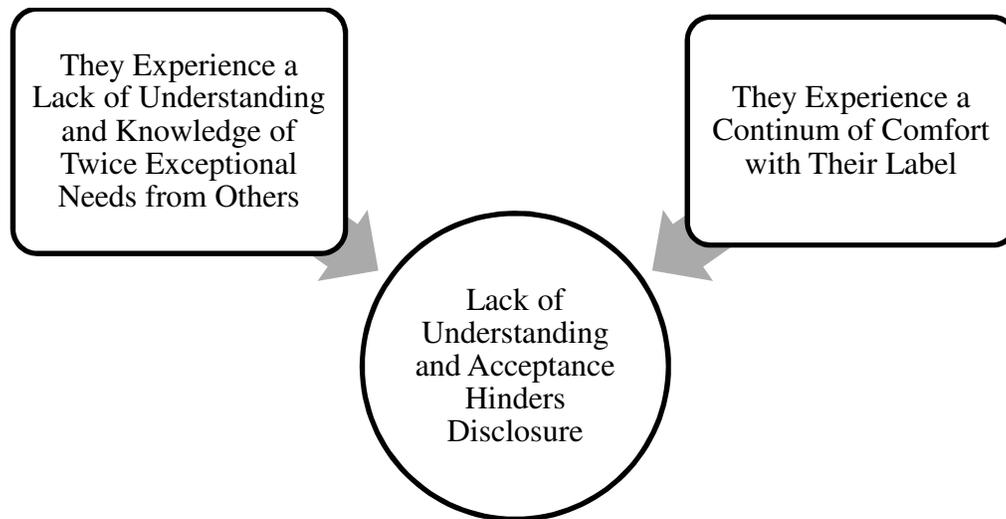
The data showed that all of the participants experienced feeling different from others, particularly their peer group. They tended to not only feel different but also be socially isolated and have difficulty relating to their age mates. Rebecca said that, "I have a feeling I just think differently than other people...I just feel like I am different." Lisa echoed these thoughts and stated, "I felt different from other kids. I think I ostracized myself because I knew that I'm different." Sarah expressed that, "I was trying to fit in but I didn't know how. I just couldn't fit in the way I was, their interests were so different and just their lifestyles were different."

When asked if the participants were given any help about social skills or if anyone tried to help them create social networks, none of the participants could recall anyone intervening in such a manner. I asked Sarah if she talked to anyone about the bullying she experienced or if she received help from any school staff and she said, "Not at all. I got the feeling that they all thought it was my fault and that I wasn't trying to fit in. They knew my diagnosis and come on, everyone knows that Autism people have trouble socially but I never got any help. I really wanted to make friends but it's hard...during high school I was bullied by other students mostly because I was smart and different." James had similar experiences and stated, "I was pretty much left alone. What I said sometimes went over the heads of other people. It guess it happens a lot and then people would kind of tease me about it. My brain just jumps ahead."

**Lack of understanding and acceptance of twice exceptional needs hinders disclosure.**

Twice exceptional learners experience a lack of understanding and knowledge from others regarding their social and educational needs and they experience a continuum of comfort disclosing their label to those around them and this lack of understanding and fear of acceptance hinders disclosure of their status as having learning differences. The following Figure 4.5 depicts the data that contributed to the formation of the idea that lack of knowledge and acceptance hinders disclosure of learning differences.

Figure 4.5 *Finding Five: Lack of Understanding and Acceptance of Twice Exceptional Needs Hinders Disclosure*



***Twice exceptional learners experience a continuum of comfort with their label.***

All of the participants expressed some discomfort with the idea of disclosing their learning difference diagnosis. The level of comfort tended to be related to their prior experiences with others knowing about their diagnosis and the resulting treatment. Rebecca was the most forthcoming about her diagnosis and also had predominately positive experiences during her

academic career. She stated, “I am not concerned about people knowing I have a learning difference but it’s not like I go up to people and say, “Hi, I have autism.”

James, Lisa, and Sarah were much more hesitant to disclose their diagnosis, particularly to their peer group. James acknowledged that he had no trouble telling his professors but was more concerned about his friends knowing:

Sometimes I don’t feel comfortable and I don’t want people to know. In college I haven’t shared it with anyone but my professors and I don’t want to because they’ll think differently about me. I definitely wouldn’t want my friends to know.

Sarah experienced multiple episodes of bullying and lack of understanding during her academic career and was understandably concerned when telling people her diagnosis. She stated:

I am really nervous about what people will assume about me, you know, just right away, there are these stereotypical misunderstandings and just kind of a stigma with it and I am really afraid of what would happen...I guess the only times that I haven’t wanted people to know that I have learning disabilities is when I’m either afraid of misunderstandings or that they are going to make fun of me about it.

However, Sarah discussed her growing confidence with disclosure and that as she is getting older; she is learning to “explain it” better. During the interview, she smiled wryly and stated, “I kind of think that if people don’t talk about their diagnosis then how are all the misunderstandings going to be cleared up?”

Lisa pointed out that disclosure can often mean judgment and was somewhat hesitant to tell others about her diagnosis. When asked about if she was concerned about others knowing she had a learning difference, Lisa replied:

I guess it depends on how well they know me. If it’s someone who’s known me for a long time it is usually no big deal. But if I haven’t known someone for a while sometimes I get a weird vibe from them. I feel like there’s definitely this stigma with ADHD.

Overall, the participants appeared somewhat comfortable explaining their learning differences to professors, but peer groups were more challenging. The participants expressed concerns about

others feeling or looking at them differently and the resulting misunderstandings. James, Lisa and Sarah specifically stated that there is sometimes a “stigma” about learning differences, and all of the participants described settings, particularly with peer groups, when they felt nervous about what people presume about them simply because of their diagnosis.

***Twice exceptional learners in this study experience a lack of understanding and knowledge of twice exceptional needs from others.***

All of the participants described encountering misinformation and lack of understanding regarding their needs as a twice exceptional learner. Additionally, all of the participants described others being somewhat perplexed by the idea that someone who is smart can have difficulties in other areas. Overall, all of the participants felt that others did not have a good working knowledge of the needs of students with learning differences, especially those who are gifted. The participants focused on the lack of knowledge from teachers and counselors and emphasized that they felt their needs were not being met.

Rebecca stated, “they were so confused like how someone can be smart but also struggle with things.” Rebecca also felt that, “they were really not up to date on knowledge about my diagnosis.” Lisa had similar feelings and said:

There is this idea that someone with ADHD is dumb or some people look at me like I’m a hypochondriac trying to label myself or give myself excuses because they don’t believe ADHD is real. I have seriously had a lot of people tell me they don’t think it’s real...there is just not a lot of education on what ADHD is. Even I couldn’t really give a definition of what it is and I experience it.

James and Sarah shared similar experiences and both recalled feeling that they were seen as “very smart” and that others were confused by the need for accommodations relating to their learning difference. Sarah said:

The teachers saw me as a really smart student and couldn’t quite figure out what was going on and why I would need accommodations. It was just confusing to others, like

how I can understand the material pretty quickly but producing it is really difficult...I feel like understanding my needs and understanding that I'm different that only a couple of teachers were really good.

James echoed this sentiment and said, "People were confused that I was smart but couldn't do some things." Sarah described others trying to understand learning differences, but not truly being informed, she described one of her teachers, "there is just a lack of understanding that really smart students can also have disabilities...a teacher went on for a whole class about how people with disabilities can bring out the good in other people and that was very offensive to me because it's like okay, so my only value is that I can suffer and bring out the good in others?" When I asked Sarah if she thought anyone in her school had a good knowledge of learning differences, she stated, "no, not at all. They didn't get how my diagnosis worked whatsoever."

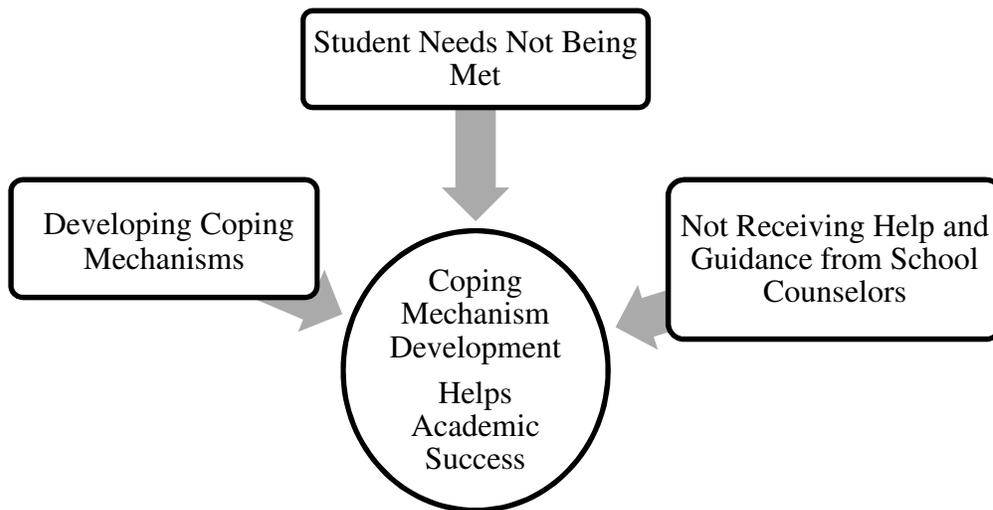
### **Findings Related to Research Question Three**

*With regard to this population, what do participants describe as helping or hindering their success in an academic environment?*

#### **Coping mechanism development helps academic success.**

When social and learning needs are not met and twice exceptional learners do not receive help from their school counselors, academic success is hindered, yet when students are able to develop coping strategies for their social and academic difficulties, academic success is helped. The following figure 4.6 represents the contributing data categories that helped expand the idea that coping mechanism development helps academic success.

Figure 4.6 *Finding Six: Coping Mechanism Development*



***Developing coping mechanisms helps academic success.***

All of the participants in this study felt that they struggled to overcome their diagnosis and they continue to work on strategies to help their learning and academic success. It became apparent that developing coping mechanisms to compensate for their learning differences was key to their success. When asked what has helped him become a better student, James replied, “I guess I developed some new study skills, like looking over my notes and practicing.” Rebecca talked about her struggles to keep organized during the interview and said, “I am really trying to keep my papers where they go. I know that I will miss things if I don’t keep organized.”

Throughout her interview, Lisa talked about her struggles to stay organized and to keep focused and attributed some of her difficulties to her ADHD. She implemented strategies to help her succeed in her academics and stated:

I really try to keep organized so I have started to keep a calendar, a really detailed agenda that I color code. All of my exams are in bright yellow, my papers are in pink, then my homework I’ll write in red pen or I have lines underneath it...I keep track of my grades so I know how I am performing and what I need to focus on more. Sometimes it is stressful to look at my planner because there is so much coming up! But it is really

helpful because the last thing I need is to get down to finals and be like “oh my gosh, am I am forgetting something? am I forgetting an assignment?” and if I forget something, then it’s a zero and it’s really hard to recover from that.

Sarah also used coping mechanisms to compensate for her difficulties, “I struggle with reading and writing so specific with reading I listen to stuff on tape while reader and that really helps and for writing, I used dictation to help and some graphic organizers have helped.”

Developing coping mechanisms not only applied to the implementation of study skills but also into overcoming some of their difficulties from their diagnosis.

***Student needs not being met hinders academic success.***

When asked what factors contributed to hindering academic success, participants overwhelmingly answered their learning needs not being met. The main issues that were seen in the data were accommodations not being used or not being used consistently, and school staff not knowing how to help or best address learning differences. James and Rebecca both reported that they received their accommodations, “most of the time.” Rebecca added that when she was not receiving her accommodations she, “had no idea what was going on,” and that her school, “didn’t understand what was going on and what I needed.”

Lisa discussed her occasional difficulty receiving accommodations at the post-secondary level:

I started to get really frustrated in one of my classes. I don’t think he was trying to deny me my accommodations but we had online quizzes and the software wouldn’t let me have extra time. I talked to the professor about it multiple times but he wouldn’t do anything about it.

As addressed previously, many of the participants felt that when they did receive accommodations it was begrudgingly. Sarah had particular difficulty receiving accommodations and said:

In high school I had problems with the school giving me what I needed. They couldn't provide any stability for me. Sometimes I got extra time on exams, and sometimes I didn't. There was no predictability at all. Also, some of my accommodations were never implemented, basically the only thing that stuck was extended time and even that wasn't guaranteed. There was one time when I was taking my AP test and they switched proctors in the middle of the test. I was suppose to have unlimited time but the new proctor decided it should be time and a half for some reason and she told me halfway through the exam. I freaked out and knew I failed the test.

The participants also identified a core issue for twice exceptional students, the fact that only one side of their exceptionalities was being addressed. Sarah summed it up nicely, "It's kind of a weird thing because there isn't really anything for gifted and disabled. There's gifted, there's regular, and then there is disabled. There is nothing for you when you are both."

***Not receiving help and guidance from school counselors hinders academic success.***

When asked about people or events that played a large role in hindering their academic success one of the most common answers was school counselors. All of the participants stated that they found their school counselors to be unhelpful. Rebecca stated that, "guidance counselors tended to not be helpful. They didn't get anything. They were nice and all and they tried to help but they made bad suggestions that didn't work."

James had similar experiences and said that he felt "judged by my school counselor" and "I didn't feel like the guidance counselors could help me. I didn't feel like I could ask them for help if I needed it...whenever I met with the school counselor it was just to select classes. They never talked about me, my diagnosis, or anything that could help me."

Lisa seemed angry and rolled her eyes when she talked about her school counselor and said that:

We had a school counselor but she mainly just worked with the students who came from difficult backgrounds. They were just not very helpful. I had questions about how to make sure I could get into college, about what I needed to do, and they didn't answer any

of those things. They didn't even tell me my GPA mattered. I never got any information about how to prepare or how to go to college.

Later in the interview when we were talking about factors that helped her succeed, she added that if she had, "left things up to my school counselor and teachers, I would never made it into college. I am just lucky that I tried to figure some of these things out."

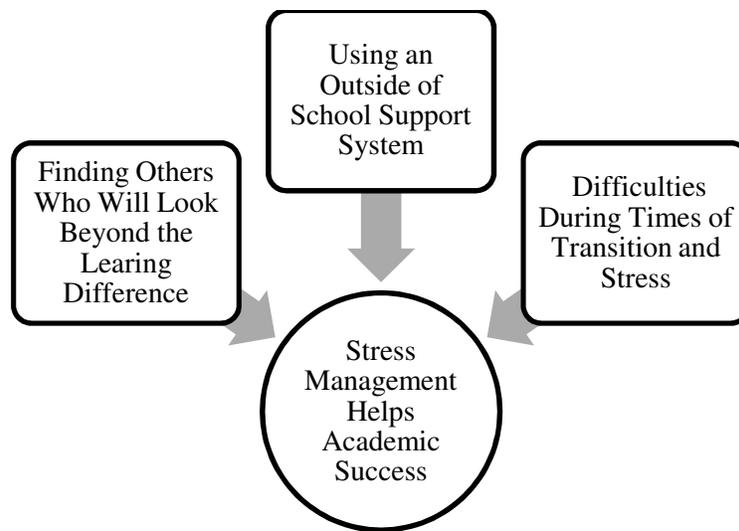
Sarah seemed sad and became tense when she spoke about her school counselor, she said, "we had a counselor at my school but meeting with her was pointless. You try to talk to her and you just go in circles. I went to talk to her about the bullying and she was really dismissive and basically said I wasn't trying hard enough to fit in."

Out of the participants, Rebecca was the only learner who met with her school counselor to discuss her learning difference and educational needs. Rebecca reported that the school counselor made suggestions, but when I asked about follow up meetings to discuss if the interventions were successful, Rebecca said that there never were additional meetings or any follow up and seemed surprised by the question and asked if follow ups were typical. I told her that, "part of a school counselors' role is making suggestions, like yours did for you, but it sounds like she never met with you again to check if the interventions were helpful. Usually, a school counselor will make suggestions then follow up to see if you found them helpful. If you didn't think they were helpful then more suggestions are made." Rebecca replied, "Yeah, that would have been really helpful. I did try her suggestions but they didn't work and it was kind of like she forgot about me." Lisa shared the sentiment of feeling forgotten about and said, "in my school you only saw the school counselor if you were really bad, like acting up in class, skipping school, or just misbehaving a lot or if you were from a bad background. I did okay in school and kept my head down so no, I never really saw her."

**Stress management helps academic success.**

Difficulties during times of transition and stress are triggers for academic struggles in twice exceptional students, but the use of an outside of school support system and finding others that will look beyond the learning difference can help manage the stress and its associated difficulties. The figure 4.7 below depicts that data that helped develop the idea that stress management helps academic success.

Figure 4.7 *Finding Seven: Stress Management*



***Finding people who will look beyond the learning difference helps academic success.***

As previously discussed, all of the participants were able to recall experiences where they felt that those around them in the school setting perceived them negatively. At times, these negative perceptions even led to public bullying. However, when asked about factors that helped their academic success, all of the participants were able to recall at least one person in the school setting who looked beyond their learning difference and displayed understanding and compassion. James described, “teachers that went over things with me were more helpful than

others. I like it when they go over the work that we did because I know some classes just go automatically to the next topic and I'm still confused on the last topic.”

Sarah described feeling understood and accepted by her science teacher and said:

A couple of my teachers were really good, especially my science teacher. She really understood my disability and knew that moving around where I sit in a room is really difficult; I get dizzy and nauseous. So she very good about making sure I always had the same seat. One day, we were picking out new seats and you had to pick a number out of a grab bag and then sit wherever that seat was. So beforehand she gave me the piece of paper that had the number of where I sit and so I could pretend, have it in my hand, and pretend to take it out of the bag. That was really good, I didn't feel singled out which would happen a lot in other classes.

Sarah also described feeling accepted by her art teacher and said:

My art teacher would bring out everyone's unique style. You could go to the art room and just talk, she was just so straightforward and just really good to talk to about anything. She was the type of person who would never say no to helping anyone.

Lisa stated that she “liked it when teachers are really involved” and shared a story about a teacher who knew that she was diagnosed with ADHD and was willing to look beyond the diagnosis and allow some degree of flexibility with the rules:

So in my school we were not allowed to have drinks or food in class, it was a whole distract thing. One teacher knew that I had trouble focusing when I was hungry or thirsty so she let me have a small snack in class, like pretzels or something. I wouldn't fidget with it but it helped me focus. I guess it was nice that instead of being completely rigid, she was a little flexible.

Lisa added that, “I think the better teachers were the ones who made you feel like they really cared about you personally.”

Rebecca described feeling frustrated when she could not take the test required to get into an advanced level math class fast enough and said:

It was so great. There was this one math teacher in middle school who showed me the things that the algebra kids were doing. I mean, I could do the work but I couldn't take the test fast enough so she showed me some of the work they were doing and explained it

to me...I have also had professors that know I kind of stink at reading so they take extra time and go over the material with me and try to explain it. Stuff like that is really helpful.

Rebecca also added, “I had a hard time getting through the English classes in high school and my teacher wound up explaining things and offered support for things. They actually explained what was going on in the book and helped me understand.”

*The use of an outside of school support system helps academic success.*

Overwhelmingly, the participants all reported that family, close friends, and significant others were a significant factor in their academic success. Outside of school support systems proved to be the most common response when participants were asked about factors that helped their academic success. The data showed that the outside of school support systems not only provided emotional support, but also parents campaigned to ensure that learning needs were met and worked with the schools to enact 504 plans. The data also showed that family and friends provided some degree of academic support, and are seen as a resource for life skill questions.

Many participants reported that their parents were advocates and played a role in their 504 or Individualized Education Program (IEP), and tried to make sure that accommodations were in place. The participants also reported that their outside of school support system provided emotional and academic support. Rebecca described her family as a “huge support for me, my mom and my dad and my siblings they all help” and said, “My family helps me so much. They’re another resource for me if I am confused about something and I wind up talking to them. They can help explain things. Basically, they reduce my weaknesses and capitalize my strengths.”

James identified his family as being helpful for him and playing a large role in his academic and personal success. He said:

Family helps me succeed. Last night I spent two hours on the phone with my mom working on my essay and if I need help I can call my family. My parents help me with my schoolwork and if I am really stressed they help calm me down.

When I asked James what individuals in his life stand out as helping him succeed, he answered, “My parents, they help me with my schoolwork and help me calm down if I am really stressed.”

Lisa recalled how her mother “fought for [her] 504 in school” and for her extra time on the SAT, and said that all of her family is very helpful and supportive. She stated, “my mom would make sure that my homework was done, so my mom helped me out a lot. She really fought for me in high school but pretty much all of my family tries to be supportive.” She also identified her significant other and friends as being helpful to her success:

This sounds cliché, but my boyfriend really helped me a lot. He is extraordinarily bright, like gifted bright. He helped me realize that if I want to get good grades in class, I have to go to class and not just do most of the assignments but all of the assignments. I started doing that and got straight A’s. I also have a close friend and we study together, which helps and she helps me stay on task. She will be like, “turn off your music and focus.” It is really nice to have people who are concerned and really understand that I have a hard time with this sort of thing.

Sarah identified her family as a big support and recalled her academic abilities being developed even as a child:

I think I also have a very wonderful, supportive, loving family, close knit, just amazing. Just all the encouragement from my family and like whenever you had trouble with a subject, there’s someone in the family who knew about the topic...I remember my dad teaching us vocab words and stuff. I learned prevaricator, prevaricator pants on fire instead of liar, liar pants on fire.

Sarah also identified family friends and friends as a support and said:

A person who has really helped me is my mom’s best friend who I went to for tutoring. She is a special ed teacher and explained a lot of things to me. She actually got me interested in special ed and psychology and just watching her everyday and learning so much about how to interact with everyone was a big help...some of my friends have been wonderful, giving me support, just listening.

*Difficulties during times of transition and stress hinders academic success.*

Times of transition and times of stress were named as main hindrances to academic success. James struggled with stress and said that, “when I’m really stressed my grades really drop. I sometimes freak out when I am stressed. I can’t do anything when I feel like that and I get stressed kind of easily.” When I asked about what kinds of things stress him out, James replied, “If I can’t figure out how to do the homework or have a test and I don’t know how to study for it. Mainly academic stuff.” During the interview I noted that James potentially experienced stress or anxiety stemming from the interview questions:

Research Note James 1 Interview:

At one point in the interview there were a couple of questions that James wasn’t sure how to answer, mainly about things and events that played a large role in his academic success, and he seemed bothered by the fact that he did not know how to answer. He said, “that’s a really difficult question.” I tried to diffuse the tension by telling him to take his time and there was no hurry but he seemed to get more anxious so I backed off and said “let me know if you think of something later” and moved on. I thought about asking him if he was feeling stressed by the questions but thought that would put him on the spot so I asked him if he wanted to save the rest of the interview for later and he said no so we continued on. I could see why stress is a trigger for him though, he physically became tense and started fidgeting and seemed somewhat mildly panicked.

Lisa described how her grades suffered and she felt overwhelmed after a family move:

I just failed everything. I don’t know if it was the moving from one school system to the other but it was a lot of transitions at once. My sister was just born, my last year of junior high was awful. I just didn’t realize the different academic expectations there were of me and I was just concerned about adjusting to the new.

The participants also identified the process to receive accommodations as a source of significant stress for them. Lisa was passionate as she related her struggles:

Everyone at CSD (Center for Students with Disabilities) is great but I think it’s frustrating and stressful that at the beginning of each semester I have to get all my letters of accommodation and I have to send all the emails, make an extra trip out and everything, and all the buildings are really far apart, then I have to make sure I give them my letters and then I have to tell them if I actually want the extra time for the upcoming exam and it has to be within a certain time frame so they can get me in at CSD. It is just stressful doing the extra work and running around. You are already stressed enough and

the process to actually get accommodations is just one added thing and exams are already difficult...I feel like it's just I already have a difficult time and then I am dealing with another obstacle in my way. It's really discouraging and I feel like I already have a problem with paying attention and I am trying to pay attention to everything else and then I have to be ten steps ahead of whoever I need to send my documentation to.

The participants identified times of stress as a hindrance to their academic success. Sarah recalled feeling that her success suffered when she was bullied and teased in her school. She stated:

The teasing definitely hindered my success, it was really difficult. I am pretty much recovered now but there were wounds from that for a very long time. You know, it didn't stop me from trying to do well but it definitely put a damper on it.

Lisa described times of stress as triggers for her grades dropping as well. She talked about how she remembered feeling like she had a lot of responsibilities and not being able to fully focus on her schoolwork as a hindrance to her success:

I was the oldest of three and I was stuck with a lot of the responsibility of taking care of my siblings. My sister is a lot younger than me and my brother is four years younger but needs a lot of energy and attention. So I just was a lot less stressed once I moved out of my mom's house. It was like I had all these distractions and things pulling my attention and my grades definitely were lower, but I was able to pull them back up once I moved out.

I asked each participant if anyone had talked to them about stress management and none of the participants was able to recall anyone speaking to them about it. James stated, "Stress management? No, definitely not. I didn't know schools covered stuff like that."

In Chapter Five, the findings that arose from the data are discussed, as are the ways in which these findings relate to other research in the study of twice exceptional learners.

Implications and ideas for future research are also addressed.

## **Chapter Five**

### **Discussion, Implications, and Suggestions for Future Research**

In this chapter, the findings of this study are discussed and are related to other research regarding twice exceptional learners, the implications of the findings are summarized, and ideas for future research are suggested.

This study focused on university level twice exceptional learners, or learners who have above average academic abilities, as well as a learning difference that makes learning more challenging. This study investigated the self-perceived strengths and weaknesses of twice exceptional students, the experience of twice exceptional students regarding the effects of labeling and their treatment by others and others' perceptions of them, and finally, the self-perceived factors that helped or hindered their academic success. Given the need for research on twice exceptional learners, particularly those in the post-secondary setting, it is relevant to know what this population views as helping or hindering their success, as well as their perceptions and experiences as a learner with special needs.

It is apparent from the data collected in this dissertation that the twice exceptional students in this dissertation study have negative experiences and perceive negative attitudes from others in school. The data also showed that in spite of these negative interactions, all of the students in this study are still experiencing success in the academic setting. The next section further explores these findings and the other findings related to the research questions.

#### **Discussion of the Findings**

The following section discusses the findings that arose from the study data. The findings that were presented in Chapter Four are divided and discussed in two sections. The first section focuses on the findings that support the idea that these learners have personal struggles and

endure negative experiences and perceptions. The second section addresses the findings that support the idea that in spite of these traumas, the participants in this study have personal strengths and compensation strategies and coping mechanisms in place to help overcome these obstacles.

**Twice exceptional learners in this study have personal struggles and endure negative experiences and perceptions.**

Some of the findings of this study suggest that the twice exceptional students in this study experienced struggles and traumas, mostly in school settings, that had lasting and profound effects. These findings are significant because they pinpoint some of the risk factors that twice exceptional students may face and also support the idea that bullying is still a problem in the current school system. The participants in this study reported these negative behaviors from not only their peers, but also from staff members, particularly teachers, school counselors, and administrative staff. It has been suggested that bullying often occurs when the oppressive party does not have empathy or understanding for those they are oppressing (Farrington, 1993). The findings of this study support this idea and raise the issue of the lack of acceptance and understanding of students with special needs in schools. Although all of the participants in this study were able to recall at least one individual in the school system they felt understood and accepted their learning differences, the vast majority of the experiences were negative. All of the participants reported feeling that the majority of the staff and other students did not understand students with learning differences and did not have knowledge of learning differences or twice exceptional learners. As previously discussed, this dissertation study is a partial replication of the Reis, Neu, and McGuire (1995) study that also examined twice exceptional students and found that they are poorly treated and misunderstood. Sadly, even though this partial replication has

been completed almost twenty years after the original study, it appears that school systems are still attempting to find an answer the problem of how twice exceptional students are treated and lack of knowledge and understanding remain large hindrances.

Lack of knowledge of twice exceptional needs is an encompassing issue that also challenges the beliefs of the twice exceptional learners themselves. One of the findings of this study is that the students in this study perceive themselves as being smart and having an aptitude for certain fields, typically in STEM related fields, however due to their limitations from their learning differences, they do not perceive themselves as being gifted. They do not describe themselves as gifted possibly because all the participants had significant struggles in other subject areas, particularly reading and writing, and they view these struggles as prohibiting them from being truly gifted. Twice exceptional learners typically experience a variety of challenges that make learning difficult, and it appears that these learners believe that their challenges somehow disqualify them from being gifted. The students in this study are prime examples of the educational stereotype that gifted children are those who are smart across all domains. There is plenty of evidence to the contrary (Baum, Owen, & Dixon, 1994; Delisle, 1995; Morrison, 2001; Neu, 2003; Reis, Neu, & McGuire, 1995; Trail, 2011), and yet this damaging and marginalizing stereotype persists. This finding is significantly worrisome because twice exceptional students often must advocate for themselves to receive their learning difference accommodations and thus, they may need to advocate for themselves to receive accommodations for their giftedness. It is suggested that if these students do not believe they are gifted, very few others will believe it either.

Lack of knowledge and understanding of twice exceptional students on the part of school staff and the student body was a prominent finding in this study. All of the participants in this

study were able to recall traumas, such as mistreatment, judgment, bullying, and misunderstandings from their pasts that they felt was at least partially due to their learning differences. This study suggests that these negative perceptions and experiences contributes to twice exceptional learners feeling different from their peers and furthers their social isolation, while also inhibiting their comfort with disclosing their learning difference. These findings are particularly troubling because many twice exceptional learners report struggling in social situations and many experience depression and anxiety (Barber & Mueller, 2011; Morrison, 2001; Peterson, 2006; Reis & Colbert, 2004); additionally, students with mental health issues often experience isolation and underachievement (McEachern & Bornot, 2001; Morrison, 2001; Reis & Colbert, 2004). These findings suggest that many of the negative experiences that lead to the isolation of twice exceptional individuals occur within the school setting. It is imperative that schools prohibit bullying of all students and work to create a positive and supportive atmosphere. It is also important to educate all staff about twice exceptional learning needs and ensure that negative perceptions are ameliorated with education and training. It is a reasonable goal to aim for ensuring that all students feel accepted and understood in their learning environment, thus schools can include twice exceptional learners as examples of success, educate all students about acceptance of differences, and attempt to create a learning environment where all learning needs are served. These implications are discussed in more detail in the implication section of this chapter.

**Twice exceptional learners in this study have personal strengths and develop coping mechanisms to overcome obstacles.**

Some of the findings of this study suggest that in spite of the traumas they experience, the twice exceptional students in this study were able to develop ways to cope and overcome the

obstacles that inhibited their emotional health and academic success. These findings are significant because they suggest that these learners display some degree of resiliency and ability to cope with trauma. Trail (2011) supports these findings and suggests that the more positive social and emotional experiences the twice exceptional learner receives, the greater the resiliency and opportunities for self-actualization. It appears that learner insight into their strengths and weaknesses helps the learner develop ways to overcome obstacles and cope with stressors and traumas. This study suggests that the twice exceptional learners in this study coped with trauma in a variety of ways, including the use of outside of the classroom interests, the development of compensation strategies to address the specific difficulties associated with their learning differences, and the development of coping skills to address the challenges and stressors they faced on a regular basis; it was also found that a strong outside of school support system had a positive effect on all of these areas of managing trauma.

The twice exceptional learners in this study employed a holistic approach to their self-descriptions, and although they did discuss their academic strengths, they also discussed non-academic skills and interests, such as empathy and creativity, and many of them proposed that their experiences as twice exceptional learners inform and reflect these skills. It is suggested that these outside of the classroom strengths serve as insulating and mitigating factors for an individual's success because these strengths provide an opportunity for self reflection, relaxation, enjoyment, and feelings of success. This study supports the idea that creativity is a valid skill to foster in all students, and its benefits are multifaceted. Additionally, empathy offers a variety of applications, including the development of leadership skills, social capital, and social skills (Renzulli & D'Souza, 2012; Renzulli, Koehler, & Fogarty, 2006). These students often struggle

socially so the empathy strengths are encouraging and may serve to create more twice exceptional leaders and advocates.

This study suggests that one of the ways these learners compensate for their learning difference is by employing metacognition to create, process, and employ personalized compensation strategies to accommodate for their individual learning differences and its associated difficulties, both academically and socially. The participants in this study showed remarkable insight into their own behavior and general self-awareness that it can be assumed that their metacognitive abilities served as an aid in the creation of personalized compensation strategies throughout their academic careers. Research (Reis et al., 1995; Ridley, Schulz, Glanz, & Weinstein, 1992; Trail, 2006; Trail, 2011) supports these findings and they are significant because they suggest ways in which educators can help twice exceptional learners who are struggling, such as providing tools to assist learners in determining how they learn best, helping students process where problems are occurring and brainstorm ways to prevent or lessen the effects, and encouraging the student to think complexly about how they learn and why some strategies work better than others. It has been suggested that metacognition can help learners take charge of their own learning (Coleman, 2005), thus these findings indicate that not only can encouraging and assisting the development of metacognition skills empower twice exceptional learners, but it also can contribute to their academic success.

This study's findings also suggest that these learners attempt to overcome obstacles that are damaging to their emotional health and academic success by developing coping mechanisms. This process is positively affected by the encouragement and support of a stable outside of school support system, particularly family members. However, the learners in this study found some school staff, mostly school counselors and teachers, unhelpful and potentially harmful in

their development of coping mechanisms. These findings are significant because they suggest some ways schools and the support systems of twice exceptional learners may assist students who are experiencing underachievement or emotional distress. School based mental health professionals, such as school counselors, school psychologists, social workers, etc., are trained in this area and their guidance can be pivotal for those struggling academically and/or socially (ASCA, 2010). It is imperative that mental health professionals advocate for students not only in the classroom, but also potentially provide one-on-one counseling services to advise the student of the exact nature of their learning difference and the typical struggles associated with it. The counseling sessions will also present an opportunity to suggest coping mechanisms to the student and evaluate whether more pointed interventions are needed. Teachers also can provide valuable insight into curriculum based study strategies, learning methods, etc. Finally, a stable outside of school support system was overwhelmingly found as a positive factor in student success; families of twice exceptional students must be made aware of these findings through education, training, family counseling, or parent training so ideally, these vulnerable learners will be supported both at home and in their learning environment. These suggestions will be discussed further in the implication section of this chapter.

### **How the Findings of this Study Compare to Previous Research**

As referenced in Chapter Three, this dissertation study is a partial replication of a study done by Reis, Neu, and McGuire (1995). This section will first compare this study's findings to the findings in the Reis, Neu, and McGuire study, and then discuss how this study's findings support or challenge other previous research. It must be noted that research focusing on twice exceptional students is a small but growing body of work, therefore there are few comparisons due to the lack of research in this area.

### **Current study compared to Reis, Neu, and McGuire (1995) study.**

Reis, Neu, and McGuire's (1995) study yielded multiple findings and posited a "pathways to academic success model". Many of this study's findings align with Reis, et al. findings and lend support to the pathways to academic success model.

Reis, et al. noted the importance of twice exceptional learners developing compensation strategies to accommodate for their learning differences and this finding was supported by this dissertation study. In both studies it was found that this population typically struggles with reading/writing, verbal skills, and social skills and developing skills to overcome difficulties associated with learning differences made an impact on the probability of academic success. Reis, et al. noted that executive functions and self-awareness helps the student form these compensation strategies, whereas the current study calls these skills metacognition. The terminology is different but both studies support the idea that the student applying insight into their own learning needs and processing what works for them and what does not work for them can greatly aid the formation of compensation strategies.

Both studies also found that family support played a large role in the academic success and social-emotional support of twice exceptional learners. One emerging difference from the studies is that the 1995 study found that maternal support was more present than paternal support, and the present study does not support that finding. The current study's participants felt that both parents were supportive and many gave examples of their fathers helping them throughout their academic careers. Additionally, Reis, et al. found that the presence of an university or college program for students with learning disabilities was an important part of academic success. This study does not support or challenge this finding, as only one of the participants mentioned the Center for Students with Disabilities (CSD) program and it was only

to discuss the process to receive accommodations. The current study did find that this population does use and appreciate their accommodations for learning differences, but none mentioned specific programs or skills from CSD that have impacted their success.

The two studies found that students report having negative experiences in the school setting, and that these learners often found teachers unhelpful. Both studies also had participants report teacher and/or administration reluctance to provide accommodations and the perception that twice exceptional students were taking advantage by receiving accommodations. This dissertation study builds upon these findings and also suggests that these students do not find their school counselors helpful or understanding. In the current study, all participants reported that they did not find school counselors helpful and felt that they were not informed about learning differences. Both studies suggest the importance of counseling programs for twice exceptional learners, particularly for emotional support. Counseling services may also help these learners adjust to new learning environments, learn compensation strategies for their learning difference, and help them cope with negative experiences.

Another finding of this study that supports Reis, et al. findings is twice exceptional learners are rarely identified as gifted. In this study, none of the participants were identified as gifted, and they also self-describe as not being gifted. Reis, et al. also shared these findings and the participants felt that they could not be gifted because of their difficulties, such as, “If I am really smart, I wouldn’t need to use books on tape” (Reis, Neu, & McGuire, 1995, 117). One of the findings that arose from the current study is that twice exceptional learners do not view themselves as gifted because they need accommodations and strategies to overcome their learning differences and they believe that these difficulties make them smart, but not gifted.

An encouraging finding from the current study is that these learners are starting to be identified as having a learning difference earlier. Reis, et al. found that learners were not identified until late in life and that:

Eight of the twelve respondents were not identified as having a learning disability until middle school (grades 6-8), high school, or college. The three students who were identified early had such severe learning problems that it was difficult to ignore the problem. (52)

The current study's four participants were all identified prior to high school, and three of the four participants were identified prior to middle school. Interestingly, three of the four participants were diagnosed with Autism Spectrum Disorders and had large differences between when they were diagnosed. James was by far the earliest diagnosed and was identified in preschool, Sarah was not identified until 4<sup>th</sup> grade, and finally, Rebecca was not identified until middle school. Earlier identification is ideal, but it is encouraging that the participants were identified earlier than the participants in the 1995 study. This finding is significant as early identification typically leads to better adjustment and better compensation for learning differences.

Another shared finding is that these learners often have outside of the classroom strengths. This study found that empathy and creativity were marked interests in this population and the participants reported that they felt successful when engaging in their creative pursuits or when they volunteered to help others. Reis, et al. (1995) suggested that, "all of the participants in this study had special talents or interests which were usually manifested in out-of-school or within-school-extracurricular activities and which enabled them to ameliorate their negative school experiences" (115). Both studies suggest that fostering outside of the classroom interests may insulate these learners from their negative experiences, while also increasing their self-confidence.

Overall, the current study echoes many of the findings of the Reis, et al. (1995) study. The current study also provides support to the idea that the school climate for students with learning differences may be improving, but many students will have many negative experiences, and there is a great deal of work to still be done. Ultimately, these students are rarely being identified as gifted and are typically fostering their strengths outside of the school, thus schools are missing the opportunity to nurture and shape gifts and talents. The original study was done almost twenty years ago and yet, twice exceptional students still represent a vulnerable and under-identified population. There are signs that the climate for these learners is improving, but many things remain unchanged.

#### **Current study findings compared to previous research.**

As discussed in Chapter Two, there is little work that focuses on twice exceptional students, and even less that focuses on this population in a post-secondary setting. The following section will discuss this dissertation study's findings in relation to how they support or challenge the findings of previous research.

#### ***Lack of identification.***

Reis, Neu, and McGuire (1995) and the current dissertation study found that very few twice exceptional students are identified as gifted. This finding is also supported by previous work. Brody & Mills (1997) and Morrison (2001) also found that twice exceptional students are rarely identified. Ferri, Gregg, and Heggoy (1997) attempted to form an assessment profile for twice exceptional students and stated that there is difficulty in properly identifying twice exceptional students and that there is no clear single profile for them. McCoach, Kehle, Bray, and Siegle (2001) argue that attempting to create a profile for this population has statistical problems and that a multifaceted approach of identification is more beneficial. Neu (2003) also

states that twice exceptional students are under-identified and advocates for approaches that emphasize the student's gifts, rather than their special needs is more appropriate and effective for identification.

The current dissertation study's findings and previous research support the idea that twice exceptional students are rarely identified as gifted, however it raises the question of what can schools do to identify students who do not fit the typical gifted profile? Researchers have theorized on the best way to identify students but there is not clear consensus (Lovett & Lewandowski, 2006; McCoach et. al, 2001; Neu, 2003; Sattler, 1992; Truscott, Narrett, & Smith, 1993). Suggestions for future research will be discussed in the implications for research section of this chapter.

***Social emotional difficulties.***

This dissertation study suggests that twice exceptional learners struggle with social skills and stress management. Additionally, many of the participants indicated feeling sad and frustrated by their treatment from others. This dissertation study found that twice exceptional learners often feel different from their peers and are somewhat socially isolated; this finding is supported by previous work (Reis & Renzulli, 2004; Trail, 2011). Morrison (2001) suggested that twice exceptional students are at higher risk for depression, anger, and anxiety. These findings were also supported by Reis and Colbert (2004), who indicated that these learners are at higher risk for lack of self-confidence, high levels of anxiety, and social-emotional issues. This dissertation study's findings support the previous work that has suggested that twice exceptional learners face unique challenges and often struggle with social and emotional issues (Mendaglio, 1993; Peterson, 2006; Reis & Colbert, 2004; Reis & Renzulli, 2004; Trail, 2011). This dissertation study's findings expand on the current body of research and suggest that for at least

the twice exceptional students in this dissertation study, none of them felt their school counselors were helping them to a significant degree, a troublesome finding since research indicates that these students would benefit from counseling interventions (Peterson, 2006; Reis & Renzulli, 2004).

***Ease of receiving accommodations.***

The current study found that the twice exceptional students in this dissertation study have some difficulty receiving accommodations. The bulk of the issues with accommodations occurred in high school, but some participants reported some degree of difficulty at the post-secondary level. Additionally, this study suggests that students with learning differences in this dissertation study often feel that others think less of them for receiving accommodations, or that their teachers are “reluctant” to provide accommodations. This finding is supported by previous work done by Cawthon and Cole (2010), which found that students frequently feel that faculty view them as incompetent, stupid, or not belonging. Orr and Goodman (2010) also supported these findings and found a finding of “emotional legacy”, where students feel embarrassed and distressed about their learning difference and feel that others have poor perceptions of them due to their diagnosis (217). Multiple studies have supported the idea that students with learning differences feel that others think less of them for needing accommodations (Cawthon & Cole, 2010; Kurth & Mellard, 2002; Orr & Goodman, 2010).

***Role of support systems.***

This study suggests that at least for the participants in this research, strong support systems help mitigate the effects of painful negative experiences related to their diagnosis, as well as offer academic support, and emotional support to help with stress management. This finding is supported by previous work done by Orr and Goodman (2010). Orr and Goodman

found that stable support networks and interpersonal relationships were important to overcoming the effects of coping with a learning disability. Trail (2011) also supports these findings and suggests a “continuum of service delivery” from school staff for struggling students so twice exceptional learners have multiple sources for support and targeted interventions for their difficulties on an as-needed basis (50).

***Role of compensation strategies and metacognition.***

This study indicates that academic success, at least for the participants in this research, is more likely when students are able to utilize metacognition and self-awareness to create personalized compensation strategies to overcome their learning differences. This finding is supported by previous research (Coleman, 2005; Gardner, 2008; Gerber et al. 1992; Hitchings, Luzzaro, Retish, & Horvath, 1998; Orr & Goodman, 2010; Ridley, Schulz, Glanz, & Weinstein, 1992; Trail 2011), which suggested that some degree of comprehension of their own diagnosis and awareness of strengths and weaknesses can help students form compensation strategies, which makes academic success more likely.

***Role of understanding and informed staff.***

This study found at least for the participants in this research that twice exceptional learners have negative and painful experiences in the school setting. Many reported feeling misunderstood and poorly treated by school staff, particularly teachers and school counselors. This study suggests that when school staff is informed about learning differences and student needs student success is more likely. Previous research (Mendaglio, 1993; McEachern & Bornot, 2001; Peterson, 2006; Reis & Renzulli, 2004; Trail, 2011) has emphasized that staff working with students with special needs must be informed and educated about learning differences. McEachern and Bornot (2001) also stated that professionals working with twice exceptional

students are often advocates to parents, other teachers, and other school professionals so a good working knowledge of twice exceptional needs is pivotal. This study supports and expands on these previous findings and suggests that the current level of knowledge of learning differences is not acceptable.

### **Implications from these Research Findings and Suggestions for Future Research**

The following section discusses the implications of this study's findings in various settings and offers suggestions for future research. As discussed in Chapter Three, this dissertation had limitations; therefore the implications of this study's findings must be stated cautiously. As recommended by Sampson (2012) this discussion is divided into five sections: implications for theory development, implications for research, implications for practice, implications for education and training, and implications for public policy. Suggestions for future work are discussed in each section.

#### **Implications for theory development.**

This study suggests that, at least for the participants in this research, there are a variety of factors that aid student success. The findings indicate that outside of school support systems, informed and understanding school staff, student insight into their own learning needs, stress management, and developing compensation strategies greatly help student academic success. With further research a theory could be posited that models a pathway for student success. Reis, Neu, and McGuire (1995) offered a theory to explain why some twice exceptional students excel, while others struggle, and this study's findings support many of Reis, Neu, and McGuire's findings, while also offering new information, such as the role of stress and transitions, and the findings related to the continuum of comfort to disclose diagnosis. Additionally, more research in a variety of settings could yield a more accurate and comprehensive model that leads to theory

development. There is a wide breadth of research regarding gifted students, and research regarding students with learning differences, however this study adds to the small but growing body of research that relates specifically to students who are both gifted and have a learning difference that makes learning challenging, and with future work theories relating specifically to twice exceptional students could be presented.

### **Implications for research.**

This study's findings have many implications for research. As addressed in the limitation section in Chapter Three of this study, this dissertation's sample was comprised of four participants and there were unforeseen difficulties in obtaining additional participants and time constraints. Although data saturation was reached and the data resulted in meaningful findings, a more robust and representative sample would be ideal. A future research replication of the current study with a larger sample size would be a beneficial and meaningful contribution to the existing body of research. It is also possible that more participants would raise additional issues and/or shed more light on the findings raised in this study. Additionally, all the participants in this study attended the same large northeastern university, self-described as white, and were three females and one male. A more diverse and representative sample would contribute to the creation of a more well-rounded portrait of twice exceptional students' experiences and perceptions of the factors that help them succeed.

The findings of the current study would be also be strengthened if they were supported by quantitative research. This study raised issues related to academic success, twice exceptional labeling, and twice exceptional learner perceptions and experiences and approached them using qualitative analysis. These topics may be investigated using the same population using

quantitative analysis, which would not only strengthen or challenge this study's findings, but also potentially provide additional useful information and directions for interventions.

There is little research on twice exceptional students, and even less research that focuses on twice exceptional students in the post-secondary setting. These findings show that post-secondary twice exceptional students are a valuable population to study and present an opportunity to gain more information regarding the experience of twice exceptional students. This study raises questions regarding how these learners use and display their interests of empathy and creativity. This study also did not have an opportunity to explore the true role of outside of the classroom interests in these learners' lives and if it was truly an insulating factor or simply a non-academic interest.

This study indicates that twice exceptional students are not being identified as gifted. This finding is supported by previous research (Ferri, Gregg, & Heggoy, 1997; Morrison, 2001; Neu, 2003; Reis, Neu, & McGuire, 1995), however it raises the question of how can schools best identify those who do not fit the typical gifted profile. Future research is needed to investigate this topic to find a feasible method to identify twice exceptional learners. Multiple methods have been suggested (Ferri, Gregg, & Heggoy, 1997; Lovett & Lewandowski, 2006; McCoach, Kehle, Bray, & Siegle, 2001; Neu, 2003), however more research needs to be done to either support a method as effective, or propose a new method.

Finally, as discussed in Chapter Four, this study was not able to make any conclusions regarding the label of gifted because none of the participants were identified as gifted. It was found that participants had multiple negative experiences related to their label of having a learning difference, but it would be compelling to learn more about the experience of having the label of gifted, and the label twice exceptional. Future research including students who were

identified as gifted, as well as having a learning difference, would help inform this topic and allow the possibility of making conclusions about this label.

### **Implications for practice.**

The findings from this study primarily have implications for the practice of those in the education field who work directly with students, predominately teachers, school counselors, school psychologists, administrators, etc. The implications of these findings center on how services to twice exceptional students are delivered and the potential creation of new services.

The findings of this study suggest that twice exceptional learners feel that those in the school setting, particularly their teachers and school counselors, misunderstand them and are not well informed about learning differences. These findings indicate that school staff perhaps should consider meeting directly with the student to discuss their learning needs and go over any outstanding concerns. These findings imply that when others look beyond the learning difference and display compassion towards students, students feel more understood and less anxious. These findings also suggest that school-based mental health professionals, such as school counselors, school psychologists, social workers, etc., may need to meet with students with learning differences to ensure that they are thriving and are receiving mandated services. These findings and previous research (Peterson, 2006; Reis & Renzulli, 2004) also support individual or group counseling because twice exceptional students reported that developing compensation strategies for their learning difference made academic success more likely. During individual or group counseling sessions, school-based mental health professionals can ensure that students are informed about the nature of their learning differences, disseminate information on coping mechanisms and strategies for success, and also provide information on stress management and social skills. Overall, this study's participants reported feeling that their teachers and school

counselors were very unhelpful, and potentially even detrimental, to their academic success, therefore, these findings indicate that practitioners in these fields should reach out to twice exceptional students and increase the level of services.

Additionally, the study indicated that many twice exceptional students experience some form of bullying, whether public incidents, or more covert experiences, such as withholding accommodations, peer group gossip, or social isolation. It is widely acknowledged that bullying threatens the physical safety and emotional well being of students, and if it is unchecked by school staff, can increase in number and severity. It is recommended that schools complete a needs assessment to determine if bullying is a concern for the student body. If so, a bullying prevention program should be put in place, and all staff and students should be made aware of it. Those who interact directly with students should also receive training on ways to spot bullying and how to best intervene in an appropriate manner. In this study, many of the participants reported being bullied by peers and school staff so this should be a school wide initiative to create a safe and positive school culture.

### **Implications for education and training.**

The findings of this study suggest that additional training is necessary for school staff to ensure that they are better equipped to serve the needs of twice exceptional learners. The findings of this study indicate that students feel that teachers and school counselors are often uninformed and do not understand their learning needs. These findings suggest that an additional coursework and/or training focused on gifted and talented learning needs, twice exceptional learning needs, and the learning needs of special populations within the gifted and talented community may be beneficial for all school staff who work directly with students. There are multiple groups that are

not well represented in gifted education, including but not limited to females, minorities, and twice exceptional students, thus this training program could be beneficial in multiple ways.

This study also indicates that many twice exceptional students are not being identified as gifted, and are not having their gifted learning needs addressed. It may be helpful for school staff to participate in a training that focuses on identifying gifted children with learning differences, as well as gifted children who do not fit the typical gifted profile. The literature (Ferri, Gregg, & Heggoy, 1997; Neu, 2003; Reis, Neu, & McGuire, 1995; Reis & Renzulli, 2004) suggests that many gifted students slip through the cracks because they do not appear gifted or potentially underachieve; thus, identifying non-traditional gifted students is a pivotal first step to addressing their gifted learning needs. Training focusing on the specific learning needs of gifted children, as well as twice exceptional children would be beneficial as well.

The findings of this study indicate that twice exceptional students do not feel that their school counselors are helpful and feel that they do not understand them or their learning needs. This finding indicates that additional training is needed for not only school counselors but also all mental health professionals who are working in schools to ensure that they are familiar with a variety of learning differences and their associated difficulties, as well as potential coping mechanisms. The American School Counselor Association (ASCA) national model includes delivery of student services to help students with their goals, to formulate plans, and also provide any necessary short-term counseling (American School Counselor Association, 2010). ASCA also calls for school counselors to advocate for the equity, access, and success for every student; thus, school counselors must be informed about student needs and how to best help them to better advocate for them and to meet the national model standards.

Finally, these findings indicate that parents would benefit from training and education on their child's learning difference. Parents/Caregivers who are well informed about the nature of their child's learning difference may be able to better help and advocate for their child's learning needs and will potentially be able to help their child understand their learning differences, particularly when they are young. This study suggests that family support and outside of the classroom interests helps the twice exceptional child experience academic success. Parents/Caregivers need to be aware of these findings and other relevant research to be better prepared to encourage and advocate for their child.

### **Implications for public policy.**

These findings have some implications for public policy. There are three existing federal laws in place to protect those with learning differences, the Individuals with Disabilities Education Act (IDEA) of 1975, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) of 1990 (American Academy of Child and Adolescent Psychiatry, 2011), however this study indicates that, at least for the participants in this research, students with learning differences still feel marginalized, misunderstood, and do not unilaterally receive their accommodations for their learning differences. Some of the participants in this study reported perceived reluctance to provide accommodations, some cases of providing modified accommodations, and some cases of no accommodations at all. These findings indicate that there is an issue in the delivery of services for not only twice exceptional learners, but for all learners who receive learning accommodations. Additional work must be done to investigate how to best serve students with learning differences and how to best ensure that they are receiving the accommodations mandated by federal law.

## **Final Thoughts**

This dissertation was conceived with the goal of better understanding the experience of twice exceptional students, and of gaining insight into potential ways to help these learners succeed not only in the classroom, but also in life. It is the goal to nurture and inspire the next generation of learners to not only experience academic success, but also to become movers and shakers in the world, to contribute to society, and to change the world for the better. It appears that twice exceptional students are suffering in schools and endure negative experiences and misperceptions from those around them. In spite of these negative experiences, some of these students manage to achieve academic success, but research supports the idea that others often do not succeed and struggle with underachievement and emotional distress (Mendaglio, 1993; Peterson, 2006; Reis & Colbert, 2004; Reis, Neu, & McGuire, 1995).

Twice exceptional students represent a fascinating special group within the gifted population. They appear to view themselves as smart, but not gifted, and yet they often possess the metacognitive abilities to develop personalized compensation strategies to overcome their learning difficulties. Perhaps it is their uniqueness that contributes to them feeling like they don't truly belong in any group and their social isolation. This study postulates that factors, such as outside of school support, stress management, and the development of compensation strategies and coping mechanisms, help the likelihood of academic success, and has begun the exploration of the idea of outside of the classroom interests as insulating factors to the negativity that these learners experience. Yet, there are still many questions unanswered, and many avenues of research to investigate. Ideally, this study has added one small piece to the puzzle that is twice exceptional students.

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## **Appendix A: Interview Protocol**

### Interview Protocol

1. Please describe your present school/college or work program
2. What aspects of school/college do you value?
3. Please describe yourself as a student. School/college.
4. How would others describe you?
5. How have you done in school? (History of academic performance)
6. How would you describe classes that you like? Why? How would you describe classes that you don't like? Why?
7. What do you think you are good at? Do you think you have any special abilities? What do you struggle with?
8. Tell me about a time you felt successful in school. Tell me about a time you felt successful outside of school.
9. Have you ever experienced a period of time which you did not do well in school? If so, please describe this period of time.
10. Describe your experiences regarding your treatment by others that you felt was altered due to your learning difference and/or gifted status.
11. What coping strategies did you learn to overcome your learning difference?
12. What have been your parents' expectations regarding performance in school/college?
13. How does your family help or hinder your success?
14. How do others help or hinder your academic success?
15. How would you describe teachers at your school? What makes them good?
16. How would you describe counselors at your school? What makes them good?

17. How would you describe school psychologists at your school? What makes them good?
18. What other individuals stand out as far as helping or hindering your success? In what way?
19. What can you tell me that would explain what happened during periods of being identified as gifted/talented or having a learning difference?
20. Were you concerned about being people knowing you had a learning difference? What effects did this have on school/college?
21. What events and/or persons have had the greatest positive influence on your performance as a student? How did these events and persons enable you to be a better student?
22. What events and/or persons have had the greatest negative influence on your performance in school? How did these cause you to not do well in school?

## Appendix B. Subject Questionnaire

### Subject Questionnaire

Instructions: Please answer the following questions before you are interviewed by the researcher.

Your answers will assist me in conducting a study of those factors which may affect your academic performance in school. Please feel free to add any additional information which may be useful in giving a clear picture of you and your experiences in school. All information will be treated as STRICTLY CONFIDENTIAL.

The questionnaire may be returned to:

Stephanie D'Souza, email: Stephanie.D'Souza@uconn.edu

Your name:

Age:

Sex:

Date of Birth:

Number of semesters completed:

College or school in which you are enrolled:

(Responses to the following questions may be continued on the back of these pages.)

1. What is your current university program? What is your course load?
2. When were you identified as having a learning difference in school?
3. What was the nature of the learning difference?
4. Were you ever identified as gifted or did you ever think you were 'smart' in certain areas?
5. What are your career goals? What about your personal goals?

## **Appendix C: Recruitment Email**

Dear Student,

You are receiving this email because you are a candidate for a research study that will focus on the experience of students who have strong academic abilities and also have a documented learning difference that may make learning difficult. A graduate student, Stephanie D'Souza, is looking for participants for this research study. The study will focus on the experiences of students who have strong academic abilities and also have a documented learning difference that makes learning challenging. If you were to take part in the study, you will be asked to fill out a basic survey and to attend approximately two, 45-minute one-on-one interviews with Stephanie. The survey will help tailor interview questions for each participant and the interviews will cover questions about your experiences.

If you choose to participate in this study you will receive no compensation, however your participation will help shape future services and supports for students with learning differences. If you are interested in participating, please contact CSD staff who will forward your interest to Stephanie. If you have questions or concerns regarding the study or your potential participation please contact the student investigator for the research study, Stephanie D'Souza, at [Stephanie.D'Souza@uconn.edu](mailto:Stephanie.D'Souza@uconn.edu)

Regards,

**Appendix D: Consent Form**  
Consent Form for Participation in a Research Study

**Principal Investigator:** Dr. Orville Karan

**Student Researcher:** Stephanie D'Souza

**Study Title:** Academically Gifted University Students with Learning Differences: A Qualitative Exploration of the Experiences and Perceptions of Twice Exceptional University Students

Introduction

You are invited to participate in a research study of the experiences of university students who have a learning difference that may make learning challenging and also have above average academic abilities. You are being asked to participate because the Center for Students with Disabilities has indicated that you are an appropriate candidate for the study.

Why is this study being done?

We are conducting this research study to investigate the experiences of students who have a learning difference and have above average academic abilities, also known as twice exceptional students. The study will gather information about students' experiences and perceptions regarding their experiences and perceptions. We hope to better our knowledge of the needs of twice exceptional students.

What are the study procedures? What will I be asked to do?

If you agree to take part in this study, you will be asked to complete a brief introductory survey, and complete two, 45-minute one-on-one interviews with student researcher, Stephanie D'Souza. The survey will help tailor interview questions for each participant. The interview questions will focus primarily on your educational experiences.

The interviews will take place at a time and location of your choice and convenience, however the CSD office and the Student Union are potential locations. Each interview will be approximately 45 minutes and will be audio recorded. These recordings will be kept in a secure location. The approximate time required will be 2 hours. After each interview has concluded, the researcher will write brief research notes regarding any observations and impressions from the interview. These research notes will also be transcribed and kept in a secure location that only the researchers can access. Although two interviews are required, there is no limitation on the amount of time between interviews and they can be completed at your convenience. After the researchers begin data analysis you will be contacted by email with preliminary findings, which you can disregard or provide feedback. At the end of the study, you will also have an opportunity to learn more about the study's findings.

As stated above, each of the interviews will be audio taped. The purpose of this is to allow the researchers to transcribe the interview. The tapes will be kept in a secure location that can only be accessed by the researchers.

### What are the risks or inconveniences of the study?

The researchers will email you initial findings to allow you the opportunity to provide feedback before the study is completed and will also email you information on the study's final report. Please be aware that email is not a secure method of transmission. We will do our best to protect the confidentiality of the information we gather from you but we cannot guarantee 100% confidentiality. Your confidentiality will be maintained to the degree permitted by the technology used. Specifically, no guarantees can be made regarding the interception of data sent via the Internet by any third parties. If you do not wish to be contacted via email but would like to provide feedback alternative arrangements will be made.

We believe there are no other known risks associated with this research study; however, a possible inconvenience may be the time it takes to complete the survey and interviews.

### What are the benefits of the study?

You may not directly benefit from this research; however, we hope that your participation in the study may help future twice exceptional students. We hope to learn more about the needs of twice exceptional learners and get your feedback on what has helped or hindered your academic progress.

### Will I receive payment for participation? Are there costs to participate?

There are no costs and you will not be paid to be in this study.

### How will my personal information be protected?

The following procedures will be used to protect the confidentiality of your data. The researchers will keep all study records (including any codes related to your data) locked in a secure location. Research records will be labeled with a pseudonym. The master key that links names and pseudonyms will be maintained in a separate and secure location. The master key will be destroyed after 3 years. All electronic and audio files (e.g. interview recordings, transcripts, etc.) will not contain identifiable information. Any computer hosting such files will also have password protection to prevent access by unauthorized users. Only the members of the research staff will have access to the passwords. Only overall study findings will be shared with the Center for Students with Disabilities to help inform and shape future services. At the conclusion of the study, the researchers may publish their findings. Information will be presented in summary format and you will not be identified in any publications or presentations.

We will do our best to protect the confidentiality of the information we gather from you but we cannot 100% guarantee confidentiality. You should also know that the UConn Institutional Review Board (IRB) and the Office of Research Compliance may inspect study records as part of its auditing program, but these reviews will only focus on the researchers and not on your responses or

involvement. The IRB is a group of people who review research studies to protect the rights and welfare of research participants.

Can I stop being in the study and what are my rights?

You do not have to be in this study if you do not want to. If you agree to be in the study, but later change your mind, you may drop out at any time. There are no penalties or consequences of any kind if you decide that you do not want to participate. Additionally, you are not required to answer any interview or survey question that you do not wish to answer.

Whom do I contact if I have questions about the study?

Take as long as you like before you make a decision. We will be happy to answer any question you have about this study. If you have further questions about this study or if you have a research-related problem, you may contact the principal investigator, (Dr. Karan, 860-486-0207) or the student researcher (Stephanie D’Souza, 918-740-0431). If you have any questions concerning your rights as a research participant, you may contact the University of Connecticut Institutional Review Board (IRB) at 860-486-8802.

**Documentation of Consent:**

I have read this form and decided that I will participate in the project described above. Its general purposes, the particulars of involvement and possible risks and inconveniences have been explained to my satisfaction. I understand that I can withdraw at any time. My signature also indicates that I have received a copy of this consent form.

\_\_\_\_\_  
Participant Signature:

\_\_\_\_\_  
Print Name:

\_\_\_\_\_  
Date:

\_\_\_\_\_  
Signature of Person  
Obtaining Consent

\_\_\_\_\_  
Print Name:

\_\_\_\_\_  
Date: