RESPONDING TO AUTISTIC COLLEGE STUDENTS: FACULTY BELIEFS AND BEHAVIORS

By

Dana Kanhai

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

Higher, Adult, and Lifelong Education – Doctor of Philosophy

2024

ABSTRACT

While the number of autistic students attending college has increased, research in this area has only recently gained momentum. Research on faculty interactions and relationships with autistic students is particularly limited. In this qualitative study, I conducted semi-structured interviews with 15 faculty to explore how they interacted with and supported autistic students. My aim was to better understand the salient beliefs of faculty which underlie faculty interactions with autistic students. I used the Theory of Planned Behavior (Ajzen, 1991a) as a theoretical framework to frame my research questions, data collection, and analysis. My analysis revealed that faculty created opportunities and spaces for autistic students at their institutions and for autistic people within their communities to thrive. Faculty, through their teaching, research, service, and coaching/mentoring, made conscious decisions to act in ways that supported their students' academic learning, improved students' social experiences, and sought to elevate the voices of autistic people in their work. The major findings of this study indicate that faculty believed that: (1) their supportive actions towards autistic students and people were beneficial to autistic students and other autistic people, other students, and themselves, (2) the approval of actual autistic students, people, and colleagues significantly influenced faculty's behavioral choices and learning about autism, and (3) the presence of institutional supports and faculty members' ability to adapt and to challenge their own stereotypes or assumptions enabled them to effectively address any obstacles and provide support to autistic students and individuals. The outcomes of this study offer new insight into how faculty interact with autistic students and the factors that contribute to their choices to support students.

This dissertation is dedicated to Mummy (Vitra Kanhai) and my nephew, RoRo.
You are the inspiration for my work. I love you.

ACKNOWLEDGEMENTS

I would like to offer a huge thank you to the faculty participants who spent time with me so I could learn about their important work. You were so open, funny, sincere, and genuinely interested in my research. I am impressed by what you do to support your students. I hope that the stories you shared with me can guide others to use their influence and authority to help autistic students to thrive in college.

Thank you, Dr. Leslie D. Gonzales. You're not only one of the smartest people I know but one of the kindest, most authentic, and optimistic. These are exactly the qualities I needed in an advisor and dissertation chair to help get me to this point in my journey. I learned so much from you about what it means to be a professor and a good human. Thank you for your time, guidance, and expertise as I wrote this dissertation. Thank you for always saying that my work is important. Thank you for all the opportunities you provided to me to learn about faculty work and academia.

Dr. Ann Austin and Dr. Dongbin Kim, thank you for sharing your knowledge with me. Thank you for encouraging me and positively receiving this work. As faculty members in the HALE program, you were always giving of your time and energy to mentor and guide me and I am so very grateful. Dr. Edlyn Peña, thank you for helping me to understand how important professors are to supporting autistic college students through your own scholarly work and your personal experience. Thank you all for your important insights as members of my dissertation committee.

Dr. Kayon Hall, Dr. Annabelle Estera, Dr. Sapna Naik, Dr. Amanda Flores, Dr. Amber Benton, Dr. Regina Gong, Naseeb Bhangal – your friendship sustained me during this doctoral journey. You cried and laughed with me, and most importantly cheered me on. I hope I have

been reciprocal in my support to you and promise to always be your cheerleader. Dr. Riyad Shahjahan, thank you for supporting my learning and growth. Most of all, thank you and Dr. Kimine Mayuzumi for supporting my wellbeing and helping me to understand that I needed to slow down. Thank you for welcoming my mom and I into your home when all I needed was a home-cooked meal and a compassionate ear. To all the HALE faculty, thank you for your support!

Pratigua, Driscilla, Olivia, Dania, Sue, and Amrutha: my family thrived because of your love and support. You did more than just babysit my children, you gave me time and peace of mind to read and reflect, go to classes, and conferences, and to write. I am so grateful to you. Lisa and David, Denise, Manasi and Amrit, Saroopa and Cedric, Tera and Bill, and Jing: you are family to me, and I appreciate all that you have done to support my family and me. I felt more connected and less alone because of you and your friendship.

Jenny, Sharlene, Tricia, Shani, Franka, Suzanne, and Melissa: your friendship over the last few years has been central to my identity, humanness, and wholeness. Thank you for being unafraid to ask me how the dissertation was going and for letting me dodge that question whenever I needed to. You truly get me. You're my family.

Dr. David Wasieleski, Dr. John Grotgen, and Dr. Kerry Hinkle: thank you for all the recommendation letters you wrote so I could pursue a doctoral degree. Thanks for being the first faculty members who I felt truly believed that I was smart and diligent. Thank you to my teachers at St. George's College who cheered me on and helped me to believe that I was a good student. Dr. Jennifer Dolly and Mr. Franklyn Dolly, thank you for your mentorship and counsel. Daniel Blaize, thank you for your support throughout this process. Your insight and illustrations helped propel me forward in this work.

To my sisters, Viki and Rachea, and my brother-in-law, Nick. I am inspired by how hard you work every day to make the world a better place through your own work. Your perseverance and success inspire me. When I was doubtful along the way, I reflected on your academic and work journeys and knew that if you could persist, so could I. Daddy (William Kanhai), thank you for always thinking ahead to ensure we had what we needed to be successful in life. You were there to support me in my school work for common entrance and supported me through my doctoral studies. You are an awesome father!

To my aunties, uncles, nieces, nephews, and in-laws: thank you for always wishing me well and keeping me in your prayers. To my work family, thank you for your support.

Alexander Caden Mac Intosh and Stephen Kaveer Mac Intosh: my beautiful twin boys, thank you for allowing me to spend the time away from you to complete this dissertation. Thanks for checking in on my progress by asking me how many pages I got done on any given day. Your joy when I told you that I finished editing the last page was everything!

Dr. Andrew Mac Intosh: husband, I am so grateful for you. You literally carried me and our family over this finish line. I am so very very humbled by your love and compassion. Thank you for believing I could do this. Mummy and Nanny (Rookmin Moonie Khadan): I miss you. You both, more than anyone else in my life, believed that I could achieve whatever goal I set for myself. And you made sure to tell me that that goal was to put my education first! You were never given the opportunity to study for one college degree but made sure that I could study for three. Amazing. My accomplishments are your accomplishments. Mummy, I worked harder. Thank you both for sharing your good karma with me.

Thank you God for seeing me through. Jai Saraswati Mata.

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION

It is currently estimated that one in 36 school-aged children in the U.S. have been identified as autistic (Maenner et al., 2023). Wagner et al. (2005) indicate that 86% of autistic youth[1] complete high school, making it necessary for college and universities to plan for and provide services for these students. Indeed, as a result of earlier diagnosis and intervention (Brown et al., 2014) a growing number of autistic students are entering college.

While laws and regulations in the form of the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973 require institutions of higher education to make academic adjustments for students with disabilities (SWD) and prohibit discrimination against persons with disabilities, autistic college students often do not have access to the types of supports in college that they had access to in the K-12 school system. Students who once received special education services such as speech-language therapy, behavior therapy, case management, and special transportation through the K-12 system (Wei et al., 2014) face a drop off in services when they leave K-12 schooling (Roux et al., 2015). These services help students address challenges with adaptive and executive functioning skills unique to their diagnosis (Adreon & Durocher, 2007; Anderson & Butt, 2017; Cimera & Cowan, 2009; Volkmar, 2016). Less access to these services which support academic achievement, can negatively impact autistic colleges students' learning experiences and success.

[1] While a variety of terms to describe autism is common with person first language most often used by disability, medical and education professionals (Kenny, Hattersley, Molins, Buckley, Povey & Pellicano, 2016, p.442), in this research I primarily use identity first language (such as autistic students) which is language often preferred by autistic self advocates (see Sinclair, 1999). My awareness of the importance of using non ableist language (Bottema-Beutel et al., 2021) evolved as I conducted this research. So, while I initially used the person first term 'students with autism' in my recruitment and interview materials, I later adopted identity first language choices that better reflected my growing understanding of autism and the neurodiversity paradigm.

While some institutions have autism-specific services and programs[2] to support autistic college students, many of these programs require separate program fees in addition to college tuition (Hart et al., 2010; Brown et al., 2014). These specialized fee-based support services therefore, which supplement standard reasonable accommodations, may not be financially accessible to all students who need them. Moreover, because it is typical for student disability resource centers to require students to self-identify or self-disclose in order to receive reasonable accommodations, autistic students face an additional barrier for obtaining help if they are unwilling to disclose their autism or other co-occurring learning disabilities.

Faculty members, through their roles as course instructors, advisors, and researchers come into frequent contact with students and therefore can be a source of support to autistic college students (Austin & Peña, 2017). Decades of research on the positive influence of faculty student interactions on college students' experiences and educational outcomes (Cole & Griffin, 2013; Crisp & Cruz, 2009; Lamport, 1993; Jacobi, 1991; Johnson, 2007; Mullen, 2007; Pascarella, 1980) suggest that it is important to study faculty roles and interactions with autistic students. Student-faculty interactions outside the classroom have been shown to have favorable effects on the effort which students put into educational activities (Kuh & Hu, 2001). The quality and frequency of faculty contact, participating in research with faculty, personal discussions, and out-of-class interactions with faculty, have a positive influence on academic motivation (Trolian et al., 2016). Satisfying and frequent relationships with faculty have also been found to be a strong predictor of learning for all students but especially for students of color (Lundberg & Schreiner, 2004). Positive student-faculty relationships have also been shown to result in better

[2] Autism-specific services refers to services which are designed to support students by targeting the functional limitations associated with autism (Brown, 2017). These autism-specific programs typically go beyond the reasonable accommodations stipulated by relevant legislation.

student performance and higher grades in highly challenging courses (Micari & Pazos, 2012). Given the unique challenges that autistic college students experience, positive interactions with faculty may be an important source of support to autistic students. While there is some research on the experiences of autistic college students (Gelbar et al., 2014), very little is known about how faculty members, in particular, interact with and support college autistic students (Austin & Peña, 2017). Thus, in this basic qualitative study, I relied on the theory of planned behavior to ask the following research questions:

1. How do the salient beliefs of faculty shape their interactions with and support of autistic students?
    a. How do faculty respond to autistic college students?
    b. What behavioral, normative, and control beliefs guide the response of faculty to autistic college students?

In the next section, I provide a brief description of autism and explain how autistic college students and higher education institutions respond to the needs of these students.

Background

Autism

In this study, I use the term autism to refer to what the Diagnostic and Statistical Manual of Mental Disorders-5-TR (DSM-5-TR) classifies as autism spectrum disorder (ASD). According to the DSM-5-TR, autism is a classification given to a number of conditions characterized by neurodevelopmental delays or differences in social communication and social interaction, restricted, repetitive patterns of behavior, interests, or activities, and challenges in sensory processing (American Psychiatric Association, 2022). There is wide variability in the experience of behavioral and sensory characteristics by autistic people. As much as 10-25% of

autistic children have limited verbal communication (Koegel et al., 2009; Turner et al., 2006) and some individuals may use augmentative and alternative communication to communicate (Ganz, 2015; Iacono et al., 2016). Some autistic individuals have intellectual disabilities while others do not. Still, other individuals may be considered twice exceptional, that is, identified as being gifted students with a disability (Foley Nicpon et al., 2011). There is also wide variation in sensory experiences with some autistic individuals having sensitivities to or special interest in visual, auditory, olfactory, or tactile stimuli.

The search for all encompassing theories and explanations have dominated the research on autism, but researchers have recognized that one single explanation for the cause of autism may be elusive. Using large data sets from twin studies, Happé et al. (2006) have concluded that "different features of autism are caused by different genes, associated with different brain regions and related to different core cognitive impairments" (p. 1220). These authors add that the heterogeneity seen in autism "is an unavoidable consequence of variation along at least three largely independent (although of course interacting) dimensions of impairment," (p. 1220). Although I led with a description of autism based largely on the DSM definition, it is critically important to acknowledge that not all people, including most importantly autistic people, understand, and experience autism as a medical phenomenon or disability. Thus, in the next section, I describe the different ways that autism is framed and understood.

Perspectives on autism

As noted above, there are varying ways in which autism is conceptualized. Some people view autism as a disability or challenge that requires additional support, while others view autism as a natural state of being - a form of diversity that leads people to engage and behave in ways that diverge from typical expectations. Here, I present three ways in which autism is

framed: the medical perspective, the social perspective, and the neurodiversity perspective. While these are not the only ways in which disability and autism are framed, these perspectives tend to guide how higher education researchers or practitioners, such as disability resource administrators, understand, study, and respond to the needs of autistic students in higher education contexts (Brown et al., 2014).

Medical Perspective. Autism has traditionally been framed from a medical and individual perspective. From this standpoint, impairment resides within the individual which results in the individual's inability to function "normally" within society (Oliver, 1983). Research from this perspective has focused on the more complicated expression of autism, on child and adolescent populations, and on issues such as etiology, contributing environmental and genetic factors, co-occurring conditions, screening and diagnosis, and treatment and interventions (Interagency Autism Coordinating Committee, 2019; Pellicano et al., 2014). The predominance of the medical perspective of autism is reflected in autism research. In terms of dollars spent on autism research, of the more than $364 million spent on research in 2016 by federal and private funders, only 5% went to research on services and only 2% went to research on lifespan issues (Interagency Autism Coordinating Committee, 2019).

Social Model. An opposing view to the medical model is the social model of disability (Oliver, 1983, 2013; Shakespeare, 2006) which argues that society disables the individual by forcing the individual with the impairment to live in an environment made for able-bodied individuals and thus excluding the disabled individual from fully participating in society. Disability, from this perspective, is a "culturally and historically specific phenomena not a universal and unchanging essence" (Shakespeare, 2006, p. 197). Disability is not inherently held within the body. Instead, disability is constructed through hegemonic and oppressive ideologies

which value and elevate "normalcy" (Davis, 1997). Applied to autism, the social model of disability points to the challenges experienced by some autistic individuals to communicate verbally being ameliorated by augmentative and alternative communication (AAC) techniques and technologies. The use of AAC removes the obstacle of requiring verbal communication which can be challenging and near impossible for some individuals; AAC therefore allows these individuals to be more fully express themselves and be heard in society.

Neurodiversity Perspective. More recently, proponents of the autism self-advocacy perspective have argued that autism is an expression of human neurodiversity rather than disease (Broderick & Ari Ne'eman, 2008). The term neurodiversity is usually credited to Judy Singer (1999) and refers to the idea that autism is biologically based, is an expression of natural neurological variation, and is central to an individual's identity (Kapp et al., 2013). The neurodiversity concept "takes into account both strengths and weaknesses and the idea that variation can be positive in and of itself" (Armstrong, 2015, p. 349). Calls for cures and for fixing autistic individuals therefore are eschewed (Sinclair, 1993). A neurodiversity paradigm views the autistic identity as being a fundamental part of a person's identity, rejects the pathologizing of autism, celebrates the strengths of autistic people, and foregrounds the needs and voices of autistic individuals in research (Nicolaidis et al., 2011).

As mentioned earlier, a medical perspective frames much of the research on autism which focuses on etiology, screening and diagnosis, and treatment and interventions. More and more however, there have been calls by autistic advocates and allies to focus on research which is affirming rather than pathologizing and has a more immediate impact on the lives of autistic individuals and their families. As such, some research has focused on the positive aspects of special interests (Winter-Messiers et al., 2007; Patten Koenig & Hough Williams, 2017), access

to health care for autistic adults (Nicolaidis et al., 2013), setting research agendas with the involvement of actually autistic individuals and their family members/friends (Pellicano et al., 2014), and on post-secondary education and work opportunities and outcomes for autistic adults (Shattuck et al., 2012).

Autistic college students

Here, I present information about the experiences of autistic college students. Researchers have found that autistic students tend to enroll in both two-year and four-year higher education institutions (Sanford et al., 2011; Shattuck et al., 2012; Wei et al., 2014). These students, while intellectually capable of learning and performing at the postsecondary level, still experience a variety of stressors within the university environment as a result of their autism (Glennon, 2001). When transitioning to college, autistic students experience challenges "with core and associated characteristics of ASD, self-disclosure and awareness, and mental health and wellbeing" (Nuske et al., 2019, p. 1). Co-occurring learning disabilities complicates autistic students' experience of learning in the higher education setting. Autistic students with co-occurring learning disabilities can feel less academically competent and those with attention deficit hyperactivity disorder can feel less academically engaged (Strum & Kesari, 2019).

Some students struggle with: (1) personal/adaptive skills such as socializing, personal hygiene, doing laundry, or getting along with roommates (VanBergeijk et al., 2008), (2) academic skills such as note taking, study skills, and executive functioning skills such as planning, organizing, and time management (Gelbar et al., 2010; Reed et al., 2016; Happe et al., 2006), and (3) effective classroom behaviors such as group work, following along in lectures, understanding instructions and assignments because of literal thinking and difficulties with abstraction, receiving criticism and feedback, and classroom etiquette (Cullen, 2015; Taylor,

2005; Wolf, 2001). Other challenges also arise because of issues such as sensory overload, depression, anxiety, loneliness, understanding the intentions, emotions, and behavioral cues of others, challenges with emotional self-management, and self-advocacy (Elias & White, 2018; Jobe & White, 2007; Strum et al., 2019; Trembath et al., 2012; White et al., 2016). Despite the potential to be successful at college, these challenges can stymie students' progress and success. Given these challenges, many autistic students can benefit from additional support in the academic, social, and emotional domains (Jackson et al., 2018, p. 645).

It is important to note that autistic students also report having positive experiences in the midst of academic, social, and health challenges. Jackson and colleagues' (2018) survey of autistic college students found that respondents were relatively comfortable with their academic workloads and had satisfying friendships though still struggled with feelings of isolation, getting accommodations that addressed their unique needs, and with mental health issues such as suicidal thoughts. Several studies indicate that for many autistic college students, college presents opportunities for achieving personal and academic success. In a qualitative study conducted in the United Kingdom (UK), MacLeod et al. (2018) found that autistic college students expressed a sense of determination to go to college to get a fresh start, pride at achieving their goals in spite of difficulties associated with their diagnosis, and success in advocating for themselves. In other UK-based studies, students reported academic strengths such as critical thinking, research and writing skills, ability to focus on one subject and study for long hours, ability to understanding complex ideas (Gurbuz, Hanley & Riby, 2019), and the opportunity to study more deeply and perform well in students' areas of intense interests which led to feelings of self-confidence and enjoyment (Casement et al., 2017). Autobiographical writing by autistic people about many aspects of their lives, including their college experiences, similarly show that

postsecondary education can be both affirming and challenging (Brown et al., 2017; Grandin, 2006; Prince-Hughes, 2002; Miller, 2003; Rooy & Savarese, 2017; Shore, 2003) and highlight the importance of the involvement, support, and encouragement of educators, peers, and parents in students' educational journeys.

Institutional response to support autistic students

Many colleges have recognized the unique needs of autistic college students and have put autism-specific services and programs in place to aid in pre-college preparation, the first-year experience or transition period, and to support students throughout their college sojourn (Brown et al., 2014). Programs vary in focus such as clinical support (counseling, residential, and transportation support), social skills building, academic skills building, research based (treatment and testing), or may incorporate some mixture of these (Brown et al., 2014). The autism service model tends to reflect the philosophy of the campus and the program as well as the funding and support available (Brown et al., 2014). These authors argued, for example, that where autism is viewed from a medical perspective, programs may be incorporated into the clinical education component of social work, psychology, or counseling programs. What campuses perceive as the primary challenges faced by autistic students guide the kind of programs offered. Where social integration is perceived as the main challenge, peer mentoring and other social programming are provided and where academic support and classroom management are seen as needs, programs aimed at enhancing executive functioning skills such as time management and organization are provided (Brown et al., 2016).

While it is commendable that some colleges have started offering programs intended to support autistic students, there is generally a lack of evaluation or empirical data which indicate the effectiveness of these programs (Barnhill, 2016). Very few studies have been published

which evaluate the effectiveness of programs implemented by colleges. In a systematic review of the literature, researchers Kuder and Accardo (2018) found just eight programs which incorporated a measure of effectiveness into the programs. Kuder et al. (2018) found that the results of the research on these programs aimed at addressing the unique needs of autistic college students had mixed results, often due to limited data. Additionally, the provision of programs does not necessarily mean that students who need the programs will use or have access to the programs as clinical, academic, and mixed programs tend to be expensive or fee based which might exclude students who cannot afford to subscribe to them (Brown et al., 2016). These specialized autism-specific services are not commonly provided on college campuses. The limited number and location of programs may also pose challenges to access for autistic students who may want to remain close to home to continue to rely on trusted family support (Viesel et al., 2020). Further complicating the university's response is that autism is often considered an invisible disability and therefore even if faculty and staff are willing to offer support, they are not always able to recognize students in need of targeted supports (Cox et al., 2017).

More common on college campuses is the provision of reasonable accommodations which overwhelmingly tend to focus on academic accommodations (Brown, 2017). Less common are sensory accommodations and autism-specific services (Brown, 2017). While students always have the choice to disclose their disability to their institution's student disability resource center in order to receive formal academic accommodations, many students enter college without having a diagnosis (Glahn et al., 2008). Furthermore, those who have a diagnosis may choose not to disclose their condition and therefore cannot benefit from the formal accommodations which could assist them in their academic pursuits (Cai & Richdale, 2016). Disclosure is a personal decision and students carefully consider the benefits and possible

negative consequences of disclosure. Some students disclose to facilitate understanding by others and to receive accommodations, but other students avoid disclosure if they think it will lead to negative stereotyping and judgment (Frost et al., 2019). Even if some students disclose their disability to disability resource centers, they may still be reluctant to disclose to faculty (Bolourian et al., 2018) who are ultimately responsible for providing the academic accommodations in the classroom setting.

While many autistic students can and do attend post-secondary institutions, some of them struggle with the academic and social demands of the college environment, and not all students can access available accommodations or autism-specific services. For these reasons, it is imperative that faculty with whom students come into regular contact provide whatever support they can within the context of their roles as advisor, teacher and researcher. In the section which follows, I provide some background about faculty work today, the complex array of beliefs and circumstances which faculty consider as they perform their academic work, and how these might influence faculty's work in relation to autistic students.

Faculty work

Faculty work today consists of some combination of teaching, research, and service and differs based on institutional type, rank, appointment type, and gender (Finkelstein et al. , 2016). While faculty at research universities typically are expected to focus much of their time on research and are rewarded for their research productivity, faculty at teaching-focused institutional types are also increasingly involved in research, in addition to maintaining a high commitment to teaching and service (Baker et al., 2017). For the most part however, teaching accounts for most of faculty time at research universities, comprehensive colleges and universities, liberal arts colleges, and community colleges (Baker et al., 2017). While some

authors have criticized the mission creep and increased emphasis on research in teaching-focused institutions (Henderson, 2009), other authors present a more nuanced view of faculty work, wherein faculty sometimes choose to engage in research for personal fulfillment and out of a sense of obligation to fulfill the public good mission of their institutions (Terosky & Gonzales, 2016).

When conceptualizing faculty work with students, or more specifically, the extent to which faculty are asked and expected to adjust their teaching based on student populations, it is important to consider the importance and centrality of academic freedom and faculty autonomy. Academic freedom and autonomy are essential and inextricably linked features of the U.S. academic profession. The AAUP defines academic freedom as entitlement to "full freedom in research and in the publication of the results…" and, "to freedom in the classroom in discussing their subject" (American Association of University Professors, 1940, p. 14). Historically, faculty in higher education settings generally enjoyed academic freedom and autonomy over their work. Indeed, researchers have argued that "faculty members choose an academic career because it offers autonomy, intellectual challenges, and freedom to pursue personal interests" (Gappa et al., 2007, p. 105). This means that faculty have the authority to choose what to research and teach and how to carry out the responsibilities of their job (Gappa et al., 2007). This also implies that faculty have the autonomy to choose how to allocate their time and the roles to which they give priority.

While faculty are often pressured to change their teaching styles or to alter the roles they take on in academia, faculty can still have autonomy and agency to choose the roles they want to play and how they want to spend their time. And while faculty may be supportive of various initiatives and strategies to enhance student learning such as implementing universal design

principles in their teaching (Lombardi et al., 2011), faculty consider the consequences for themselves and their students before adopting these initiatives and strategies.

Teaching practices which are considered high impact and transformational are labor intensive (Halonen & Dunn, 2018). Adopting inclusive pedagogies such as those based on universal design principles or facilitating academic accommodations (both reasonable accommodations and those that are considered beyond reasonable accommodations), require faculty to spend their time in ways which may inadvertently disadvantage them as it takes time away from activities on which faculty are evaluated, promoted, and tenured. Some faculty also already have high service workloads because of their minoritized status and institutional practices which take time away from more visible and valued work in the academy (Hanasono et al., 2019).

Furthermore, faculty may not have the training or access to professional development opportunities which could prepare them to help autistic students. This might be especially true for non-tenure track and contingent faculty in the community college setting who are often marginalized in their institutional contexts and excluded from opportunities such as faculty development (Christenson, 2008; Baldwin & Chronister, 2001; Kezar & Gehrke, 2013). Despite a willingness to assist autistic students, faculty may not have the time and training needed to do so. Furthermore, graduate school preparation does not emphasize teaching or in many cases, does not encourage future faculty to prepare for and pursue teaching related positions. The literature on supporting students with disabilities in higher education is underrepresented in higher education. But institutions rely on faculty expertise for how to respond to students with disabilities (Stevens et al., 2018) especially since there is no definition as to what is a reasonable accommodation provided by the relevant legislation.

In responding to autistic students therefore, faculty might consider the many factors which influence their work including their institutional type and mission, their career stage and appointment type, their workload, and the amount of knowledge and skill they possess.

Statement of the Problem

Approximately 36% of autistic young adults attended college or vocational schools, with community college being an important pathway to post-secondary education for about 70% of these students (Roux et al., 2015). However, many autistic students face challenges with academic and social integration at college which can be further agitated when they do not receive the types of supports once enjoyed in the secondary education setting.

Many higher education institutions have recognized that the numbers of autistic students are rising on their campuses and therefore provide reasonable academic accommodations with some institutions going a step further to provide targeted supports which address students' functional limitations.[3] For the most part, however, these targeted programs are still a novelty and are not widespread across US higher education institutions. These programs also tend to be expensive and therefore may not reach all the students who need them. Additionally, receiving academic accommodations is typically dependent on having a formal diagnosis and relevant documentation indicating eligibility for such accommodations which some students do not possess. Students are also required to self-disclose their condition which some students are reluctant to do. Programming therefore is not guaranteed to reach students who need support .

Faculty however have firsthand interactions with students because they interface with students in classrooms on a regular basis throughout the semester and faculty are therefore "immediate arbiters of academic success and failure" of students (Gobbo & Shmulsky, 2014).

[3] Functional limitation refers to "an inability or hampered ability to perform a specific task" (Institute of Medicine, 1997, p.5)

Across all institutional types, faculty spend the majority of their time teaching (Baker et al. , 2017) and remain the main source of knowledge for students with disabilities. And of course, faculty are the only ones who can actually provide autistic students with the kinds of accommodations in the classroom that address students' needs. Dillon (2007) asserts that for autistic students, "contact with faculty and direct feedback is important for gauging success and making the necessary corrections that lead to success" (p. 503). The importance of faculty interaction with autistic students cannot be ignored or underestimated.

And yet positively responding to autistic students is not a simple decision or act. Faculty hold beliefs about teaching and interacting with students generally and students with disabilities in particular which might not be conducive to addressing the students' needs. Faculty also have to consider the consequences for their work load and career progression when employing time-intensive teaching initiatives and strategies with autistic students. Faculty may also lack the knowledge and skills because of insufficient professional development opportunities which could better prepare them to assist autistic students. These are some of the circumstances which can influence faculty to respond to autistic college students. Unfortunately, the extant literature does not adequately elucidate these and other potential factors. Therefore, I conducted this research to explore how faculty beliefs shape how they interact and support autistic college students. In the next section, I define and explain these research questions in the context of the theoretical framework used in this study.

Theoretical Framework

In this section, I briefly describe the theoretical framework which guided my research. I used the Theory of Planned Behavior (TPB, Ajzen 1991a, 2005, 2012) to explore how faculty respond to the needs of autistic students in the college context. The theory of planned behavior is

used not only to predict behavior but also to explain human behavior (Ajzen, 1991a). The theory posits that behavior is based on: (1) behavioral beliefs about the consequences of the behavior, (2) normative beliefs about the expectations and approval of important others, and (3) control beliefs about the presence or absence of factors that may facilitate or impede performance of the behavior (Ajzen, 1991a). These salient behavioral, normative, and control beliefs are antecedents which form the basis for an individual's attitudes, subjective norms, and perceived behavioral control which in turn influence an individual's intention to perform a behavior. Salient beliefs are those beliefs that are "considered to be the prevailing determinants of a person's intentions and actions" (Ajzen, 1991a, p. 189).

Though primarily used in quantitative research to assess attitudes, subjective norms, perceived behavioral control and intention to perform a behavior, researchers can elicit salient beliefs which underlie the aforementioned constructs using qualitative methods such as interviews. Quantitative studies using the theory of planned behavior have investigated the use of the TPD in developing a scale to measure college students' attitudes towards inclusion of students with disabilities (Fernández Faúndez, 2018) and in predicting faculty's intent to volunteer for leadership roles (Lamm et al., 2013). In qualitative studies in higher education research, the theory of planned behavior has been used to investigate the role of faculty in intervening with a student who is experiencing acute psychological distress (Schwartz, 2010) and in providing academic accommodations to students with acquired brain injury (Kalivoda & Higbee, 1998). The TPB has also been used in a mixed method study of the utilization of service-teaching by agricultural teacher educators (Edwards et al., 2019). The theory of planned behavior was used in these qualitative studies to better understand the salient beliefs of faculty in relation to responding to specific populations of students. I see this theory as applicable to my

research as I am interested in understanding not only the kinds of responses or interactions faculty are having (i.e., faculty behavior) with autistic students but also understanding the beliefs that guide their responses. In chapter three, I describe in greater detail the theory of planned behavior and how I used it in this study.

Significance of the Study

This research is significant for three reasons: (1) this study aims to address issues which can immediately benefit college autistic students by focusing on how faculty responses can be leveraged to support autistic students, (2) this study expands our understanding of faculty work with students with disabilities in general and autistic students in particular, and (3) this study fills a gap in the literature.

Organization of the Dissertation

This dissertation is organized into five additional chapters and five appendices. In chapter two, I provide a literature review which focuses on the historical development of the academic profession in U.S. higher education, faculty work today, autism, the experiences of autistic college students, and finally, on faculty responses to support students. I conclude chapter two with a summary and implications of the literature for my own research questions. In chapter three, I provide details on the methodology for conducting this basic qualitative study. In chapter four, I present profiles of faculty participants. In chapter five, I present my findings. Finally, chapter six features discussion, recommendations, and the conclusion.

CHAPTER 2: LITERATURE REVIEW

To explore and understand how faculty respond to a particular population of college students, it is important to understand this support in relation to what currently constitutes faculty work. Faculty work in U.S. higher education is a complex mix of teaching, research, and service undergirded by the institutional contexts within which faculty reside. Faculty work also needs to be understood within the context of how the profession evolved alongside the U.S. higher education system itself. In this chapter, I begin with a brief historical overview of U.S. higher education in relation to faculty work because as the institution of U.S. higher education grew and developed, so did the roles and responsibilities of faculty. Then, I review the current literature on contemporary faculty work and the importance of faculty-student interactions. Next, I describe how institutions support autistic students and review the literature related to what faculty are doing to support autistic students. Finally, I integrate the literature to show how it guides my research design in chapter three.

Historical Overview of U.S. Higher Education System and Faculty Roles

It is important to understand that as the U.S. higher education changed, so did the faculty. Who makes up the faculty and what constitutes their work and workplace have evolved from clerics protecting the moral character of their chargers at small colonial colleges to that of professors balancing complex portfolios of teaching, research, service and entrepreneurship at an array of different types of institutional contexts. The work which faculty engage in is inextricably linked to the evolution of the higher education system and the missions of various institutional types. Faculty work became configured over time to reflect the tripartite focus of teaching, research, and service. In the following sections, I briefly describe faculty work and how it evolved during distinct historical periods in US higher education.

Colonial college

The earliest colleges were British settlers who brought their models of universities to the colonies. In 1636, Harvard was the first U.S. higher education institution to be established and was fashioned after the British model (Rudolph, 1991). The purpose of Harvard was to educate the local population in Puritan values to be able to create their desired society - to "train the schoolmasters, the divines, the rulers, the cultured ornaments of society—the men who would spell the difference between civilization and barbarism" (Rudolph, 1991, p. 6). While Rudolph's analysis of this era paints a picture of principled men embarking on a virtuous mission to bring the benefits of higher education to their fledgling society, Wilder (2013) reminds us that the establishment and rise of higher education in the US is inextricably linked to European territorial expansion, the conquering and subjugation of indigenous populations, and slavery in the British colonies in North America and the West Indies (Wilder, 2013). In his research on these linkages between higher education and slavery, Wilder (2013) points out that in addition to directly benefiting from slavery through the use of slave labor and funding acquired from wealthy plantation owners, "the American college trained the personnel and cultivated the ideas that accelerated and legitimated the dispossession of Native Americans and the enslavement of Africans," (p. 10). Higher education during this era therefore was meant to firmly establish a social order that benefited White settlers.

Taking on the charge to develop men who could establish and lead these colonial settlements were tutors who had a religious background. As more universities entered the field, the model adopted continued to be the British model. While the British university was the model, what developed in the United States was not a straight copy (Rudolph, 1991). Instead, the collegiate way of "kindly paternalism" which combined discipline and guidance characterized

U.S. colleges. Tutors took on the role of teacher to instruct students in a classical curriculum and to act as in loco parentis, taking on some of the function and responsibilities of the parent. Tutors often lived in residence halls with students and saw to both their intellectual and moral development. Rudolf paints a picture of tutors struggling and generally failing to maintain strict discipline in a youthful, entitled, and fun-seeking student body. This insistence on strict discipline eventually gave way to a "more democratic, permissive system of discipline" (Rudolph, 1991, p. 107) which meant that the faculty role of injecting discipline through fear and punishment also changed. Students were guided towards desired behavior through moral and religious instruction, an appeal to honor and a love of learning (Rudolph, 1991, p. 108). As the U.S. society evolved, it became necessary for colleges to also change. These changes impacted the roles that faculty played and continue to play to this day. As colleges abandoned their commitment to kindly paternalism, so too did tutors and later on professors shed their responsibilities to act in loco parentis. The faculty of today however have retained their commitment to the development of students as teaching, mentoring, and advising remain key components of the faculty role.

Reform

During the nineteenth century, the increasing democratization of American society in general became a catalyst for change and reform of U.S. higher education (Rudolph, 1991). While the colonial colleges produced "gentlemen and scholars" (p. 111) who went on to hold powerful political and social positions which shaped the development of the U.S. nation state, the criticisms and demands placed on the U.S. higher education during the post-Civil War period necessitated changes in mission and curriculum which would transform U.S. higher education and the role of the faculty. The American population's pervading opinion at this time about

college had shifted. Many saw the classical curriculum as irrelevant to the needs of a society which increasingly rejected aristocratic ideals (Veysey, 1965). The relevance and practicality of this type of college education was called into question as society pushed forward focusing instead on building cities, exploring the uncharted West, and exploiting the resources of the continent (Rudolph, 1991). The faculty too occupied a low esteem in the eyes of the American public, were paid low wages, and endured tedious duties (Veysey, 1965). The faculty's dual role as educator and in loco parentis also seemed to have run its course as faculty who acted as "spies, policemen and judges...did not endear themselves as parents to the undergraduates" (Rudolf, 1991, p. 104).

In response to calls for a more practical education, curriculum reform saw the introduction of modern languages, natural philosophy, mathematics, and a system of electives (Veysey, 1956). The elective system was adopted to varying degrees between 1865 to 1903 by institutions such as Wisconsin, Michigan, Yale, and Harvard. (Veysey, 1956). In 1869, Harvard also dropped the classical curriculum as a requirement and based student rank on academics alone (rather than combined with conduct) which made higher education more relevant and consumer friendly in the eyes of the public (Larabee, 2017). Changes in public opinion about higher education and to the curriculum were accompanied by a changing role for college faculty.

The faculty were no longer required to be the strict disciplinarians of the colonial colleges. Instead, faculty were expected to teach students in specialized and popular topics in order to prepare them for work in an increasingly democratic and industrialized society (Rudolph, 1991, 2021). Teaching remains one of the central requirements of the faculty role today. Faculty are expected to be responsive to both societal expectations for what it means to be college educated and to students who are generally viewed as consumers of educational products

such as the bachelor's degree. The importance of teaching to the faculty role is reflected in faculty promotion and tenure rules, the continued use and importance given to student course evaluations, and the segmentation of the faculty role into teaching focused versus research focused positions. Faculty also guide students through their academic sojourns as many faculty retain the responsibility for advising their students about major and course selections and many are expected and choose to mentor their students.

German model

During the mid-nineteenth century, U.S. colleges imported aspects of the German model of higher education. Specifically, U.S. academics were captivated with the idea and practice of pure research which "became elevated to an all-encompassing ideal" (Veysey, 127). The adoption of the German model brought intellectual and academic rigor and credibility to the U.S. colleges, something that it was sorely lacking (Rudolf, 1991). Advanced graduate education was also adopted from the German model. These two aspects of the German model made the doctoral degree the entry level qualification for the professoriate (Larabee, 2017). The German model was embraced and became an aspirational model for colleges in the U.S. higher education system.

As colleges began to transform themselves into universities that focused on research, the faculty role evolved to reflect the changing nature of US higher education. For the faculty, research took on more importance and this emphasis on knowledge production through original research continues today. Faculty specializing in narrow fields of study who are educated to the PhD level is typical of not only the research-intensive university but also liberal arts colleges, comprehensive universities and increasingly community colleges (Baker et al., 2017). The role of faculty to conduct research and produce knowledge which expands their disciplines remains a defining feature of the profession. In addition to the shift towards the German model, the Morrill

Act, 1862 and 1890, and the Hatch 1887 and Smith-Lever Acts 1914 significantly shaped U.S. higher education in the latter half of the nineteenth century. The faculty role was also consequently modified to emphasize service as an integral responsibility of faculty.

Practical turn for U.S. higher education

The Morrill Act 1862 "was one of the most seminal pieces of legislation ever enacted" (Kerr, 1963; 1972; 1982; 1995; p.46). The Land Grant College Act of 1862 provided funding through the sale of federal lands to States to establish colleges with a mission to provide programs in agriculture, mechanics, mining, and military instruction. The land-grant college was meant to provide both a liberal and practical education to those who might not ordinarily attend college given the elitist nature of higher education in the United States at the time. The second Morrill Act of 1890 provided annual expenditures for the land-grant colleges and extended the benefit to southern States which were previously excluded as a result of the Civil War. With the second Morrill Act, states could not receive money if they denied admission to colleges based on race but added a provision that it was acceptable to establish separate land-grant colleges for Black students (Gonzales & Robinson, 2023). The land-grant colleges made college more practical by broadening the scope and understanding of what was considered legitimate areas of study at college and also opened up access to new classes of students. In doing this, higher education became more anchored in serving the needs of an increasingly industrialized and rapidly developing society. Other legislation such as the Hatch Act 1887 and the Smith Level Act 1914 further expanded and solidified the land-grant college's service mission by establishing agricultural experiment stations and national agricultural extension outreach service respectively.

Collectively, the Morrill Acts of 1862 and 1890, the Hatch Act 1887 and the Smith Level Act 1914 which were related to the creation and mission of land grant universities modified the

role of faculty by tying faculty work to the economic wellbeing of the regions in which the universities were established. Faculty were now expected to and were responsible for disseminating knowledge and offering their expertise in order to help address important societal and economic issues. Indeed, service remains an important part of faculty work as faculty are serving in various ways in their colleges and universities, on regional and national boards, and in disciplinary associations.

World War II and the Cold War

During WWII, universities were drawn into the war effort by the federal government. Universities became sites for military funded research and development (Larabee, 2017). Federal funding during this time helped universities expand faculty and to increase their prestige and rankings and ushered in the entrepreneurial model of the university researcher (Larabee, 2017). Federal funding for research climbed steeply during the years following WWII until the fall of the Berlin Wall in 1989 which provided favorable conditions for university researchers (Larabee, 2017). Those who benefited most immediately from the influx of post-WWII federal funds were the established eastern graduate universities. The Cold War was "a prolonged effort to contain communism" (Larabee, 2016, p. 28) which enlisted the support of academia to produce the scientific research to support the federal government's military and ideological challenge to communism. During this time, the public's approval of higher education in general and the professoriate in particular rose because they were seen as contributing to the public good (Larabee, 2017). Faculty in this era enjoyed status, respect, and autonomy and were recognized for their expertise and professionalization (Finkelstein et al., 2016).

During this period, the faculty's role of conducting research and service for the public good was of utmost importance. The emphasis on research with pragmatic implications for

addressing public and especially national concerns endures to this day. According to the Federal and State Funding of Higher Education Report (2013), roughly $25 billion was spent by the federal government on federal research grants. The emphasis on research is also heavily reflected in promotion and tenure rules at research intensive universities and encouragement or expectation of faculty research activity is not uncommon at other institutional types.

Post WWII

In the decades that followed WWII, particularly the 1960s-1970s, "American higher education showed a period of unprecedented growth-often characterized by the term massification," (Gumport et al., 1997, p. 2). This era saw increased demand for a college education because of upward social mobility and national economic growth which institutions met by expanding their enrollment and programs (Gumport et al., 1997). Social movements such as the Civil Rights, Women's Rights, and Disability Rights Movements and diversification in the types of federal financial aid available to institutions and individuals increased access to higher education to "underrepresented populations," (Gumport et al., 1997, p. 2).

As a result, faculty encountered an increasingly changing and diversifying student population at universities. Changes in the legislative environment in which universities operated significantly shaped who gained access to a college education and therefore the students with whom faculty interacted. In this section, I will highlight a few of these influential pieces of legislation that opened up access to higher education to non-traditional students, Black students, women, and students with disabilities.

The Servicemen's Readjustment Act of 1944, commonly referred to as the GI Bill expanded access to higher education to WWII veterans who would have been considered non-traditional students (Remenick, 2019). Veteran enrollment exceeded expectations with 37% of

all veterans using the benefit (Olson, 1973) which equated to about 2 million veterans attending college under the GI Bill, many of them over the age of 25 and married (Remenick, 2019).

The U.S. Supreme Court ruling in Brown v Board of Education in 1954 and the Civil Rights Act of 1964 signaled the desegregation of public education. "Under this new legislation African Americans were afforded opportunities to matriculate at institutions that were once completely inaccessible to non-whites," (Harper et al., 2009, p. 397).

In 1972, Title IX of the Education Amendments act prohibited sex-based discrimination in college admissions and "single-handedly revolutionized how American postsecondary institutions treat women," (Rose, 2015, p. 158). Title IX ended "overt practices and policies that limited or prohibited women's and girls' participation in the educational enterprise at all levels" (Sandler, 2007, p. 486) in programs that received federal funding, and as a result, the number of women enrolling and attending college increased and continues to climb (Sandler, 2007).

Finally, legislation specifically relating to non-discrimination against people with disabilities also opened up opportunities for students with disabilities in higher education. In particular, the Americans with Disabilities Act passed in 1990 "forced colleges and universities to adapt and provide programs" to address students' needs (Evans et al., 2017, p.43). This legislation had a "major influence on increasing the numbers of students with disabilities attending higher education" (Evans et al., 2017, p. 43.).

In summary, the development of the U.S. higher education system and importance legislative frameworks have greatly influenced the role and work of faculty. As U.S. society changed, so did the mission of America's colleges and universities. The role and work of faculty has continuously shifted in relation to these changes, and especially in response to the needs of a

changing student population. Therefore, “faculty members must have a wide array of skills to support the breadth of their students’ learning needs” (Gappa & Austin, 2010, p. 5).

During the Colonial period of U.S. higher education, academic work was carried out mainly by tutors who treated students in a paternalistic manner and paid attention to the moral development of their students. The post-Civil war period was characterized by a higher education system that saw students increasingly as consumers of education who would go on to fill national workforce development needs. During this period, tutors were replaced by professors who were disciplinary experts in diversified fields of study. These professors placed increasing emphasis on research in addition to teaching a more diversified student body. The WWII and Cold War era brought an influx of federal funding and expectations for faculty to conduct research which served national agendas. This era solidified the importance of research in academic work. In the post WWII era, universities and faculty saw their campuses respond to a legislative environment that opened up access to non-traditional students, Black students and other students of color, women, and students with disabilities. These phases of U.S. higher education shaped the nature of faculty work such that faculty today are expected to engage in a complex portfolio of work that includes research, service, and teaching, advising and mentoring a diverse student population.

Faculty today do have a choice in how they interact with students. While a legislative environment may be supportive of diversity through increased access, being truly inclusive and welcoming to all students is up to the faculty and staff at higher education institutions. Policies and practices at the institutional level can help ensure an environment supportive of autistic students, but individual action by faculty is equally important to ensuring that autistic students thrive in college.

Contemporary Faculty Work and the Role of Faculty in Supporting Students

In this section, I will briefly describe the kind of work in which faculty are engaged and how this work is influenced by factors such as race/ethnicity, gender, appointment types, career status, and disciplinary background. I will focus more in depth on faculty interactions with students with an emphasis on faculty interactions with students with disabilities.

Faculty work today

U.S. higher education is a complex mix of teaching, research, and service undergirded by the institutional contexts, faculty appointment types, and faculty disciplinary background. Thus, although faculty are educated and socialized to engage in the trilogy of research, teaching, and service, their level of engagement in these activities vary depending on institutional type and appointment type. And while it is true to say that faculty at research intensive institutions engage in more research than their counterparts at comprehensive and community colleges, it is also true that faculty everywhere are increasingly expected to engage in research (Baker et al., 2017).

Faculty work today is characterized by some combination of doing research, teaching, and student advising, service to the institution, professional or disciplinary organization or community (Gehrke & Kezar, 2015). Faculty generally work anywhere between 40 to 50 hours or more per work week (Finkelstein et al., 2016). In terms of distribution of activities, teaching occupies most (between 50-55%) of faculty's weekly work time across research universities, comprehensive, and liberal arts colleges (Baker et al., 2017). Research activities take up between 16-22% of faculty's work week and service-related activities occupy about 17-19% of faculty work week at research universities, comprehensives and liberal arts colleges (Baker et al., 2017). At community colleges, with teaching being the primary institutional mission, as many as 90%

of faculty report teaching as their main activity (Provasnik & Planty, 2008), with heavy teaching loads with five 3-hour courses per semester (Townsend & Twombly, 2007).

Finkelstein et al. (2016) describe a blurring of lines between research-focused and teaching-focused institutions where faculty hours spent teaching has increased at research institutions and faculty hours spent doing research has increased at teaching institutions. It is important to note that more hours spent teaching does not translate into better compensation for faculty as time spent doing research and research productivity are more highly rewarded than teaching and service (Alperin et al., 2019; Fairweather, 2005; O'Meara & Braskamp, 2005) across institutional types.

Tenure status, gender, and race/ethnicity all have an impact on the kinds of work that faculty do. For example, Link et al. (2008) surveyed non-administrative university scientists and engineers at 150 research universities and found that tenured faculty spend less time on research and more time on service and that women faculty spend less time on research and more time on service than men. Faculty of color are also more often involved in service work in their universities and involved in leadership in professional associations (Baez, 1999, 2000; Porter, 2007; Wood et al., 2016).

Faculty gender and race/ethnicity play a significant role in determining the kind of work women faculty and faculty of color do and are expected to perform. The work demands placed on women and faculty of color, for example, may be especially detrimental to their career trajectories, job satisfaction, and well-being (Finkelstein et al., 2016). Women faculty in research-intensive institutions, for example, spend more time and get asked more often to devote time to campus service, student advising, and teaching related activities, while male faculty spend more time and get asked more often to devote time to research-related activities (O'Meara

et al., 2017). Faculty of color often describe the burden of additional or extra responsibilities placed on them because of their ethno-racial background (Padilla, 1994).

For faculty of color at research intensive institutions for example, these expectations and responsibilities include teaching race-related courses even though such courses are not within the faculty's area of expertise, mentoring students of color, or serving on diversity-related initiatives (Joseph & Hirshfield, 2011). These added responsibilities have also been shown to affect faculty of color's "academic work and progress, as well as their emotional health" (p. 136).

Disciplinary background also influences the behavior and values of academics (Becher & Trowler, 2001) and shows up in tangible ways such as their beliefs about teaching and learning (Lindblom-Ylanne et al., 2006; Lund & Stains, 2015). Jones (2011) reviewed the literature on the differences of the academic disciplines on the academic profession and found that there were significant disciplinary differences in terms of "faculty socialization, faculty teaching beliefs and activities, departmental functioning, preferred research practices, faculty satisfaction, and academic leadership styles" (p. 22). Research by Gonzales (2018) suggests however that women faculty "challenge the conventions of disciplinary and professional boundaries" (p. 690) in their approach to their intellectual work. Trowler et al. (2012) make point out that while disciplines still exist in an idealistic sense, it is not "possible to make a general statement about the scope and strength of influence of disciplinary power" (p. 244) as the importance and salience of disciplinary power fluxes depending on the context. In "multiple sites of practice" (Trowler et al., 2012) the discipline varies. Disciplinary influences manifested as faculty beliefs, attitudes, and behaviors may vary depending on the roles that faculty play and other situational or institutional factors.

Student-faculty interactions matter

Faculty play complex roles in their relationships with students. In addition to being instructors, they can also be advisors and mentors. Morales et al. (2017) investigated faculty motivation to mentor in undergraduate research programs which is considered to be a high impact practice (Kuh, 2008) in undergraduate teaching. Decisions to mentor were related to values placed on diversity, faculty workload, institutional reward structures, and career status. Eagan et al. (2011) also investigated mentoring in undergraduate research programs and found that institutional type was a factor which influenced faculty engagement in undergraduate research.

Researchers have consistently found that student-faculty interactions inside and outside the classroom have beneficial effects for students. Reviews of the literature have been conducted by Cole and Griffin (2013), Crisp and Cruz (2009), Lamport (1993), Jacobi (1991), Johnson (2007), Mullen (2007), and Pascarella (1980). Three volumes of the comprehensive and persuasive *How College Affects Students* (1991, 2005, 2016) also review decades of research on the effect of college in general on students and highlight the influence of student faculty interactions on a number of student outcomes.

Crisp and Cruz (2009), Jacobi (1991), Johnson, (2007) and Mullen (2007) all explore the literature on mentoring relationships between faculty and students. These reviews point to the positive effects of mentoring in formal and naturally occurring situations but also highlight the challenges and negative side of mentoring (Johnson, 2007; Mullen, 2007) and the definitional and methodological challenges of research on mentoring in student faculty relationships in the higher education setting (Crisp & Cruz, 2009).

Lamport's work focuses on informal student-faculty interactions and highlights the importance of faculty in the college socialization process for students. Pascarella's review similarly looks at informal interactions showing that student-faculty interactions have positive effects on student academic and social outcomes such as "educational aspirations, intellectual and personal development, academic achievement, and freshman and sophomore year persistence" (p. 564) and that these effects are independent of student pre-college characteristics and in-college experiences.

Cole and Griffin's (2013) review of the literature points out however that student-faculty interactions have conditional effects depending on student "race, gender, first-year experience, institutional type and size and first-generation status" (p. 580). Cole and Griffin's observations from their review of the literature are echoed in the updated volume three of *How College Affects Students* (Mayhew et al., 2016). These works show that student characteristics, college experiences, and institutional context do indeed influence the frequency and quality of student faculty interactions and student academic and social outcomes.

Finally, interactions with faculty matter to students' aspirations for further graduate or professional study as well as their wellbeing and work lives after they have graduated from college. Trolian and Parker (2017), for example, found that frequency of interactions with faculty, quality of interactions, and engaging with faculty on research projects significantly influenced students' aspirations for advanced study. Hanson et al. (2016) similarly found that good teaching practices such as non-classroom interactions with faculty, prompt feedback, frequency of interactions with faculty, teaching clarity and organization, and high faculty expectations are positively related to graduate school aspirations. In a different study conducted by Gallup, college graduates' at-work engagement was double and their well-being was almost

triple when graduates endorsed that during college they had a professor who cared about them as a person, who made them excited about learning, and had a mentor who encouraged them to pursue their dreams compared to those graduates who did not feel supported in this way during college (The 2014 Gallup-Purdue Index Report).

Collectively these reviews of the research highlight the important influence student faculty interactions have on various student outcomes. Cuseo (2018) provides a concise summary of these faculty practices and strategies that promote student faculty interactions inside and outside the classroom. Faculty practices and strategies inside the classroom which enhance interaction with students are: (1) making an intentional and effortful attempt to know students' names, (2) consistently referring to students by name, (3) personalizing the classroom experience by learning and remembering information about individual students, (4) faculty sharing information about themselves with their students, and (5) interacting with students in a personable and empathic manner. Regarding faculty practices and strategies outside the classroom, Cuseo identifies the follow: (1) emphasizing availability outside of class and explicitly encouraging students to make office visits, (2) having students sign up for class for office visits or personal conferences, (3) writing a personal note to students struggling in class that invites, requests, or requires them to make an office visit, (4) interacting personally with students immediately before or after class, (5) communicating personally with students via email or social media, (6) participating in co-curricular experiences with students, and (7) inviting students to their homes for class session or group conferences.

Turning to autistic college students, recent quantitative research by McLeod et al. (2019) indicate that while autistic students and students with other disabilities report similar levels of academic engagement (asking questions during class, preparing for class, and attending class) as

neurotypical students, and similar or more contact with faculty (discussing careers, working together or activities, and working on research) than neurotypical students, they have "significantly lower GPAs, higher rates of remedial coursework and course failure, and higher levels of academic challenges" (p. 2329). Despite similar or more levels of academic engagement, autistic students and students with other disabilities do not see the levels of achievement experienced by neurotypical students (McLeod, et al., 2019).

Faculty interactions with students with disabilities

In this next section, I will review the literature on faculty interactions with students with disabilities. I have paid particular attention to literature that shows how the attitudes of faculty towards students with disabilities has changed over time and how factors such as institutional type, faculty rank, gender, prior disability related training and institutional support for professional development contribute to faculty's attitudes toward their responses to students with disabilities. It is important to consult this research about students with disabilities in general as research about faculty attitudes towards autistic students and the factors influencing faculty responses are still quite limited.

Faculty interactions. Research over the past two decades has shown that faculty interactions with students with disabilities has improved but that there is still room for improvement. In one of the earliest studies about students with disabilities in higher education, Beilke and Yssel (1999) interviewed 10 students with disabilities at one higher education institution to learn more about their experiences with faculty in the classroom. Students who were wheelchair users described instances where a faculty member avoided contact with a student and seemed distracted by the student's need to adjust his posture while seated in his wheelchair, and other instances, where faculty comments reflected low expectations of a student

and unwillingness to accept a student in a wheelchair in a physical education class and to make changes in grading schemes to accommodate that student.

Students with hidden disabilities such as brain injuries, learning disorders, and seizure disorders described interactions with faculty that left students thinking that faculty showed little understanding and empathy, blamed students for their challenges, singled students out, and diminished or denied the students' request for accommodation. Faculty in Beilke and Yssel's study seemed to be uncomfortable in the presence of students with disabilities, to question the validity of students reports of challenges and the necessity for academic accommodations, and to be unwilling to make changes to their teaching to accommodate students' needs. The effect of these interactions on students was to make students go through additional efforts to get the educational experiences they desired, and to make them feel misunderstood, uncomfortable and invalidated.

In a more recent study, Yssel et al. (2016) found that the interactions between students with disabilities and faculty has improved. The results of this qualitative study with 12 students showed that faculty generally made attempts to understand students' disabilities and to provide accommodations. One student with visual impairment noted that some faculty seemed to use principles of universal design in their teaching by presenting content in both visual and audio format which benefited the entire class and removed the necessity of individual academic accommodations. Many students shared however that they needed to self-advocate and so recognized that in many situations the onus falls on the students to ask for support and to provide relevant documentation which often resulted in faculty willingness to provide accommodations. Some students shared however that while faculty acted in more supportive ways that there was still room for improvement.

Some students described, for example, instances where faculty seemed to go overboard. One student who used a wheelchair indicated his incredulity at his professor's willingness to allow too many absences from a highly interactive class. Another student expressed displeasure that an instructor drew unwanted attention to the student's visual impairment by talking about the student's larger font worksheet openly with the rest of the class. A student with dyslexia indicated that while faculty were willing to understand and provide accommodations, they were not familiar with their learning disorder. Another student described that while their professor was accommodating, group work with peers was difficult as other students did not fully explain and include him in in-class discussion. Yssel and colleagues' (2016) results demonstrate that from these students' perspectives, faculty were more willing to understand the conditions and needs of their students, to provide academic accommodations, and to use principles of universal design in their teaching. However, there still seemed to be a need for greater faculty sensitivity and awareness about student disclosure and privacy issues, different types of disabilities, motivating students with disabilities, and facilitating positive peer classroom interactions. Finally, some students described a lack of skill in self-advocacy and not knowing how to talk about their disability and their needs with their professors. There appears to be a need for faculty to invite disclosure and to provide direction to students on how to ask for accessibility and accommodation in the classroom setting.

Faculty attitudes towards accommodations and universal design for learning. When thinking broadly about faculty interactions or responses to students with disabilities, how faculty interact with students with disabilities with regard to providing accommodations (Kim & Lee, 2016) and using the principles of universal design for learning (Schreffler, Vasquez III, Chini & James, 2019) are very important strategies for promoting student academic success.

The most frequently received type of academic accommodations in higher education settings are testing accommodations (extended time and different settings for test taking), followed by additional time to complete assignments, a reader for tests or assignments, use of a calculator for activities not allowed other students, disability-related computer use, and books on tape (Newman & Madaus, 2015). It is important to note that only 23% of students with disabilities report receiving any kind of accommodations in post-secondary education (Newman et al., 2015). With respect to modifications such as modified or alternative tests, shorter or different assignments or modified grading standards, only 4% of post-secondary students report receiving any kind of modification (Newman et al., 2015). Accommodations such as extension of time and modification of exam materials have a positive effect on the GPA of students with disabilities (Kim & Lee, 2016). The way students' perceive faculty attitudes towards academic accommodations is an important factor in students asking for accommodations (Hartman-Hall & Haaga, 2002).

Research from Zhang and colleagues (2010) provided a nuanced look at the interaction between faculty knowledge, beliefs, and practices in providing accommodations to college students with disabilities. In their survey of 206 faculty members from nine institutions, these researchers found that while the majority of faculty were aware of their legal responsibilities to provide reasonable accommodations, many of them were not doing so. Faculty's awareness of their legal responsibilities, their perception of support from their institutions (e.g. from the disability services office, university administrators and their department) in their work with students with disabilities, and faculty's personal beliefs about students with disabilities such as "efficacy of accommodations, the need for accommodations, the integrity of the course, an instructor's academic freedom, and the efficacy of students with disabilities in college" (p. 284)

were important factors that impacted provision of accommodations to their students. Zhang et al. (2010) suggested that perhaps when providing support, faculty "want to see that their time and effort are worthwhile" (p. 284). The implication here is that faculty's actions to support students with disabilities in a function of how much they know about their legal obligations, how supported faculty feel by their institutions, and importantly, how they evaluate the benefits and costs of providing accommodations to not only the students with disabilities but also to the faculty themselves and other students in the classroom.

Universal design for learning (UDL), universal instructional design (UID), and universal design for instruction (UDI) are all educational frameworks which focus on "cognitive access and highlight ways in which educational resources, teacher pedagogy, and the flexible design of curriculum and instruction can address students' needs and support diverse learners" (Rao et al., 2014, p. 154). UD in learning and instruction has its roots in architecture where the term was first coined by the Ron Mace at the Center for Universal Design (Evans et al., 2017) to reflect design which proactively reduced barriers and increased access to the built physical environment (Rao et al., 2014). UDL goes beyond recommending the provision of supports to individual students who have disabilities necessitating accommodations by a proactive approach to course design, development, and delivery that benefits all learners.

Universal design frameworks for learning and instruction have their own but related principles regarding proactive and flexible design of curriculum and instruction, educational resources, and pedagogy. UDL principles emphasize multiple means of representation, action, expression, and engagement (CAST, 2018). UID draws from *The Seven Principles of Good Practice in Undergraduate Education* by Chickering and Gamson (1987) (Fox et al., 2003; Goff & Higbee, 2008) and offers guidelines to: (1) create a classroom climate that fosters trust and

respect, (2) determine the essential components of the course (3) provide clear expectations and feedback, (4) explore ways to incorporate natural supports for learning, (5) provide multimodal instructional methods (6) provide a variety of ways for demonstrating knowledge, (7) use technology to enhance learning opportunities, and (8) encourage faculty-student contact (Fox et al., 2003).

Finally,, UDI refers to the "design of instruction of products and environments to be usable by all students, to the greatest extent possible, without the need for adaptation or specialized design" (Burgstahler, 2015). UDI provides guidelines on: (1) class climate, (2) interaction between student and instructor, (3) physical environments and products, (4) instructional delivery methods, (5) feedback, (6) assessment, and (7) accommodation (Burgstahler, 2015).

In sum, the various UD frameworks promote increasing inclusion and accessibility in higher education for students with disabilities through a proactive approach. These approaches do not put the onus on students with disabilities to disclose their disabilities which is advantageous for students with disabilities who may be reluctant to self-disclose or who may not have a formal diagnosis. The benefits derived from employing pedagogies informed by universal design also redounds to students without disabilities as the principles of UD in learning and instruction are applicable to all students.

Lombardi and Murray's (2011) study, which sought to establish validity and reliability for a survey instrument about faculty's willingness to accommodate students with disabilities and to use principles of universal design in their teaching, is especially useful when thinking about faculty interactions with students with disabilities. This study was also helpful in parsing out the faculty factors which might influence their perception and attitudes toward providing

accommodations and using universal design principles. In this quantitative study, Lombardi and Murray surveyed 289 faculty members at one public research institution. Faculty participants were asked to rate their level of agreement on a Likert scale of 1 (strongly disagree) to 6 (strongly agree) with statements about their beliefs, feelings, and actions towards students with disabilities, providing accommodations to students with disabilities and towards using universal design. The results showed that faculty responses could be grouped into eight reliable factors.

The Expanding Cultural Awareness of Exceptional Learners (ExCEL) survey instrument measured eight factors related to faculty behaviors and attitudes which included: (1) fairness in providing accommodations (items related to both willingness and perceptions of the fairness to provide accommodations), (2) knowledge of disability law (items related to both confidence in knowledge of disability laws and awareness of assistive technology), (3) adjustment of course assignments and requirements, (4) minimizing barriers (items related to willingness and actions taken to remove barriers to student learning in the classroom), (5) campus resources (items related to awareness of and perceived helpfulness of disability services), (6) willingness to invest time (items related to willingness to spend extra time with students who need it), (7) accessibility of course materials, and (8) performance expectations for students with disabilities .

In this study, Lombardi et al. (2011) also found significant differences in behaviors and attitudes based on faculty gender, appointment type, college, or school affiliation and prior disability-related professional development. A more favorable attitude toward providing academic accommodations and using universal design principles was noted among female faculty members, non-tenure track faculty, faculty in the college of Education, and faculty who had prior disability-related training.

The ExCEL survey has since gone through several iterations of development which later resulted in the development of the Inclusive Teaching Strategies Inventory (ITSI) (Lombardi et al., 2011; and Lombardi et al., 2013). The instrument consists of the following six constructs which measure faculty attitudes/beliefs on a Likert scale of range from 1 (strongly disagree) to 7 (strongly agree), and faculty actions/behaviors on a Likert scale of 1 (no opportunity) to 5 (always). The six constructs are: (1) Multiple Means of Presentation ("items related to presentation of course content with a particular emphasis on flexibility, use of technology, and various instructional formats," Lombardi et al., 2011, p. 254), (2) Inclusive Lecture Strategies (items related to teaching strategies in a lecture-style class), (3) Accommodations (items related to responding to accommodations requests from students), (4) Campus Resources, (5) Inclusive Assessment (items related to providing flexibility in student assessment), and (6) Accessible Course Materials (items related to use of a course website and online submission of assignments).

Lombardi et al., (2011) found discrepancies in faculty attitudes and actions towards inclusive instruction practices. For example, while many faculty endorsed a belief that it was important to provide Accommodations, far fewer indicated that they actually implemented them. These researchers offered that since accommodations such as providing students with notes, recordings or extra time, involved a great amount of modification to teaching practices, faculty may perceive these accommodations to be "in conflict with their expected standards for all students'" (p. 259). Surprisingly, some faculty in this study endorsed actions but not beliefs related to Multiple Means of Presentation, Inclusive Lecture Strategies, and Accessible Course Materials.

Using this ITSI instrument, researchers observed different factors at play in faculty's actions and attitudes towards using inclusive teaching strategies based on the principles of universal design. Lombardi et al.(2013), for example, compared the results of faculty who took the survey at two institutions which approached faculty professional development differently. University 1 engaged in "business-as-usual processes" (p. 222) to support students with disabilities by pushing out faculty professional development on disability legislation and universal design principles for teaching through invitations to in-person training and through websites. University 2, in addition to providing in person workshops, newsletters, and web resources, engaged faculty in an intensive four-day train-the-trainer summer workshop over the course of three years. Sixty-five faculty participated over the course of the three years and they were compensated for their time in the summer institute. They were asked to share their knowledge about supporting students with disabilities and using inclusive strategies with their colleagues.

Lombardi et al. (2013) found that faculty with prior training in disability issues scored higher on all factors of the ITSI regardless of gender and institutional context than faculty who did not have prior training. But when comparing gender differences, women faculty who had prior disability training scored higher than men on Accommodations, Disability, and Law Concepts (this construct was specific to the version of the ITSI used in this study), Inclusive Lecture Strategies, and Inclusive Classroom. Institutional context also made a difference on certain constructs. Faculty attitudes towards Accommodations, Disability Law and Concepts, Accessible Course Materials, Inclusive Classroom, and Inclusive Assessment were influenced by support and professional development at their institutions regardless of gender. Finally, the results showed there were no significant differences in faculty attitudes and behaviors based on

the intensity of professional development opportunities (more intensive equated to workshops and courses, while less intensive professional development involved reading articles, books, websites). These results highlight the importance of making professional development opportunities available to faculty in various formats (Lombardi et al., 2013). The revised ITSI was also employed in a study in a community college setting by Gawronski et al. (2016) who found that the most important faculty characteristics were race/ethnicity and age. In this quantitative study, white 35-44 year old faculty members reported slightly higher levels of aggregate scores on the ISTI than faculty of color.

Finally, Hartsoe and Barclay (2017) used the ITSI at a predominantly teaching university and found that faculty rank and faculty gender accounted for significant differences on specific constructs. With respect to faculty rank, full professors and visiting/adjunct professors scored higher on Course Modifications (items related to major changes in course assignments or requirements) than associate professors. Female faculty were more likely to score higher and engage in Inclusive Lecture Strategies (items related to teaching strategies in a lecture-style class), Inclusive Classroom (items related to presentation of course content), and Inclusive Assessment than male faculty.

Faculty beliefs about the benefits of using UDL for themselves and for their students also influenced their use of these strategies. In one online survey of 75 faculty on their awareness and use of UDL, researchers found that while the majority of faculty were aware of UDL, they were not applying UDL principles in their classes and were at the stage of contemplating what using UDL would mean relative to their effort, time commitment, and skill and knowledge development requirements (LaRocco & Wilken, 2013). However, perceiving the benefits of inclusive strategies for students can move faculty towards action. In Kennette and Wilson's study

(2019) of 11 faculty members' perceptions of UDL, if faculty perceived a UDL practice as helpful to students, the practice was included in the curriculum. Faculty perceived answering questions outside of class time, providing clear feedback on assignments, posting handouts online, and motivating students to do their best work as particularly useful for student learning. Faculty identified presenting materials in multiple ways, providing interesting assignments and hands-on learning activities, and posting grades online so students could see their status and progress to also be helpful to students.

In this section, I highlighted the literature on faculty student interactions with an emphasis on interactions between faculty and students with disabilities. Faculty student interactions inside and outside the classroom have generally been found to be beneficial for students' experiences and outcomes (Crisp & Cruz, 2009; Jacobi, 1991, Johnson, 2007; Lamport, 1993; Mullen, 2007; Pascarella, 1980) but conditional effects are noted depending on student factors such as race, gender, first year experience, and first generation status as well as institutional type (Cole & Griffin, 2013). The research notes that with respect to students with disabilities, faculty today are more willing to learn about students' disabilities, to provide accommodations, and to use universal design principles in their teaching (Yssel et al., 2016). Gaps still exist in faculty awareness of different types of disabilities, sensitivity and awareness of disclosure and privacy issues, and effective pedagogies for motivating and including students with disabilities in the classroom. Finally, faculty factors such as gender, faculty rank, appointment type, race/ethnicity and age, prior disability training, and institutional context related to professional development opportunities have an influence on faculty's' tendency to utilize inclusive teaching strategies (Gawronski et al., 2016; Hartsoe & Barclay, 2017;

Lombardi et al., 2013). Faculty's perceptions of the costs and benefits of UDL also impact their actual use of UDL in their teaching (Kennette & Wilson, 2019; LaRocco & Wilken, 2013).

Autism and College

Current diagnostic criteria for autism

The diagnosis of autism has gone through several changes since it first appeared in the DSM III as Infantile Autism (APA, 1980). The most recent change to the diagnosis of autism was published in the DSM V (APA, 2013) and defines the core characteristics of autism as persistent deficits in social communication and social interaction, and restricted, repetitive patterns of behavior, interests, or activities (American Psychiatric Association, 2013). This classification recognizes that autism is a spectrum condition with wide variability in how the features of autism present in different people.

While the changes to the autism diagnosis reflect years of research and clinical practice (Grzadzinski et al., 2013), these changes have not been met with unanimous praise by the autism research community (Tsai & Ghaziuddin, 2014). Additionally, even with these changes, diagnosis and intervention remain elusive for some vulnerable populations. In particular, Latino, Black, and poor children experience disparities in diagnosis and access to specialist and quality health care services compared to white children (Liptak et al., 2008; Magaña et al., 2013; Magaña et al., 2012; Travers & Krez, YEAR). There are also significant gender disparities in diagnosis. Although the perception that autism primarily affects boys is changing due to research on sex difference in autism (Evans et al., 2019; Mandy et al., 2012) and on the camouflaging coping mechanisms used by women and girls with autism (Dean et al., 2017; Rynkiewicz et al. 2016), there is still a gender disparity with a ratio of 3:1 (male:female) prevalence suggesting a

diagnostic gender bias (Gould & Ashton-Smith, 2011; Loomes et al., 2017) which the DSM V criteria and guidelines do not adequately take into account (Wing et al., 2011).

Unequal access to autism diagnosis and care in communities of color, for girls and women, and for lower income families therefore has implications for determining which autistic students able to pursue a college education. Recent research from Fernandes et al. (2021) indicate that "autistic freshmen were more likely to be male, slightly older, White, and to come from households whose parents had a higher level of education compared to their non-autistic peers" (p. 3511).

Disability legislation

Several pieces of legislation indirectly and directly influence how and why higher education institutions need to respond to the needs of autistic students (Kimball et al., 2016). As a result of The Individual with Disabilities Act (IDEA) legislation governing the education of children with disabilities, students with disabilities receive services that "make it more likely that their needs will be met in public K-12 education in a way that allows them an equal opportunity to gain admission to higher education institutions" (Kimball et al., 2016, p. 94). IDEA was previously called The Education for All Handicapped Children (1975) and was reauthorized in 1990 and 2004, and amended in 2015. This legislation stipulates that children and youth with disabilities be granted a free appropriate public education (FAPE) in the least restrictive environment. IDEA also stipulates that children (birth to 2 years) receive early intervention and that children and young people (3 to 21 years) receive special education and services to prepare them for employment and independent living. Under IDEA, parents or legal guardians of students with disabilities have the right to be included in special education plans which are developed for their children. As a result of the indirect impact of IDEA (Kimball et al., 2016),

young people with autism have had access to education and services which have helped to prepare them to enter higher education institutions. Earlier diagnosis and intervention (Brown et al., 2014; Volkmar, 2016) means that as many as 86% of young people with autism now complete high school and expect that they can go to college like their peers without disabilities. Higher education institutions need to be prepared to support the estimated 433,000 autistic students who will be attending college by 2020 (College Autism Network, 2017).

The following pieces of legislation have a more direct influence on higher education institutions (Kimball et al., 2016). The Americans with Disabilities Act of 1990 (ADA) and the Americans with Disabilities Act Amendments of 2008 (ADAA) are designed to ensure that persons with disabilities are not discriminated against or prohibited from accessing all aspects of public life. The ADA defines a disability as: (1) a physical or mental impairment which substantially limits one or more major life activities, (2) a record of the impairment, or (3) being regarded as having such an impairment (42 USC § 12102). Section 504 of the Rehabilitation Act of 1973 states that no otherwise qualified person due to disability may be denied participation in, be denied the benefits of, or be subjected to discrimination under any programs or activities receiving federal financial assistance (29 USC 794(a)).

ADA, ADAA, and Section 504 provide a legal framework for defining disability and protecting students with disabilities from discrimination.

> Once a student has sufficiently documented that he or she has a qualifying disability, a college is responsible for providing reasonable accommodations or modifications that do not result in unfair advantage, require significant alteration or the program or activity, result in lowering of academic or technical standards, or cause the college to incur undue financial hardship" (Thomas, 2000, p. 254).

These accommodations as outlined by Simon (2011) include: (1) auxiliary aids and services such as note takers, qualified readers, video relay interpreting, Braille and large print materials etc., (2) academic adjustments such as extended time on tests and course work, tape recording of classes, course substitution and modification of evaluations, and (3) accessible technology. This is not an exhaustive list but included here are accommodations which faculty need to understand as faculty play an important and integral role in providing support to autistic students. Many faculty however have limited knowledge of these laws, and of their personal responsibility and liability for failure to provide reasonable accommodations to students with disabilities (Baker et al., 2012; Thompson & Bathea, 1997). As Simon (2011) notes,

> That institutions should orient faculty to their legal obligations and assist faculty is becoming more and more important as the population of students with disabilities increasingly includes veterans and students with Asperger's syndrome and other autism spectrum disorders. (p. 100)

A related piece of legislation to which higher education institutions must attend is the Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) which stipulates that students' educational records should be kept private. According to FERPA, in K-12 schooling, parents have the right to access to their children's records, to have records amended and to have some control over disclosure of the records. Upon turning 18 years or entering college at any age, these rights are transferred from parent to child. If the student is a dependent of the parents for tax purposes however, a higher education institution may release educational records to parents.

While FERPA protects student privacy, it may also complicate faculty's response to the needs of students. FERPA influences how faculty are notified of a student's need for

accommodations – faculty are usually provided with documentation from the disability services office indicating the types of accommodations needed but not the diagnosis or reasons a student needs accommodations. Faculty, for example, relying on flawed assumptions about disability or ableist beliefs might question the need for accommodations for students who have hidden disabilities like autism without an explanation of why accommodations are needed. Additionally, the responsibility of seeking and advocating for services at the postsecondary level falls on the autistic student (Adreon & Durocher, 2007), rather than the parent who had been used to being their child's advocate at the K-12 level. While in the school setting, parents could speak directly and openly with teachers about their children's needs, however at the postsecondary level, parents interact with faculty who because of privacy laws, are unwilling and unlikely to speak directly and openly with them (Peña & Kocur, 2013).

Finally, while disability legislation provides protection from discrimination and increased access to education through measures such as reasonable accommodations, autistic students need to self disclose to disability services personnel in order to benefit from the stipulations of these laws. It is important to note that students with disabilities sometimes delay doing so until they are already experiencing some sort of academic distress (Lightner et al., 2012). Disclosure is a complex and contextual issue where individuals with autism take various approaches to disclose their autism status. Davidson and Henderson (2010) identified strategies for disclosing autism status that range from disclosing only when calculated as safe to do so or keeping safe, passing or qualified deception, disclosing as a form of resistance to stigma, and disclosing as a method of educating others and increasing public acceptance of people with autism. These varying approaches to disclosure highlight the complexity and risks associated with disclosure in the context of misconceptions and stigma attached to an autism diagnosis. Autistic students also

have to navigate this complex landscape and research has demonstrated that students have been guarded and cautious with self disclosure to faculty (Cox et al., 2017). Students also need to be aware that they have a disability which might negatively impact their performance and therefore they need to seek accommodations but unfortunately, a significant percentage of students at college may have undiagnosed autism (White et al., 2011).

Institutional responses to the needs of autistic students

Institutional responses to the needs of autistic students reflect compliance with disability laws. Typically, academic accommodations are provided which are helpful but fall short of addressing the unique needs of autistic students. Some authors have suggested that the best practice institutional responses include or should include increased faculty awareness of autism and positive relationships between faculty and students.

In two separate systematic reviews of the literature Anderson, Stephenson and Carter (2017) and Gelbar et al. (2014) found that the most common types of institutional support to autistic students are academic accommodations. These systematic reviews included 33 unique articles and just 8 articles in common across higher education settings in the US, Japan, Ireland, Sweden and the United Kingdom. Anderson et al. (2017) reviewed 29 articles reporting on 23 studies and 348 participants about supports provided to autistic students in higher education and found that academic accommodations were quite common but that non-academic supports were less available to students. Additionally, these authors also noted that while academic supports were provided, students often lacked the self-advocacy skills or experienced anxiety which prevented them from fully accessing and benefiting from supports. Gelbar et al. (2014) reviewed 20 articles which reported on 18 studies and 69 participants and similarly found that the majority of these articles described academic supports to students. These academic supports included

accommodations such as extra time on exams, lecture notes from instructors, use of a separate testing location, extended deadlines on assignments, oral exams, and professor facilitation of group projects. Gelbar et al. (2014) also noted curricular modifications which included individual projects in lieu of group projects and presentation to the instructor instead of a large group.

While academic accommodations are provided and can be helpful, some researchers argue that supports which specifically address challenges experienced by autistic students are still needed. In a study of community colleges, Brown and Coomes (2016) surveyed 146 disability service professionals from two-year colleges and found that institutions provided a baseline level of academic accommodations while accommodations which "specifically target the functional limitations of ASD are offered less frequently" (p. 465). Brown et al. (2016) found that reasonable academic accommodations such as providing a note taker, the use of an audio recorder, extended exam time, and an alternate testing location were common and were essentially standardized across institutions surveyed. They argued that these reasonable academic accommodations reflect a medical understanding of autism where impairment resides within the individual and so alternate formats are provided rather than "reconceptualizing learning or assessment" (p. 476) at the institutions. Brown et al. (2016) assert that "best practice" accommodations and supports are those which target the social and sensory limitations of autistic students and reflect a social constructionist perspective of disability. Among the best practices reported, survey respondents cited ongoing and proactive relationships between faculty and students, and between faculty and disability staff, as well as training and development of faculty to increase autism awareness as important mechanisms for supporting autistic college students. Longtin (2014) goes further to recommend that faculty who have expertise in autism could facilitate in-service training and workshops for colleagues, staff, and administrators. Below, I

describe research about faculty interactions with autistic students. Presented first is research from the students' perspectives. Then, research conducted from the perspective of faculty is presented.

Faculty interactions with autistic students

Studies from the students' perspective highlight both positive and negative interactions with faculty but overall demonstrate the importance of faculty in providing academic accommodations and in being an important point of contact for students' learning. While students in Colclough's (2017) phenomenological study of autistic college students' social experiences highlighted positive experiences with faculty who were easy to talk to, relatable, and supportive towards their academic success, Accardo and colleagues' (2019a) mixed method study found that faculty's lack of knowledge about autism's impact on students' health and social experiences, and faculty's lack of flexibility to respond to the needs of autistic students created barriers to student success from the students' perspectives. A mixed method study from Bailey et al. (2020) noted both positive and negative experiences with faculty from the student perspective. On the positive side, faculty helped autistic students connect with extracurricular resources, access course materials and accommodations, and provided social support. On the negative side, students reported faculty's lack of knowledge and unhelpful attitudes towards providing accommodations as sources of student stress.

LeGary's (2015) dissertation research tapped the voices of 10 self-identified autistic undergraduate students to describe their sources of social support in college. LeGary surveyed and interviewed the students to learn more about what types of stress they experience in college and the sources of support that buffered that stress. LeGary used the social support theory (House, 1981) to guide the design and analysis in his research. LeGary found that students identified course-related stress such as doing tasks for courses, balancing taking courses with

self-care, and professors' teaching styles as major stressors. LeGary also found that while family members and friends provided emotional appraisal and informational forms of support, faculty were identified by students as the main and often preferred source of instrumental support, such as academic accommodations, which buffered stress and supported academic success. One student in the study captured this point best by stating that professors are "making the test, they're the ones assessing my understanding of the materials and if I really want to understand something, I prefer to go to the source of it" (p. 259). LeGary (2017) recommends that HEIs provide professional development for faculty as they were a significant source of instrumental support for students in this exploratory case study. Faculty were also the most significant source of academic interactions for students in the study.

In a national exploratory study using a mixed method qualitative design, Sarrett (2018) also sought the opinions of autistic adults about the types of accommodations they received and would have liked to receive in the post-secondary educational setting. Sixty-one participants who stated they attend a higher education institution responded to an online survey about their experiences with academic, social, and housing accommodations. Of these survey respondents, 31 chose to participate in follow-up online focus groups. Sarrett found that 68% of participants received accommodations that met their expectations. Sarrett noted however that students among this group, as well as those who felt that accommodations did not meet their expectations (31%), explained that interactions with faculty regarding accommodations was a source of dissatisfaction. Respondents stated, for example, that accommodations were applied inconsistently, or that they had to advocate time and time again to receive their accommodations from faculty. Respondents strongly recommended therefore that training and professional

development be made available to faculty and staff so that they could increase awareness of autism and the need to provide helpful accommodations to autistic students.

There are a few other studies which looked at students with learning disabilities in general which included autistic students. These studies pointed to the roles that faculty played in supporting students. Patrick and Wessel (2013), for example, found that having a formal faculty mentor was helpful support during students' academic and social transition to college. Students in this study appreciated when their faculty mentors provided information about campus resources, inquired about classroom experiences, and also showed interest and discussed with students issues impacting their personal life. In this study, faculty specifically played the role of mentor as and students reported appreciating these interactions with the faculty. In another study, Connor (2012) detailed the social awkwardness and peer ostracism of a student on the spectrum who coped by developing closer relationships with faculty. The student indicated that he aligned himself intellectually with faculty and befriended several faculty who formed his social support network throughout his academic sojourn. Here, faculty were viewed by the student as playing more than a teaching role.

These studies from the students' perspective highlighted that faculty were important sources of support to students. In these studies, faculty were viewed by students as important for making academic accommodations, for providing instrumental support and for being mentors to students. The following research will highlight the faculty experience and perspective of working with autistic students. While some of this research pointed to ways in which faculty interacted positively in their teaching with autistic students, many faculty admitted gaps in their knowledge about autism and how to teach autistic students.

Studies from the faculty's perspective have generally focused on faculty teaching strategies and faculty knowledge on autism and attitudes towards autistic students. Zeedyk et al. (2018) reported on two studies which sought to better understand faculty knowledge about autism and their experience working with autistic students. In the first study, the authors interviewed 18 faculty from 4-year universities and in the second study, 132 faculty from a research university participated in an online survey. Results from the survey showed that faculty often encountered autistic students in their classrooms with 44% of respondents on the survey indicating that a student disclosed their autism status to them and 79% of faculty suspecting they had a student on the spectrum in their classroom. Paradoxically, faculty who participated in the interviews perceived autism as an invisible disability since it was difficult to tell if a student was on the spectrum. The survey results showed that most of the faculty (85%) reported feeling comfortable with having a student on the spectrum in their classroom and in their labs or research teams (78%). Interviews with faculty revealed that faculty perceived a gap in their knowledge of issues faced by students and how best to help autistic students. Many faculty described conducting their own research to learn more about autism and working closely with disability services to bridge their gaps in understanding. Zeedyk et al. (2018) asserted that "while we cannot expect all faculty to be experts in ASD, our findings indicate the need to bring the concept of neurodiversity to the forefront in college classrooms" (p. 10).

The role of faculty interactions in the classroom to support autistic students was well illustrated in Gobbo and Shmulsky's (2014) qualitative study of faculty who teach at a college which specializes in serving students with conditions such as autism, attention deficit hyperactivity disorder, and dyslexia. These faculty members described providing structure in the classroom and attending to the anxiety levels of autistic students. Providing structure involved

actions such as giving clear, unambiguous instructions about the structure of the class and assignments. Faculty also adjusted assignments to allow students to use their strengths. Faculty in this study also described how they attended to and responded to the anxiety levels of students. Faculty were particularly knowledgeable about what would trigger the anxiety of individual students and how to reduce anxiety when they noticed it building in students. Lastly, faculty also recognized the importance of meeting one-on-one with students who appreciated the clear social expectations of the faculty-student relationship. It is important to note here that this study was conducted in a program for autistic students. Faculty were aware and knowledgeable about how to respond to students' needs in a program which expected them to have this expertise.

Austin (2014) similarly noted that faculty are significant sources of support to autistic college students precisely because they are in an opportune position to interact with students. Austin's work is one of the few studies to directly look at faculty responses to autistic students in the two-year and four-year public college environment. In her dissertation work, Austin interviewed nine faculty who were nominated by their students and disability services as exemplars for responsively teaching and advising autistic students in 2-year and 4-year colleges. These faculty reported several strategies for supporting the learning of autistic students in their classrooms that went beyond basic accommodations. These strategies included: (1) structured scaffolding where large projects would be broken down into smaller assignments, (2) differentiated instruction where several means of communicating the same content or ideas were provided, (3) comprehensive accommodations where some assignments were customized to allow the student to use and demonstrate areas of strength without compromising academic rigor, and (4) collaborative institutional support where faculty reported consulting and working closely

with their institution's disability offices or fellow colleagues who were knowledgeable about autism or who had prior experience teaching autistic students.

Austin noted that professors in the study were employing the principles of universal design for learning. Universal design for learning borrows from the concept of universal design in the field of architecture which advocates for designing accessible learning environments for all (Burgstahler, 2011). When faculty use universal design for learning in their classrooms, they "do so with the purpose of meeting the diverse learning needs of students with a range of strengths and abilities" (Austin et al., 2017). Embracing universal design is a proactive approach where faculty adapt the curriculum for the benefit of all students, rather than waiting to respond to accommodation requests from students with special needs.

Much of the higher education literature on students with disabilities is centered on four themes: academic performance and achievement, disability programs and services, student needs and experiences, and attitudes of peers and faculty (Peña, 2014). The literature about faculty interactions with students with disabilities seems to be less clear about the influence of these interactions on factors such as student learning and engagement. Relevant to my discussion is the research around faculty attitudes towards students with disabilities. It is especially important to attend to faculty attitudes because "faculty personal beliefs have the most direct influence on provision of reasonable accommodations" (Zhang et al., 2010, p. 276). It is important to understand faculty beliefs because beliefs influence faculty behavior.

Faculty beliefs and attitudes towards autistic students. The literature shows that students have mixed interactions with faculty – both positive (Yssel et al., 2016) and negative interactions (Fuller et al., 2004) related to faculty attitudes towards students with disabilities and willingness to accommodate students. Wiorkowski (2015) found, for example, that some autistic

students experience prejudice, disbelief from others about having a disability (because autism is a hidden disability), or a lack of understanding from faculty, academic administrators, or colleagues. Sniatecki et al. (2015) meanwhile found that faculty reported generally positive attitudes toward students with disabilities but "are more likely to hold negative attitudes toward students with mental health disabilities and learning disabilities than toward students with physical disabilities" (p. 259). Bolourian et al. (2018) however noticed nuance in faculty attitudes towards neurodevelopmental disorders as reported by students. In Bolourian's study, students who disclosed their attention deficit hyperactivity disorder (ADHD) to faculty reported more negative reactions than those students who disclosed their autism. According to Bolourian et al. (2018), "it is plausible that within the neurodevelopmental disorder category, some disorders (i.e., ASD) may be considered more credible than others (i.e., ADHD) among university faculty. This finding should raise concern about the overall lack of disability-related awareness at the university level" (p. 3339). Faculty attitudes towards students with disabilities in general and about autism in particular seem to influence students' experiences with faculty.

Gibbons et al. (2015) were interested in knowing the attitudes of faculty and students on their campus prior to the implementation of a certificate program for students with intellectual and developmental disorders (IDD) at their institution. These authors designed and administered two surveys online to gauge students' and faculty's attitudes towards providing post-secondary education (PSE) to students with IDD on their campus. The 49-question long survey for faculty consisted of 15 demographic question and 14 questions that used a Likert-type response scale (1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree).

The Likert-type questions focused on the perception of faculty members about access to PSE for students with IDD, the impact of including students with IDD in their courses and

classrooms on other students, and the impact on faculty teaching and style. The researchers reported that there was a 12% faculty response rate or 152 faculty respondents to the survey. Gibbons et al. (2015) found that faculty were generally supportive of providing the opportunity for students with IDD to attend post-secondary education but that faculty responses were mixed with regard to their perceptions of the impact on other students and on faculty ability to teach. On average, faculty slightly agreed that the classroom routine would be disrupted and that students with IDD would require more time than traditional students. Faculty responses also reflected the belief that traditional students might feel uncomfortable with students with IDD in their courses. Faculty also expressed concern about the success and failure of students with IDD. Gibbons et al. (2015) noted that while faculty have diverse views about the impact of having students with IDD on their campus and in their classrooms, faculty were generally willing to include students with IDD and expressed "a readiness to learn more about what it would be like to have these students on campus" (p. 158).

Faculty knowledge of autism. When it comes to autism awareness, there are gaps in faculty knowledge about autism. Researchers Tipton and Blacher (2014) looked at awareness of autism diagnostic criteria and causes of autism among students, staff, and faculty at one large 4-year university. They invited the entire campus community to complete their online survey and 1,057 valid surveys from a response of 1,162 were included in the analysis. Eleven percent of the responses were from faculty. Respondents also included undergraduate students (45.4%), graduate students (12.9%), and staff (30.2%). Overall, most of the respondents (71.5%) answered correctly that the prevalence of autism was increasing but faculty scored lowest on this question when compared to undergraduates, graduate students, and staff. Overall, respondents who had a

personal connection to someone with autism or reported having autism themselves had the greatest autism awareness.

A significant number of faculty at one teaching-oriented private urban university who responded to a survey reported observing many of their students demonstrate behaviors typically seen in individuals with autism in their classrooms (McKeon et al, 2018). These behaviors are related to challenges with language, communication, organizational, and time management skills. While faculty at this institution were provided with many opportunities for professional development to enhance course design and instruction, some faculty still expressed a desire for more training on how to address the needs of autistic students in particular. A desire for more information about autism and more professional development on teaching autistic students is a major theme which persists through the research.

Faculty training and professional development on autism. Faculty have limited training in teaching students with disabilities (Leyser et al., 1998) but express strong interest in professional development opportunities related to students with disabilities (Sniatecki et al., 2015). While there are attempts to provide faculty professional development to increase their knowledge of autism in particular and how to help students in their classroom, there is little research about the effectiveness of these efforts in terms of increasing faculty capacity or on student outcomes (Zeedyk et al., 2016). Highlighted below are two studies which were conducted almost 10 years apart that surveyed institutions to learn more about how they were preparing faculty to support autistic students.

In terms of faculty development, Smith (2007), in a survey of 29 disability student services officers, found that very few institutions offered workshops on Asperger's syndrome (only 2% of respondents) and most offered one-on-one discussions with faculty (53% of

respondents) or responded to faculty inquiry (21% of respondents) when requested to do so. More recently, Barnhill (2016), in a survey of 30 colleges in the United States which provide a program of support for autistic students, found that in 85% of programs surveyed, program coordinators or disability resource staff met one-on-one with faculty to educate them about autism. Two thirds of the programs organized group workshops for faculty but these were difficult to schedule given conflicting training schedules. Finally, 10% of institutions surveyed provided information online in the form of tip sheets or presentations.

Summary of Literature Review

Faculty are engaged in research, teaching, and service across all institutional types. Factors such as gender, race/ethnicity, institutional type, career stage and appointment type, and disciplinary background all influence the kind of work that faculty do. Faculty interactions with students is an especially important aspect of academic work which has significant repercussions for students. Research on faculty interactions with students with disabilities has shown that while faculty beliefs, attitudes, and behaviors have improved, there is still room for improvement. Faculty are often willing to be supportive by providing accommodations and using helpful strategies such as universal design for learning in their teaching.

Looking specifically at faculty interactions with autistic students, faculty can be a source of support for autistic students in and outside the classroom. Very little research however has focused on how faculty are perceiving and interacting with autistic students. The following authors have looked at faculty interactions with autistic students: Austin (2014), Gibbons et al. (2015), Gobbo and Shmulsky (2014), McKeon et al. (2013); Tipton and Blacher (2014), and Zeedyk et al. (2018). These authors note that faculty are increasingly encountering students who are on the spectrum in their classrooms, but many faculty report gaps in their knowledge about

autism, are unaware of the problems that autistic students experience in college and how to employ pedagogical strategies to help these students in their classrooms. These studies further highlight that some faculty do use inclusive strategies informed by universal design principles and a social justice perspective, actively seek out information about the features of autism, and would like more professional development on autism and how to teach autistic students.

While there is a growing body of research which explores the experiences of college autistic students, there seems to be a gap in the literature on how faculty interact with, come to understand, and support autistic students. The extant research on faculty also focuses primarily on faculty teaching in the classroom and does not highlight how faculty might be interacting with autistic students as mentors or as research supervisors or in different educational settings such as laboratories or seminar classes.

I believe strongly that any discussion about the experiences and success of autistic students in college should include attention to how the college environment can be structured to support students, not just how students themselves should change, cope, or adjust to their setting. While targeted programs which focus on developing academic, social and self-care skills are growing in popularity, these programs are not widely available or may not be easily accessible to all students who need them.

As stated earlier, a major theme running through the research reviewed for this paper has pointed to a desire expressed by faculty for increased information about autism and how to respond to their students' needs. Faculty seem to recognize that they are an important source of support for their students. The role of faculty therefore in helping to create an environment where students can succeed cannot be overlooked. It is important therefore to better understand how faculty have been responding to students and what factors are influencing their actions towards

students. Engaging with faculty to explore their practices and understand the underlying reasons for their behavior can inform the design of professional development programs aimed at supporting autistic college students.

CHAPTER 3: METHODOLOGY

In this section, I review my methodology of choice, theoretical framework, and then detail my research design (e.g., data collection methods, site and participant recruitment, and plans for data analysis). As a measure of transparency and trustworthiness, I also describe my positionality, or relation, to this work.

Basic Qualitative Design

I used a basic qualitative research design. According to Merriam and Tisdell (2013), a qualitative researcher conducting a basic qualitative study is interested in "(1) how people interpret their experiences, (2) how they construct their worlds, and (3) what meaning they attribute to their experiences" (p. 24). I chose a basic qualitative design for this study because so much is still unknown about how faculty interact with autistic students. I hoped that this research would illuminate how faculty describe and interpret their interactions with autistic college students, how faculty view their work, and if and how their roles may change as a result of their interactions with these students.

Unlike quantitative studies which are interested in generalizable knowledge, predictions, and often, in causal explanations, qualitative studies focus on "understanding some social phenomena from the perspectives of those involved, to contextualize issues in their particular socio-cultural milieu, and sometimes to transform or change social conditions," (Glesne, 2006, p. 4). I was more interested in learning how and why faculty interact with autistic college students in the ways that they do, and the results of these interactions on faculty. I was interested in learning about the thoughts and feelings of faculty in addition to their overt behaviors which qualitative research better allowed me to explore.

Qualitative research is also a suitable research design when "the subject matter under investigation is new or underdeveloped and where qualitative methods can help define terminology, concepts or subjects for investigation" (Ritchie, 2003, p. 42). While there has been an increase in the number of studies about the experiences of autistic students in the college context (Gelbar et al., 2014), research about faculty attitudes, perceptions and responses as it relates to autistic students are quite limited. Additionally, those studies which have been conducted mainly address faculty in the teacher role (Austin, 2014; Gobbo & Shmulsky, 2014) and have not addressed the experiences of faculty who may interact with autistic students in other faculty roles such as advisor or researcher. Finally, research on students with disabilities remains marginalized and largely absent in leading higher education journals (Peña, 2013) suggesting that this topic is still underexplored in higher education research.

Epistemological Paradigm

Throughout this study, I relied on the interpretivist paradigm, or orientation. An interpretivist orientation allowed me to explore faculty experiences and views from the perspective of the faculty, knowing that what I learned was contingent on faculty, what they chose to share with me, and my own understanding of what they shared. In fact, I was an active participant in the construction of any knowledge that stemmed from this work. I was not discovering facts or knowledge that exist in the world, but rather I actively interpreted and constructed it through the process of talking with faculty about their experiences.

An interpretive orientation also emphasizes the "social dimensions of reality construction" (Prasad, 2015, p. 14). I recognized that the experiences of faculty are "mediated by the cognitive schema and language that we gain from our wider society" (Prasad, 2015, p. 14). In this research project therefore, I paid attention to how institutional type, as well as policies and

structures related to autistic students, and broader historic and contemporary constructions of autism influence how faculty make sense of their interactions with autistic students.

Theoretical Framework

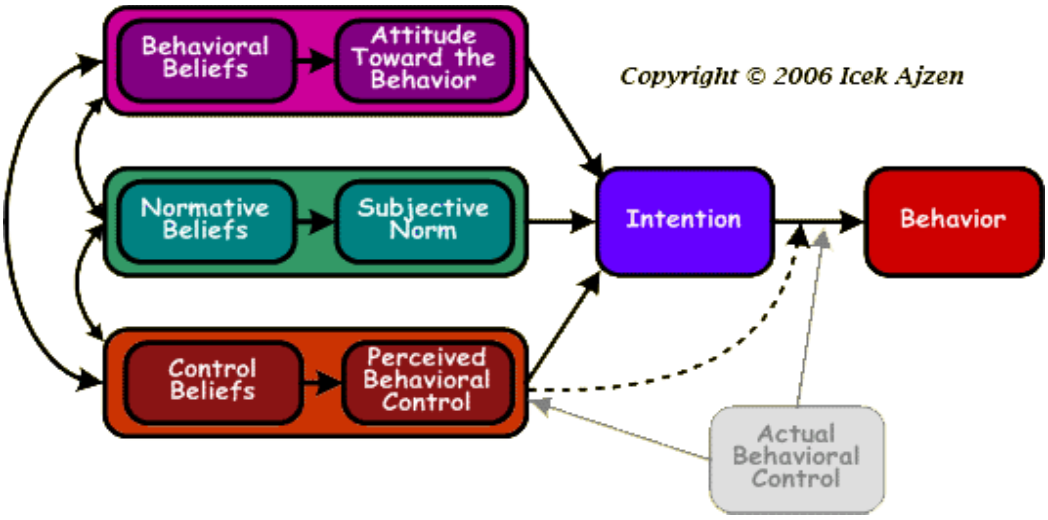
In this section, I describe in greater detail the Theory of Planned Behavior (Ajzen 1991a, 2005). While I explain here the various components and processes addressed in the theory (Figure 1), I focused exclusively on using the theory to help me explore the beliefs and behaviors of faculty in this study. As I established in the literature review, it is largely unknown how faculty interact with and support autistic college students in different spheres of their work. I chose therefore to start with learning more about the range of actions in which faculty were engaging to interact with and support autistic college students. Additionally, I chose to interview faculty who had already engaged in some sort of behavior or already had an intention to engage in behavior defined broadly as interacting with and supporting autistic college students. I was interested in exploring these range of behaviors in various aspects of faculty work and the associated beliefs that informed faculty intention to engage in those behaviors. Given these research questions, I utilized the beliefs and behaviors components of the theory.

The Theory of Planned Behavior posits that an individual's intentions to perform a behavior is a good predictor that the behavior itself will be performed. An individual's salient behavioral, normative, and control beliefs form the basis for an individual's attitudes, subjective norm, and perceived behavioral control which in turn influence an individual's intention to perform a behavior. Behavioral beliefs are beliefs about the consequences of the behavior; normative beliefs are beliefs about the expectations of important others; and control beliefs are beliefs about the presence or absence of factors that may facilitate or impede performance of the behavior (Ajzen, 1991a). Soliciting the salient beliefs about a behavior is a key first step in

exploring the precursors to an intention to perform a behavior (Ajzen et al., 2020). "In their respective aggregates, behavioral beliefs produce a favorable or unfavorable attitude toward the behavior; normative beliefs result in perceived social pressure or subjective norm; and control beliefs give rise to perceived behavioral control or self-efficacy" (Bosnjak et al., 2020). Salient behavioral, normative, and control beliefs are those beliefs that are "considered to be the prevailing determinants of a person's intentions and actions" (Ajzen, 1991a, p. 189). My research questions, interview protocol, coding scheme and data analysis were informed by the TPB, specifically the components of behaviors and beliefs.

Figure 1

Ajzen (1991b) Theory of Planned Behavior Diagram



The TPB conceptualization of beliefs allowed me to explore the salient beliefs that were immediately available (came to mind) to faculty when describing why they engaged in a particular action to interact with and support autistic students. Specifically, I used the TPB to explore faculty's (behavioral) beliefs about the benefits of their actions, their (normative) beliefs about who approved of their actions and whether this approval was important to them, and their (control) beliefs about supports or hindrances that exert influence over their desire to act in

supportive ways. I should note that defining beliefs in this way, while helpful in its specificity within the context of an action towards a unique group of students, differs from other definitions of the term 'teacher beliefs' typically used in educational research.

While there is substantial research in the area of educational beliefs and in particular teacher beliefs in the K12 and higher education literature (Hora, 2014), the term teacher beliefs is a "messy construct" (Parajes, 1992; Fives et al., 2012) often because of multiple definitions that lack consistency within and across disciplinary fields (Fives et al., 2012; Hora, 2014). Parajes (2012) offered a simple and helpful definition of beliefs as "an individual's judgment of the truth or falsity of a proposition, a judgement that can only be inferred from a collective understanding of what human beings say, intend, and do" (p. 316) but recommended that researchers narrow their focus on teacher beliefs to teachers' "*educational beliefs about*" so as not to use terms that are too "diffuse and ungainly, too difficult to operationalize, too context free" (p. 316) in educational research. The TPB provided me with a framework for this narrowing of focus and specificity to explore what faculty believed to be true about the benefits of their actions, who would approve of their actions, and the supports or deterrents influencing their actions about supporting autistic students.

In this regard, the conception of faculty beliefs about interacting with and supporting autistic students using the TBP as my theoretical framework is distinct from teacher pedagogical beliefs which refer to beliefs about teaching and learning (Denessen, 2000; Ertmer, 2005; Tondeur et al., 2016) often explored in higher education research as approaches to teaching (Hora, 2014). For example, Trigwell et al., (1994) described approaches to teaching along a continuum of student-centered to teacher-centered. These approaches are constituted of faculty intentions (motives) for engaging in certain teaching strategies inclusive of the strategies

themselves. The TPB conception of beliefs is also distinguished from faculty's personal epistemology which refers to "beliefs about the nature of knowledge and knowing, specifically how knowledge is defined, constructed, justified, and stored," (Fives et al., 2008, p. 136). Finally, the TPB conception of beliefs is distinct from a belief system in which all beliefs are nested and has been defined "as having represented within it, in some organized psychological but not necessarily logical form, each and every one of a person's countless beliefs about physical and social reality" (Rokeach, 1968, p. 2).

In the Theory of Planned Behavior, pedagogical beliefs and teaching approaches, personal epistemologies, and belief systems would be considered important background factors that influence behavioral, normative and control beliefs. The TPB "acknowledges that background factors can provide valuable information about possible precursors of behavioral, normative, and control beliefs, information not provided by the theory itself", (Ajzen, 2020, p. 318). But that the TBP components "mediate the effects of background factors on intention and behaviors" (p. 318). This suggests that faculty's beliefs about the benefits of their actions, beliefs about who approves of their actions, and beliefs about how much control they have which are activated as they interact with autistic students, will mediate the effects of background factors such as their broader approaches to teaching or their personal epistemologies.

In summary, the theory of planned behavior was applicable to my research since I was interested in understanding not only the kinds of responses or interactions faculty were having (i.e., faculty behavior) with autistic students but also understanding the beliefs that guided their responses. The current research on faculty interactions with autistic students has not explored the range of responses of behaviors that faculty display in their various roles in relation to these students. The current research also does not explore the range of faculty beliefs that might

influence the wide possible range of responses to autistic students. Most of the research has focused on faculty responses to autistic students in a teaching context and has focused on positive faculty responses. The TPB therefore provided a framework to understand at an individual level what were some faculty doing in the various aspects of their work to interact with and support autistic college students and to discover the beliefs that drove these interactions. In the next few paragraphs, I describe in greater detail the constructs within the theory of planned behavior and provide a short example of how the theory might be used to understand the responses and beliefs of faculty interacting with students.

Behavioral beliefs and attitude toward the behavior

Behavioral beliefs are the beliefs that an individual has about the consequences of a behavior. These beliefs inform an individual's attitude, or the individual's favorable or unfavorable feeling toward the behavior (Ajzen & Fishbein, 1980). Behavioral beliefs can be positive or negative. They are the benefits or advantages as well as any challenges or disadvantages perceived by individuals when they consider engaging in a particular action. In the case of responding to the needs of autistic students, if a faculty member believes that providing an alternative assignment would be as valuable to an autistic student as the original assignment, that faculty would have a favorable attitude toward providing such an accommodation. If a faculty member perceives however that the academic accommodation would not be valuable and would lessen the learning the student derives from the alternative assignment, the faculty would not have a favorable attitude toward providing such an accommodation.

Normative beliefs and subjective norm

Normative beliefs are the beliefs an individual has about how supportive or non-supportive important referents, such as colleagues and students, would be of the behavior as well as the individual's motivation to go along with these referents. Normative beliefs form the basis for the subjective norm or social pressure to perform the behavior. For example, a faculty member might consider how other colleagues have interacted with autistic students or how colleagues might support or not support the faculty's behavior toward the student. Also important in this scenario is the extent to which the faculty believes it is important to act in accordance with the perceived expectations of colleagues which may be influenced by numerous factors such as tenure status, appointment type, socialization experiences, or perceptions of collegiality within the department to name a few.

Control beliefs, perceived behavioral control, and actual behavioral control

Control beliefs are those beliefs which an individual has about the presence or absence of factors which support or hinder performing a behavior. These beliefs underlie the individual's perception of their ability to perform a behavior. These factors include resources internal to the individual such as skills and knowledge as well as resources external to the individual such as time, money, or infrastructure. For instance, where faculty members believe they have the knowledge, skills, and autonomy to use teaching strategies which can assist an autistic student in their classroom, faculty would perceive themselves as having behavioral control in that setting. Perceived behavioral control is used as a proxy for actual behavioral control. Actual behavioral control refers to the extent to which factors of support or hindrance are operating within the individual's environment and therefore the level of actual control the individual has to perform the behavior. Where actual behavioral control can be known, it can be used to predict the

performance of a behavior but typically it is very difficult or impossible to determine an individual's actual behavioral control (Ajzen, 1991a).

Intention

> Intentions capture
>
> the motivational factors that influence behavior; they are indicators of how hard people are willing to try, of how much of an effort they're planning to exert, in order to perform the behavior. As a general rule, the stronger the intention to engage in a behavior, the more likely should be its performance. (Ajzen, 1991a, p. 181).

An intention is the cognitive middle ground between beliefs and actions. An intention to perform a behavior precedes the performance of the behavior and has been shown to be a good predictor of the performance of a behavior. One's positive or negative beliefs and attitudes about engaging in a behavior influences one's intention to perform the behavior. An expression of one's intention is a translation of one's beliefs and attitudes about the behavior into a statement of action. If a faculty member has a strong intention to use scaffolding in assignments for example, then it is more likely that the faculty will carry out this behavior.

Behavior

Behavior refers to "the action, the target at which the action is directed, the context in which the action is performed, and the time at which it is performed" (Ajzen & Fishbein, 1977, p. 889). Behavior is the overt, observable action performed by an individual. A faculty member providing an academic accommodation to a student on the spectrum in the college classroom setting is an example of a faculty response or behavior. A behavior can also be an amalgam of single behavioral observations over contexts and time (Ajzen, 1991a). There is a wide range of behaviors or responses that faculty can have toward autistic students with whom they interact.

In summary, the theory of planned behavior states that a behavior is preceded by an intention to perform the behavior which is informed by the individual's attitudes towards the behavior, the perceived social pressure and ability to perform the behavior. A strong intention to perform a behavior is likely when there is alignment of a favorable attitude, subjective norm and behavioral control. An individual's behavioral, normative, and control beliefs underlie their feelings and perceptions and ultimately their intentions to perform a behavior.

The theory of planned behavior provided a framework to explore not only how faculty responded to autistic students but why they responded in the ways that they did. I used the theory of planned behavior, specifically the constructs of beliefs and behaviors, to inform my research questions, guide the development of my interview protocol and my data analysis. I also used the theory of planned behavior to help me draw conclusions which inform recommendations for practice and future research coming out of this study.

Research Design

Institutional Review Board

Prior to beginning this research, I completed and submitted all required approval forms to the IRB at Michigan State University (MSU). I received full IRB approval to conduct this study.

Sample and participant selection

I used a combination of purposive and convenience sampling to recruit and select participants for my study. By using purposive sampling, I was able to access faculty who were knowledgeable about working with autistic students and therefore could provide in-depth knowledge about their experience. Researchers typically use this type of sampling method "when most of the random sample may be largely ignorant of particular issues and unable to comment on matters of interest to the researcher," (Cohen et al., 2011, p157). While the numbers of

autistic students attending college has been increasing, it is estimated that students who could meet the criteria for autism account for about 0.7-1.9% of the college student population (White et al., 2011). It is possible therefore that a broader recruitment strategy would not have attracted faculty who had experience of working with autistic students. Additionally, most faculty may be unaware that their students were autistic because of students' decision not to self-disclose or regulations governing privacy of student health information. Since I was most interested in how and why faculty were interacting with autistic college students, it made the most sense to recruit and select participants who met the specific criteria. Purposive sampling allowed me to choose the participants that "have particular features or characteristics which will enable detailed exploration and understanding of the central themes and questions" that I wished to study (Ritchie et al., 2013, p. 113).

I used a convenience sampling strategy to recruit participants who were convenient in their proximity and willingness to participate in my study (Robinson, 2014). I used personal and professional networks that were easily available and accessible to me to recruit participants for my study. This type of sampling "does not seek to generalize about the wider population," (Cohen et al., 2011, p156). As a result, my findings cannot be decontextualized to the wider population of college faculty in general. While lack of generalizability is an expected limitation of purposive and convenience sampling strategies, these sampling choices allowed me to successfully recruit faculty participants who could provide in-depth information about their experiences with autistic college students in different spheres of their work.

I recruited 15 participants for this study based on the inclusion criteria as follows: participants were included in this study if they: (1) served in a faculty role (assistant, associate or full professor) at their institution, (2) (a) had knowingly interacted with and supported an autistic

student in a teaching, advising, research, or mentoring role or (b) had an interest in supporting autistic students but had not knowingly interacted with an autistic student. All participants reported that they knowingly interacted with and supported autistic students.

I approached my recruitment strategy with certain assumptions in mind regarding faculty interactions with autistic college students. I assumed that since many autistic students often need specialized support and services, that institutions with autism specific services and programs attracted and enrolled significant numbers of autistic students and there would be an increased likelihood that faculty members would have the opportunity to interact with autistic students. Additionally, I assumed that institutions with these types of services and programs may also explicitly or implicitly communicate expectations to faculty about how to engage or interact with autistic students. I therefore targeted my recruitment to institutions with autism specific student support programs.

In order to recruit participants for my study, I extended invitations to participate through three avenues. First, using available lists of institutions with autism specific student support programs within Michigan, I emailed the coordinators of these programs introducing myself, the purpose of my study and asked them to share information about my study with faculty who met the selection criteria. Second, I emailed the listserv for the College Autism Network (CAN) who facilitated the posting of my call for participants to their membership. Third and finally, I asked friends and colleagues in my personal network to refer potential participants to me. Through these recruitment efforts, fifteen (15) faculty contacted me via email and agreed to participate in my research study. The table below (Table 1) shows the number of participants who were engaged through each recruitment strategy.

Table 1
Recruitment Strategy

Recruitment strategy	Number of participants	Pseudonym	Comments
1. Email to support program coordinators	7	Addison Annie Danielle Natalie Scott Suzie Thomas	• Addison and Suzie know each other and work together at the same institution. • Addison recommended Danielle and Thomas for the study. • Addison, Suzie, Danielle and Thomas are at the same institution.
2. Email to CAN listserv	4	Eva Evelyn Nina Sara	• Evelyn, Eva and Nina know each other and have worked together. Evelyn was mentor to Eva and Nina. At different institutions now.
3. Friends and colleagues	4	Fleur Helaine Patricia Russell	• Fleur and Patricia know each other and have worked together. At the same institution.

The recruitment email (Appendix A) to faculty stated who I was and my contact information, the purpose of the study and any associated risks, inclusion criteria for participating in the study, and a URL link to a short demographic survey and the informed consent form (Appendix B). The demographic survey allowed me to collect data which aided both my recruitment decisions and my data analysis process. The short demographic survey included questions about the faculty's name and contact information, the role in which the faculty interacted with the student, and for how long this relationship existed, the faculty's disciplinary background, career stage and appointment type, gender identification and preferred pronouns, and racial/ethnic identification. I included a question about the nature and duration of the

interaction between the faculty and the student because I was interested in learning more about faculty interactions that are longer term or go beyond a one-time interaction. I chose to include questions about the faculty's disciplinary background, career, and personal demographics because research has shown that these characteristics often influence the kind of roles and academic work faculty perform or are expected to perform (Jones, 2011). I therefore wanted to be able to link these characteristics to faculty's comments about salient beliefs should such comments or insights be raised by participants. I did not however choose to use disciplinary background, career stage and appointment type, or personal demographic information in my sampling strategy. I administered this survey using the online research survey platform Qualtrics. A summary of participants' characteristics is presented in Table 2.

Table 2
Description of the Participants' Characteristics

Pseudonym	Rank	Appointment type	Institutional Type	Discipline	Highest degree	Gender	Race	Role to autistic student
1. Addison	Program Coordinator, Lecturer	Non tenure track	Research Public	Social Work	MSW	Female	White	Advisor, Mentor
2. Annie	Professor	Tenured or Tenure Track	Research Public	Human Development	PhD	Female	White	Researcher, Mentor
3. Danielle	Associate Professor	Tenured or Tenure Track	Research Public	Teacher Education Physical Education	ABD	Female	White	Teacher, Advisor, (Major)
4. Eva	Lecturer	Non Tenure Track	Research Private	Developmental Psychology	PhD	Female	White	Teacher, Advisor, Mentor, Researcher
5. Evelyn	Associate Professor	Tenured or Tenure Track	Master's Public	Developmental Psychology	PhD	Female	White	Teacher, Advisor, Mentor, Researcher
6. Fleur	Associate Professor	Tenured or Tenure Track	Research Public	Vocational Counseling	PhD	Female	White	Mentor, Researcher
7. Helaine	Research Faculty	Non Tenure Track	Liberal Arts Private	Higher Education Administration	PhD	Female	White	Teacher, Researcher
8. Natalie	Associate Professor	Tenured or Tenure Track	Research Public	Communication Studies	PhD	Female	White	Teacher, Advisor
9. Nina	Assistant Professor	Tenured or Tenure Track	Master's Public	Psychology	PhD	Female	White	Teacher, Researcher
10. Patricia	Professor	Tenured or Tenure Track	Research Public	Education	PhD	Female	White	Teacher, Advisor
11. Russell	Associate Professor	Tenured or Tenure Track	Research Public	Music Performance and Pedagogy	PhD	Male	Pacific Islander	Teacher, Mentor

Table 2 (cont'd)

Pseudonym	Rank	Appointment type	Institutional Type	Discipline	Highest degree	Gender	Race	Role to autistic student
12. Sara	Lecturer	Non Tenure Track	Research Public	History and Classical Studies	PhD	Female	White	Teacher, Advisor, Mentor, Researcher
13. Scott	Professor	Tenured or Tenure Track	Research Public	Social and Behavioral Sciences; Health Sciences	PhD	Male	White	Teacher, Advisor, Mentor, Researcher
14. Suzie	Professor	Tenured or Tenure Track	Research Public	Counseling and Special Education	PhD	Female	White	Advisor, Mentor
15. Thomas	Senior Lecturer	Non Tenure Track	Research Public	Religious Studies and History	PhD	Male	White	Teacher

Data collection

For this dissertation, I conducted semi-structured one-on-one interviews with participants to explore their experiences with autistic students. I considered one-on-one interviews the best method for data collection in this study as "interviewing is most valuable when we are interested in knowing people's beliefs, attitudes, values, knowledge, or any other subjective orientations or mental content" (Gorden, 1975, p. 39). Semi-structured interviews provided "an opportunity for detailed investigation of people's perspectives, for in-depth understanding of the personal context within which the research phenomena are located, and for a very detailed subject coverage" (Ritchie, 2003, p. 36).

I used an interview protocol (see Appendix C) for the semi-structured interviews which allowed me to explore the topic in depth with participants but also allowed enough flexibility if I needed to ask probing or follow up questions or to vary the sequence of the questions to better fit the interview session. This interview protocol was informed by Azjen's (1991a) Theory of Planned Behavior as well as literature from higher education and faculty research. As such, questions focused on: (1) the experiences participants have had with autistic students (Behavior), (2) how participants have responded to students (Behavior), (3) the advantages and disadvantages of participants' responses to students (Behavioral Beliefs), (3) participants' perceptions of expectations placed on them by others to respond to students (Normative Beliefs), and (4) the barriers or supports which they perceive as influencing their response to students (Control Beliefs).

I emailed each participant to set up a convenient day and time to conduct the interview. Prior to the interview, I asked each participant to complete the brief demographic questionnaire and to read, sign, and return the informed consent form to me via email.

I met Addison, Suzie, and Russell in person to conduct their interviews since they were located within driving distance of my home. For the remainder of the participants, I set up video conferencing and conducted interviews with them via Zoom. At the end of each interview, I asked participants for an email address to send them an Amazon gift card as a token of my appreciation. Four participants declined the gift card. Interviews were an average of 60 minutes in length.

All interviews were audio recorded using an external audio recording device and my iPhone. I transferred one copy of the audio file following each interview to my institution's OneDrive and deleted the recordings from these devices. To transcribe the audio files, I used Temi, which is a fee-based online audio transcription service which uses machine generated text. In the Temi interface, I listened to the audio and edited the transcripts to ensure accuracy. After downloading each transcript into a separate Word document, I masked participant names with pseudonyms and de-identified the transcript further by any other changing names (e.g. institutional, student, program names) mentioned by participants.

For member checking, I emailed each participant's fully masked transcript to them and asked them to read the transcript for accuracy and to make any changes, deletions, or clarifications they wished to make. Only three participants made changes to the transcripts, seven indicated they did not want to make changes and five made no reply to my email regarding the transcript. All files for this project are stored on my laptop which is password protected and on the Michigan State University Microsoft cloud storage service which is also password protected.

Analytical process

I used an integrated approach to data coding (Fereday & Muir, 2006) wherein I first employed deductive coding using a theory driven coding scheme (Boyatzis, 1998) followed by inductive coding. My analysis was also guided by Miles and Huberman's (1994) approach to data analysis which includes: (1) data reduction, (2) data display and (3) drawing conclusions and verification, all of which involved the use of my theoretical framework. Data reduction refers to "the process of selecting, focusing, simplifying, abstracting and transforming the data that appear in written-up field notes or transcriptions" (p. 10).

For each participant, I listened to the audio and read the transcript before beginning my coding in Dedoose which is a web based qualitative data management platform. I used a theory driven predetermined coding scheme to complete my coding (see Appendix D). Using a theory-driven coding scheme (provided in a code book in Appendix D) for my first round of coding allowed me to organize the data into "similar or related text to assist in interpretation" (Fereday & Muir, 2006, p. 84). I read each transcript and coded data points using the theory driven code. More specifically, during the data reduction phase, deductive coding was informed by the theory of planned behavior. Using this coding scheme, I started with the general categories of Behaviors, Behavioral Beliefs – Benefits, Behavioral Beliefs – Challenges, Control beliefs – Facilitating Beliefs, Control Beliefs – Inhibiting Beliefs, and Normative Beliefs. I read each transcript in its entirety and coded relevant text using these broad categories. I then re-read each transcript and develop codes within each category. For example, for the Behaviors category, I coded text related to teaching as *Teaching* and then further coded text into specific teaching behaviors such as *Differentiated instruction* and *Universal design for learning*. When I created codes, I used verbatim text from a participant to establish my labels. I also established definitions

and benchmark excerpts for my codes and used these to make coding decisions. For example, when making a coding decision about an excerpt of text, I referenced the code definition and benchmark code to determine if the text under scrutiny aligned with the definition and benchmark.

While I used theory driven deductive coding to analyze and better understand the salient beliefs and responses of faculty to students, I recognized that some data did not fit neatly into predetermined codes. Using inductive coding allowed me to pay attention to data that might be important to the beliefs and actions of faculty as they responded to autistic students that did not fall neatly into theory driven codes. By using inductive coding, I was able to create codes that "emerge progressively during data collection" (Miles et al., 2014, p. 81). In my second round of coding, I captured the common patterns that I saw in the transcripts that did not fit into my predetermined codes by creating new categories for this content. In each round of coding, I read and re-read the transcripts several times and made decisions to combine codes where I might have initially created duplications or split a code if it were too broadly defined.

When I completed this process, I exported each major category with coded text from the transcripts into an Excel file. The data, organized within this Excel data display, allowed me to notice and create themes from the data which may point to the connections between codes. The term data display refers to displaying the data in a compact, usable form of "matrices, graphs, charts and networks" (Miles et al., 2014, p. 11) which allows decisions to be made about further analysis of the data or to draw conclusions about the data. I used the Excel file to determine patterns or themes within the data. The data display allowed me to see where there was evidence from the data which confirmed or disconfirmed the codes and themes that I was creating. Viewing and reading the data in this way led me to link codes under a theme. For example, I

linked the codes *Differentiated instruction* and *Universal design for learning* under the theme *Utilizing responsive pedagogical strategies*.

I used the visualization of the data in the Excel file, to further analyze and organize the data into themes, subthemes, codes, and excerpts. This process is referred to as drawing conclusions which involves identifying "regularities, patterns, explanations, possible configurations, causal flows, and propositions" constructed from the data," (Miles et al., 2014, p. 11). I drew conclusions to develop overarching themes and sub themes which reflected the relationships I saw within the data. Verification refers to verifying the conclusions made by using various techniques such as making contrasts and comparisons, close examination of outliers, looking for negative evidence, triangulation, and respondent feedback.

From this Excel file, I began pulling excerpts into a Word document to write my findings. While writing, I frequently went back to the audio and to the transcript to re-read excerpts within context and to clarify or confirm my understanding and meaning making. When completing each section of writing about a theme, I examined the themes, codes, and excerpts of text to ensure that there was consistency. If a code did not match the theme, I made decisions to remove the code from that theme. If themes or codes were too diffused, I made decisions to combine them where appropriate. For example, in the section on behavioral beliefs, one of the themes was Benefits to Faculty. I developed the themes: (1) *Being authentic in communication with students*, (2) *Being a better professor*, (3) *Becoming a better teacher using UDL*. However, when re-reading the data points for these sub-themes, I realized that based on participants' words, they all described a central belief that they became better professors through development of their communication skills, teaching skills, or personal characteristics. I therefore collapsed the three themes into one theme of *Becoming a better teacher*.

Trustworthiness

"The criteria for the credibility of quantitative research are based on the validity and reliability of instruments and internal validity, in qualitative research the primary criterion is the credibility of the study" (Lather, 2007, p. 5162). Trustworthiness, often used synonymously with the term credibility, refers to "how much trust can be given that the researcher did everything possible to ensure that data was appropriately and ethically collected, analyzed, and reported" (Carlson, 2010, p. 1103). For this study, I established trustworthiness by employing various techniques such as reflexivity, member checking, and by using an audit trail. I also established trustworthiness by audio recording the interviews, providing participants' quotations, and using "thick description" (Geertz, 1973) in the final report, and by actively searching for and addressing any discrepant data.

Reflexivity and positionality. "Reflexivity is commonly viewed as the process of a continual internal dialogue and critical self-evaluation of researcher's positionality as well as active acknowledgement and explicit recognition that this position may affect the research process and outcome," (Berger, 2013, p. 220). While I am an outsider to the group being studied, I recognized that because of my aspirations to join the faculty ranks as well as my close personal relationship with a family member who is autistic, I brought many preconceived notions and biases to this project. I also recognized and accepted that because of my interpretivist perspective, my biases and experiences inevitably influenced my interaction with participants, and my collection and interpretation of the data (Tracy, 2010). Throughout the study, I was committed to a process of self-appraisal in which I was transparent and honest about my "situatedness" (Berger, 2013, p. 220) in the research. I paid close attention to my biases and hopes for the outcomes of this research and how these could have had an impact on participants,

the interview process, and the analysis and interpretation of data. I include below my positionality statement.

Positionality statement. I view myself as an outsider of the group I studied in this project. I am not a faculty member though I aspire to be one. Neither am I an autistic student. I do however have a close family member who is autistic and I am very concerned about his development and educational pathways. It is this concern and uncertainty about his future access to post-secondary education that drove my motivation for this project. While I hope to make a contribution to the field on a topic which has increasingly been gaining attention in higher education, I hope that in some small way, my work can provide some foreshadowing to what lies ahead for my relative. I also believe that teachers and all that they do, at all levels of formal schooling, are central to student learning and development. I decided to focus this project on faculty because I see faculty residing at the core of higher education. They drive knowledge production, dissemination, and consumption but also and importantly, have unsurpassed influence on student learning. Though it is obvious how faculty can be influential through their role as instructor, advisor, or mentor, it might be less obvious how faculty work in research or service influence outcomes for autistic students. My interest therefore in faculty responses to the needs of college students acknowledges that there is more than one way to respond and help students and that faculty work, in all its forms, can directly and indirectly shape a student's experience.

Member checking. Member checking allows participants the opportunity to check or approve the data which they have provided. "Participants are given transcripts or particles from the narratives they contributed during interview sessions and are asked to verify their accuracy. Participants may be asked to edit, clarify, elaborate, and at times, delete their own words from

the narratives," (Carlson, 2010, p. 1105). After I transcribed interviews verbatim from the audio recording, I emailed the transcripts to participants asking them to edit, clarify, elaborate or delete their own words from the narrative. I was also sure to ask each participant whether they would like to engage in member checking in this manner. I utilized this participant-edited version of the transcript for data analysis. Through member checking, I was able to ensure the accuracy of the transcriptions and that the meanings and interpretations which I derived were consistent with those of the participants (Creswell & Miller, 2000). I also offered to provide participants with a summary of preliminary findings and the final results of the study at appropriate times during the course of the project. At these times, participants had the opportunity to comment, raise concerns, and clarify any direct quotations I used to support my findings. These interactions with participants through member checking informed my analysis of the data and the conclusions I made.

Audit trail. Throughout the study, I maintained an audit trail or careful documentation of all aspects of the study. I documented the "inquiry process through journaling and memoing, keeping a research log of all activities, developing a data collection chronology, and recording data analysis procedures clearly," (Creswell & Miller, 2000, p. 128). Maintaining an audit trail in this way allowed me to have a clear line of sight from data collection to data analysis and increased the likelihood that my findings were aligned to the data.

Limitations

This research is limited in the following three ways. First, while I hoped that the findings of this research would be beneficial to autistic college students, I chose to seek the perspective and knowledge of faculty members rather than autistic college students. Researchers have critiqued this approach of doing research on autism without consulting actual autistic individuals

as partners in the research (Milton & Bracher, 2013; Nicolaidis et al., 2012; Pellicano & Stears, 2011) and I recognize that this is a limitation of my own research. I hoped however that the potential insights from my study could be beneficial to understanding the role that faculty can and do play to support students and how institutions can better support faculty in these roles. I recognized that my research on faculty perspectives of their work in relation to autistic students provides just one perspective. I hoped that these insights could inspire future research which explores the voices of autistic students in dialogue with faculty voices.

Second, with qualitative research, the findings from this study are not generalizable nor does qualitative research claim to be generalizable in its intent. I hoped with this qualitative study that I could develop a rich, in-depth understanding of faculty's perspectives on interacting with autistic students. Further, having relied on convenience sampling, I acknowledge that the beliefs and behaviors described by participants in my study are reflective of their experiences and therefore, cannot be generalized to all faculty who interact with autistic college students. Participants who volunteered for my research came from a small network of individuals and thus may be similar in many ways that are not representative of college faculty in general. My participant sample may be different from faculty who did not volunteer for my study, in ways that are not related to the sampling criteria resulting in self-selection bias. "The self-selection bias is not possible to circumvent in interview-based research, as voluntary participation is central to ethical good practice, therefore all a researcher can do is be aware of the possibility for bias and consider it's possible impact on findings and generalisability," (Robinson, 2014, p. 36). I anticipated however that the findings of this research would provide insights to college faculty, staff and administrators as they conceptualize and design various initiatives to support growing numbers of autistic college students and the faculty who interact with them.

Third, while using the Theory of Planned Behavior allowed me to systematically explore the kinds of interactions that faculty were having with autistic college students in various aspects of their work and faculty salient beliefs about these interactions, use of the TPB foreclosed on certain avenues of understanding faculty support to autistic students.

> Many factors not included in the TPB may influence intentions and behavior, including demographics… personality traits, life values, political ideology, mood and emotions, and so forth. In the TPB, these kinds of variables are considered background factors that have no direct effect on behavior but can influence it indirectly by way of the more proximal antecedents of behavior specified in the theory. (Ajzen et al., 2020, p. 21).

My decision to use the TPB and forego a reading of faculty beliefs and behaviors towards autistic students informed by these background characteristics allowed me to explore beliefs that were evoked in the moment. Given that there are incongruences between faculty beliefs, knowledge and action in relation to providing support and accommodations to students with disabilities (Kennette et al., 2019; Lombardi et al., 2011; Zhang et al., 2010), using the TPB allowed me to isolate and better understand those beliefs that were most influential and came into play as faculty in my study carried out their intentions to support autistic students.

CHAPTER 4: PARTICIPANT PROFILES

The purpose of this dissertation was to explore how a select group of faculty interacted with and supported autistic college students. This chapter presents brief profiles of the faculty participants who shared their experiences with me. For more details about the kinds of actions that faculty took to support their autistic students, see Appendix E.

Fleur

Fleur was an Associate Professor of Vocational Counseling at a public research university. Her first interactions with autistic people occurred when she worked in a community mental health setting after she completed her master's program. At her current institution, she worked collaboratively with the university's autism center. For several years, Fleur also served on the board of a community-based organization specializing in services for autistic adults. She has had one autistic graduate student with whom she developed a close mentoring relationship. Fleur first met this graduate student when he participated in programming at the university's autism center. He later joined her department as a graduate student and she sat on his dissertation committee and tried to help him navigate his graduate school experience.

Patricia

Patricia was a Professor and Department Chair of Reading and Language Arts at the same institution as Fleur. She and Fleur worked with the same autistic graduate student. She worked closely with this student as his dissertation supervisor and mentor. Unlike other participants in this study, Patricia had just this one experience working with an autistic graduate student. Close to retirement at the time of her interview, she questioned whether she had the time to work with another autistic student and whether she would even want to, given the intensive nature of her support to her autistic graduate student.

Russell

Russell was an Associate Professor of Piano Performance and Pedagogy at a public research university. Russell first came to know about autism through his neighbor who had an adult autistic child. Russell taught piano to autistic students through a university affiliated community music school. He said that teaching one autistic student at the community school snowballed into teaching more and more students as he developed a reputation for being a supportive and effective piano instructor for autistic students. At his university, he has taught autistic undergraduate students and has recently developed and hosted a music festival for exceptionally talented autistic piano musicians. He has also published on teaching piano to disabled students and autistic students.

Danielle

Danielle was an Associate Professor of Teacher Education with specialization in Physical Education at a public research university. Through her education and training, Danielle learned about adaptive physical education for disabled populations, and it was through her practicum work that she first met autistic youth. She felt strongly that physical activity should be accessible to all people and carried this belief into her teaching undergraduate students. At her current institution, she has had two undergraduate students in her classes who she knew were autistic.

Addison

Addison was a coordinator of a college autism support program and part time lecturer at her public research university. She holds a Master's in Social Work with a graduate certificate in autism. She also holds a bachelor's degree in speech pathology. It was through her work as a speech pathologist that she first met autistic young people. Through these experiences, she decided that she wanted a career in support of autistic people who were often underestimated and

perceived as incompetent. She knew they were capable of much more than what others believed. As coordinator of her institution's autism support program, she supported autistic students through direct interaction and through supervision of the peer mentors who acted as aides to the autistic students enrolled in the program. She also taught part time as a lecturer in the Special Education department. There, she taught a course on autism and supervised undergraduate students in their practicum.

Suzie

Suzie was a Professor of Counseling and Special Education at the same institution as Addison. Suzie had an autistic brother who shaped her understanding of autism and motivated her work with and for autistic people. Throughout her career, she has worked with community organizations that specialize in services for autistic people in addition to maintaining a faculty position. She was one of the founders of the college autism support program at her university and continues to work closely to support autistic students enrolled in the program. In her role as faculty advisor to the program, she also provided professional development to other faculty and university staff about autism and helped them understand how to support autistic college students.

Thomas

Thomas was a Senior Lecturer of Religious Studies and History at the same public research university as Addison and Suzie. Thomas was recommended by Addison for my study as a faculty member who is supportive of autistic students at their institution. Thomas' first interaction with someone who is autistic was with a faculty colleague who was part of a learning and professional development group that Thomas started. Thomas has had a few autistic students

in his undergraduate classes. Thomas' awareness of autism grew as he interacted with the autistic students in his class.

Natalie

Natalie was an Associate Professor of Communication Studies at a public research university. She has a young son who is autistic. After her son's diagnosis, Natalie pivoted her research to focus on autism, specifically the stigma experienced by autistic people and how to create inclusive classrooms for autistic people. She has published on autism stigma, developed a non-profit for her community to support families affected by autism, and has taught and mentored autistic students in her college classroom.

Evelyn

Evelyn was an Associate Professor of Developmental Psychology at a public regional university which is part of a larger university system. She first worked with autistic children at a group home for disabled youth after completing her undergraduate degree which piqued her desire to learn more about autism and to be supportive of autistic people. She currently coordinates her institution's graduate certificate program in autism and leads a funded peer mentoring program which serves autistic students at her institution.

Eva

Eva was a Lecturer of Developmental Psychology at a private research university. Eva was first introduced to autistic people during her master's program. During her doctoral program, she worked with Evelyn in a peer mentoring program which supported autistic college students. While Eva did not currently have autistic students in her classes that she is aware of, she wanted to develop a mentorship program at her current institution fashioned after the one she worked in during her graduate studies. She also wanted to transition her research to be more participatory to

include autistic people as research collaborators in some way. Eva has published research on autism focusing on the stigma experienced by autistic people.

Nina

Nina was an Assistant Professor of Developmental Psychology at a public comprehensive university. She first learned about autism during her undergraduate and master's programs. During her doctoral program, she worked with Evelyn in a peer mentoring program which supported autistic college students. Nina has a young son who is autistic. Since his diagnosis, Nina adopted a neurodiversity paradigm in her research and has been working towards making her research more participatory. She has published on the stigma faced by autistic people and on the experience of autistic children and their families.

Helaine

Helaine was a Higher Education scholar and a research faculty at a private liberal arts college. She taught methodology courses in her institution's educational leadership program. She first interacted with autistic college students when she was a hall director at a small technical college. Teaching as an adjunct, she has had autistic college students in her classes and has co-authored scholarly papers with autistic co-authors. She has published on institutional supports for autistic and disabled students in the college setting.

Sara

Sara was a Lecturer in History and Classical Studies at a public research university. She has a young son who is autistic. Following his diagnosis, she became very involved in parent groups in her community to learn more about autism, to gain support from other parents, and to find out more about resources for her child. As a faculty member, she used universal design for learning in her teaching and coached others to effectively teach autistic students. Sara was

known on her campus as someone with expertise on autism. She mentored autistic students when they approached her for advice and delivered professional development workshops about supporting autistic students to her teaching assistants and other groups on campus. She was also involved on a committee whose mandate was to establish an autism support program at her institution.

Annie

Annie was a Professor of Human Development at a public research university. Annie became involved in a project at her institution which had partnered with a large public technology solutions organization to develop a community-based skills enhancement program for autistic youth. This was her first introduction to interacting closely with autistic people. It was through this work that her scholarship shifted to autism. She has published on the experiences of autistic people engaged in this community-based program. She also interacts with autistic students on her campus as an informal mentor.

Scott

Scott was a Professor Emeritus of Gerontology at the same public research university as Annie. He became involved with the same initiative at his institution that partnered with a large public technology solutions organization to develop a community-based skills enhancement program for autistic youth. This was Scott's first opportunity interacting with autistic people. His research shifted to focus on lifespan and family relationship issues with autistic people as a result of his involvement in the initiative.

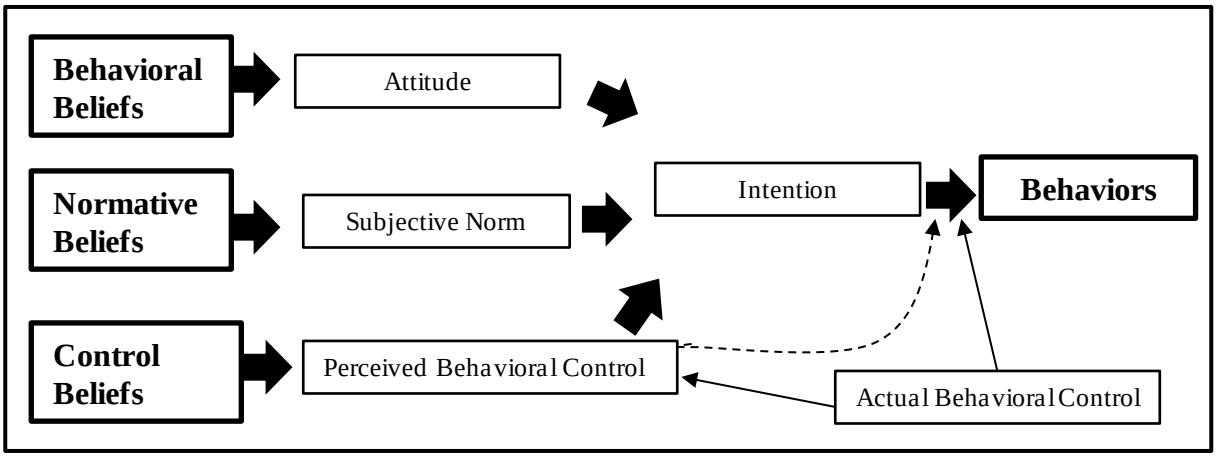
CHAPTER 5: FINDINGS

Overview of the Organization of the Findings Chapters

In this study, I explored how faculty beliefs shaped how they interacted and supported their autistic students. Informed by Ajzen's theory of planned behavior (TPB), I sought to understand how three types of beliefs—behavioral beliefs, normative beliefs, and control beliefs—guided or propelled faculty towards certain kinds of interactions and supports of their autistic students. The figure below, read from left to right, shows that beliefs set the stage for behaviors (e.g., interactions, support).

Figure 2

TPB constructs addressed in this study: behavioral, normative and control beliefs, and behaviors



In keeping with the TPB, I present my findings in three parts. Each part begins with the belief title and a single quote from a participant. The first part describes faculty members' behavioral beliefs in connection with their interactions with students. In part two, I describe normative beliefs and show how those also set the stage for faculty engagement with their students. And finally, in part three, I describe control beliefs and show how those beliefs were entangled with faculty behaviors. The benefit of organizing my findings, at the highest level, by types of beliefs is that it is possible to trace how the same faculty grappled with varying—and sometimes contradictory/competing/inconsistent—values, which I discuss in the findings.

Behavioral Beliefs

"And so I just see all positives. I experienced very little negatives related to this issue." Russell

In this part, I present findings about the salient behavioral beliefs that faculty expressed about interacting with and supporting autistic students. Behavioral beliefs are the beliefs that an individual has about the consequences, both benefits and challenges, related to performing a behavior. According to the Theory of Planned Behavior, individuals consider the behavioral beliefs - the benefits and challenges associated with engaging in a behavior - before they perform the behavior. These beliefs about benefits and challenges influence a person's attitude towards performing a behavior. Individuals perform a behavior that they evaluate favorably, that is, a behavior that yields benefits. And individuals tend not to perform behaviors that they evaluate unfavorably because of anticipated challenges.

To gather insights into faculty members' behavioral beliefs, I encouraged them to reflect broadly on their interactions with students and articulate any positive outcomes or advantages resulting from their approaches and actions. I followed up with probing questions, urging participants to consider the benefits for different stakeholders, including themselves, autistic students, as well as others such as fellow faculty members and other students. Additionally, I prompted them to reflect on any difficulties or challenges they encountered when interacting with autistic students. It's worth noting that very few faculty members mentioned challenges perceived as disadvantages or unfavorable consequences of supporting autistic students. Consequently, I will present only the behavioral beliefs that faculty identified as beneficial outcomes.

There are three sub-themes within this finding: (1) benefits for autistic students and other autistic people, (2) benefits for other students, and (3) benefits for faculty. For each theme, I present sub-themes where applicable (see Table 3).

Table 3
Behavioral beliefs

Behavioral belief related theme	Behavioral belief sub-theme	Behavioral belief exemplar	Related behavior
Benefits for autistic students and other autistic people	Students experience triumph and empowerment	I just like to provide a very positive experience for them where they experience a good deal of triumph in what they do. – Russell	Utilizing responsive pedagogical strategies
	Students strengthen social skills and networks/community in safe spaces	So I was like, you've got to come to our Halloween party, like you have to. I'm making stuff for it, like there will be chips there. I'm telling everybody you're coming, just kind of as a joke, like we're going to be expecting you. Then when he came into the room, a bunch of people greeted him, not only from the class but a bunch of other faculty members and he's like, 'I didn't realize some people knew my name.' - Natalie	Coaching
	Well-being into adulthood / skills for adulthood	if there's things that I can do and with others, we can optimize higher education, it's another bridge. It's another positive experience into adulthood that will help with adulthood, [where] an individual would come to define themselves with wellbeing: with relationships that are important and meaningful work or a career. - Scott	Coaching
Benefits for other students	Improved perceptions of autistic students	The main thing that main thing I try to do is try to get the non autistic students to realize that this person is just a person and that they can contribute to the cause as easily and sometimes better than the other persons in the class because they're so focused. And if I succeed at that, then I feel I've succeeded. - Thomas	Utilizing responsive pedagogical strategies
	UDL and differentiated instruction benefits everyone	And then we had to kind of modify the existing rubric to fit with where her writing skills were. But she was very, very literal and she needed each of the points in the rubric to be very, very literal. And developing those materials really helped with subsequent students, although they didn't all need the rubric to be that literal. - Evelyn	Utilizing responsive pedagogical strategies

Table 3 (cont'd)

Behavioral belief related theme	Behavioral belief sub-theme	Behavioral belief	Behavioral belief related theme
Benefits for faculty	Becoming a better teacher	An interesting thing is I always can rely on him to keep me on my toes. So if I do something different than what I said or if I change something, he will catch it and he will call me out on it or he'll bring it up and so that's always been really interesting. - Danielle	Utilizing responsive pedagogical strategies
		UDL has "really helped me to take more steps towards what I want to be as a teacher." - Sara	Utilizing responsive pedagogical strategies
		I think in the long run, working with him made me a better professor. It made me listen better to what people were saying and accept people for who they are, not what I want them to be. - Patricia	Coaching
	Becoming a better researcher	Matthew keeps me on task. You know, I get my shit done because of him. He is like Doom! Doom! Doom! Doom! Deadlines! Let's move! Like he keeps me on [task]. And that's really, really appreciated. Cause I would not be doing that myself. Like he is just really good at that. The other person that I've been working with, she seems less deadline oriented, almost kind of the opposite, but she's pushed me to think. - Helaine	Co-authoring with autistic researcher and students
	Work becomes more enjoyable, purposeful and impactful	And as I moved forward, I see more and more opportunities for myself as an academic to make small differences that can hopefully add up for students who come to our campus and then potentially other campuses. - Natalie	Engaging in the community

Benefits for Autistic Students and People

In this section, I present participants' salient beliefs about the benefits of their actions for autistic students and other autistic people. I make a distinction between autistic students and autistic people here to reflect faculty's service work within their communities and their interactions and support to autistic people who are not college students. I present three sub-themes: (1) Students experience triumph and empowerment, (2) Students strengthen social skills and networks/community in safe spaces, and (3) Well-being into adulthood / skills for adulthood.

Students experience triumph and empowerment

Participants expressed that their actions provided opportunities for students to feel pride, triumph, and empowerment. Faculty believed that this was especially important because they recognized that these students were often viewed as incapable by others and so had not been given chances to use and develop their strengths in previous educational experiences.

For example, beyond the immediate benefits for autistic students that come from a faculty's use of differentiated instruction or UDL in teaching such as more accessible content, faculty expressed beliefs that the approaches they adopted allowed students to feel empowered and proud of their achievements. Participants believed that it was important that their interactions created opportunities for their students to have positive learning experiences because these students often experienced challenges in other aspects of their lives or had limited educational experiences that were validating.

In his teaching, Piano professor Russell employed various teaching strategies. He chose pieces that tapped into a student's style and interests, adapted lessons for autistic students by breaking pieces into smaller chunks, taught students to play by ear rather than read music, communicated explicitly about weekly assignments, and provided multiple opportunities for

practicing a piece “so that there's a greater level of success and less surprises" for his students. Russell said,

> I just like to provide a very positive experience for them where they experience a good deal of triumph in what they do, you know, playing really well on their piano jury or playing a really great senior recital. I think that can just be a very empowering experience for students who experienced some setbacks in the rest of their lives in some ways.

Russell saw a clear connection between his teaching methods and students’ success. He used differentiated instruction techniques, organized his autistic students’ lessons through explicit weekly communication about assignments, and used chunking which he does not do with neurotypical students. He also ensured that there were ample opportunities for practicing a piano performance. At the same time, he normalized adaptations to his teaching techniques to match students’ skills since he believed that by doing so, students learned, experienced triumph, and felt empowered. He said matter-of-factly it was “essentially fine if somebody can still play music, even if they’re learning it by ear, there’s no problem with that in my opinion.”

Thomas also actively engaged autistic students in his class by asking them to get involved in ways that used their strengths. Reflecting on reacting to the past pedagogy in one of his classes, Thomas speculated that autistic students who take his class can better participate and really enjoy the learning experience of his classroom because of his pedagogical choices.

> If you have some point that you want to get across and no one seems to be getting it, you can give that point to that autistic student to bring up and they will immediately or more readily grasp what the point is and bring [it] out for the sake of the team.

Thomas noticed that, unlike the periodic and infrequent participation he noticed in lecture classes, autistic students in his reacting classes actively participated throughout the class cycle.

For some students, Thomas' classes and interaction style left a very positive impression. Thomas shared an encounter with an autistic student and the student's mother in an elevator. He said the student went out of his way to introduce his mother and exclaimed it was the best class he had ever taken to which the mother responded, "I know! You've mentioned this before!"

Natalie similarly shared that she believed it was important to focus on and express to her student what she saw as positive about him because other teachers and peers had done the opposite. She believed that her actions towards her students led to him feeling valued.

> He is one of those guys that I think has been beat down a lot by peers, by other teachers. So I just try to highlight all the good things that he's done, the good things about him that I like … that I look forward to him coming into these meetings, and I think that's really made a difference for him this semester.

Natalie went further to encourage others to adopt her approach to set students up for success. In consulting with faculty colleagues about their autistic students, Natalie advised them to have a conversation with the student. She voiced concern that most faculty see the student as the problem and focus on "that label or impairment and presume that the student is not capable of having a role of partnering." Natalie believed that students are disempowered through these kinds of interactions. She instead directed colleagues back to the student for solutions: "there's a variety of hacks that you can use for any student but why not ask the student, because they probably have a pretty good idea of what's going on." Natalie believed that allowing the student to voice their solutions was empowering for the student. Natalie put the impetus on faculty to actively engage with students to ensure that students have a say about what helps them to be successful. She deferred to students' knowledge about themselves and encouraged others to do so as well.

The following participants described the benefits they perceived or hoped that autistic students and people would derive from programs that they coordinated. Annie, who coordinated a program for and with autistic people, believed that she helped students feel empowered through this program. In this program, students not only learned computer 3D modeling skills but mentored their peers and developed the program's curriculum. Students also had the opportunity to publicly showcase their work to their families and wider community, for example, their school teachers. A very important aspect of the program was that it *only* focused on building computer 3D modeling skills, peer mentorship, and curriculum development skills and *not* on changing behaviors that were viewed as problematic such as stimming. Annie believed that autistic students were given the chance to demonstrate their natural strengths for teaching others, which she believed was derived from autism related differences in how to experience social situations and learning. Of the success of the program, she said,

> We knew what we were doing was working. That the kids there, they felt so empowered demonstrating their talent. And I think of all the workshops, we had one student that had some sensory or information processing issues, so it was hard for him to present. But other than [him], all the kids loved to present their work...The families were [also] just so grateful. I mean, we have letters that are just over the top in terms of the difference that our program made in children's lives, how it changed their student - how their child felt about themselves and about their abilities... And so we had students that had been on our program for a while, become peer teachers and they then taught other people on the spectrum [the] 3D modeling. And that was incredibly powerful leadership. For me, that's probably the highlight of the work that we've done. I really, really have enjoyed seeing them grow and develop and become teachers themselves.

Annie believed that the program, grounded in participatory and neurodiversity affirming approaches, led to students feeling a sense of pride about their accomplishments. Annie believed that the program allowed students to just be themselves and experience triumph as they learned new computer software skills.

Evelyn, who coordinated a peer mentorship program at her university, also shared that students embraced the roles and responsibilities as peer mentors and peer educators in the program. She saw students demonstrate leadership skills that they were initially unsure they could develop. Evelyn shared her beliefs about the impact of the experiences that students had in the program, "It's extremely meaningful. The students get very excited to play these roles and to do public speaking. Students really often, very much like talking about what autism is to other people and educating other people." Evelyn was, in fact, surprised by her students. She recognized that her students would want to use their capabilities to "transform their world" but did not realize how strong their skills and desire for public speaking and advocacy would be. This program, which Evelyn developed, provided a vehicle for students to engage in and enjoy this advocacy work.

Students strengthen social skills and networks/community in safe spaces

Participants noted that their interactions with autistic students provided opportunities for students to practice and strengthen social skills that were usually challenging or anxiety-provoking for students. Scott, for example, encouraged his autistic students to approach and converse with other professors about the need for accommodations. Scott coached his students on what and how to express what they needed to faculty members,

> And sometimes [they] just go 'Oh it's not worth it, I don't even want to deal with it,' and I go, no, no, no, this can be a learning experience. And true, this could lead to a social

interaction that you may wish to avoid but we want to set this up so that it has a better chance of succeeding.

Scott provided an opportunity for the student to learn and practice their communication skills by using a social script for their conversations with their professors about accommodations in a safe learning environment with him. He did this because he believed this practice would increase the likelihood that his students would be more successful in their social interactions with other professors.

While Scott helped his student practice having a conversation with a professor, Russell directly intervened to deliberately create an opportunity for one of his autistic students to make a friendship connection with another student. Russell arranged for one of his autistic college students to connect with another classmate who was neurotypical. He invited the students to get some ice cream at a local ice creamery with him and very directly said to them that he thinks they should be friends since they had a lot in common. He believed his autistic student could benefit from having a friend but that it was important for him to intervene in this way since initiating socialization and making friendships was challenging for his autistic student.

Natalie similarly shared that in her interaction with autistic students, she encouraged them to socialize with fellow students and faculty because she wanted students to experience a sense of belonging and connectedness throughout their college experience. Natalie recalled that she encouraged and eventually talked her student, who is a communications major, into attending a department social event.

> So I was like, you've got to come to our Halloween party, like you have to. I'm making stuff for it, like there will be chips there. I'm telling everybody you're coming, just kind of as a joke, like we're going to be expecting you. Then when he came into the room, a

> bunch of people greeted him, not only from the class but a bunch of other faculty members and he's like, 'I didn't realize some people knew my name.' I was like, 'Oh yeah, we've all had you in class. Like you are our major. We love all our majors. We don't have that many. So you're all special to us...' I am pretty dedicated to making sure that he enjoys some of the experience. I know nobody can enjoy all of these experiences, but that he has positive experiences of being part of our major. It's not every day that a student on the autism spectrum becomes a communication studies major but I think it's also a good idea and I would love to see more students realize the value that we have to offer them. But also, just kind of make sure that the climate and the culture is one that is welcoming to every student and that every student feels like they belong.

Natalie also noted that she hoped that her individual interactions with her mentee during their advising meetings would lead to her students feeling a greater sense of belonging. Natalie was now thinking broader than her own classroom and her individual relationship with her student. She expressed that she wanted to focus on "how can I do this with other students? How do we do this with my instructors? How do I teach people to make sure that all students feel like they're valued and feel like they belong?" She saw that her autistic student felt a sense of belonging which was beneficial to him and wanted to help more students feel like they belonged at college.

While Scott, Russell, and Natalie orchestrated at an individual level to provide opportunities for students to build social skills and broaden their social networks, other faculty noted that they designed or coordinated programs that increased these opportunities through the features of the programs. In a more formalized context through her work in the autism support program at her university, Addison remarked how social coaching in naturalistic settings with

peers was a cornerstone of the program. She noted that through peer modeling, autistic students developed perspective taking skills and better understood how they might be perceived by others. She believed these social skills when practiced in everyday interactions through the structure of the program allowed for better transfer and generalization to other settings.

Annie, who developed a program to teach computer 3D modeling skills to autistic students, shared that the program became a way for these students to create connections with each other and the wider community members.

> One of the unexpected findings was it became an avenue of social engagement. Every time we did a workshop, they would present their 3D modeling. And so for them to get up and talk about their work, it created connections with other people in the class, and also connected them with other community members.

More than building their computer 3D modeling skills, Annie believed that the program design led to students deriving enjoyment from interacting with each other, building friendships, and having fun together in a judgment-free autistic-friendly space. This design was particularly beneficial to students. The program neither sought to correct or teach social skills nor was it designed to stop or reduce typical behaviors seen in autistic people such as stimming. The program was designed to teach a specific computer design skill and to leverage the talents of autistic participants within the program for curriculum development and peer mentoring.

> Our work would definitely say [it] helped students create support groups with other people similar to themselves, so that they do not have to constantly be putting on the mask and worrying about what they're saying. That's so exhausting to make sure that they're not offending in conversation [with others]. I feel like people on the spectrum are always on guard and it's incredibly exhausting for them to engage in social engagements.

> And so when you have a workshop where similar people are involved, they felt so safe that they weren't going to be judged, they didn't need to overthink everything. They could just be themselves, which I think is a rare opportunity for people on the spectrum. I think most of the situations they're in - all this social skills groups that they all went to, you know, it's just exhausting to try to always be overthinking every time they're interacting with a neuro-typical person.

Annie believed that one of the benefits of the program design was that autistic students could drop their masks or stop camouflaging since they were interacting with other autistic students and enjoy their interactions with each other. Students in her program could avoid the effort and exhaustion resulting from masking.

Finally, Evelyn, a developmental psychology professor who developed and coordinated a peer mentorship program at her university, noted that the program provided a space where autistic students could develop networks of support from other students as they navigated college. Evelyn described how two students, one neurotypical student with a visual disability and one autistic student, developed a close supportive relationship. Evelyn paired these students as peer mentor and mentee respectively. Evelyn knew that the mentor would be able to share his experiences in a way that would allow the autistic student to process her own experiences with transitioning to university and to see herself as a capable leader within the peer mentoring program.

Well-being into adulthood / skills for adulthood

Many participants expressed the hope that students would develop skills in college that would support their wellbeing in adulthood and their transition to work after college. Scott, for

example, believed that for autistic students to have a sense of wellbeing in adulthood, the college experience needed to provide opportunities for relationship building and career preparation.

> We already realized that getting into college, staying active, going all the way to graduation and then going through the employment search can be very difficult for any individual, for neurotypicals. An [autistic] individual who has good academic [and] cognitive skills, to navigate the social and the bureaucracy [in college], things can get very frustrating and stressed. Individuals will just say, 'that's it, I'm walking away, I've had it, it's just not worth it'. Because college *can* be overwhelming, it *can* be very frustrating, and my concern is that with attrition or drop out, there can be a cascading effect. Adulthood from a gerontological point of view is based on a lot of factors, but there are two very important pillars to strengthen adulthood: meaningful work and relationships. And so, if those two pillars can be supported and helped for an individual in college, this is one way of supporting - if there's things that I can do and with others, we can optimize higher education, it's another bridge. It's another positive experience into adulthood that will help with adulthood, [where] an individual would come to define themselves with wellbeing: with relationships that are important and meaningful work or a career. There can be and there has to be other levels of social support beyond parent and family, especially as we age.

Scott believed that he could help provide social support in the college context that bolstered and mediated autistic students' efforts to build relationships and prepare for meaningful careers. Through his relationship with autistic students, Scott believed that he could offer support, guidance, or advice that would help students cope and graduate from college, thereby setting them up for success in their post-college years.

Addison, who coordinated a support program for autistic college students was particularly concerned about helping students to build job skills that could help them in work settings.

> When someone sees that one of our students is on campus and going to college, a lot of the questions I get from people who have no idea what we do is 'Well if they get into college on their own merit, why do they need this program that's as in depth and supportive as yours? They're going to be required to go to a job setting and do all those things for themselves.' The neurological challenge of being able to initiate, have reciprocal communication, problem solve and ask for help, is an extreme area of challenge for these students. I feel like in K through 12 those aren't skills that are typically targeted, worked on and developed. So these are things that *we* work on. So literally a big part of what we do is we provide that support. So just helping them get through college and yeah you need a skill for college but you're also going to need it again, in the future for employment settings.

Like Scott, Addison saw that helping autistic students develop the skills they need to get through college as highly advantageous and transferable to later stages of their lives in employment settings. Addison recognized however that students already possessed interests and strengths that could lead to fulfilling employment opportunities. She therefore helped her students find and gain work related experiences and skills that matched their interests. In one instance, Addison reached out to a museum and helped secure a 16-week research internship for one of her students who expressed that their dream job was to work at the train exhibit at a museum. This student had a 3.7 GPA, a minor in history preservation, and a special interest in trains. These kinds of opportunities helped students leverage their strengths and interests, build

their resumes, and aided their transition into adulthood. Addison believed it was important in her role to facilitate connections and opportunities with organizations on behalf of her students because her students were able to gain invaluable experiences that helped them thrive as they moved on from college.

Suzie, who helped develop the college autism support program at her institution, noted that some students did not fully realize the benefits of the program until they graduated from college and transitioned to work outside of the college setting. The program aimed to help students better understand and practice the skills they needed to be successful in college such as academic, social, or self-care skills. Many of these skills were also needed to succeed in the workplace too. One of her students emailed Suzie to share how the coping skills she learned in the program helped her in her job.

> I had an email not long ago from somebody who's working now and she goes, 'I didn't understand why movement mattered and why I needed to take breaks. I've kind of been thinking of breaks as like a medicine, if you need to take medicine, you just need to do it.' She had gotten fired from a job and it was because she would get too stressed because she wasn't asking for breaks because she didn't think she could. And so then it was kind of this rumination [about that]. She got another job and that's when she contacted me, after [she] was going back to work. I was glad because I didn't want to be part of the problem or part of the trying to fix it once they get out, you know, it's really hard to help [then], even though I still do that.

The student eventually realized that the skills Suzie and others in the college autism support program were trying to help her develop, such as taking breaks and advocating for her needs when working, were beneficial to her work life.

Faculty recognized that building these skills was oftentimes challenging for their students. But faculty believed that finding a way through the discomfort to ultimately develop these skills would be beneficial to students. Natalie, who taught a required public speaking course, acknowledged that some aspects of her public speaking course might be challenging for students, such as giving a speech to the class but she encouraged her students to still try.

> Sometimes the students who are on the spectrum will come to me or come to their instructor and ask them just wholesale not to give the speeches. Like, 'I just don't want to give speeches.' I don't necessarily think that that's a good place to start, so we don't exempt them from the class. In my philosophy, it's a good thing to try because so many professional and personal obligations in life will require you to present in front of other people. So having the space to potentially practice those skills is a valuable setting and if it doesn't work out, we'll figure something out. So I'll usually just say, 'I just want you to try it, we'll look at your grade after the first meeting and we'll have another conversation about it.' And usually another conversation isn't needed. So that is a lot of my interaction with students on the spectrum, whether they are supported at a program or not.

Natalie believed that students would inevitably have to speak publicly at some point in their life, and this class was a chance to develop these skills. She believed that the practice of public speaking skills in her classroom could empower autistic students to gain successful experience in utilizing these skills and that they might be just a little bit better prepared should they need to make a presentation to a group of coworkers or maybe even give a speech at a family event.

Benefits for Other Students

In this section, I share that faculty believed that their work with autistic students also benefited non-autistic students. This belief consisted of two sub-themes: (1) Improved perceptions of autistic students and (2) UDL and differentiated instruction benefits everyone.

Improved perceptions of autistic students

A few participants believed that their actions to support their autistic students resulted in less stigma or more acceptance by other students. Thomas, for example, noted that through his positive interactions and neutral reactions to his autistic students, he helped to remove some of the stigma associated with being autistic. Thomas taught classes using reacting to the past pedagogy which is a student-led, interactive technique used to engage students in learning about historical figures and events. Students role play historical figures and present persuasive arguments to learn about historical events and ideas. Thomas included his autistic students in all aspects of the class. When an autistic student displayed behaviors that others might consider unusual, Thomas offered a calm, almost neutral interpretation of the behavior.

> The main thing that main thing I try to do is try to get the non autistic students to realize that this person is just a person and that they can contribute to the cause as easily and sometimes better than the other persons in the class because they're so focused. And if I succeed at that, then I feel I've succeeded. So it's not so much drawing attention to the fact that they're special people, it's more like just saying that they are one of the people on the team and they are as equal and valuable as anybody else on the team. I suppose that helps my students who otherwise look at [autistic students] as being different...It's happened before with this guy that had to leave the classroom, [and] I didn't say that he was autistic but I'd say he needs a breather, let him go... just keep doing what you're

> doing and he'll eventually come back. I don't seem to react in a shocked way or in a disturbed way, [instead my reaction is] this is acceptable, this is par for the course, and we're just going to continue on with normal procedure.

Patricia believed that her social coaching with her doctoral student allowed him to better connect with his peers and this seemed to improve their perceptions of him. Patricia admitted that she coached her student with an aim to help him change some of his behaviors. For example, when he monopolized classroom conversation or got into arguments with his peers in the classroom, she directly said to him that he said enough about a topic or would tell him there was no need to argue about content. Patricia believed that her direct approach and efforts to coach her student about his classroom behavior worked very well. "By the end, the other doctoral students that had not really liked him, found him intriguing. And instead of getting angry, they were able to laugh and consider him, not a close friend, but somebody that they could talk to." Patricia's coaching and her student's subsequent changes to his behaviors in the classroom, allowed his classmates to perceive him in a more positive light.

Natalie similarly believed that her students got the chance to perceive an autistic peer in more positive ways because of her interactions with the autistic student. For example, a student gave Natalie the feedback that they enjoyed getting to know the autistic student because of Natalie's "fun" interactions with the autistic student in class. The autistic student was highly engaged in Natalie's class according to the student who previously observed the autistic student in a different class constantly looking down and remaining silent.

UDL and differentiated instruction benefits everyone

Russell did not see using UDL or differentiated instruction as additional work for him. Instead, he believed he became a better teacher by using these techniques. He recognized that

while he implemented the techniques because they work well for autistic students, these techniques also worked well for his neurotypical students. An unintended benefit was gained for all students in his classes. He gave the example of multiple opportunities for practicing a performance which simulates the performance at a specific venue.

> These students have helped me understand that everybody benefits from performance experiences. And the more that you perform, the more comfortable you get with it. And so that's something that I've learned from my students with autism, is that if they're going to perform somewhere, we need to simulate that a number of times before they perform somewhere. And then they'll be very comfortable, and that's no different in a lot of ways than neuro-typical students. Everybody is made more comfortable by experiencing that as much as possible.

This realization was shared by other faculty. Natalie noted that while the needs of autistic students drove UDL strategies that she implemented in her public speaking class, all students benefited from the changes. Additionally, all students were invited to communicate with her and the teaching assistants about the kinds of extra supports that they needed that were outside of the typical accommodations governed by the ADA. She thoughtfully considered these changes and believes the class is now a "very friendly course" that is a "better experience for all students" where all students "learn more." Two of the changes inspired by a UDL approach included allowing students to sit to deliver a speech and weighting speech delivery lower than speech content. In other classes, she instituted a note taker "because why not? That will benefit all students."

> I think any kind of changes you make to build a more inclusive environment to benefit a segment of students ends up benefiting all students. Right? So any kind of UDL changes

you make or any kind of climate changes where you try to make a more inclusive environment, that system where people belong, that connected classroom, benefits all students.

Evelyn also described working with one of her students who was doing an independent study and wanted more structure than what was typically offered in this course. Since independent study courses were very individualized and unstructured, Evelyn did not initially provide a syllabus to the student. But her student requested a syllabus and a more detailed grading rubric to help her be more successful in the class.

> And then we had to kind of modify the existing rubric to fit with where her writing skills were. But she was very, very literal and she needed each of the points in the rubric to be very, very literal. And developing those materials really helped with subsequent students, although they didn't all need the rubric to be that literal. She was the only one who used the rubric like that, because a lot of the autistic students do tend to be very, very strong writers. But having given a structure to the independent study was helpful for later independent study students regardless of whether they were autistic or not.

Evelyn realized that these changes to the way the course was organized, made for her autistic student, was helpful for other students who later enrolled in the course. Another participant, Eva, summarized this belief best.

> If you're setting up your course and your perspective to people who have different abilities, you're actually targeting the kids who struggle *and also* the kids who don't struggle. You're casting this wide net and by supporting people, you're giving them this chance, as opposed to approaching things from a model of deficit... If you push people but also support them at the same time, you're going to be surprised by how much people

are capable of. I think that's what's important… keeping an open mind and just really accepting everyone.

Helaine made the point that it was often not possible to know with certainty that UDL strategies benefited other students. She strongly hoped and surmised that some of the strategies, such as providing notes to all students, could have benefited students in her classes who were English language learners. Helaine expressed hope that her commitment to using UDL in her teaching which went beyond the "standardized and canned accommodations" typically available was more useful to students in general and to students with disabilities more specifically.

Suzie, who often worked with faculty members to help them better support autistic students in their classes, described two scenarios where her interventions on behalf of autistic students also benefited other students. She worked with a professor in the math department to change the format of his quiz to allow students to write the formula on the exam protocol. She said the reaction from the math professor surprised her, "it was just like it was the greatest thing ever!" The professor confirmed that the change in format ended up being helpful for all his students.

In another situation, Suzie coached an autistic student to prepare for office hours with his biology professor by writing down five questions he wanted to ask before he arrived at the professor's office. "That biology professor loved that! He was like, I use that for everybody now, when they're coming in to meet with me, I always say, have those five questions, what are your five things?" The professor even shared the strategy with his colleagues when Suzie conducted an informational session about the college autism support program at a department faculty meeting. It is noteworthy that these anecdotes from Suzie about strategies adopted by the math and biology professors did not constitute accommodations or modifications in the ADA sense.

Instead, these were small changes made to the format of testing forms and adding structure to in-person conversations that ultimately were easy to implement and helpful to all students, not just the autistic students for whom the changes were initially devised.

Benefits for Faculty

In this section, I share that participants believed that their engagement with autistic students resulted in personal benefits. These faculty benefits are represented in three sub-themes: (1) Becoming a better teacher (2) Becoming a better researcher, and (3) Work becomes more enjoyable, purposeful and impactful.

Becoming a better teacher

Faculty expressed the belief that they became better professors as a result of their interactions and support to autistic students. Participants pointed to developing a better communication style, becoming better teachers, and developing desirable personal characteristics as evidence for them being better professors and better people overall.

Some faculty such as Scott, Danielle, and Annie described how they became better at communicating because of their interactions with autistic students. Scott described this style of communication as authentic,

> Authenticity is what I realized after a while that's very important. The authenticity would refer to where I would say something, follow through with it, and that there'd be a confidence and a reliability of what I said I could do. And that became very important. [If] I'm just saying things because it sounds good at the moment and then there's no follow through, it's not a good interaction style.

Scott's definition fit well with Danielle's and Annie's explanations. Taken together, authentic communication could be described as being reliable, consistent, and concrete when

communicating with autistic students. Danielle, for example, talked about how her student's reaction to her behaviors forced her to be consistent and clearer in how she communicated.

> An interesting thing is I always can rely on him to keep me on my toes. So if I do something different than what I said or if I change something, he will catch it and he will call me out on it or he'll bring it up and so that's always been really interesting. And I liked that because I know that I have to maybe restate something or give a heads up [that] this is a change. I do it for him... And so that's one of the things I really appreciate with him is that he keeps me on my toes way more than if I wouldn't have had him in class.

Danielle noted that she paid more attention to how she communicated about assignments because she was reacting to the needs of her autistic student. She recognized that her clarity helped all students.

> I think his attention to detail that's helped me be more on top of things because I always think of, okay, like what's he going to ask me a question about when I'm preparing information or if I'm posting assignments. That helps me to try and think preemptively because I know if I can make it more specific or more clear for him, it's going to be clearer for everybody else who probably just isn't used to always asking or going to a professor to confirm things.

Finally, Annie learned to be a better communicator by being clearer and concrete in her communication with autistic students. Here, she credited her graduate students whom she observed in conversation with autistic students, with helping her to see where she needed to adjust her communication style.

> Honestly, I probably learned more from my graduate students interacting with the autistic students because when I would give what *I* thought were clear directions in the workshop

> or something like that, one of my graduate students would come behind me and say, what Annie is saying is... [Annie laughs]. And it made me realize how I take for granted that people are clearly understanding me. And I become more aware of being very, very concrete and very clear about communicating. I think I've become a better teacher.

Annie, like Scott and Danielle, believed that these changes in their communication habits improved their role as a teacher.

Several faculty described using UDL practices in their teaching to support autistic students. These faculty expressed that these practices made them better teachers overall and that their typically developing students also benefited from their use of UDL. I was curious about the possibility of faculty viewing UDL as adding additional layers of work to teaching and therefore as impractical. For participants such as Russell, Natalie, and Sara, who talked extensively about using UDL and differentiated instruction in the classroom, I asked them about this perception of additional labor when using UDL. Russell refuted this idea that it was additional work for him and instead affirmed that UDL helped his teaching practice.

> No, no, I don't think it's been additional work. In fact, I think it's only been enriching. So I find that I'm really finding ways to reach autistic students, it helps all of my teaching, you know. It helps me understand that everyone needs a little bit more organization to the lesson plan. Everybody needs to have very high expectations of them artistically. Everybody needs me to understand that they have some deficits to their learning and some incredible strengths to their learning that are different from every other student. So not additional work.

Natalie similarly confirmed that for her, the use of inclusive strategies not only made her a better teacher but made her classes more enjoyable to teach.

> When you adopt an inclusive mindset, you will enjoy the experience of having a more inclusive culture in your classroom. You'll be a better teacher. It has definitely made me a better teacher. I actually think a lot more about the information transmission than I ever did before. I think how do I make sure that my students understand this? How do I really measure understanding. And so, in that way it has made me much better teacher. I still have tons of room to grow but from wherever low point I started at, it has made me better.

Natalie found it enjoyable to shift her focus to making a required course more accessible for all levels of student abilities. She made these shifts in her pedagogical style to use UDL because of her autistic student but noted that the overall effect has been to make her a more patient and happier teacher. Natalie also recognized that her students evaluated her classes highly which she attributed to her efforts to support her autistic student through UDL strategies. She shared,

> It's also made me a happier teacher, because I'm more patient, right. Because I don't have unrealistic expectations. Because I'm more focused on supporting and building up than I am on why people can't reach this high bar that I've set. It's just made me happier overall. Instead of being frustrated with a student and perceiving incorrectly that there's some kind of personal slight against me for not completing the work, it's more of taking that mindful approach and asking what's going on here. That makes you just happier overall to do your job. I think my students are happier with it. You know, my evaluations have continued to go up. I've never had bad evaluations but when I started, I was what people sort of expected as a professor and now I think I'm better than what they expect. And the

ways that I'm better are the ways that I work hard to try to support them, to try to build on their strengths and tailor things in a way that can support them.

Sara, who has designed and delivered professional development about autism and UDL to TAs in her department and uses UDL in her own teaching practice, also received positive feedback from her students about her teaching. Sara shared that UDL permeated her entire philosophy and method of teaching. She constantly pushed herself to reflect on her teaching goals and methods. She learned that some strategies that are effective for her autistic son such as giving detailed step by step instructions, repetition, and using visual structures were useful for her students too. Sara said that she became a more patient teacher and understood how slowing down and being structured and repetitive are effective techniques for instruction. She noticed that her students were comfortable asking her questions and frequently gave her feedback that she was a very clear teacher. Sara has always had an interest in effective teaching and even won a major teaching award a few years ago but believed that UDL has "really helped me to take more steps towards what I want to be as a teacher."

Other faculty such as Patricia, Fleur, and Eva described being a better professor in terms of developing desirable personal characteristics. As a result of their learning from interactions with their autistic students, these faculty believe that they developed or deepened personal characteristics that made them better professors overall. For example, Patricia, who had a graduate student who was autistic, described becoming a better listener. She also talked about coming to a realization about accepting her student's abilities rather than supporting him too much. Patricia said,

I think in the long run, working with him made me a better professor. It made me listen better to what people were saying and accept people for who they are, not what I want

them to be. To try to help them in any way I can without taking away their dignity or their own self-reliance. To know when we are helping someone and when we are doing too much of their work for them is something hard to learn. And I had to learn that with him I think.

One of Patricia's roles as a professor was to create opportunities for her students to develop their academic abilities in writing, research and practice. She realized that while she was highly supportive of her autistic graduate student, she was, at times, overextending that support and crossing a boundary into doing his work for him which lessened the opportunities for her student to be self-reliant and to develop those skills.

Fleur described recognizing the need for and becoming more patient especially when interacting with autistic students. Fleur developed a process to pause and think more deeply about what needs her autistic students were expressing through their behaviors before reacting. For her, patience was a foundational skill that she developed to be able to better understand her students' needs.

I think in creating space for him, he taught me a lot too. To see more, I would rest my eyes. Like it's not just the first look at that person. Like you have to relax further. Like you have to do a deep dive into the data. It's not like you just look at the data and read it. It's like you have to put deep dives. And he taught me that I need to do that. I need to have more patience and I'm not a patient being at all. So when I now approach and work with people with autism, I just take a deeper breath. I don't know how else to describe it.

Finally Eva, who just started in her first tenure track teaching position, reflected on the benefits she derived from her involvement in a peer mentorship program for autistic students during doctoral training. She shared that her exposure to the concept of neurodiversity and

neurodiversity acceptance during this time made her a more "accepting" and "open person." She credited this exposure to neurodiversity concepts for changing her entire teaching philosophy and eventually leading to her securing the teaching position at her current institution.

Becoming a better researcher

Several faculty identified research productivity and a deep satisfaction with their research activities as a result of interacting with autistic students. Scott, Annie, Evelyn, Helaine, and Eva described different aspects of their research that were influenced by and benefited from working with autistic people who were students, fellow academics or co-authors. These participants talked about conducting autism research in ways that varied from the dominant lines of research on autism. Faculty for example considered questions and methods that were not typical for autism research. They also noted that working with autistic partners on research projects helped them to learn more about autism from an autistic perspective. For example, while research on autism is heavily focused on intervention in infancy and childhood, Scott, a gerontologist, approached the exploration and understanding of autism from a lifespan paradigm.

Scott shared that he came to research and work with autistic people quite late in his career. He learned about the experiences of autistic students and adults as he became involved with community-based organizations focused on support to autistic people. He eventually conducted research on autism from a gerontology perspective and edited a book about aging and autism. He collaborated with Temple Grandin on this final project and had this to say about the experience,

> And I just found that to be the culmination for me, so rewarding as an individual to connect the aging process with autism and include so many different perspectives... And I

thought, okay, this is just a good example of a rewarding experience. And the goal was to share this with others.

He enthusiastically described this book project on autism and aging as a good example of a rewarding experience and a career highlight.

Annie similarly shared that being part of a community-based program allowed her to be productive and to publish 20 scholarly papers related to the project with a research team made up of other academics, graduate students, and autistic students who were part of the program. She noted that many of these publications focused on documenting how the perceptions and attitudes of parents, siblings, and grandparents of the autistic students were positively changed during the program. To her, the significance of this research was that it shifted the family perspective of an autistic person as a burden to one where family members are proud of and happy for their autistic relative. Relatives were able to view their autistic family members as capable and skilled. Annie and her team also developed a career pathway model for young autistic people. Looking forward, she planned to partner with researchers at another university to learn more about that university's experience with a high school-to-work program hosted with the university campus community for students with intellectual and developmental delay conditions.

Evelyn, who coordinated a campus-based peer support program, talked about the benefits and impact of participatory research with the autistic college students served by this program. Evelyn and her students developed online training for students to raise awareness about autism and improve student perceptions of autistic people. They published research highlighting how the training reduced stigma associated with autism. Her team also developed and evaluated training for faculty and was in the process of writing the manuscript for this work. Importantly, she believed that the participatory research reframed how people thought about what it meant to

do research about autism because autistic "people tell you all these stories of completely different ways of being that you wouldn't be aware of" otherwise. Evelyn believed that not only did the participatory process improve the lives of both autistic and non-autistic people by improving the quality of research and supports, but the process was "fun" and "very, very rewarding."

For Evelyn, her research was rewarding because using participatory methods brought awareness to experiences that she did not live as a non-autistic person. Furthermore, she believed that the participatory approach lent the research more usefulness and practicality since it was co-developed with autistic students. Evelyn not only found this work with autistic students to be personally fun for her, but she also found that it aligned with her research agenda and philosophy of generating knowledge.

For Helaine, working with autistic co-authors had an impact on the logistics of writing. These differences in the process of collaboration caused her to evaluate her beliefs and practices around relationships of power with autistic co-authors during the research process. She described a unique experience working with an autistic co-author that impacted her deadlines but enhanced the quality of the work.

> The person that I've been working with, she seems less deadline oriented, almost kind of the opposite, but she's pushed me to think. I was literally brought on because that paper was so far past deadline... She has pushed me to think much more about power dynamics and presentation of self to others and … I would say that project and working with that individual has taken me substantively more time. I could have knocked that paper out in 48 hours, but because I was committed and we were committed to working with her as a

> coauthor and to including her thought process, it took me probably two weeks. So in some ways, more time and in other ways, more productivity.

Helaine believed that this research project was better conceptualized when working with the autistic co-authors.

Eva captured the sentiment expressed by many of these participants when she described the research process as much more interesting and productive when different kinds of expertise and perspectives were included. For these faculty, doing research with autistic partners who were students, other academics, or community members was a rewarding and productive experience. Faculty talked about not just the number of publications they produced but also the positive impact of their research on the way autism research is conducted, on the way they understood autism and valued the contributions of autistic people, and on the autistic partners who were involved in the research.

Work becomes more enjoyable, purposeful and impactful

All faculty shared that interacting with and supporting autistic students and people led to feelings of satisfaction and enjoyment with their work. Faculty expressed that they thought that they had found the purpose of their work. Russell, Natalie and Annie expressed this belief best. Russell expressed enjoyment, a sense of belonging at his university and coming into his identity as a professor because of his work with autistic students. The music festival in particular became his trademark and injected passion into his work as a professor of piano. He explained that his everyday teaching responsibilities with autistic students and his creation and commitment to the music festival for autistic pianists left him feeling enriched and often awestruck.

> There have been a number of students who have come to our festival who are of college age who are savants... who have this incredible pianistic gift that is sort of mind-blowing.

> This year we had three students who...all three of them are profoundly disabled people, they're almost nonverbal in a lot of ways. Two of them are blind. But their pianistic gift is shockingly amazing. They can play anything and they can duplicate anything and they can play with a lot of feeling and a lot of command. So I'm always just in awe of that. And that's very inspiring to me in the same way that just listening to a great artist is very inspiring to other artists. It just makes you really think to yourself, wow, this is truly beautiful. So that has always just been something that has totally blown me out of the water to see these people at close range and to work with them.

Natalie, who has a young autistic son, identified a need in her community for other families like hers for resources and information about autism. She started a non-profit organization that helps families access information, services, and supports for their autistic children. She remarked that this community service over the past few years brought her happiness but she was looking forward to making an impact at her university.

To this end, Natalie became involved in committees on her campus such as the academic planning, general education, and five-year curriculum review committees where she could influence policies around inclusion in the classroom setting and the curriculum to which all students across campus are exposed. A source of enjoyment for her was connecting with professionals and practitioners who she viewed as a “valuable” part of her job as a faculty member. She singled out working with the staff in the autism support program on her campus, "I really do like the coordinators here. I really love working with them.”

Like Russell, Natalie described her work towards making her community and her university more inclusive for autistic people as central to her professional academic identity. She said that this work has “foundationally changed” her.

> Whether you are working with somebody who is very small or at this transition moment in their life, when you realize you have an ability to help, an ability to make positive change, an ability to advocate for somebody, if you, just being a more understanding and patient version of yourself, could change someone's life trajectory, it's really foundationally changed the way I operate and what's important to me. I have so much appreciation for where I have been placed, the circumstances I've been placed into because it has given me a world of opportunity to make positive change and have some purpose, to have some things I can look at that I'm proud of the work that I do and I'm proud of the changes that we try to make. So in that way, it's really given me a purpose and a drive and kind of a mission that I didn't have before.

Finally, Annie found enjoyment and fulfillment from being part of the research and program team in the community-based program that she led. She said, "It's been a really life changing experience to be a part of a research team where you feel like you're really making a difference." She saw the positive impact that the 3D computer imaging skills workshops had on autistic youth and their families. The autistic youth who participated in the program gained 3D computer imaging skills, helped develop the program's curriculum, mentored their peers and had opportunities to publicly demonstrate their work. Families reported seeing these autistic youth in a more positive light, most notably, seeing them as having strengths and being capable of achieving their goals. For Annie, these benefits to the students resulted in benefits for her such as feelings of enjoyment and motivation. "It was super motivating… as soon as we start the workshops, I'm like, this is why this work is so important."

In summary, faculty mainly identified the benefits of their actions for autistic students and other autistic people, other students, and themselves. For example, faculty believed that their

use of universal design for learning and differentiated instruction benefited not only autistic college students to feel a sense of triumph and empowerment, but also benefited other learners in the classroom, and made them better teachers. These beliefs and expectations that their actions yielded mainly positive outcomes motivated them to be supportive to autistic students in small and big ways. Small acts of support included social skills coaching conversations with students, while big acts of support included creating programs where autistic students could sharpen or develop new social, artistic, or work related skills. While faculty did not highlight negative consequences of their actions, faculty did surface some circumstances that they grappled with as they chose supportive behaviors. I discuss these barriers within the next two sections on normative beliefs and control beliefs.

Normative Beliefs

"I think the biggest lesson of autism to me was be careful how you feel about something and what you say you want to do about something because you really have to learn the facts from not just one source." Nina

Normative beliefs are the beliefs which faculty have about how supportive or non-supportive important referents would be of the behavior as well as faculty's motivation to go along with these referents. According to the theory of planned behavior, when faculty are surrounded by significant others who voice their support or are themselves actively supportive of autistic students, they will more likely express an intention to interact with autistic students in supportive ways.

In this part, I present findings about those referents which faculty indicated were important sources of information and approval for their choices to interact with and support autistic people. Referents are categorized by major grouping since faculty are essentially

describing the belief that a particular referent has been approving or disapproving of their choices to support autistic students or a referent was observed to be a role model themselves for supporting autistic students. These groups are: (1) Actually autistic people, (2) Autism support programs and center for autism research, (3) Student disability services center, (4) Colleagues, and (5) Family and parents of autistic students (see Table 4). These groups of referents, according to the TPB, contribute to that social pressure that faculty feel to react in supportive ways to autistic students. In most cases, faculty described referents as approving of their supportive behaviors towards autistic students. But some faculty recognized that they sometimes acted in ways to support autistic students and people in ways that challenged the conventions for teaching or research in their disciplines and therefore would not be approved by their colleagues.

Table 4
Normative beliefs

Important referents	Exemplar	Related behavior
Actually autistic people	Temple would also share how she coped her entire life… And that's how I started from that framework with somebody who dealt with this their entire life, and yet they were still very actively involved in the community, and especially like in academics, like Temple Grandin. - Scott	Co-authoring with autistic researcher and students
Autism support programs and center for autism research	People in the autism program really talk[ed] with me about being forthright and very direct in dealing with him … I would go to them when I needed really good advice and they usually were ready and willing to talk with me about it. – Patricia	Opening a line of communication
Student disability services center	So early on, even though I was the one leading the program, I was learning a lot from these collaborators that really shaped how I thought about supports for students at the college level in general. - Evelyn	Developing college transition or an autism support program
Colleagues	I totally credit Nicole; she is the reason my understanding has changed over time... the great part about Nicole is she'll never tell you. You just need to listen to her. Like, you kind of have to be smart enough to listen. - Helaine	Co-authoring with autistic researcher and students
Family and parents of autistic students	Because when it's my son, you know, it's just emotionally very, very different. Because you know I adore him. I love him and I cannot separate him from his autism… I don't want to be disrespectful of him. - Nina	Participatory approach

Actually Autistic People

Participants noted that learning from autistic people was integral to how they chose to support students as mentors or advisors, as teachers, researchers, and community engaged scholars. Participants talked about learning about autism, how to interact with and support autistic students from actually autistic people. Two participants, Suzie and Scott, explained that they learned about autism from well-known academic and autistic self-advocate Temple Grandin. Both Suzie and Scott talked about Temple Grandin's brilliance as a scholar, her talents, and how she coped with difficulties that arise from autism. Scott relayed a particularly pivotal moment in his understanding of autism because of Temple Grandin. Scott approached Grandin to collaborate on a writing project which sought to explore how autism impacted individuals as they aged.

> But Temple would also share how she coped her entire life… And that's how I started from that framework with somebody who dealt with this their entire life, and yet they were still very actively involved in the community, and especially like in academics, like Temple Grandin. And I'll never forget this when she goes, I am a scientist first and I have autism… and she talked about her strengths with autism, like her ability to draw intricate, detailed designs by hand. It was just impressive. And she goes this is one of the strengths. But then she goes, it's very awkward for me to interact and do speeches. I go, you do such good job. You're amazing, you know? And she goes, yes, but that's all preparation and very focused. But from that point on, I knew that my attitude, my openness to that would be very important.

Scott learned from his interactions with Temple Grandin that he needed to be open to what autistic people had to teach him about autism. He saw that autistic people experienced

challenges because of autism but also had strengths, developed effective coping mechanisms, were successful in their professions, and led fulfilling lives.

Suzie similarly explained that her relationship with Temple Grandin influenced how she understood and supported her autistic students. Suzie had known Temple Grandin for a number of years and often traveled with her to events. Suzie recalled having conversations with Temple to plan their travel agenda in minute detail because Temple seemed to not be able to do this well on her own. “And with Temple, it's like I'm reminded that it never goes away… So when you work with people with autism, you must have the ability to ascertain what their deal is [and] be open to it and then go, okay, all right, let's work towards that.” Suzie recognized this similar characteristic in some of the autistic students with whom she worked. Well into their semesters, they too struggled with schedules and showing up for classes on time. Suzie said you could get frustrated with the students but “then you go back to behavior is communication and what does it mean that they're not here? What are they unable to do? So when you take that and really breathe with it and live with it, it really helps you.”

In their relationship with Temple Grandin, Scott and Suzie were reminded that autism is a lifelong aspect of a person's being that manifests in very particular ways. These manifestations of the challenges of autism are unique for each person. Autistic people navigate the challenges and embrace the strengths that autism presents. Both Scott and Suzie recognized that they had to be open and accepting of the behaviors of autistic people, to interact collaboratively and without judgment.

Eva and Nina discussed the importance of listening to autistic voices in their research. Eva recalled practicing a presentation about her research with a group autistic students. Their feedback made her presentation so much better, she said. She valued the unique perspective of

the autistic students who shared insights that she did not think about because she was in her own "bubble."

Nina expressed a commitment to develop a research agenda that embraced the neurodiversity paradigm and to conduct participatory research with actually autistic people. She wanted her work to be useful and helpful to the autistic community from that community's perspective. She shared that ABA research, in its current form, excludes the opinions and perspectives of autistic people about what is considered socially valid, a central criterion when designing interventions. "There's a huge divide between the ABA community and the neurodiversity movement and the autistic self advocates. I, I, and I, and I don't like that," she said. She clearly felt uncomfortable with this division and planned to bridge this gap by explicitly soliciting the opinions of autistic people about intervention protocols *before* carrying out her studies. She asserted,

> I won't do anything that at least the majority of the autistic students or advocates that I reach out to are telling me that it's a bad idea… In everything that I do, I want to be respectful of the neurodiversity movement and I want to try to explicitly seek participation from autistic members of the program or if not available, from outside, but I *do* want to hear the voices and the opinions of autistic students and autistic self-advocates. And I want like everything that I do to be something that I would be proud to share with the neurodiversity movement. Like my previous work, I'm not too proud to share that, you know what I mean?

Nina expressed regret and shame about her work as a specialist in a field that ignored actually autistic people as legitimate knowers of their own lives. She believed her new approach would allow her to develop supports or interventions that would be more accepting of, and

helpful to actually autistic people. For Nina, the possible benefits of this approach to her son who is autistic are always at the core of what she is doing and planning to do. Nina felt a tension however between adhering to her discipline's procedures and proactively involving autistic voices in her research. For Nina, to adhere to the norms of research in ABA, she believed she would need to reject criticisms of ABA and her own efforts to include autistic voices in designing ABA interventions. To answer to the criticism from autistic people and adhere to her own commitments, she believed she would need to reject the norms of ABA. She described one autistic research collaborator as particularly instrumental to changing her perspective about her own field. She said,

> He's an autistic self-advocate and he's really brilliant. And he was the one who showed me, without even realizing, that ABA is so exclusive. And it was a comment that he made. I don't think he meant any harm or realized that I was in ABA at the time. But he said something about the ABA people self-loving each other. And the very first moment that I read that comment, I was like, ah it hurts, but I could not *not* see that he was right. And I think this is a very critical feedback that affected me. I'm not okay with ABA people being perceived as, and actually *doing* that exclusivity, and amongst themselves cheering each other on and, excluding everybody else. I don't want to be part of this. And that's why I wanted to try to do things differently. If I were to run my procedures the way I see them, the way I've been trained, they'll be good and they'll be publishable in JABA but this should not be the criteria. I want to ask somebody else from the outside to give me this social validity.

Nina said that she felt like “an outsider” neither “100% in the center of the ABA group" nor “100% in the center of the advocacy and neurodiversity group because I feel like I have to

compensate [for] both." The opposing opinions of her disciplinary community and the autistic community are important in guiding what she does as a researcher. This commitment to conduct inclusive research left her feeling displaced within her discipline. But Nina was adamant that she was going to be strongly guided by what actually autistic people say to her. Her belief that autistic people like her son and her autistic co-author were important referents who would approve of her approach to include autistic voices in her research was a strong enough belief to challenge the norms of ABA research and ultimately influence her own behavioral choices.

Finally, several participants identified autistic students as important referents for choices they made about how to support students. Natalie, Helaine, Addison, Annie, and Evelyn discussed the importance of trusting students' explanations of their experiences and following students' lead about what would be most supportive and effective in helping them to succeed. Annie, whose program to teach computer 3D modeling skills to autistic students used a participatory approach, summarized it best when she said, "We have learned so much from people with the lived experience. So that's definitely one of the foundations of the work that we do."

Evelyn, whose peer mentoring program was also participatory, provided a great example of how she valued the perspectives of autistic people and wanted to do what they advised. Evelyn pointed out the importance of redesigning her institution's peer mentorship program to respond to the negative feedback from autistic college students. Initially, Evelyn planned to limit the program to only autistic students. Autistic students however shared that they did not want a college program that replicated the exclusion and isolation they experienced in high school resource rooms. Evelyn thought that it was important to re-design the program based on autistic

students' feedback. This led to a change of scope to expand the program to serve students without formal autism diagnoses as well as neurotypical students.

Evelyn also designed the program to be participatory so autistic students could voice their opinions to shape the strategy and administration of the mentorship program. But she admitted that while there was an intention to be participatory from inception of the peer mentoring program that she coordinated, becoming participatory happened more slowly and organically. Students were sometimes reluctant to take on leadership roles or when willing, did not quite know how to shape the program. She recounted, for example, that when asked to give feedback on and design the curriculum for the program, two students made editing suggestions.

> So we really took a long time to kind of figure out how to make this intention that it be participatory, really be participatory, and I think at this point we are very participatory but for a long time, it was more of an intention with little aspects that were truly participatory from the very beginning...So obviously involving the students in the program has made it more effective and more engaging from the very beginning. It makes the supports have more social validity.

Eventually students became more comfortable and skilled at taking the lead to shape the program's agenda. Student involvement and leadership led to greater acceptability to and utility for actually autistic students.

Autism Support Programs and Centers for Autism Research

Some faculty identified autism support programs or centers for autism research on their campuses as helping them to learn more about autism and how to respond in supportive ways to autistic students. Staff in these programs and centers were credible advice givers and role models. Faculty described the belief that they wanted to carry out the advice provided by staff at

these programs and centers. Faculty also paid attention to how program staff interacted with autistic students and adopted the behaviors that they saw were helpful to students.

Thomas described personally benefiting from the knowledge and expertise of the autism support program team. He credited the staff of the program with helping him to learn more about autism and what his students needed to be successful in his class. For example, a student aide helped Thomas understand that given the highly interactive and animated nature of his classes, that it was "par for the course" for his autistic student to take breaks from the classroom whenever the student experienced sensory overstimulation. This understanding helped him decenter his own discomfort and worry that he was not being a good teacher when the student suddenly left the classroom.

Natalie also shared that before she had her son who is on the autism spectrum, she worked with the autism support program at her institution to support students but did not have a full understanding of the condition. She stated that she was committed to following the program coordinators' suggestions for supporting autistic students but did not go beyond their directions.

> I really thought at that time that really the best thing I could do is treat that student like every other student, like give them the accommodations, but it wasn't my place or my role or my job necessarily to figure out how to bridge that gap for that student. But I definitely was interested in following whatever directions the college program gave me and really did try my best to kind of figure it out. But I definitely did not know what I was doing. I would just kind of do the stuff that they told me, but I didn't understand why.

As Natalie took on more of a mentoring role with one of her autistic students, she modeled her interactions with her students on the program staffs' interactions. She shared that she learned for example that she could be more informal in her communications with her

students. She realized that she could maintain professional boundaries but still be funny or even make a mistake in her communication style. By observing the program staff, she became more comfortable with interacting with autistic young adults and realized that she would mess up from time to time because of her assumptions. “I've gotten really good at apologizing if I say something dumb, which I am prone to do at times. You know, I'm just learning and growing and becoming more comfortable with that.”

Sara and Patricia also pointed out that it was beneficial to network and learn from colleagues at the autism centers on their campuses. For Sara, it was helpful to talk with colleagues at her university’s autism center about strategies to “make the educational experience more effective for students who do not learn the same way that a typical student does.” Patricia similarly shared that when she started at her institution, she began to learn about autism from the center for autism research which is nationally recognized for their work. She credited colleagues and staff at the center for helping her to better understand her autistic graduate student.

> People in the autism program really talk[ed] with me about being forthright and very direct in dealing with him and saying, you shouldn't be wearing that sweater, it's not clean or something like that. I would go to them when I needed really good advice and they usually were ready and willing to talk with me about it.

The center was a source of advice for how to respond to her student and she followed their advice, knowing that they would approve of how she interacted with her student.

Student Disability Services Center

The majority of participants expressed gratitude for the expertise and services of the student disability services centers on their campuses. Through the student disability service centers, participants were educated about the ADA, their obligations as faculty members, and

practical matters such as how to provide accommodations or how to liaise with the testing center. Eva's review of the disability services department at her campus reflected sentiments shared by other participants. Eva shared,

> They ask you for the exam, they remind you, they tell you about what accommodations your student needs. If you want to call them and you're not sure of anything, they're just always available, which is just really pleasant from the perspective of a faculty member. And I have so many students, like one of my classes is a hundred students, the other's 40 and the other is a smaller one. So just like having that support is just great.

Participants expressed cordial relationships with the student disability services centers but the extent of staff's specialized knowledge and advice about supporting autistic students varied. Natalie, for example, shared that while the student disability services office at her campus was knowledgeable about faculty members' legal responsibilities under the ADA to provide accommodations, there "is nothing else really in terms of information about how to support students with autism."

In contrast, Evelyn shared that staff at the student accessibility center at her campus were central sources for her own learning. The assistant director, for example, was an early collaborator when Evelyn was developing the peer mentorship program and an influential administrator on her campus who connected her with various campus resources as she tried to establish the program. Another staff member who was heavily involved in the peer mentorship program was a counselor at the student accessibility center and brought a wealth of experience in working closely with autistic students in a higher education setting. This counselor volunteered as a mentor in Evelyn's program. Through written mentor logs, Evelyn observed how the counselor used effective strategies to support students. For Evelyn, the staff at the student

accessibility center were trustworthy sources of information about how to structure her program and to her understanding of supporting college students in general. “So early on, even though I was the one leading the program, I was learning a lot from these collaborators that really shaped how I thought about supports for students at the college level in general.”

Colleagues

Many faculty observed how their colleagues interacted with autistic students and modeled their own behaviors towards the students to match that of their colleagues’ behavior. Faculty reported that influential colleagues viewed students as competent and challenged deficit views of autism. Some of these colleagues were in the same discipline and some were colleagues in different disciplines that participants met as they worked to support autistic students. A few faculty also challenged how colleagues in their own disciplines approached interacting with autistic students or people. Norms that reflected deficit views of autism which were upheld by disciplinary colleagues were some of the few barriers that were raised by faculty. Russell and Nina, for example, shared that while their disciplinary colleagues were important referents, they very much followed their own paths which diverged from disciplinary norms.

Russell received support and validation from his music colleagues to pursue inclusive teaching and service work at his university. The people who evaluated him, such as the department chair and the dean of the music college, always encouraged him to move forward with inclusive teaching as part of his research and creative profile. Russell also mentioned that while it was “very important” to learn how his discipline typically supported the learning of neurodiverse students, his own approach often deviated from his discipline’s established guidelines. Russell belonged to a special interest group in his disciplinary association that was

“dedicating to teaching students with special needs” and "has learned a lot from these colleagues about what they do in their settings and best practices for working with students.”

> But I've also found that I disagree with them with a lot of what they say. I think that there's this kind of assumption that people with autism need a remedial piano education and that's kind of how everybody does it. And I've just never found that to be the case in my actual teaching of these students. So that's the main disagreement. It's a pretty big philosophical disagreement to be honest. I just feel like everybody who comes into my piano studio is capable of doing something really great. I don't sort of try to sell people short. I'm not claiming that these other people are but I definitely feel they are when it comes to people with autism.

For Russell, it was important for him to know what his colleagues in piano pedagogy were doing but he did not follow their “best practices” which favored a remedial approach for autistic students. Instead, Russel went against the norm. He used inclusive teaching strategies, expected competence, and anticipated success for his autistic students. He did this because he wanted his students to experience triumph in their piano experience. To develop his approach, Russell explained that he read widely and tapped into the expertise of a multidisciplinary collaborative of researchers at his institution. He described this group of researchers that represented many different academic disciplines, as knowing much more about autism than he did. He was able to learn about autism from these various perspectives. For Russell, researchers within this group were encouraging “cheerleaders” who connected him to various resources as he developed and implemented his own philosophy and practice to support autistic students.

Nina’s line of research was quite unique and perhaps trailblazing as she tried to infuse ABA with a neurodiversity paradigm. “If you go to an ABA conference, nobody's talking about

neurodiversity or in the journals for that matter. Nobody is mentioning self-advocacy." She put herself in a very interesting kind of tension in her work and career. She credited Evelyn, a frequent collaborator and colleague in the field of psychology, for helping her to understand and accept neurodiversity as a legitimate and now, dominant lens through which she wanted to conduct research. Evelyn, for example, shared a blog post by Aiyana Bailin (2019) on neurodiversity when Nina was struggling to understand how one could celebrate autism, especially given her son's everyday challenges. This interaction with Evelyn and reading the blog post was a big part of Nina's story of "understanding, absorbing and accepting neurodiversity." When I asked Nina how important it was for her to think about and do what her colleagues in ABA consider acceptable in research, she shared that her commitment to do what her colleagues deem acceptable has changed.

> Yeah, if you asked me this question a year ago, I would have answered that I care a lot about that, but I have changed in a way that is irreversible. Like I feel so strongly and so passionately about [that]. I love ABA, but I don't like what we've become and now that I've seen things so clearly, I want to help them change... I think that ABA would do itself justice and a great service and of course, to the autism community, by opening up more avenues, bridges and connections with the neurodiversity movement, with self-advocates, and the whole idea of nothing about us without us.

Nina remained committed to the field of ABA but saw it as "exclusive and unwelcoming of other ideas" that were "equally appropriate, acceptable and not incompatible with ABA." With her embrace of the neurodiversity movement and participatory research, she acknowledged that it would be a challenge to work on a project with colleagues who did not share her beliefs.

But she said she would try to convince them of her ideas. Despite this conviction, Nina worried that she would not be able to publish her work in her discipline's journals because her disciplinary colleagues do not share her beliefs and convictions.

> The participatory research project that I'm currently working on which is still in the very early stages, I keep thinking, 'well, what if I finish the study and I have great data to share, but the main journal in our field of ABA won't let me publish my work there?' That would defeat the purpose of my work. Of course, I can go elsewhere and publish it, but it would be so much more effective if I am telling my ABA peers and our mainstream journal about this idea… When somebody who doesn't share your understanding of the current situation or the values that are pushing you to behave in a certain way, they block an opportunity for a participatory approach... Of course, it would be a huge problem if I'm unable to publish, like I can still publish it elsewhere but if I am in a behavior analysis program and I'm not publishing ever in the Journal of ABA, JABA, that's a problem… if a program has hired me as an ABA faculty member and they don't see the Journal of Applied Behavior Analysis in my resume, I do imagine it being a problem [for] tenure and promotion.

Nina recognized that pursuing a line of research unfamiliar or unpopular within her own field could have negative ramifications for her career and the contributions she hoped to make for the autistic community. Still, despite her concerns about her ability to share her research in her discipline's journals and with her peers, Nina was not deterred and remained steadfast in her commitment to participatory research.

Helaine similarly shared that in publishing with autistic authors, she will have to address editors who do not share her perspectives and commitments. Helaine believed that in order to

honor the voices of autistic co-authors, she would have to justify or defend autistic perspectives to neurotypical reviewers and editors, try to publish in lower tier journals, or perhaps both. Unlike Nina however, Helaine's non-tenure status allowed her the freedom to research and publish wherever she chose because her research activity was not tied to her evaluation.

Fleur and Patricia, who were faculty at the same institution, described colleagues that were kind, supportive, and inclusive. While Fleur mentioned appreciating the different perspectives of her many colleagues, she singled out one person who was a role model to her. She described Jane who was in the special education department and directed the academic programs at her institution's autism center, as a source of guidance on how to work with her autistic graduate student. Jane was patient, looked for opportunities to empower students, and was friendly and at ease around students with disabilities. Patricia tried to model her behavior towards autistic students based on her observations of this colleague. From this colleague, she learned how to show more patience and to take the time to interact with students. Patricia admitted, "I can be a jerk sometimes. I'm like, you do it because that's the way it is. So, she taught me to be kind and I modeled her."

Patricia shared that a well-respected colleague in her department who was at her institution for 50 years held the philosophy that "no student would fail and that we would help them make it through whatever program it was." She embraced this philosophy saying that "his ideas on how to treat students and how to work with them influenced me a lot in dealing with this young man." She also observed colleagues from her department interacting with her autistic graduate student and adopted their approaches.

> I know that the young man was also in this professor's class for writing and the professor really helped him a lot too. So, I think other people's attitudes showed me that, you know,

there was something there to work with before I had ever really interacted with him. And another professor was teaching him at that time and we had a lot of conversations about it, and so I saw that he was being very direct with him and that seemed to work. And so, I decided that's probably the best way for me to do it from the very start, you know, be direct with him and say, I don't care whether you want to take this class or not, you have to, [it's a] requirement. That seemed to solve that problem.

Patricia adopted the beliefs of her colleagues that the student was capable and that she was responsible for helping him succeed. She also copied the direct communication style demonstrated by her colleagues that seemed to be successful for her autistic student.

Addison, Eva, Evelyn, and Helaine similarly all observed colleagues who were influential in their understanding of autistic students and in shaping how they interacted with autistic students. These colleagues helped them to understand students' behaviors from a "different lens" and to develop a "student-centered teaching" approach. Helaine's experience of learning from a friend and colleague perhaps captured best how influential colleagues have been to these faculty.

Helaine shared that while she is considered an expert within her circles on disability and autism research, she credits a colleague in her discipline, Nicole, for helping her to broaden her understanding of autism. Nicole is a researcher who studies the experiences of autistic college students who use alternative methods and technologies to communicate. From Nicole, Helaine better understood what the range of communication in autism could look like and how to create a positive learning environment for all autistic students. About Nicole, she said, "I totally credit Nicole; she is the reason my understanding has changed over time... the great part about Nicole is she'll never tell you. You just need to listen to her. Like, you kind of have to be smart enough to listen."

Finally, Annie described having the approval of colleagues from different disciplines who shared a vision for creating an autism friendly and affirming space in the 3D computer programming skills workshops. Annie shared that the program objectives and design went against typical types of programs for autistic youth. The program did not focus on reducing behaviors traditionally labeled as problematic (e.g. stimming) and did not focus on increasing socialization between autistic and typically developing youth. Annie remarked that the program would not have been approved by her special education colleagues who would have instead included neurotypical youth in the program to make it more inclusive. "But to have a team behind me that said, no, what you're doing is working... it was really nice."

Family and Parents of Autistic Students

In this study, a few participants, Suzie, Sara, Natalie, and Nina had autistic family members whom they identified as important motivators for their work. While most of these faculty did not directly state that they supported autistic students in ways that their autistic family members would approve, they were heavily influenced by what they learned from interacting with their family members.

Suzie, for example, whose brother was deceased about 9 years when I interviewed her for this study, shared that she always thought about what he learned from her brother - "words don't matter… behavior is communication." She learned how to interact with autistic people by observing that her brother's behaviors reflected unspoken or unmet needs. She wholly accepted that her brother's behavior was not problematic but rather a way he expressed what he needed. She carried this understanding and non-judgmental acceptance of autistic people into all aspects of her work. For Sara, Natalie, and Nina, a focus on supporting autistic students through their research, teaching, or service developed after their sons were diagnosed. Importantly, supporting

autistic students became a central part of their work. Natalie, for example, mentioned finding purpose in her work as an academic after her son's diagnosis that was not present before his diagnosis.

It was Nina however who specifically talked about wanting to act only in ways that her son and people like her son would approve. He was her "catalyst" for embracing the neurodiversity movement in her research work.

> The more I get to know my son, the more I was becoming open to neurodiversity, to the movement, and my understanding of autism changed… I would say it took me five years to really absorb and understand. I think it would have taken maybe 10 years if it wasn't for my son. Because when it's my son, you know, it's just emotionally very, very different. Because you know I adore him. I love him and I cannot separate him from his autism… I don't want to be disrespectful of him .

She came to understand autistic identity as part of him and opened up to learning about autism from different perspectives. One of the biggest lessons she described learning about autism was to learn about autism from sources other than ABA books, researchers and conferences. Nina learned through her relationship with her son and developed a more "well-rounded view" that made her critique ABA and elevate her son and people like her son as significant referents for how she chose to interact with and support autistic people.

Some participants, such as Suzie and Annie, discussed the influence of the parents of autistic students on how they chose to interact with and support autistic college students. Suzie started the college support program at her university after focus groups with parents in her community showed that parents were as concerned about access and success in higher education for their autistic children as they were about their children's access and progress in K-12

education. Annie also listened to groups of concerned parents and identified them as pivotal in the design of the computer 3D modeling program that she was building for autistic youth in her community. At a town-hall type event to gauge community interest for the program, Annie remarked that there was standing room only; parents were interested but had different ideas about how the program could benefit their young people the most. When her team pitched the idea for program staff to teach parents and then have parents teach their autistic highschoolers, the parents in the room vetoed that idea and instead proposed that the highschoolers be taught directly by program staff. Accepting this approach, Annie and her team designed the program to focus directly on building the computer 3D modeling skills of autistic students as well as their peer teaching and leadership skills.

While some participants aligned their approaches with parental opinions, other participants disagreed with parents. Instead, these participants, Addison and Sara, countered parental opinions and saw opportunities to close gaps in students' experiences that parents were not filling. Addison for example, shared that she constantly drew the line with parents who had unrealistic expectations about the autism support program that she coordinated. Addison described this approach as simultaneously leveling the playing field and not letting students simply get by.

> It's really a fine line we play all the time. I always make this very clear; I don't guarantee academic success. I can't make your son or daughter get a 4.0, get scholarships and do really well if the capacity and the ability to do that is not there. I can just make sure that I provide them the supports that make our program most effective and most accessible to their son or daughter.

While she provided comprehensive support services that made higher education more accessible to students enrolled in the program, Addison also had to turn down parents' demands for accommodations that were not reasonable such as allowing students to completely avoid course requirements.

Sara, who has an autistic child herself, often interacted with other parents in her community and believed that many of these parents did not adequately prepare their children for the college setting. She remarked that some parents, in an effort to overcome the barriers of educational systems not designed for their children, "overcompensate" or determinedly advocate on their children's behalf without teaching their children how to self-advocate. Sara believed that given legislation such as FERPA, students are called upon to self-advocate in higher education settings in ways that they are not required to in the K-12 setting. Sara therefore saw her role as helping students and their parents understand the need for developing this self-advocacy skill and other skills which would help them lead more independent and successful lives in college.

In this section, I showed that faculty believed that multiple important referents approved of their actions to support autistic students. Faculty's beliefs and expectations about approval from important referents validated their choices and their beliefs that their actions were beneficial to students. Not only were these referents sources of approval, but they were also sources of learning for faculty about autism and how to support autistic students. In particular, faculty valued the approval and input of actually autistic students and other autistic people as significant sources of knowledge for how to interact with and support of autistic students. Colleagues and university staff who shared similar beliefs were perceived as highly respected experts who challenged deficit views of autism and were important role models for faculty. When anticipating or confronted with disapproval or resistance from their own disciplines,

faculty overcame this barrier to remain steadfast in their approaches because faculty placed a higher value on other significant sources for approval such as actually autistic students and colleagues who shared their beliefs. Importantly, faculty remained committed to their courses of action because they saw the benefits of their actions for autistic students and other autistic people. This perception of approval from autistic people and trusted colleagues led faculty to explore new lines or methods of research and to create affirming spaces in their communities through development of different kinds of programming. In the following section on control beliefs, I will show how faculty's beliefs about their skills as well as institutional supports outweighed any barriers they perceived in their environment.

Control Beliefs

"I let my eyes relax or my mind relaxes and I sort of get to a space of who they are and the reason behind why they're behaving the way they are. They just have a different way of orienting themselves." Fleur

According to TPB, control beliefs underlie the individual's perception of their ability to perform a behavior. There are two types of control beliefs: facilitative beliefs and inhibiting beliefs. Faculty beliefs about factors that are supportive of a behavior are referred to as facilitating beliefs. Beliefs about factors that are unsupportive or hinder the performance of a behavior are listed as inhibiting beliefs. Table 5 summarizes these facilitating and inhibiting beliefs. When faculty believe there are resources in their environment that are supportive of them or that they have the skills and knowledge to effectively carry out a behavior that's supportive of autistic students, they believe they have the control to choose that behavior. Faculty perceive less control over their behavioral choices when they see barriers in their environment.

Table 5
Control beliefs

Facilitating beliefs	**Exemplar**	**Related behavior**
Institutional support	I met with disability services first and then the student came in and we [all] talked. And then the disability service provider wrote up a contract or wrote up some rules and we all signed it and then the student took it. And then I had to kind of help enforce that. - Helaine	Coaching
The skill to be adaptable	I will adapt by just teaching them by ear a lot more, which essentially is fine if somebody can still play music, even if they're learning it by ear, there's no problem with that in my opinion. - Russell	Utilizing responsive pedagogical strategies
The skill to challenge own stereotypes and assumptions	The words he uses sometimes can sound demanding if someone would just read the text that he would send, but I understand that he's just very literal and he's just very direct. – Danielle	Opening a line of communication
Inhibiting beliefs	**Exemplar**	**Related behavior**
Time	And what I want to work with another doctoral student who has a lot of the same problems as this young man, I would caution everybody in the department because it took so much of my time working with him because it was intensive writing and rewriting. - Patricia	Co-authoring with autistic student
Lack of interested and committed network	I think the biggest barrier to student success in academic institutions is faculty and faculty who are resistance to being inclusive. - Natalie	Educating people about autism
Lack of professional development opportunities	Professors are thrown off guard and like maybe their initial reaction might be perceived negatively by the student because this professor just didn't know or doesn't know how to work with them. I think the fact that there is no real training, I think that's probably problematic. - Danielle	Utilizing responsive pedagogical strategies

Facilitating Beliefs

Faculty described three kinds of facilitating beliefs that supported their ability to engage with autistic students in positive ways. These facilitating beliefs relate to the presence of: (1) institutional support, (2) the skill to be adaptable and, (3) the skill to challenge own stereotypes and assumptions. The presence of these beliefs positively influenced the faculty's expectation that they could be supportive of autistic students.

Institutional support

Participants explained that they were not alone in their efforts to support their students. Faculty believed that colleagues and staff in the student disabilities services offices, college autism support program, and other administrators within their institutions provided invaluable support in terms of information, guidance, and endorsement. Faculty felt bolstered by their colleagues and staff who allowed them to work in ways to help and advocate for their students.

Some participants described access to a supportive and knowledgeable student disability services or autism support program which enhanced their ability to support autistic students. Faculty such as Eva, Nina, and Sara shared that they could contact the student disability services offices at any time to help facilitate standard academic accommodations for their students. But beyond advising on academic accommodations, Helaine benefited from the intervention of the disability services office at her community college when an autistic student's behavior became distracting for herself and other students. Helaine spoke glowingly of the support she received.

> So that particular student though was kind of the poster child for class interruptions or, speaking over, or [poor] personal hygiene… he was actually having a myriad of issues in my class, so he was probably interrupting about every 30 seconds to two minutes, he was just off topic, distracting… I also noticed that the personal grooming was not up to par

> and other stuff where other students didn't want to work with him in a group... I tried giving him a limit of things he could say, concrete stuff and I failed… So once I had very quickly failed, and I knew I was in over my head, I contacted disability services… I met with disability services first and then the student came in and we [all] talked. And then the disability service provider wrote up a contract or wrote up some rules and we all signed it and then the student took it. And then I had to kind of help enforce that. But the disability services guy did some like 'let's catch the student before they walk into class and just take a look at them' type of reconnaissance, like standing in a hallway, kind of like, 'Hey, come here first.'

Helaine knew that she needed help to help the student and to make the classroom environment less disruptive for herself and other students. She decided to lean on the expertise of the disability services given the lack of success she was having addressing the student's behaviors on her own.

Some faculty, such as Nina and Sara, shared however that while staff at their respective student disability support centers did facilitate basic accommodations, some staff did not have enough experience in higher education settings or did not possess deep knowledge on how to support autistic college students. According to these participants, these gaps in their expertise created shortfalls in the kinds of support that faculty could receive from these offices and therefore the kinds of support that faculty could offer to autistic college students.

Where participants did have access to staff with specialized knowledge and skill in supporting autistic students, participants reported that they leveraged these resources to better support their autistic students. Natalie, Thomas, and Danielle, for example, described working closely with their institution's autism support programs to understand and respond to the needs

of their autistic students. Specialized support staff would meet with faculty to provide detailed information about accommodations that their students needed. For example, Natalie described building and maintaining a relationship with the team who supported autistic students in the classes that she coordinated. Natalie was the basic course director for a 20-30 section course which was where she interacted most with autistic students.

> In some cases when the student is in the college autism support program, we get a packet of information about them. And that's very helpful because they come with the student support specialist and a graduate student. We always sit down as a team with the instructor who's teaching a course, the student support specialists, the graduate student, the student and myself to discuss the class, talk about what kind of the expectations are because it's a public speaking class, talk about the different routes that all students have available to them and then ask the student and kind of their team, what do you need from us? What can we do? So that's kind of how we start when the student has full supports. We also tend to give reports over the course of the semester, sometimes weekly, sometimes biweekly to the graduate student and the student support specialist as they request them about that student.

Addison provided the perspective of a faculty member who also coordinated the autism support program on her campus. Having colleagues in the program who shared her ethical beliefs and practices was especially helpful to her. It was not unusual, she said, to field requests from parents that crossed the line of what was a reasonable accommodation, for example asking a faculty member to do a student a favor by omitting a course requirement. With her colleagues, she talked about "ethical dilemmas in this program and whether or not we're really supporting

the student, and making sure they're at the same playing level of all the students or are we just helping them to get by. It's really a fine line we play all the time."

Like other participants, Addison also spoke favorably about the student disability resource center at her campus. She liaised closely with them and they backed her up about accommodations, conduct issues, and generally partnering with them to address faculty concerns about students' needs. Similar to other participants, she saw building relationships and keeping an "open line of communication" with other departments on campus such as the student disability resource center as "pivotal" to supporting autistic students.

Suzie, who is the faculty advisor and one of the founders of the college autism support program at her institution, shared that supporting her students with other faculty can unfortunately get contentious. She explained that when faced with resistance, she has had access to influential decision makers on campus who have helped her resolve issues or bypass uncooperative faculty colleagues. She shared that she has gone to deans, the university ombudsman and the student disability resource center to advocate for her students, "I'm ruthless if you're doing something that's hurting my students. I'm going to come and be like a pit bull about that." With the endorsement of university administrators at various levels of authority within her institution, Suzie has resolved issues to the benefit of students in the college support program.

The skill to be adaptable

Participants believed in their own capacity for change and adaptability which led to their willingness to support their students. Suzie, Russell, Thomas, Addison, Sara, and Danielle all shared that they took time to get to know their autistic students and adapt their approach to their

students' strengths and unique styles of learning. Faculty believed that the responsibility and the capacity lay with them to adapt to their students.

Suzie believed that when she took the perspective of autistic people, she was better able to support them and respond to their unique needs. "I feel like I got my autism goggles on. And that's what I'll tell people, to put your autism goggles on and see the world through that person. And if you can do that, anything's possible." Suzie attributed her ability to be adaptable to autistic people as stemming from her relationship with her autistic brother; she learned how to see the world through his eyes. She recognized that many people do not however try to take on the perspective of an autistic person and respond in supportive ways. Instead, she laments, many people choose to insist on autistic people bending to their way of doing things.

Russell expressed confidence in his ability to be flexible to support autistic students. Russell described his ease at changing how he teaches to capitalize on students' strengths, "I will adapt by just teaching them by ear a lot more, which essentially is fine if somebody can still play music, even if they're learning it by ear, there's no problem with that in my opinion." He did this because he believed that students would experience feelings of success and triumph. Like Suzie, Russell noticed a difference between his adaptive approach to autistic students and the approach of some of his colleagues. Russell drew a comparison between himself and his colleague who co-led the music festival with him. For example, Russell stated that his colleague who did not teach autistic students before becoming engaged with the music festival approached the work as such: "I'm just the teacher of piano, of artists, and I'm bringing you that approach, paired with sensitive supports," and "doesn't quite understand… there's all of these supports you have to put into place in order for these students to succeed." But Russell described this as a

healthy tension in their work that straddles "divergent viewpoints in a way, sort of coming to something kind of new" for the music festival.

Addison mentioned that she helped support students to achieve their goals and that she worked to figure out ways to support them without imposing her ideas about what might be best for them. She recognized that each student was different and adapted her approach to helping students based on what they wanted.

> These are individuals who have the right to live a life they want to live and live a self-determined life. So, if somebody wants to be a self-published author and write cartoons their whole lives, okay, how can I support them doing that? You know, is it a marketable job? I don't know, but that's what they want to do so we'll figure it out.

Addison took the lead from her students and was committed to supporting students in ways that reflected students' goals and aspirations in the college space and beyond. She did not apply a cookie cutter approach to supporting and understanding her students, rather she treated each autistic student as an individual and learned how to best support that individual based on the student's strengths and interests. Her ability to adapt was well illustrated when she arranged a 16-week internship for her student, whose special interest was trains, to work at a museum's train exhibit as a research assistant.

While many faculty indicated that they adapted their behaviors to their autistic students' needs, Danielle's experience underscored the need for continued professional development on how best to respond to students' needs and learning style. For example, she admitted that she was still learning and practicing how to interact with her autistic students in a direct and firm way. Danielle knew she could not "skate through this class" like she typically did and was prepared to make adjustments and handle unexpected situations because of her student's needs,

behaviors, and learning styles. But she expressed frustrations and was unsure of how to handle a situation when a student did not follow accepted classroom expectations. She said,

> It's like the culture of education boundaries. So like when the teacher is talking and you have an answer, you give an answer, and you kind of state it and it's not super long. But he goes on and on and on. And that's one of the things I have to figure out how to work with him a little bit more, how do I cut him off in a respectful way, but still allow him to share what he needs to share? And so that's something I haven't mastered yet. So, there's definitely things that are frustrating.

The skill to challenge stereotypes and assumptions

Many participants believed in their ability to challenge their own stereotypes and assumptions about autism and autistic people. Danielle, Evelyn, Suzie, and Fleur, in particular, all addressed the fact that they often confronted their own stereotypes. Danielle stated that just having autistic students in her classes propelled her to question her "biases or unconscious prejudices" and to reflect on her understanding of "ability" that were activated when interacting with autistic students. For example, since Danielle used a class text messaging application to communicate with her students, she received messages from one of her autistic students about assignment deadlines. After she got to know her student, Danielle realized that "the words he uses sometimes can sound demanding if someone would just read the text that he would send, but I understand that he's just very literal and he's just very direct." She also reminded herself that she need not be annoyed by the number and frequency of his texts or queries because "Oh yeah, okay, this is just what he needs… He needs reassurance that's going to be different than a typically developing peer... And it's a simple yes or no or a redirection" to alleviate his anxiety about when assignments were due.

Danielle also began to interrogate her program's requirements should an autistic student want to go into a career in physical education or sport performance. Danielle, who participated in program revisions in her department, was beginning to interrogate her beliefs about whether her student could be successful in her program as it was set up or whether the student, given his autism, could be successful as a physical education teacher.

> To be a physical education teacher, there's a lot of state and program level requirements, a lot of teaching is personality based, being able to deal with challenges as they come up etc… And so that's one of the things that makes me think as we put program requirements in place is if the student wanted to be a physical education teaching major, is our program set up to include him and work to his strengths or is it exclusionary? Or is this a situation where because he has autism, he wouldn't be as effective with what we know of current high school PE for example, which is pretty cut throat sometimes. So, it makes me think much bigger.

In this next powerful example from Evelyn, she demonstrated how her snap judgment of the student's capabilities eventually gave way to taking in new information about the student which helped her to see the student's strengths.

> So there was another student … she speaks a lot, but she speaks a little bit differently than other people. And so based on her speech at that time when she was first entering college, it might've seemed like she wasn't as capable as she was. And so kind of my flash judgment of her was I wasn't even sure if she was autistic or what diagnosis she had based on the initial way of presenting herself. But it turned out that she had gone through a period where she didn't speak at all for a number of years as a child. She'd been non-speaking… And then that student has gone on to be probably one of our very strongest

> leaders in [the program]. But if I had kind of stuck to like my initial, just like random impression of her, I would have never realized the types of strengths she had.

Evelyn said that it was important to recognize that she did have stereotypes, that she has made snap judgments, and that she can consciously allow new information about someone to change what she thought she knew about the person. Evelyn even enjoyed realizing that her initial perceptions were incorrect, "You have to kind of relish between where you start to where you go."

Suzie also opened up about her own experience of recognizing and confronting her judgmental beliefs and that of others at a conference for autistic college students who type and use assistive technology to communicate. There was a book launch at the conference where several autistic students who wrote chapters in the book made presentations.

> Oh my God, that day changed my life I'm telling you and it was amazing. And it was great because it was all kinds of people… that day, that made me just... [gestures her hands towards her body] that kick in the stomach, in a good way. I'm like, what kind of judging am I doing?... All those college students on the panel that wrote the book, they did their own typing. So that was great! And it's like, you're never an expert. Nobody's ever an expert. And I [tell my students] it's like, okay, you've got some experience, good, big deal but what about this person, that person, because everybody's so different.

Suzie recognized that while extensive, her experience working with autistic college students did not make her an expert on *every* autistic college student. Suzie's ability to confront her own judgmental beliefs about autistic people who type to communicate allowed her to appreciate the work of these students and importantly to see them as legitimate sources of knowledge of their own experiences. Both Suzie and Evelyn had to recalibrate how they viewed

and assessed nonspeaking or non-reliably speaking autistic students. They both admitted to having judgments about student's capabilities which they acknowledged as unfair or impulsive and allowed themselves to change their perceptions of students based on new information.

Finally, Fleur talked about trying to listen to and understand what autistic students were saying through their behaviors. She saw their behavior as communicating a need. She referred to her process of seeing behavior as communication as relaxing her eye or relaxing her mind which then allowed her to see their needs and better understand what she could do to support her autistic students. She explained that she sometimes thought of this process of relaxing her eye or trying to understand an autistic person's behavior as similar to that of trying to see the image hidden within an autostereogram picture (which is a 2D image that creates an optical illusion of a 3D image).

> When I talk with people about what I've learned in working with people with autism, it's like those autostereogram paintings where it's a picture of a beautiful flower, and then if you'd let your eyes rest, the pixilation shows that it's actually a dinosaur. That's how I choose to interact with people with autism, is I listen to them. But when they're doing their like inability to flex, repetitive behaviors, stimming, that kind of thing, I let my eyes relax or my mind relaxes and I sort of get to a space of who they are and the reason behind why they're behaving the way they are. They just have a different way of orienting themselves. And if we can peel away those layers and accommodate them again with empathy, with patience, with creating space, like relaxing your eyes to see who they really are…I try to figure out what they need, like instantaneous and then try to meet that need… Having learned through my colleagues … it's usually, you know, behaviors as communication and it's usually because they're insecure, frightened [or] frustrated

> because they're misunderstood… I don't know how else to describe it. It's hard to hear them sometimes. Like what are they really saying? Because people with autism didn't always speak the same language we do. And I try to create that ability to hear what they're saying.

Fleur's process of understanding, which she called relaxing her eye or relaxing her mind, was a process of seeing the behaviors that an autistic person might be exhibiting as communication. For Fleur, recognizing a student's autism diagnosis was an important step in this process of allowing herself to frame behaviors as an expression of some unmet need and to refrain from seeing student behaviors as inherently problematic. Importantly, Fleur saw her role as one of offering to help that student in a way that could best alleviate whatever discomfort or distress that the student might be experiencing in the moment.

Inhibiting Beliefs

Inhibiting beliefs are those beliefs which an individual has about the presence or absence of factors which hinder performing a behavior. Faculty identified the following inhibiting beliefs: (1) Time, (2) Lack of interested and committed network, and (3) Lack of professional development opportunities.

Time

Some participants believed that they spent a significant amount of their time supporting autistic students whether it was getting to know students and their individual needs or developing programs for autistic students at their institutions or in their communities. These faculty, while recognizing how time intensive working with autistic students was, did not describe spending this time as a barrier or potential inhibitor to supporting autistic students. The one exception was Patricia.

While Patricia believed her support to her student helped him, she admitted that she "frequently was stymied as to how to help" her student work through his challenges, "you know, it was not easy." She shared that she would be reluctant to work with other students who had similar needs and would caution her colleagues about the realities of supporting autistic students with similar needs.

> And would I want to work with another doctoral student who has a lot of the same problems as this young man, I would caution everybody in the department because it took so much of my time working with him because it was intensive writing and rewriting. I would try to explain how he could do it better and sometimes he listened, not always. So I think I would be very cautious and I'm at the point where I'm going to retire, not maybe this year, but for sure next year. So, you know, to get involved with the student at this point who needs that much help outside of my field, I could help him with the reading aspects and forming his questions and how to ask questions and things like that, but as far as helping him all the way through the dissertation process, I'd be very careful about doing that.

For Patricia, the time intensive nature of the support she gave to her student, together with her impending retirement plans, directly impacted her willingness to work with another autistic graduate student and also impacted the advice she would give other faculty who were considering supporting autistic students. While other participants also admitted that their work with autistic students was time intensive especially given their other responsibilities, most faculty believed and hoped that their actions resulted in positive effects for their students, themselves, and their communities.

Scott for example shared that while “worth it,” he expended an “intensity of effort” and time to learn how to communicate in authentic, trustworthy and comfortable ways that autistic students appreciated. There was a steep learning curve for him to develop a way of communicating with autistic students that took the pressure off the students to communicate in neurotypical ways.

Helaine, Sara, and Thomas, whose appointments were teaching focused, recognized the importance of taking time to help autistic students access accommodations or get familiar with class requirements. Helaine pointed out that the strategies she put in place to help students such as preparing detailed syllabi and rubrics, liaising closely with disability services to resolve problematic behaviors, or advocating for students’ privacy with external agencies "*absolutely* takes more time.” She added that these activities are examples of “unseen labor” that goes unrewarded even at her teaching focused institution.

Sara acknowledged that it was challenging at certain points in the academic year to perform all the necessary steps to ensure that her autistic students and, more broadly, her students with disabilities were supported in a timely manner. She believed that working closely with disability services to address students’ accommodations needs was indeed time consuming and time sensitive “but the responsibility for me [is] one of my top five [characteristics], and that keeps me on it and it's like I *have* to do it. But the time commitment is there.”

Thomas, who believed that his autistic students were initially challenged with his pedagogical approach, devoted more time at the beginning of the semester to help students understand what was required in the class. He concluded, “Then towards the back-end of the teaching or the learning experience, I find the autistic student actually is quite absorbed in it and

does quite well at it." They all admitted that these efforts to support students demanded a lot of their time but believed that it was a valuable use of their time.

Faculty who led projects and programs in their institutions or communities also discussed the time commitment as substantial. For Russell, the music camp and festival, which he developed and coordinated with a faculty colleague, required significant amounts of his attention and time to execute. The summer camp and festival were designed to be responsive to the needs of the autistic campers so in addition to planning the camp's curriculum and recruiting participants and staff, he also thought about how to make the experience pleasant for participants. For example, he ensured that campers had one-on-one support from graduate student mentors, had transportation to and from their activities, and that their personal aides or guardians were easily included in the camp.

> When it comes to the festival, it's a lot of work. There's very little support staff help. Any and all scheduling, fundraising, recruiting of students nationally, arranging for their and their caretakers or parents travel plans, interfacing with other departments on campus, like housing to find dorms, all of that has really fallen on myself and my colleague. So that's just a ton. That's just a lot of logistics. I don't know if I would call it a disadvantage or a challenge, but it's a lot of additional work to make these sorts of initiatives come forward.

Russell described this work as "just growing pains of trying to start something new" and looked towards the positive effects of his work. He hoped to be a resource and inspire others in his community to develop programs that support autistic people.

Natalie talked about having to be intentional about how she chose to spend her time on autism-focused initiatives. For her, since her son is autistic and there are few resources available

in her state, Natalie faced a dilemma about whether to allocate her time to help autistic children like her son or autistic young adults at her college.

> I'm also sometimes very torn between helping my college, wanting to spend my time and my resources helping my college students or helping the college transition [program]. But then kind of the other half of my brain and the other half of my time is really on that early intervention, early diagnosis, [and] what's going on with [their] education. [My state] is a really economically depressed area, and there's not the resources here that are in other parts of the country. So, there's not a school that I can send my son to here. When you don't have those resources, it's really hard to make progress to make things happen.

Natalie had to make decisions about her time in ways that other faculty did not because of her personal connection to autism. She recognized that her time was a finite resource and believed that her time should be spent working towards improvements in access to diagnosis, early intervention and education resources for children like her son.

Other faculty such as Eva and Evelyn identified the biggest challenge as finding the time to juggle their responsibilities such as their course load, managing grants, advising students, and directing their programs that supported autistic students. For Evelyn, her efforts to lead a mentorship program that was truly participatory was hampered by the various demands on her and her students' time.

Lack of interested and committed network

A few participants described an unfriendly atmosphere at their institutions for students with disabilities or a general lack of interest for programs that benefit these students. Faculty encountered disbelief, preconceived notions about autism, stigma, or inaction by others. Annie and Natalie for example highlighted unfavorable faculty attitudes and unhelpful behaviors as

barriers to supporting autistic students. Annie recalled making a presentation to faculty about strategies to support neurodiverse students and encountering some engineering faculty who questioned whether students with executive function issues even belonged at a state flagship research one university where the attitude towards students was often "sink or swim." Annie said, "We *can* accommodate them. I mean the awareness piece is huge for faculty and staff, we are just starting to break through, but we have such a long way to go." Annie also shared that even the student disability resources center was more about meeting the rule of the law and protecting the university from liability, "we do not have a well-developed program of support for these students at our university at all."

Natalie similarly faced negative faculty attitudes to providing accommodations to students. Natalie bluntly and unapologetically shared,

> I think the biggest barrier to student success in academic institutions is faculty and faculty who are resistance to being inclusive. And that's not the way that they would phrase it right. But they feel some kind of a personal affront, that their rigor is being challenged or they've always done things these ways or you know, these students just didn't work a year before, why are they here now? … I've got to go after the faculty and really talk about roles and responsibilities, what they're doing, how they are the barrier in some cases.

Sharing Natalie's sentiments, Suzie stated, "It's really hard to make people do things. We have to address it in all ways." Like Annie and Natalie, Suzie interacted frequently with faculty who demonstrated attitudes and behaviors that were barriers to supporting autistic students. For example, she described faculty who did not post mid-semester grades or did not send quizzes to the testing center on time. In this next example, Suzie described a situation where a faculty

colleague did not want to make simple changes to a course syllabi that would have clarified attendance expectations to an autistic student.

> A [faculty member] was lazy in changing dates for things and he had the wrong Martin Luther King date. One student was just like, 'I don't know, what do I do? What do I do? I don't understand what to do.' Which sounds like not a big deal [but] he just swirled himself into… a tizzy. And I remember being home that day and his mom calling me and saying, you know, [the student] is so upset because he tried to go to class even though he knows there is no school today. And so I went to that professor and said, dude, you gotta change the date. You *have* to change that. So when there's old bad faculty and they never change stuff, that's a problem.

Suzie believed that some faculty were unable or unwilling to take the perspective of an autistic student – faculty did not understand what the big deal was if dates went unchanged on their syllabi or grades were not posted or tests were not delivered to the testing center on time. Suzie believed that some faculty think that it is not fair or right when autistic students get upset by these situations, "*Oh well*, that's life, they are autistic… It's like I have to teach them everything in autism is a big deal."

Finally, Addison shared that there was a perception among stakeholders who allocated resources on her campus that Addison's department duplicated services already offered by two other departments on campus for students with disabilities.

> Sometimes when I've met with an administrator or influential people here on campus, the first question I always receive typically is why are you even needed? Because we have these two offices on campus that are doing the same thing you're doing. And so there's a level of, in a sense, ignorance because they don't really know us… For the past five years

> we've been on the top 10 lists across the country for what we do, one of the best… I've asked for resources year after year after year and repeatedly…to this day, the message I always receive is that we don't matter. I mean, we *matter*, but, we don't matter *enough* to receive the support, the resources. And resources literally would just be like an extra office.

She believed that many administrators did not see the value-add of their specialized program which supported autistic students. Addison therefore was repeatedly unsuccessful in getting approval for additional resources such as office space for her team.

Lack of professional development opportunities

Many faculty believed that there was a lack of faculty development opportunities available for faculty to learn more about supporting autistic students. This opinion was held even by faculty who had specialized autism support services at their institutions.

Scott shared that he was not aware of professional development opportunities that were available for faculty to learn how to support autistic students. Nina similarly shared that there was not a specific resource at her campus to learn about supporting autistic students and that she believed that faculty would need to do their own learning and seek an external resource should they want to gain more information.

Natalie shared that there are no professional development courses or online resources for faculty to learn about supporting autistic students. She stated that while these kinds of resources for faculty were "in the pipeline, they do not exist for us right now." The main source of guidance on how faculty can support students came from the autism support program coordinators who were very good sources of information and thought partners for faculty wanting to learn more. But these coordinators were limited in their ability to assist students who

were not enrolled in the specialist program. Natalie believed that there might be a misconception among faculty, students, and parents that her campus was well-equipped to support all autistic students because her institution is marketed as an autism-friendly campus. Faculty have the misconception that all autistic students have high levels of support from the autism support program.

> I think the faulty inference happening is that because we have a college autism support program, we have a larger population of students on the spectrum that are well supported… The autism support program only supports a small number of students... when a student is in the program, it's a very different experience working with them than when they're not in the program. They try to help if an instructor or student contacts them who's not in the program, they try to help connect them with resources available but they cannot serve that student in the same way that they serve students who are in their program. And they're very clear about that and it's understandable, they have to stay within their boundaries, to be able to do what they can to help, but they can't support all students.

And students and their families have the misconception that most faculty on campus are aware of autism and how to support autistic students.

> We're known as an autism friendly campus. If you Google [us] and autism, we come up as a place that you should think about sending your student. And so many people will send their students without the support of the program to our campus… What then happens is I think a lot of parents have the unrealistic expectations for what will happen when they send a student to our campus but that student isn't supported by the college autism support program… and this is where the faulty causal reasoning comes in,

> therefore [families believe] these faculty are better equipped, more familiar and more sensitized to working with students on the spectrum. So, faculty are likely to know a little bit more about the autism spectrum than faculty at other universities. I think they may be aware and I think the likelihood that they have had a student with autism in that class increases. And so that's kind of the disconnect, right? It's almost like because you have this thing on campus that may kind of filter out through the campus but I don't think it does to the extent people believe that it does.

Thomas, who like Natalie, works at an institution where there is a specialized autism support program, believed that there was "no fund of knowledge for professors to dialogue about autism at my university… we almost never talk about [autism]. So much of what we perceive as prejudices really oftentimes is just, you know, ignorance. It's not malicious." He admitted that he met with the program coordinators for the first few years he had autistic students in his class but noted that there was no sustained conversation on his campus to raise awareness and provide resources to faculty.

Danielle, who teaches at the same institution as Thomas, agreed that outside of information about the kinds of services offered by the student disability resource center or normalizing student accommodations, conversations about students with disabilities were rare at her campus. For Danielle, this sets up a situation where she might not have as much information as she needed to choose to act in supportive ways towards autistic students. In fact, she said that she was not sure where she would find this information on her university's website.

She admitted that she knew about the autism support program, but that many faculty would be unlikely to know where to begin to seek out support should they have questions or concerns about supporting autistic students in their classroom. These faculty believed that this

lack of conversation and formalized professional development opportunities at their campus made it challenging to better understand and support autistic students. Danielle strongly believed that training for faculty was needed.

> That would be something that I think would be great to have, even if it's generalized or reduced into strategies for teaching students with autism or what to expect. Like everyone's an individual, but sometimes there are some common behaviors to expect. Professors are thrown off guard and like maybe their initial reaction might be perceived negatively by the student because this professor just didn't know or doesn't know how to work with them. I think the fact that there is no real training, I think that's probably problematic.

At the same time, Suzie, who was the faculty advisor of the support program at their university, described challenges with getting interest in professional development workshops coordinated with the disability resources center. She said, “We've put on workshops on that nobody showed up.”

It is instructive that while all faculty were able to identify both facilitative and inhibiting beliefs, for all of them the facilitative ones were more common. This pattern translated into faculty’s belief that their efforts to support autistic students was buttressed by guidance and encouragement from like-minded colleagues and staff in several offices on their campuses. This may point to one reason why faculty did not identify any disadvantages of their interactions with their autistic students. The approval of important referents, having the support of others, and the ability to be adaptable helps faculty overcome the potential barriers that they face in trying to support their students; even further, it allowed them to frame their experiences as wholly beneficial.

CHAPTER 6: DISCUSSION

The purpose of my research was to explore how faculty interacted with and supported autistic college students and to uncover the salient beliefs that influence faculty's behaviors. My research questions included:

1. How do the salient beliefs of faculty shape their interactions with and support of autistic students?
    a. How do faculty respond to autistic college students?
    b. What behavioral, normative and control beliefs guide the response of faculty to autistic college students?

Using the Theory of Planned Behavior (TPB) (Ajzen 1991a, 2005), my analysis illuminated the multitude of ways in which the faculty in my study interacted with and sought to support autistic students. I found that these faculty members went far beyond typical conceptions of teaching, research, service, by taking time to learn more about the autistic community. They also took the time to learn how to design classes to serve autistic students, and therefore all students, and developed or got involved with community-based initiatives to enhance access to educational and social resources for autistic people and their families.

Previous research is clear that faculty-student interactions inside and outside the classroom matter to student success (Cole & Griffin, 2013; Crisp & Cruz, 2009; Lamport, 1993; Jacobi, 1991; Johnson, 2007; Mullen, 2007; Pascarella, 1980). Indeed, many autistic college students prefer approaching faculty for academic support (LeGary, 2017), for mentoring (Accardo et al., 2019b), for information about careers exploration and to collaborate on research projects (McLeod et al., 2019), and seek out faculty for social support (Connor, 2012). Given the struggle with emotional (Elias & White, 2018; Jobe & White, 2007; Strum et al., 2019; Trembath

et al., 2012; White et al., 2016), academic (Cullen, 2015; Gelbar et al., 2010; Happe et al., 2006; Reed et al., 2016; Taylor, 2005; Wolf, 2001) and social wellbeing (VanBergeijk et al., 2008) that many autistic students experience at college that can negatively impact their success (Jackson et al., 2018), it is encouraging that faculty participants in this study were supporting students in various aspects of their work which can positively impact their students' college experience.

Gappa et al. (2007) noted that "faculty members choose an academic career because it offers autonomy, intellectual challenges, and freedom to pursue personal interests" (p. 105) which implies that faculty have the autonomy to prioritize their roles and how they spend their time. Participants in my study played multiple roles in relation to autistic students with whom they interacted. The majority of participants made decisions to interact with autistic students and provide various kinds of support as teachers, advisors, mentors, and researchers. Many faculty also worked with autistic students and people in their communities. It is not surprising that participants worked with students and in their communities in various capacities given that faculty, regardless of institution type, are engaged in some combination of teaching, advising, research, mentoring, and service (Baker et al. 2017, Gehrke & Kezar, 2015).

Faculty in my study exercised their autonomy to choose actions in various aspects of their work that they believed benefited autistic students, but also derived benefits and satisfaction from their work for themselves. Participants evaluated the benefits, time and effort when making decisions to act in support of autistic students which is consistent with previous research on faculty support to students with disabilities (Kennette et al., 2019; Zhang et al., 2010). Many participants described learning and professional growth, as well as positive relationships with colleagues as positive aspects of their experience when supporting autistic students. These are

important components that make faculty work satisfying and meaningful (Gappa & Austin, 2010) which may have led to faculty in my study to choose supportive actions towards autistic students and the autistic community in the various aspects of their work.

Driving faculty behaviors in support of autistic students were a variety of beliefs that TPB defines as behavioral, normative and control beliefs. Individually and collectively, these beliefs influence a person's attitudes for or against performing a behavior, perception of social pressure from significant others to perform a behavior, and perception of autonomy and capacity to perform a behavior. Using the TPB as my theoretical framework did not allow me to explore the wide range of background characteristics such as pedagogical beliefs and teaching approaches, personal epistemologies, or demographic characteristics which may have influenced faculty beliefs. However, a common background characteristic shared by the majority of participants was prior professional experience or a personal connection to an autistic person. Prior professional experiences and personal connections to autistic family members has been shown in past literature to positively influence exemplary teaching practices (Austin, 2014). It is possible that for participants in my study, professional experiences and personal connections prompted them to be open and non-judgmental towards autistic people and pique their interest to learn more about autistic people and how to support them.

Faculty Beliefs and Behaviors

Faculty behavioral beliefs and faculty behaviors

According to the TPB, behavioral beliefs, when favorable, lead to positive attitudes towards performing a behavior and increase the likelihood that a person will have an intention to perform the behavior. A significant finding of this study was that faculty in this study reported overwhelmingly positive beliefs about the outcomes of their actions. Faculty struggled to

identify any negative consequences of their actions. It is important to note that this finding is not unexpected given my sampling method. Purposive and convenience sampling could have led participants to volunteer for my study who were more likely to see primarily the benefits of supporting autistic students. It is not possible therefore to decontextualize and generalize these findings (Cohen et al., 2011) to all faculty who interact with autistic students. Nevertheless, it was significant that faculty in my study did not highlight the negatives. As Russell put it, he saw only positives and very little negatives which was a view shared by other participants. These favorable behavioral beliefs about the positive consequences of their actions influenced faculty to act in supportive ways towards autistic students in three key ways: 1) use responsive pedagogical practices such as differentiated instruction and universal design for learning, 2) coach students on social and work related skills, and 3) develop support programs that were strengths-based or autism-affirming. Importantly, these supportive actions went beyond typical academic accommodations such as extra time on examinations, lecture notes, extended assignment times etc. (Anderson et al., 2017; Brown et al., 2016; Gelbar et al., 2014) and demonstrated a recognition that targeted supports or accommodations that were specific to the social, sensory, and executive function needs of autistic students were the most helpful types of supports (Austin, 2014; Brown et al., 2016; Gobbo et al., 2014).

Faculty believed and wanted autistic students to experience triumph, and this led faculty to engage in responsive pedagogical practices such as differentiated instruction and universal design for learning. Russell, for example, taught students to play by ear, chunked piano pieces so they were easier to practice, and provided multiple opportunities for students to practice before a performance which resulted in a high quality piano education experience and "a great deal of triumph" at important events like senior recital or at the music festival. Faculty often expressed

the view that it was important to provide these opportunities through their actions because students often did not have these positive experiences in the past. Research has shown that autistic students in many K12 educational settings have experienced stigma and exclusion from peers and teachers (Bottema-Beutel et al., 2020; Lalvani, 2015; Zakai-Mashiach, 2023) so faculty's desire to create more welcoming learning environments for autistic college students is warranted. Russell's actions are also consistent with findings in other studies that show that adaptation of learning tasks for autistic students is beneficial in teaching them music (Nell et al., 2023). Other faculty such as Sara, Helaine, and Natalie proactively used universal design for learning in their courses which often started in response to individual autistic students. Faculty realized that their use of UDL addressed the needs autistic students without students having to disclose their disability status, have a formal diagnosis, or enroll in a targeted supports program. This finding is consistent with previous research that suggests simply having knowledge about UDL is not a sufficient condition for implementing these strategies since faculty will evaluate the benefits and only use strategies they believe to be beneficial to students (Kennette et al., 2019; Lombardi et al., 2011; Zhang et al., 2010). Faculty in this study believed that their supportive actions towards autistic students and people, created inclusive spaces in which students explored and used their strengths and felt successful and empowered.

Faculty also believed that through their supportive actions towards autistic students, these students were given the chance to develop important social and work related skills, and to build wider social support systems. It is significant that faculty did not initiate social skills training to 'normalize' autistic students and make them appear more neurotypical. From the faculty perspective, the aim of the coaching was to assist students in developing skills that could directly benefit the students' academic success, sense of belonging, or future work life. Scott

coached students on how to communicate more effectively with other faculty members so students could get accommodations or other supports that they needed to succeed. Russell intervened to help his student connect with peers so students could build their friendship networks. Patricia coached her student about taking breaks so the student would not feel overwhelmed while working. Natalie coached and strongly encouraged her student to attend a large department social event so he would feel welcomed and valued in the department. These findings complement research from the student perspective that having access to a faculty mentor can provide important information about how to navigate the social aspects of college that are not obvious for autistic students (Connor, 2012; Patrick & Wessel, 2013).

Programs developed by participants such as Annie, Evelyn, and Russell also allowed students to develop friendships with other autistic students or disabled students and to learn and socialize in spaces in which they did not have to mask or camouflage which was particularly beneficial to autistic students. Research on the benefits of autistic friendship and relationship to create a sense of comfort, feelings of being understood, and ease of exchanging information (Crompton et al., 2020; Crompton, Ropar et al., 2020) and the negative mental health effects associated with camouflaging (Alaghband-Rad et al., 2023; Cage & Troxell-Whitman, 2019) supports the case for autistic-affirming and strengths-based programming.

Faculty expressed that they also derived benefits from how they interacted with and supported autistic students and people. Faculty who did research with autistic coauthors or did research on autism believed that their research work was more robust and fulfilling. Participatory research, which many of the participants often figured out how to do as they developed projects with autistic people, was productive and meaningfully contributed to what is known about autistic life experiences. Faculty believed that their research work broadened the scope of the

topics researched in autism, moved away from deficit models of autism, and helped show a more positive or balanced view of autistic people and their experiences. This is consistent with research from den Houting et al., (2023) who found that most researchers and autistic community members who engaged in participatory research found the experience to be positive and valuable. These authors noted however that participatory research can be challenging to implement. Autistic community members are sometimes not truly perceived and treated as active and equal partners. den Houting and colleagues (2023) recommended therefore more robust training, support, and funding for participatory research efforts.

Faculty participants in my study believed that they became better professors because their communication styles improved, they developed positive personal characteristics such as patience and acceptance of others, and became better teachers because of their use of responsive pedagogical strategies. They also viewed their work as more enjoyable, purposeful, and impactful. Some faculty in this study became interested in supporting autistic students because of their personal connections to autism and their sense of satisfaction from this work was closely tied to these connections which is consistent with previous research about the impact of personal connections to autism (Austin, 2014). Natalie, Sara, and Nina each had an autistic son, while Suzie's brother was autistic. For Natalie, she gained a sense of purpose with her work after her son's diagnosis that she did not have before. For Suzie, her relationship with her brother and the lessons he taught her about how to listen to autistic people always guided her work in her campus' support program for autistic students. Sara and Nina commented that they thought about how their teaching and research work respectfully would benefit autistic people like their sons and this brought them a sense of purposefulness.

Faculty believed that their work to support autistic students such as utilizing differentiated instruction and universal design for learning was beneficial for other students in their classes. These approaches, when adopted proactively, casts a wide net to safely help all students with diverse learning needs feel supported in the classroom. This belief however foregrounds the benefits for non-autistic students and does not take into account that even with these responsive pedagogies, autistic students can still experience an unwelcoming university environment and negative experiences such as peer bullying and isolation (DeNigris et al., 2018; Frost et al., 2019; MacLeod et al., 2018; Vincent et al., 2017) or failure of faculty to provide requested accommodation (Sarrett, 2018).

Additionally, a few participants believed that it was a benefit to other students to simply have an opportunity to view autistic students in more positive ways. Both Natalie and Thomas, for example, expressed the belief that there was potential for decreases in stigma experienced by autistic people when faculty interacted with autistic students in positive ways. Faculty support can indeed serve as a protective factor for autistic students that buffers against experiences of discrimination and harassment (Kim et al., 2022). One of Natalie's students remarked that she enjoyed getting to know her autistic classmate by observing Natalie's interactions with the student which were entertaining. When an autistic student abruptly left the class because he probably felt overstimulated in Thomas' classroom, Thomas did not say the student was autistic but reacted calmly by saying "He needs a breather, let him go... just keep doing what you're doing and he'll eventually come back." Thomas rationalized that the student's behavior is "acceptable, this is par for the course, and we're just going to continue on with normal procedure." While Thomas' reaction neither disclosed the student as autistic nor stigmatized the student, there is still a sense that Thomas perceived the student's reaction as *not normal* in his

words “par for the course.” While contact with autistic students does present a possibility for changing negative views, contact alone is not enough. Indeed, even training designed to reduce autism stigma among university peers often produced small effects on reducing stigma (Gillespie-Lynch et al., 2015; Someki et al., 2018). Peers often report a desire for social distance from autistic college students (Underhill et al., 2019; White et al., 2016). There is still the potential for othering of autistic students when their classmates view and interpret their behaviors from afar without a closer connection, personal relationship or a deeper understanding of autism and the needs of autistic students.

Faculty normative beliefs and faculty behaviors

Normative beliefs are an individual’s beliefs about approval or disapproval from important referents regarding their actions, perceptions about whether these important referents were role models themselves, and beliefs about how much value an individual places on the approval or disapproval from these referents. In the context of my study, normative beliefs created a pressure for faculty to do the ‘right’ or ‘preferred’ for autistic students as defined by their referents. Those behaviors that constitute the right thing to do were heavily shaped by the approval and examples provided by these important referents.

A significant finding of my research is that faculty believed that the approval and opinions of actually autistic students and other autistic people were central to the pressure they felt to interact with autistic students and people in supportive ways. Other important referents who influenced faculty behaviors were colleagues, the campus autism support program, and centers for autism research, student disabilities services, and faculty’s own family members or the parents of autistic students. They perceived individuals within these groups as generally approving of their actions to support autistic students or viewed individuals within these groups

as role models for being supportive to students. A few participants noted some important exceptions.

In this study, I found that all faculty relied on the opinions of actually autistic people to guide them in how they were supportive to autistic students. For many participants, learning from autistic people about autism significantly shifted how they viewed autism, neurodiversity, and how they could be supportive of autistic students. The approval and influence of autistic people was important to faculty in various aspects of their work with autistic students. For example, in her service work, the opinions of autistic students caused Evelyn to completely redesign the peer support program that she developed to be inclusive and open to all students regardless of disability status because autistic students told her that they did not want to relive an isolating and stigmatizing K12 resource room type experience. In their teaching, Helaine and Natalie believed that directly asking students what kinds of accommodations they needed was always the best course of action. For Nina, her experiences of working with an autistic coauthor in her research work was pivotal and led to a strong intention to do participatory work in her field of applied behavior analysis. The influence of this autistic coauthor, coupled with her love and acceptance of her autistic son, displaced the weight she previously placed on her ABA colleagues' approval of her research agenda. By elevating the opinions for autistic people, faculty developed an understanding of autism that was strengths-based and autism-affirming. Nina's commitment reflected a movement towards participatory methods in autism research that is gradually gaining momentum through the efforts of autistic researchers (Dwyer et al., 2021; Jones, 2021), autistic advocates and allies in the broader neurodiversity movement.

Another major finding is that many faculty cited colleagues within their discipline and outside their discipline as important sources of approval and influence. Faculty in my study

consulted with colleagues or simply observed how well-respected colleagues interacted with autistic students and copied their behaviors. For example, Patricia saw other faculty who were kind, spoke in a direct manner, and recognized the strengths of her autistic graduate student which are all behaviors that she emulated. Annie perceived approval from her interdisciplinary team when she created a program for youth that was autism-affirming. While most faculty participants reported that their colleagues were supportive role models themselves and that they valued their colleague's approval, a few participants such as Nina and Russell described going against the beliefs and practices held by their disciplinary colleagues. This is particularly significant given that academic disciplines are important socialization agents for how faculty think about and conduct their work (Jones, 2011). Neither of them however were discouraged from their paths to support autistic students in ways that valued the strengths and voices of autistic students and people. Russell went against the approach of his disciplinary association's inclusive education subcommittee which typically promoted remedial piano education for autistic students. Fortunately for Russell, he still felt supported by his music department and by other faculty colleagues at his university's interdisciplinary autism research collaborative. He was buoyed by the benefits he saw for himself as well. He believed that he had found his niche with inclusive piano education and experienced personal enrichment from teaching autistic students in his piano studio and at the music festival. Trowler et al. (2012) explained that while disciplines still exist, the influence that the disciplines exert will vary depending on the situation and role that faculty play. For participants such as Nina, what mattered most were sources of approval outside of her disciplines who were most important given the kind of work she was doing and the goals she was trying to achieve for her son, herself and the wider autistic community.

Nina desperately wanted to make a difference to improve the quality of life for autistic people. After learning that many autistic people experienced and viewed applied behavior analysis as harmful, she became deeply uncomfortable with her past ABA research. She now wanted to use a participatory approach to develop behavior change plans for autistic children and youth as an ABA researcher. She thought that this was a personal risk for her because her discipline does not support participatory research. Nina expressed the worry that "When somebody who doesn't share your understanding of the current situation or the values that are pushing you to behave in a certain way, they block an opportunity for a participatory approach..." She was worried about how others in her discipline would perceive her work because they might block the chance for her to publish in her discipline's journals and, importantly, block her potential for influencing scholars within her field to listen to autistic voices in their research. The fact that Nina remained steadfast even while grappling with these concerns complicates our understanding how competing salient beliefs might influence intentions to be supportive of autistic students and people. The group to which Nina deferred for approval was now autistic people, like her son and her autistic co-author, and not her disciplinary colleagues. It is possible that since faculty such as Russell and Nina felt substantial approval from other important referents, they were willing to take risks that put them on a path to diverge from the teaching and research norms in their respective disciplines.

Faculty identified a number of campus resources that they found supportive as they interacted with and supported autistic students. Faculty such as Helaine leaned on the expertise of staff at the student disability resource center for guidance when she was uncertain about how to have a conversation with her student about his personal hygiene. Other faculty benefited from the guidance given to them about the behaviors, needs, and accommodation requirements for

specific students in the college autism support program. Natalie however raised an important point about these programs. She shared that faculty and parents cannot assume that because there is an autism support program and the campus is marketed as autism-friendly that all autistic students are served through that program or that faculty are somehow knowledgeable about autism and how to support students. Having autism support programs or a center for autism research does not signify that all autistic students will experience a supportive campus environment.

Faculty control beliefs and faculty behaviors

Control beliefs refer to faculty's beliefs about the presence and absence of factors that influence faculty's perception of their capacity and autonomy to act in the way they intend. TPB identifies beliefs that lead to perceptions of having control of one's behaviors as facilitating beliefs and include perception of one's skills and abilities as well as available resources or infrastructure. In this case, such beliefs bolster faculty's resolve in the face of barriers. Inhibiting beliefs refer to beliefs about the presence of barriers that can or do prevent faculty from carrying out an intention.

Consistent with previous research, many faculty in this study described access to institutional supports such as student disability resources centers (Austin, 2014; Lombardi & Murray, 2011), autism support programs, and centers for autism research as facilitative factors in their support of autistic students. Access to these institutional resources allowed faculty to learn on-the-job how to support autistic students. Access to colleagues in these support units was a valuable resource to faculty participants. While some faculty may not have had a deep understanding of autism, having access to knowledgeable staff at the student disability resources center or an autism support program on campus was very helpful to faculty who wanted to

support their students. For example, staff in the student disability resource center intervened with helpful advice for Helaine when she did not know how to have a conversation with her autistic student about how his personal hygiene was impacting the classroom learning environment. Faculty did not have to be experts, but they did have to appreciate and respect the expertise that was offered. Other faculty such as Natalie, Thomas, and Danielle described closely following the guidance of staff at their institution's college autism support program regarding accommodations and support to specific students.

But as Natalie pointed out, having a college autism support program on campus for students is not sufficient. The scope of work of these programs may be limited to only supporting students who are in the program; this is especially true for fee-based programs (Hart et al., 2010; Brown et al., 2014). There might be many more students on campuses who are autistic and cannot or choose not to enroll in these specialized programs and some students may also be undiagnosed and so would not enroll in these kinds of programs (Bolourian et al., 2018; Frost et al., 2019; Glahn et al., 2008). Program staff may not have the human and financial resources to help faculty on an ad hoc basis if the students are not enrolled in the program. It also may not be within the scope of these programs to educate faculty through professional development courses about UDL or other strategies that are helpful to autistic students. And information about these programs may also not be easy to find (Viezel et al., 2020).

While some faculty such as Thomas and Danielle did have opportunities to interact with staff of their university's autism support program to learn about the individual needs of their students, they still expressed gaps in their knowledge and gaps in their institution's dissemination of information about autism and how to support autistic students. Danielle noted that she had not yet mastered how to cut her student off respectfully when he was dominating classroom time

with his contributions, and that she would have to dig to find information about autism on her institution's website. The perception that there is a gap in faculty knowledge about autism and how to support autistic students had been noted in previous research (Zeedyk et al., 2018). Other faculty, because of their personal connections to autism, such as Suzie, Natalie, Sara and Nina, devoted their careers to accessing learning on their own about supportive mechanisms such as universal design for learning or a neurodiversity paradigm. Russell and Annie, who supported autistic students or interacted with autistic people because of their engagement activities in their communities, too relied on their own efforts to learn about autism. Other faculty relied on information from colleagues at their universities' centers for autism research. Obviously, university faculty are adept at self-guided discovery and learning since it is a central feature of their work. However, perhaps many faculty in this study depended on their own efforts because no formal ways to learn about autism was easily accessible to them or they did not know that such resources were available at their campuses. The void created by this absence of information can prevent faculty from knowing what to do and therefore inhibit them from choosing to be supportive to autistic students. These findings support previous calls for training opportunities for faculty about autism and autistic college students (Accardo et al., 2019a; LeGary 2017; McKeon et al, 2018; Sarrett, 2018).

A significant finding of my research was that faculty reported that their ability to be adaptable to their students' needs and to challenge their own stereotypes and assumptions about autism and autistic students bolstered their resolve and support to autistic students. Participants remained open to learning about autism and how to support autistic students regardless of their years of experience working with autistic people. Faculty's willingness to continue learning was also evident regardless of their depth of knowledge and commitment to a neurodiversity

paradigm. The neurodiversity paradigm views autism as a natural neurological variation which results in both strengths and challenges for autistic people, rejects pathologizing of autism, and promotes listening to and valuing autistic voices (Armstrong, 2015; Kapp et al., 2013; Nicolaidis et al., 2011). Evelyn, for example, who expressed strong beliefs in support of a neurodiversity paradigm, believed that it was important to recognize that she had biases that sometimes got in the way of how she supported students. She gave the example of initially doubting a student's writing capabilities because of how the student spoke but later on recognizing her bias and relishing in the fact that she (Evelyn) had been wrong in her snap judgements about the student.

Fleur described this ability to challenge her assumptions about a student's behaviors, to see her student's needs and adapt to them as "relaxing her eye" or "relaxing her mind." She compared this process to seeing the hidden image in an autosterogram which is an optical illusion created by a pattern of repeated images overlaid onto a different pattern of repeated images. You stare at a 2D image of a flower long enough and out pops the 3D image of a dinosaur she explained. One way to see the hidden image in an autostereogram relies on divergent viewing and depth perception. One's eyes move in a certain way to look beyond or through the repeating patterns of a 2D image to perceive the second pattern hidden beneath. The eyes notice the disparities of one pattern laid on top of another pattern. Then, the brain, using depth perception, processes the disparate images received by both eyes to reveal a 3D image.

Faculty in this study exercised the skill to look past students' surface behaviors to try to understand what students might need or even the causes of the observed behaviors that were hidden from plain view. Danielle explained that when her student repeatedly asked questions to confirm assignment due dates, it was because the student felt anxiety about deadlines. The anxiety was hidden behind the questioning. She accepted that the student's questioning was a

need for clarification to reduce these feelings of anxiety. The student's behavior was then not framed as annoying but rather expected and normal - of course the student would act in ways to reduce his anxiety.

Faculty also looked past the patterns of their own biases to get a clearer picture of autism and the needs of autistic students and people. As Suzie shared, at a book launch for a book authored by autistic college students who use typing or alternative methods to communicate, she totally changed her view of these students and was reminded of just how diverse the population of autistic people were. She said it was a gut punch when she realized that she was being judgmental of these students – she realized that these students did their own typing to produce this book and that that was just extraordinary but also, why would they not.

In relaxing their eyes, as Fleur put it, faculty adopted multiple perspectives, seeking information from multiple sources, and looked past their own biases and assumptions to better understand and respond in supportive ways to their autistic students. This is a continuous process especially because autistic people are unique and experience autism in their own way. Fleur interpreted stimming as expressing a need to relieve some sort of discomfort or distress and while that may be true in some situations, some autistic people have described stimming as a joyful act (Loftis, 2018) and as aiding self regulation (Kapp et al., 2019).

This incomplete understanding of the autistic experience by non-autistic people often leads to what Milton (2012) calls the double empathy problem. Damian Milton, an autistic scholar, argues that while some people with autism may misunderstand the intentions, actions or emotions of others, people without autism also misunderstand the intentions, actions or emotions of autistic people. Both autistic and non-autistic people struggle to understand each other because of their different ways of perceiving and understanding the world. There is a breakdown in both

parties' ability to read between the lines to understand each other. Milton states that "the disjuncture may be more severe for the non-autistic disposition as it is experienced as unusual, while for the 'autistic person' it is a common experience" (Milton, 2012, p. 885). While autistic people can struggle to understand non-autistic people, non-autistic people also find it difficult to empathize with autistic people because of a lack of understanding of the autistic mind and autistic social norms. In fact, non-autistic people may struggle with empathizing with autistic people to a greater degree than autistic people struggle to empathize with non-autistic people. Research has supported this idea that non-autistic or neurotypical people do indeed find it difficult to understand autistic people (Edey et al., 2016; Heasman & Gillespie, 2018; Sheppard et al., 2016). This lack of empathy and understanding that autistic people experience from non-autistic people may be especially detrimental to autistic college students who, during a formative time in their lives, are navigating a post-secondary terrain that is generally not designed for them to succeed. In this study, faculty tried to empathize by relaxing their mind to read between the lines. This ability to see their students' strengths and needs and to challenge their own stereotypes allowed faculty to better empathize and adapt to their students, to act in ways that were supportive to autistic students and people through their teaching, research, service and coaching.

Implications and Recommendations for Practice

Teaching

Educators are advised to establish an open line of communication with their students by taking the responsibility to initiate conversations, by making time to talk with students outside of classroom time, by being direct and straightforward, and by not being offended by students' communication style. Be aware that students' autism could often make starting conversations

difficult for them, that students can easily be misunderstood, or that students can misunderstand messages from others because of their differences in communicating.

Faculty in my study utilized responsive pedagogical strategies that allowed students to learn in ways that best suited them. Faculty have the option to use differentiated instruction in response to the needs and requests of specific students or to proactively use the UDL framework to make curricular decisions that would support the learning of all their students. These practices can include the kinds of techniques used by faculty in my study such as chunking or breaking assignments into smaller more manageable parts, allowing a student to present to the faculty member instead of the larger class, designing assignment or quiz templates that prompt students to show their learning in multiple ways, provision of partial lecture notes before classes, full lecture notes and access to video recordings of lectures after class, and provision of detailed rubrics for assignments. Proactive strategies can allow students to learn at their own pace and in their own way, without having to disclose their autism or to ask for accommodations.

Finally, faculty are strongly encouraged to see and utilize the affinities and strengths of their autistic students as this will open up opportunities for students to engage with and learn class content or to develop new skills.

Research

Faculty involved in my research often worked with autistic coauthors, conducted participatory research, and expressed a desire to close existing gaps in knowledge related to autism that could illuminate the autistic experience in ways that had not been captured before or to improve the quality of life of autistic people. Faculty who are interested in conducting research on autism are encouraged to focus their research on topics that autistic people indicate would make a difference to the quality of their lives (Pellicano & Dinsmore et al., 2014).

Approaches that value and prioritize autistic voices in research such as participatory research methods as well as other methods or perspectives that can challenge deficit-based views of autism are highly recommended (Fletcher-Watson et al., 2019; Rosqvist et al., 2023). It is essential that researchers embrace the neurodiversity paradigm as this approach can "offer an important means for advancing autism science" (Pellicano & den Houting, 2022).

Service

Faculty used their knowledge, social networks, and access to university resources to create spaces that challenged negative or limited perceptions of autistic people. They often did this through their service work in their institutions and/or in their wider communities. Faculty interested in using their knowledge and expertise to support autistic students can raise awareness and acceptance of autism by weaving information about autism into their teaching or by offering professional development classes to faculty and other university staff on topics such as use of UDL to create inclusive teaching environments, faculty legal obligations to provide accommodations, and understanding autism from a neurodiversity perspective. Faculty who are interested in developing specialized support programs for autistic students are advised to adopt strengths-based, autistic-affirming approaches that center the perspectives and needs of autistic students. Programs should be developed with autistic students.

Coaching or mentoring

Participants in this study reported coaching their students. These interactions often occurred because students would seek out faculty members who they heard were compassionate towards autistic students or had expert knowledge about autism. Some relationships were informal or consisted of brief interactions while other relationships were longer term nearing what might be considered advising or mentoring relationships. Faculty interested in coaching or

mentoring autistic students can help autistic students better understand the often unspoken, hidden rules of college and to develop key academic or social skills necessary for navigating college. It is highly recommended that faculty access mentorship training that can help them understand the differences between mentoring undergraduate and graduate students, the benefits and potential costs of mentorship, the challenges faced by autistic college students, how to recognize the strengths of individual students, and to appreciate the agency that students possess to choose their own paths and futures. Such training should also include raising faculty's awareness about when they need to guide students to other campus resources, for example, the student counseling center or the writing center, who can provide specialized support. Baker and Griffin (2010) categorization of faculty's roles into advisor, mentor and developer can help faculty consider the kind of relationship and extent of support they would like to share with autistic students.

Faculty development

One of the advantages of using the Theory of Planned Behavior to explore how faculty are interacting with and supporting autistic students is that the behavioral beliefs, normative beliefs, and control beliefs can be used to design faculty development opportunities related to topics such as autism awareness and acceptance, neurodiversity, responsive pedagogical techniques, and participatory research. Based on my research findings, it suggests that a faculty member's motivation to form an intention to support autistic students, such as using Universal Design for Learning (UDL) in teaching, is influenced by several factors. These include recognizing the benefits for autistic students, understanding the potential benefits for all students, perceiving personal growth as an educator through UDL, and observing successful examples of UDL implementation by other supportive faculty members. However, these motivations come

into play only if the faculty member believes they have the capability and autonomy to effectively implement UDL in their teaching.

Designing faculty development opportunities to amplify the perceived benefits of supportive practices towards autistic students is highly recommended. Faculty participants in my research predominantly noticed the positive side of supporting autistic students. By emphasizing the positives for different groups, training answers important questions for faculty about what's in it for the students and what's in it for me. After all, faculty consider the benefits and costs of implementing inclusive teaching strategies and tend to implement those strategies that they perceive are beneficial (Kennette et al., 2019; LaRocco et al., 2013). Training that can show the benefits of supporting autistic students therefore can build faculty's desire to be supportive.

Faculty development programs should provide an opportunity for faculty to feel supported by a network of like minded colleagues. Training programs can raise an awareness of various campus resources that support students with disabilities in general and autistic students in particular. During training, attention should be paid to providing information and making connections to faculty, other university professionals, and institutional resources with expertise on utilizing a neurodiversity paradigm and universal design for learning as these approaches can be used to inform teaching, research and program development. While training is one way to build a faculty's network, university websites can also be used to host important information about where to find support for autistic college students. Websites can include a list of faculty and other professionals with expertise on how to support autistic college students who are willing to be contacted. Institutional resources such as disability services centers, autism support programs, centers for autism research, and interdisciplinary research groups, which were mentioned by faculty in my research as particularly helpful, should also be listed on campus

websites. It is important to note that information about how to support autistic students on campus and who to go to for support should be easily found on websites so faculty (as well as students and parents) can quickly find the support they need. And finally, resource information provided on websites should highlight autistic voices and community (e.g. actually autistic students, researchers and faculty, and autistic-led peer support groups or affinity clubs) and highlight neurodiversity or non-deficit perspectives of autism (Nachman & Brown, 2020).

Additionally, faculty development programs should be designed to allow faculty to share the benefits and barriers they perceive to supporting autistic students. When faculty are able to discuss these perspectives in an open and nonjudgmental space, they have a chance to experience encouragement and approval from colleagues to be supportive to autistic students. For example, Xie & Rice (2021) found that after a series of three faculty development workshops to build awareness and skills in using UDL strategies in their classes, faculty felt more supported by colleagues and a stronger connection to their campus community. Faculty appreciated the workshops for the space to share concerns and successes about using UDL as well as concerns about their own jobs as teaching focused faculty. By the end of this workshop series, faculty were more aware of the benefits of UDL to students with disparities and diverse learning needs, expressed commitment to creating accessible syllabi, dispelled misconceptions about UDL, and learned immediately implementable teaching techniques such as incorporating multiple ways for students to demonstrate their knowledge.

Faculty development programs should provide opportunities for faculty to uncover and challenge ableist or deficit-based beliefs that can impede their desire to support autistic students. Faculty in my study reported that having the belief that they have the skill to challenge their own stereotypes and assumptions helped them adopt and sustain supportive behaviors towards autistic

students. Faculty development programs therefore should include information about autism and supporting autistic college students from a neurodiversity perspective (Kapp et al., 2013), as a diversity, equity, and inclusion issue (Dwyer et al., 2023), and from an intersectional lens (Botha & Gillespie-Lynch, 2022).

Faculty training should also reflect autistic knowledge and preferences. For instance, given that the insights and expertise of actually autistic individuals were instrumental in shaping the approach that faculty members in my study found to be supportive of autistic students, it is strongly recommended that faculty development programs be informed, designed, and developed in collaboration with autistic individuals.

Recent research from Waisman and colleagues (2023) has highlighted the positive impact that including actual autistic expertise has had on faculty attitudes towards autism and UDL. In Waisman's study, faculty's attitudes towards universal design improved and negative attitudes about autism decreased after taking a professional development course about autism and universal design that was collaboratively developed by autistic and non-autistic scholars.

Development opportunities should also be available to future faculty. As Sara illustrated, many graduate teaching assistants who may go on to become faculty are not specifically taught how to be inclusive in their teaching. But when provided the chance to attend a training program developed for them by Sara, they appreciated learning about UDL during their graduate studies. In a study conducted by autistic higher education scholar Brett Ranon Nachman (2022), faculty-aspiring participants completed a module about autistic students and how to use universal design for instruction (UDI) to support their learning. Nachman, who created the course, noted that participants became more aware of autism and actively engaged in imagining and planning specific strategies to use UDI in their classes.

To further guide the design of faculty development programs informed by TPB, future research that uses a quantitative methodology would be helpful to measure the pattern and strength of relationships between salient beliefs, attitude, perceived social norms, perceived behavioral control, intentions, and behaviors. Results of such research can guide faculty development specialists to create programs that effectively tap into faculty beliefs about supporting autistic students. Such research would be especially illuminating in cases where faculty such as Nina grapple with conflicting beliefs and potential career risks. Results of such research might indicate additional training or institutional supports that faculty may need to actually carry out their intentions to be supportive of autistic students. Faculty should neither be penalized, nor their careers be stymied as a result of supporting their students.

Student support services

It is important to have multiple sources of support that students can access to help them thrive in the higher education setting. In my study, faculty reported several ways in which they supported their students inside and outside of their classrooms. While faculty tended to only see the positives for themselves and their students because of their actions, some faculty noted that the kind of support they provided was time intensive. Recall that Fleur sometimes felt guilty when she did not have that extra five minutes to give to her student who she believed was always seeking a listening and understanding ear. And for at least one faculty member, Patricia, not having enough time would not only be a deterrent to working with another autistic student but she would also caution her colleagues about how time intensive working with an autistic student who needed the same kind of writing support as her student. Many faculty, who may want to support autistic students may not have the time to support students in ways that satisfy students' needs for mentorship, friendship, instrumental support, or psychological support. Additionally,

my research findings showed that faculty perceived having institutional resources that were knowledgeable and likeminded in their support to autistic students helped faculty to act in supportive ways towards students. These resources included specialized autism support programs and student disability resource centers.

Universities therefore should create environments and opportunities for autistic students to locate and access support from multiple sources. There is no one-size-fits all model for any autistic student, or any institution and so, multiple, or even bespoke supports are advisable given institutional characteristics, constraints and resources, as well as student characteristics. Findings from previous research by Accardo et al. (2019b) provide guidance however as to the types of supports that autistic college students prefer to use such as academic coaching, freshman summer transition program, tutoring, the writing center, faculty mentors, and counseling.

Peña et al. (2020) offer helpful guidelines for developing and assessing support programs for autistic college students and advise that disability and student affairs professionals should be autistic-centered in their approach. The strategies provided by Peña and colleagues are "grounded in principles of community-based participatory research, neurodiversity, and autistic expertise" (p. 233). The strategies include: (1) employ a community-based, participatory approach, (2) develop trusting and respectful relationships, (3) value neurodiversity, (4) center the goals of autistic communities, (5) discuss participants confidentiality and privacy, (6) provide accommodations, (7) create accessible data collection methods and instruments, (8) develop organizational structures for autistic feedback, (9) allocate time and resources to teach assessment techniques, and (10) communicate program assessment findings and give credit to autistic collaborators. Employing these strategies can help ensure that student support programs meet the needs of autistic students.

Higher education institutions should also provide professional development about autism for disability, students affairs professionals, and university staff. Professionals who interact with autistic students on campuses may have limited knowledge of autism, how to interact positively with autistic students, and how to refer students to other resources on campus that might be helpful to them. Faculty in my study provided support or coaching to their autistic students in a variety of areas such as academic writing, hygiene and dressing appropriately, emotional support, and student conduct. There are often specialized units on college campuses to provide these kinds of supports to all students. These resources can be utilized to provide customized support to autistic students (Longtin, 2014) but staff should benefit from professional development so they know how best to support autistic students. Training is recommended for residential advisors (Boularian et al., 2021), writing center tutors (Cherney, 2017), counseling center staff (Hu et al., 2021), dining services staff (Wilke et al., 2019), student disability services staff (Kim, 2022), academic coaches (Rando et al., 2016), academic libraries (Everhart & Anderson, 2020), college career services staff, and campus law enforcement officers. Such training can increase knowledge of autism and feelings of preparedness to help autistic students.

Limitations

The limitations of this study included participant recruitment procedures, generalizability of the findings, and omission of autistic voices. I recruited participants for this study using three outreach channels – coordinators of college autism support programs, the College Autism Network (CAN), and my personal network of colleagues and friends. While I framed the criteria for inclusion in this study broadly as faculty who have interacted with autistic college students, because of the recruitment channels that were used, I may have received nominations only of faculty who viewed their experience with autistic students positively. Coordinators may have

interpreted that I only wanted to meet supportive faculty or perhaps they themselves have closer relationships with supportive faculty. The College Autism Network (CAN) is also made up of faculty and other university professionals who are committed to supporting autistic college students. Similarly, my own network of colleagues and friends contained like-minded people who work to break down barriers for autistic college students. Additionally, several of the participants in my study knew each other so work and friendship networks may reflect similarities in personal beliefs. This study therefore was limited in recruiting participants who might have only represented positive experiences and opinions and failed to attract participants who could have provided their negative beliefs about working with autistic students.

The findings from this study reflect the experiences and opinions of the 15 faculty members who I interviewed for this study. While I do provide rich descriptions of faculty experiences using direct participant quotations and details about faculty backgrounds that can help contextualize these findings for other researchers or practitioners, I caution against generalizability to other faculty members in various other institutional or work contexts. Future research that seeks the perspectives of faculty who represent more diversity in terms of personal characteristics, institutional and work context is therefore recommended.

My research focused on the perspectives of faculty who have worked with autistic college students and did not seek the perspectives of students themselves. I hoped that in soliciting faculty perspectives that I could discover and highlight the conditions under which faculty are supportive to autistic students which could then inform faculty development initiatives. The faculty perspective is important because they have the power to provide accommodations and act in other ways to make the college experience more welcoming for autistic students. In practice however, my research should be considered collectively and in

tandem with student perspectives. Finally, any strategies about increasing faculty understanding and ability to support autistic college students should include and prioritize the voices of autistic college students.

Future research

Researchers interested in extending this research can use the Theory of Planned Behavior as a framework to explore the strength and relationships between behavioral, normative and control beliefs, attitude toward behavior, subjective norm, perceived behavioral control, intention, and behaviors as it relates to faculty support to autistic students in different spheres of their work. Using a quantitative methodological approach, such research can sample a larger, more diverse cross-section of faculty across disciplines, institutional types, and appointment types thereby allowing more generalizability of results. Findings from this type of research can inform predictive models which can be used to inform the design of faculty development programs about autism and supporting autistic students.

Future research with faculty about their support to autistic students in various aspects of their work can also be explored with qualitative methods which allow for a more thorough investigation of faculty interactions with autistic students. Research that incorporates observation for example can allow confirmation of supportive behaviors described and self-reported by faculty. Researchers will also be able to explore other personal and contextual factors that might be impacting faculty intentions and behaviors towards autistic students.

Future qualitative research using participatory methods can explore students' perceptions of faculty behaviors that are intended to be supportive. While the faculty perspective is important to understand, it is imperative that the perspectives of autistic students are foregrounded in future

research since students may identify different or additional approaches that they find to be more supportive than the ones identified in my study.

Conclusion

The increase in autistic students transitioning to college means that many faculty will have the opportunity to welcome autistic students into their classes, research teams, or programs. Every faculty member has the choice to act in big or small ways to positively influence the experiences of autistic college students. Using the Theory of Planned Behavior (Ajzen, 1991a) as a theoretical framework, I uncovered the salient beliefs that would prompt, encourage, and sustain faculty's supportive actions towards autistic students. I showed how faculty worked to support autistic students and other autistic people in their wider communities through their teaching, research, service or community engagement work, and through coaching or mentoring. While faculty mainly saw the benefits of their actions, some faculty did face some barriers and could face potential risks to their careers when they choose to act in ways to support students. Higher education institutions have an obligation to provide resources and support faculty who are actively creating spaces for autistic students to thrive.

REFERENCES

Accardo, A. L., Bean, K., Cook, B., Gillies, A., Edgington, R., Kuder, S. J., & Bomgardner, E. M. (2019). College access, success and equity for students on the autism spectrum. *Journal of Autism and Developmental Disorders*, *49*, 4877-4890.

Accardo, A. L., Kuder, S. J., & Woodruff, J. (2019b). Accommodations and support services preferred by college students with autism spectrum disorder. *Autism*, *23*(3), 574-583.

Adreon, D., & Durocher, J. S. (2007). Evaluating the college transition needs of individuals with high-functioning autism spectrum disorders. *Intervention in School and Clinic*, *42*(5), 271-279.

Ajzen, I. (1991a). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. doi:10.1016/0749-5978(91)90020-T

Ajzen, I. (1991b). *Theory of planned behavior diagram*. Retrieved from http://people.umass.edu/aizen/tpb.diag.html#null-link.

Ajzen, I. (2005). *Attitudes, personality, and behavior*. New York, NY: Open University Press.

Ajzen, I. (2013). *Constructing a theory of planned behavior questionnaire*. [electronic resource]. Amherst, MA, USA: University of Massachusetts. Retrieved May 14, 2013, from http://people.umass.edu/aizen/tpb.html.

Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies, 2*(4), 314-324.

Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin, 84*(5), 888.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, N.J: Prentice-Hall.

Ajzen, I., & Schmidt, P. (2020). Changing behaviour using the theory of planned behavior. In M. S. Hagger, L. D. Cameron, K. Hamilton, N. Hankonen, & T. Lintunen (Eds.), *The handbook of behavior change* (pp. 17–31). Cambridge, UK: Cambridge University Press.

Alaghband-Rad, J., Hajikarim-Hamedani, A., & Motamed, M. (2023). Camouflage and masking behavior in adult autism. *Frontiers in Psychiatry, 14*, 1108110.

Alperin, J. P., Muñoz Nieves, C., Schimanski, L. A., Fischman, G. E., Niles, M. T., & McKiernan, E. C. (2019). How significant are the public dimensions of faculty work in review, promotion and tenure documents?. *ELife, 8*, e42254.

American Association of University Professors. (1940). 1940 statement of principles on academic freedom and tenure. *AAUP*. Retrieved from https://www.aaup.org/report/1940-statement-principles-academic-freedom-and-tenure#B1

American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). https://doi.org/10.1176/appi.books.9780890425787

Anderson, C., & Butt, C. (2017). Young adults on the autism spectrum at college: successes and stumbling blocks. *Journal of Autism and Developmental Disorders, 47*(10), 3029-3039.

Anderson, A. H., Stephenson, J., & Carter, M. (2017). A systematic literature review of the experiences and supports of students with autism spectrum disorder in post-secondary education. *Research in Autism Spectrum Disorders, 39*, 33-53.

Anfara, V. A., Brown, K. M., & Mangione, T. L. (2002). Qualitative analysis on stage: Making the research process more public. *Educational Researcher, 31*(7), 28–38. doi:10.3102/0013189X031007028

Armstrong, T. (2015). The myth of the normal brain: Embracing neurodiversity. *AMA Journal of Ethics, 17*(4), 348.

Astin, A. W. (1993). *What matters in college*. San Francisco, CA: Jossey Bass.

Ashby, C. E., & Causton-Theoharis, J. (2012). "Moving quietly through the door of opportunity": Perspectives of College Students who Type to Communicate. *Equity & Excellence in Education, 45*(2), 261-282.

Attwood, T. (1997). *Asperger's syndrome: A guide for parents and professionals*. London: Jessica Kingsley Publishers.

Attwood, T. (2006). *The complete guide to Asperger's syndrome*. London: Jessica Kingsley Publishers.

Austin, K. S. (2014). *Leaders in support: Exceptional faculty members who responsively teach and advise students with autism spectrum disorders* (Doctoral dissertation, California Lutheran University).

Austin, K. S., & Peña, E. V. (2017). Exceptional faculty members who responsively teach students with autism spectrum disorders. *Journal of Postsecondary Education and Disability, 30*(1), 17-32.

Austin, K. S., Peña, E. V., & Brennan, B. (2017). Promising instructional practices for college students with autism. *Currents in Teaching & Learning, 9*(2).

Baez, B. (1999). Faculty of color and traditional notions of service. *Thought and Action, 12*, 131–138.

Baez, B. (2000). Race-related service and faculty of color: Conceptualizing critical agency in academe. *Higher Education, 39*, 363-391.

Bailey, K. M., Frost, K. M., Casagrande, K., & Ingersoll, B. (2020). The relationship between social experience and subjective well-being in autistic college students: A mixed methods study. *Autism, 24*(5), 1081-1092.

Baker, K. Q., Boland, K., & Nowik, C. M. (2012). A campus survey of faculty and student perceptions of persons with disabilities. *Journal of Postsecondary Education and Disability, 25*(4), 309-329.

Baker, V. L., & Griffin, K. A. (2010). Beyond mentoring and advising: Toward understanding the role of faculty "developers" in student success. *About Campus, 14*(6), 2-8.

Baker, V. L., Terosky, A. L., & Martinez, E. (2017). Faculty members' scholarly learning across institutional types. *ASHE Higher Education Report, 43*(2), 9-138.

Baldwin, R. G., & Chronister, J. L. (2001). *Teaching without tenure: Policies and practices for a new era*. Baltimore, MD: Johns Hopkins University Press.

Barnhill, G. P. (2016). Supporting students with Asperger syndrome on college campuses: Current practices. *Focus on Autism and Other Developmental Disabilities, 31*(1), 3-15.

Baron-Cohen, S., Leslie, A. M., & Frith, U. (1985). Does the autistic child have a "theory of mind"?. *Cognition, 21*(1), 37-46.

Bauminger, N., Shulman, C., & Agam, G. (2003). Peer interaction and loneliness in high-functioning children with autism. *Journal of Autism and Developmental Disorders, 33*(5), 489-507.

Becher, T., & Trowler, P. (2001). *Academic tribes and territories: Intellectual enquiry and the culture of disciplines*. McGraw-Hill Education (UK).

Beilke, J. R., & Yssel, N. (1999). The chilly climate for students with disabilities in higher education. *College Student Journal, 33*(3), 364-364.

Berger, R. (2013). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research, 15*(2), 219-234.

Bolourian, Y., Veytsman, E., Galligan, M. L., & Blacher, J. (2021). Autism goes to college: A workshop for residential life advisors (Practice Brief). *Journal of Postsecondary Education and Disability, 34*(2), 191-200.

Bolourian, Y., Zeedyk, S. M., & Blacher, J. (2018). Autism and the university experience: narratives from students with neurodevelopmental disorders. *Journal of Autism and Developmental Disorders*, 48:3330–3343.

Bosnjak, M., Ajzen, I., & Schmidt, P. (2020). The theory of planned behavior: Selected recent advances and applications. *Europe's Journal of Psychology, 16*(3), 352.

Botha, M., & Gillespie-Lynch, K. (2022). Come as you are: Examining autistic identity development and the neurodiversity movement through an intersectional lens. *Human Development, 66*(2), 93-112.

Bottema-Beutel, K., Cuda, J., Kim, S. Y., Crowley, S., & Scanlon, D. (2020). High school experiences and support recommendations of autistic youth. *Journal of Autism and Developmental Disorders, 50,* 3397-3412.

Bottema-Beutel, K., Kapp, S. K., Lester, J. N., Sasson, N. J., & Hand, B. N. (2021). Avoiding ableist language: Suggestions for autism researchers. *Autism in Adulthood, 3*(1), 18-29.

Borrego, M., Froyd, J. E., & Hall, T. S. (2010). Diffusion of engineering education innovations: A survey of awareness and adoption rates in US engineering departments. *Journal of Engineering Education, 99*(3), 185-207.

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development.* Sage.

Broderick, A. A., & Ne'eman, A. (2008). Autism as metaphor: Narrative and counter-narrative. *International Journal of Inclusive Education, 12*(5-6), 459-476.

Brown, K. R. (2017). Accommodations and support services for students with autism spectrum disorder (ASD): A National Survey of Disability Resource Providers. *Journal of Postsecondary Education and Disability, 30*(2), 141-156.

Brown, K. R., & Coomes, M. D. (2016). A spectrum of support: Current and best practices for students with autism spectrum disorder (ASD) at community colleges. *Community College Journal of Research and Practice, 40*(6), 465-479.

Brown, J. T., Wolf, L. E., & Kroesser, S. (2014). Innovative programming to support college students with autism spectrum disorders. In F.R. Volkmar, B. Reichow & J. C. McPartland (Eds.) *Adolescents and adults with autism spectrum disorders* (pp. 121-130). Springer, New York, NY.

Brown, L. X., Ashkenazy, E., & Onaiwu, M. G. (Eds.). (2017). *All the weight of our dreams: On living racialized autism*. Lincoln, NE: DragonBee Press.

Brownell, S. E., & Tanner, K. D. (2012). Barriers to faculty pedagogical change: Lack of training, time, incentives, and… tensions with professional identity?. *CBE—Life Sciences Education, 11*(4), 339-346.

Burgstahler, S. (2011). Universal design: Implications for computing education. *ACM Transactions on Computing Education (TOCE), 11*(3), 19.

Burgstahler, S. (2015). Universal design of instruction (UDI): Definition, principles, guidelines, and examples [website]. Seattle, WA: DO-IT, University of Washington. Retrieved from http://www.washington.edu/doit/Brochures/Academics/ instruction.html.

CAST (2018). Universal design for learning guidelines version 2.2. Retrieved from http://udlguidelines.cast.org.

Cage, E., Di Monaco, J., & Newell, V. (2018). Understanding, attitudes and dehumanisation towards autistic people. *Autism*, 1362361318811290.

Cage, E., & Troxell-Whitman, Z. (2019). Understanding the reasons, contexts and costs of camouflaging for autistic adults. Journal of Autism and *Developmental Disorders, 49*(5), 1899-1911.

Cai, R. Y., & Richdale, A. L. (2016). Educational experiences and needs of higher education students with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 46*(1), 31-41.

Carlson, J. A. (2010). Avoiding traps in member checking. *The Qualitative Report, 15*(5), 1102.

Casement, S., Carpio de los Pinos, C., & Forrester-Jones, R. (2017). Experiences of university life for students with Asperger's Syndrome: a comparative study between Spain and England. *International Journal of Inclusive Education, 21*(1), 73-89.

Cherney, K. (2017). Inclusion for the "Isolated": An exploration of writing tutoring strategies for students with asd inclusion for the "isolated": An exploration of writing tutoring strategies for students with ASD. *Praxis, 14*(3), 49–55.

Christenson, C. (2008). The employment of part-time faculty at community colleges. *New Directions for Higher Education, 2008*(143), 29-36.

Cimera, R. E., & Cowan, R. J. (2009). The costs of services and employment outcomes achieved by adults with autism in the US. *Autism, 13*(3), 285-302.

Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education*. New York, NY: Routledge.

Colclough, M. N. (2017). Exploring the social experiences of college students who have autism spectrum disorders. *Journal of Student Affairs, 26*, 21-32.

Connor, D. J. (2012). Actively navigating the transition into college: Narratives of students with learning disabilities. *International Journal of Qualitative Studies in Education, 25*(8), 1005–1036.

Constantino, J. N., & Todd, R. D. (2003). Autistic traits in the general population: a twin study. *Archives of General Psychiatry, 60*(5), 524-530.

Cox, B. E., Thompson, K., Anderson, A., Mintz, A., Locks, T., Morgan, L., ... & Wolz, A. (2017). College experiences for students with autism spectrum disorder: Personal identity, public disclosure, and institutional support. *Journal of College Student Development*, *58*(1), 71-87.

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory Into Practice*, *39*(3), 124-130.

Croen, L. A., Zerbo, O., Qian, Y., Massolo, M. L., Rich, S., Sidney, S., & Kripke, C. (2015). The health status of adults on the autism spectrum. *Autism*, *19*(7), 814-823.

Crompton, C. J., Hallett, S., Ropar, D., Flynn, E., & Fletcher-Watson, S. (2020). 'I never realised everybody felt as happy as I do when I am around autistic people': A thematic analysis of autistic adults' relationships with autistic and neurotypical friends and family. *Autism*, *24*(6), 1438-1448.

Cullen, J. A. (2015). The needs of college students with autism spectrum disorders and asperger's syndrome. *Journal of Postsecondary Education and Disability*, *28*(1), 89-101.

Dancy, M., & Henderson, C. (2010). Pedagogical practices and instructional change of physics faculty. *American Journal of Physics*, *78*(10), 1056-1063.

Davis, L. J. (1997). Constructing normalcy. In L.J. Davis (Ed.) *The disability studies reader*, *3* (pp.3-16). New York, NY: Routledge.

Davidson, J., & Henderson, V. L. (2010). 'Coming out'on the spectrum: autism, identity and disclosure. *Social & Cultural Geography*, *11*(2), 155-170.

Dean, M., Harwood, R., & Kasari, C. (2017). The art of camouflage: Gender differences in the social behaviors of girls and boys with autism spectrum disorder. *Autism*, *21*(6), 678-689.

Denessen, E (2002). *Opvattingen over onderwijs (Beliefs about education)*. Apeldoorn: Garant.

den Houting, J., Higgins, J., Isaacs, K., Mahony, J., & Pellicano, E. (2021). 'I'm not just a guinea pig': Academic and community perceptions of participatory autism research. *Autism*, *25*(1), 148-163.

DeNigris, D., Brooks, P. J., Obeid, R., Alarcon, M., Shane-Simpson, C., & Gillespie-Lynch, K. (2018). Bullying and identity development: Insights from autistic and non-autistic college students. *Journal of Autism and Developmental Disorders*, *48*, 666-678.

Dillon, M. R. (2007). Creating supports for college students with Asperger syndrome through collaboration. *College Student Journal*, *41*(2), 499-504.

Dwyer, P., Acevedo, S. M., Brown, H. M., Grapel, J., Jones, S. C., Nachman, B. R., ... & Williams, Z. J. (2021). An expert roundtable discussion on experiences of autistic autism researchers. *Autism in Adulthood*, *3*(3), 209-220.

Dwyer, P., Mineo, E., Mifsud, K., Lindholm, C., Gurba, A., & Waisman, T. C. (2023). Building neurodiversity-inclusive postsecondary campuses: recommendations for leaders in higher education. *Autism in Adulthood, 5*(1), 1-14.

Eagan, K., Sharkness, J., Hurtado, S., Mosqueda, C., & Chang, M. (2011). Engaging undergraduate in science research: Not just about faculty willingness. *Research in Higher Education, 52*, 151–177.

Edey, R., Cook, J., Brewer, R., Johnson, M. H., Bird, G., & Press, C. (2016). Interaction takes two: Typical adults exhibit mind-blindness towards those with autism spectrum disorder. *Journal of Abnormal Psychology, 125*(7), 879–885.

Elias, R., & White, S. W. (2018). Autism goes to college: Understanding the needs of a student population on the rise. *Journal of Autism and Developmental Disorders, 48*(3), 732-746.

Ertmer, P. A. (2005). Teacher pedagogical beliefs: The final frontier in our quest for technology integration?. *Educational Technology Research and Development, 53*(4), 25-39.

Evans, N. J., Broido, E. M., Brown, K. R., & Wilke, A. K. (2017). *Disability in Higher Education: A Social Justice Approach*. San Francisco, CA: Jossey-Bass.

Evans, S. C., Boan, A. D., Bradley, C., & Carpenter, L. A. (2019). Sex/gender differences in screening for autism spectrum disorder: implications for evidence-based assessment. *Journal of Clinical Child & Adolescent Psychology, 48*(6): 840–854.

Everhart, N., & Anderson, A. (2020). Academic librarians' support of autistic college students: A quasi-experimental study. *The Journal of Academic Librarianship, 46*(5). https://doi-org.proxy2.cl.msu.edu/10.1016/j.acalib.2020.102225.

Fairweather, J. S. (2005). Beyond the rhetoric: Trends in the relative value of teaching and research in faculty salaries. *The Journal of Higher Education, 76*(4), 401-422.

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods, 5*(1), 80-92.

Fernandes, P., Haley, M., Eagan, K., Shattuck, P. T., & Kuo, A. A. (2021). Health needs and college readiness in autistic students: The freshman survey results. *Journal of Autism and Developmental Disorders, 51*, 3506–3513.

Fernández Faúndez, E. M. (2018). Attitudes towards the inclusion of university students with disabilities: development and validation of a scale based on the theory of planned behavior. *Electronic Journal of Research in Educational Psychology*, 16(44), 199-222.

Finkelstein, M. J., Conley, V. M., & Schuster, J. H. (2016). *The faculty factor: Reassessing the American academy in a turbulent era*. Baltimore, Maryland: Johns Hopkins University Press.

Fives, H., & Buehl, M. M. (2008). What do teachers believe? Developing a framework for examining beliefs about teachers' knowledge and ability. *Contemporary Educational Psychology, 33*(2), 134-176.

Fives, H., & Buehl, M. M. (2012). Spring cleaning for the "messy" construct of teachers' beliefs: What are they? Which have been examined? What can they tell us?. In *APA educational psychology handbook, Vol 2: Individual differences and cultural and contextual factors*. (pp. 471-499). American Psychological Association.

Fletcher-Watson, S., Adams, J., Brook, K., Charman, T., Crane, L., Cusack, J., ... & Pellicano, E. (2019). Making the future together: Shaping autism research through meaningful participation. *Autism, 23*(4), 943-953.

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

Forest, J. J. (2014). Academe: A Profession Like No Other. In *The Forefront of International Higher Education* (pp. 35-47). Springer, Dordrecht.

Fox, J. A., Hatfield, J. P., & Collins, T. C. (2003). Developing the curriculum transformation and disability workshop model. In Higbee, J. L. (Ed.). *Curriculum transformation and disability: implementing universal design in higher education* (p.23-39). Minneapolis, MN: Center for Research on Developmental Education and Urban Literacy, General College, University of Minnesota.

Frost, K. M., Bailey, K. M., & Ingersoll, B. R. (2019). "I just want them to see me as… me": Identity, community, and disclosure practices among college students on the autism spectrum. *Autism in Adulthood, 1*(4), 268-275.

Fuller, M., Healey, M., Bradley, A., & Hall, T. (2004). Barriers to learning: a systematic study of the experience of disabled students in one university. *Studies in Higher Education*, *29*(3), 303-318.

Gappa, J. M., Austin, A. E., & Trice, A. G. (2007). *Rethinking faculty work: Higher education's strategic imperative*. Jossey-Bass.

Gappa, J. M., & Austin, A. E. (2010). Rethinking academic traditions for twenty-first-century faculty. *AAUP Journal of Academic Freedom, 1*(1), 1-20.

Ganz, J. B. (2015). AAC interventions for individuals with autism spectrum disorders: State of the science and future research directions. *Augmentive and Alternative Communication, 31*(3), 203-214.

Gawronski, M., Kuk, L., & Lombardi, A. R. (2016). Inclusive instruction: Perceptions of community college faculty and students pertaining to universal design. *Journal of Postsecondary Education and Disability, 29*(4), 331-347.

Geertz, C. (1973). *The interpretation of cultures: Selected essays*. New York, NY: Basic Books.

Gelbar, N. W., Shefcyk, A., & Reichow, B. (2015). A comprehensive survey of current and former college students with autism spectrum disorders. *The Yale Journal of Biology and Medicine, 88*(1), 45.

Gelbar, N. W., Smith, I., & Reichow, B. (2014). Systematic review of articles describing experience and supports of individuals with autism enrolled in college and university programs. *Journal of Autism and Developmental Disorders, 44*(10), 2593-2601.

Gehrke, S., & Kezar, A. (2015). Unbundling the faculty role in higher education: Utilizing historical, theoretical, and empirical frameworks to inform future research. In Micheal B. Paulson (Ed.) *Higher Education: Handbook of Theory and Research, 30* (pp.93–150) Springer, Cham.

Gibbons, M. M., Cihak, D. F., Mynatt, B., & Wilhoit, B. E. (2015). Faculty and student attitudes toward postsecondary education for students with intellectual disabilities and autism. *Journal of Postsecondary Education and Disability, 28*(2), 149-162.

Gillespie-Lynch, K., Brooks, P. J., Someki, F., Obeid, R., Shane-Simpson, C., Kapp, S. K., ... & Smith, D. S. (2015). Changing college students' conceptions of autism: An online training to increase knowledge and decrease stigma. *Journal Of Autism and Developmental Disorders*, 45, 2553-2566.

Glahn, L. V., Sara, J., Zakrajsek, T., & Pletcher-Rood, S. (2008). Teaching students with Asperger syndrome (and other disabilities) in the college classroom: Creating an inclusive learning environment. *Journal on Excellence in College Teaching*, 19, 107-133.

Glennon, T. J. (2001). The stress of the university experience for students with Asperger syndrome. *Work, 17*(3), 183-190.

Glesne, C. (2006). *Becoming qualitative researchers: An introduction*. Boston, MA: Pearson Education.

Gobbo, K., & Shmulsky, S. (2014). Faculty experience with college students with autism spectrum disorders: A qualitative study of challenges and solutions. *Focus on Autism and Other Developmental Disabilities, 29*(1), 13-22.

Gould, J., & Ashton-Smith, J. (2011). Missed diagnosis or misdiagnosis? Girls and women on the autism spectrum. *Good Autism Practice (GAP), 12*(1), 34-41

Gorden, R. L. (1975). *Interviewing: Strategy, techniques, and tactics*. Homewood, IL: The Dorsey Press.

Gonzales, L. D. (2018). Subverting and minding boundaries: The intellectual work of women. *The Journal of Higher Education, 89*(5), 677-701.

Gonzales, L.D. & Robinson, T. N. (2023). Broad-access Institutions: Sites of Possibility and Opportunity in M. Bastedo, P.G., Altbach, & P. J. Gumport, P. Altbach (Eds.), *American higher education in the 21st century* (5th ed.). Baltimore, MD: John Hopkins University Press.

Grandin, T. (2006). *Thinking in pictures: And other reports from my life with autism*. New York, NY: Vintage Books.

Grzadzinski, R., Huerta, M., & Lord, C. (2013). DSM-5 and autism spectrum disorders (ASDs): an opportunity for identifying ASD subtypes. *Molecular Autism*, *4*(1), 12.

Gumport, P. J., Iannozzi, M., Shaman, S., & Zemsky, R. (1997). *Trends in United States higher education from massification to post massification*. Stanford, CA: National Center for Postsecondary Improvement, School of Education, Stanford University.

Gurbuz, E., Hanley, M., & Riby, D. M. (2019). University students with autism: The social and academic experiences of university in the UK. *Journal of Autism and Developmental Disorders, 49*, 617-631.

Halonen, J.S., & Dunn, D.S. (November 27, 2018). Does 'high-impact' teaching cause high-impact fatigue? *Chronicle*. Retrieved from https://www.chronicle.com/article/Does-High-Impact-/245159?cid=wcontentgrid_hp_9

Hanasono, L. K., Broido, E. M., Yacobucci, M. M., Root, K. V., Peña, S., & O'Neil, D. A. (2019). Secret service: Revealing gender biases in the visibility and value of faculty service. *Journal of Diversity in Higher Education, 12*(1), 85.

Hanson, J. M., Paulsen, M. B., & Pascarella, E. T. (2016). Understanding graduate school aspirations: The effect of good teaching practices. *Higher Education, 71*(5), 752;735;-752. doi:10.1007/s10734-015-9934-2

Happé, F., Booth, R., Charlton, R., & Hughes, C. (2006). Executive function deficits in autism spectrum disorders and attention-deficit/hyperactivity disorder: examining profiles across domains and ages. *Brain and Cognition, 61*(1), 25-39.

Happé, F., Ronald, A., & Plomin, R. (2006). Time to give up on a single explanation for autism. *Nature Neuroscience, 9*(10), 1218-1220.

Harper, S. R., Patton, L. D., & Wooden, O. S. (2009). Access and equity for African American students in higher education: A critical race historical analysis of policy efforts. The *Journal of Higher Education, 80*(4), 389-414.

Hart, D., Grigal, M., & Weir, C. (2010). Expanding the paradigm: Postsecondary education options for individuals with autism spectrum disorder and intellectual disabilities. *Focus on Autism and Other Developmental Disabilities, 25*(3), 134-150.

Hartman-Hall H. M., Haaga D. A. (2002). College students' willingness to seek help for their learning disability. *Learning Disability Quarterly, 25*, 263–274.

Hartsoe, J. K., & Barclay, S. R. (2017). Universal design and disability: assessing faculty beliefs, knowledge, and confidence in universal design for instruction. *Journal of Postsecondary Education and Disability, 30*(3), 223-236.

Heasman, B., & Gillespie, A. (2018). Perspective-taking is two-sided: Misunderstandings between people with Asperger's syndrome and their family members. *Autism, 22*(6), 740-750.

Henderson, B. B. (2009). Mission creep and teaching at the master's university. *College Teaching, 57*(4), 185-187.

Higbee, J. L., & Goff, E. (2008). *Pedagogy and student services for institutional transformation: Implementing universal design in higher education* [website]. Minneapolis, MN: Center for Research on Developmental Education and Urban Literacy, General College, University of Minnesota. Retrieved from https://www.cehd.umn.edu/passit/docs/PASS-IT-Book.pdf

Hora, M. T. (2014). Exploring faculty beliefs about student learning and their role in instructional decision-making. *The Review of Higher Education, 38*(1), 37-70.

Hu, Q., & Chandrasekhar, T. (2021). Meeting the mental health needs of college students with ASD: A survey of university and college counseling center directors. *Journal of Autism and Developmental Disorders, 51*, 341-345.

House, J. S. (1981). *Work stress and social support*. Reading, MA: Addison-Wesley.

Iaconon, T., Trembath, D., & Erickson, S. (2016). The role of augmentative and alternative communication for children with autism: Current status and future trends. *Neuropsychiatric Disease and Treatment, 12*, 2349-2361.

Institute of Medicine (1997). *Enabling America: Assessing the Role of Rehabilitation Science and Engineering*. Washington, DC: The National Academies Press. https://doi.org/10.17226/5799.

Interagency Autism Coordinating Committee (2019). *2016 IACC Autism spectrum disorder research portfolio analysis report* [website]. Retrieved from https://iacc.hhs.gov/portfolio-analysis/2016/index.shtml.

Jackson, S. L., Hart, L., Brown, J. T., & Volkmar, F. R. (2018). Brief Report: Self-reported academic, social, and mental health experiences of post-secondary students with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 48*(3), 643-650.

Jackson, S. L., Hart, L., Brown, J. T., & Volkmar, F. R. (2018). Brief Report: Self-reported academic, social, and mental health experiences of post-secondary students with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 48*(3), 643-650.

Jobe, L. E., & White, S. W. (2007). Loneliness, social relationships, and a broader autism phenotype in college students. *Personality and Individual Differences, 42*(8), 1479-1489.

Jones, S. C. (2021). Let's talk about autistic autism researchers. *Autism in Adulthood, 3*(3), 206-208.

Jones, W. A. (2011). Variation among academic disciplines: An update on analytical frameworks and research. *Journal of the Professoriate, 6*(1), 9-27.

Joseph, T. D., & Hirshfield, L. E. (2011). 'Why don't you get somebody new to do it?' Race and cultural taxation in the academy. *Ethnic and Racial Studies, 34*(1), 121-141.

Kalivoda, K. S., & Higbee, J. L. (1998). Influencing Faculty Attitudes toward Accommodating Students with Disabilities: A Theoretical Approach. *Learning Assistance Review, 3*(2), 12-25.

Kapp, S. (2013). Empathizing with sensory and movement differences: Moving toward sensitive understanding of autism. *Frontiers in Integrative Neuroscience, 7*, 38.

Kapp, S. K., Gillespie-Lynch, K., Sherman, L. E., & Hutman, T. (2013). Deficit, difference, or both? Autism and neurodiversity. *Developmental Psychology, 49*(1), 59.

Kapp, S. K., Steward, R., Crane, L., Elliott, D., Elphick, C., Pellicano, E., & Russel, G. (2019). 'People should be allowed to do what they like': Autistic adults' views and experiences of stimming. *Autism, 23*(7), 1782–1792. https://doi.org/10.1177/1362361319829628.

Kennette, L. N., & Wilson, N. A. (2019). Universal design for learning (UDL): Student and faculty perceptions. *Journal of Effective Teaching in Higher Education, 2*(1), 1-26.

Kerr, C. (1963; 1972; 1982; 1995). *The uses of the university*. Cambridge, MA: Harvard University Press.

Kezar, A., & Gehrke, S. (2013). Creating a high-quality place to teach, learn, and work. *Peer Review, 15*(3), 8-12.

Kim, S. Y. (2022). College disability service office staff members' autism attitudes and knowledge. *Remedial And Special Education, 43*(1), 15-26.

Kim, S. A., Baczewski, L., Pizzano, M., Kasari, C., & Sturm, A. (2022). Discrimination and Harassment Experiences of Autistic College Students and Their Neurotypical Peers: Risk and Protective Factors. *Journal of Autism and Developmental Disorders*, 1-14.

Kim, W. H., & Lee, J. (2016). The effect of accommodation on academic performance of college students with disabilities. *Rehabilitation Counseling Bulletin*, 60(1), 40-50. doi:10.1177/0034355215605259

Kimball, E. W., Wells, R. S., Ostiguy, B. J., Manly, C. A., & Lauterbach, A. A. (2016). Students with disabilities in higher education: A review of the literature and an agenda for future research. In *Higher education: Handbook of theory and research* (pp. 91-156). Springer, Cham.

Kuder, S. J., & Accardo, A. (2018). What works for college students with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 48*(3), 722-731.

Kuh, G. D. (2008). Excerpt from high-impact educational practices: What they are, who has access to them, and why they matter. *Association of American Colleges and Universities, 14*(3), 28-29.

Kuh, G. D., & Hu, S. (2001). The effects of student-faculty interaction in the 1990s. *Review of Higher Education, 24*(3), 309-332.

Kenny, L., Hattersley, C., Molins, B., Buckley, C., Povey, C., & Pellicano, E. (2016). Which terms should be used to describe autism? Perspectives from the UK autism community. *Autism*, *20*(4), 442-462.

Koegel, R. L., Shirotova, L., & Koegel, L. K. (2009). Brief report: Using individualized orienting cues to facilitate first-word acquisition in non-responders with autism. *Journal of Autism and Developmental Disorders, 29(11), 1587-1592.*

Lather, P. (2007). Validity, qualitative. In G. Ritzer (Ed.), *The Blackwell encyclopedia of sociology* (pp. 5161-5165). Oxford, UK: Basil Blackwell.

Lamm, A. J., Lamm, K. W., & Strickland, L. (2013). Focusing on the future: understanding faculty intent to lead the land grant system. *Journal of Agricultural Education*, 54(4), 92-103.

Labaree, D. F. (2016). An affair to remember: America's brief fling with the university as a public good. *Journal of Philosophy of Education, 50*(1), 20-36.

Labaree, D. F. (2017). *A perfect mess: The unlikely ascendancy of American higher education* [Kindle DX version]. Retrieved from Amazon.com.

Lalvani, P. (2015). Disability, stigma and otherness: Perspectives of parents and teachers. *International Journal of Disability, Development and Education, 62*(4), 379-393.

LaRocco, D. J., & Wilken, D. S. (2013). Universal Design for Learning: University faculty stages of concerns and levels of use. *Current Issues in Education, 16*(1).

LeGary Jr, R. A. (2015). *Advanced undergraduate students with autism spectrum disorder: perceptions of social supports that buffer college-related stress and facilitate academic success.* (Publication No. 3701297) [Doctoral dissertation, University of Hartford]. ProQuest Dissertations and Theses Global.

LeGary Jr, R. A. (2017). College students with autism spectrum disorder: Perceptions of social supports that buffer college-related stress and facilitate academic success. *Journal of Postsecondary Education and Disability, 30*(3), 251-268.

Levy, S. E., Giarelli, E., Lee, L. C., Schieve, L. A., Kirby, R. S., Cunniff, C., ... & Rice, C. E. (2010). Autism spectrum disorder and co-occurring developmental, psychiatric, and medical conditions among children in multiple populations of the United States. *Journal of Developmental & Behavioral Pediatrics*, *31*(4), 267-275.

Leyser, Y., Vogel, S., Wyland, S., & Brulle, A. (1998). Faculty attitudes and practices regarding students with disabilities: Two decades after implementation of Section 504. *Journal of Postsecondary Education and Disability*, *13*(3), 5-19.

Lightner, K. L., Kipps-Vaughan, D., Schulte, T., & Trice, A. D. (2012). Reasons university students with a learning disability wait to seek disability services. *Journal of Postsecondary Education and Disability*, *25*(2), 145-159.

Lindblom-Ylanne S, Trigwell K, Nevgi A, Ashwin P (2006). How approaches to teaching are affected by discipline and teaching context. *Studies in Higher Education*, *31*(03), 285-298.

Link, A. N., Swann, C. A., & Bozeman, B. (2008). A time allocation study of university faculty. *Economics of Education Review*, *27*(4), 363-374.

Liptak, G. S., Benzoni, L. B., Mruzek, D. W., Nolan, K. W., Thingvoll, M. A., Wade, C. M., & Fryer, G. E. (2008). Disparities in diagnosis and access to health services for children with autism: data from the National Survey of Children's Health. *Journal of Developmental & Behavioral Pediatrics*, *29*(3), 152-160.

Loftis, S. F. (2018). Dear neurodiversity movement: Put your shoes on. In K. Ellis, R. Garland-Thomson, M. Kent, & R. Robertson (Eds.), *Manifestos for the Future of Critical Disability Studies* (pp. 20-28). New York, NY: Routledge.

Lombardi, A. R., & Murray, C. (2011). Measuring university faculty attitudes toward disability: Willingness to accommodate and adopt Universal Design principles. *Journal of Vocational Rehabilitation*, *34*(1), 43-56.

Lombardi, A. R., Murray, C., & Gerdes, H. (2011). College faculty and inclusive instruction: Self-reported attitudes and actions pertaining to Universal Design. *Journal of Diversity in Higher Education*, *4*(4), 250.

Lombardi, A., Murray, C., & Dallas, B. (2013). University faculty attitudes toward disability and inclusive instruction: Comparing two institutions. *Journal of Postsecondary Education and Disability, 26*(3), 221-232.

Lombardi, A., Murray, C., & Dallas, B. (2013). University faculty attitudes toward disability and inclusive instruction: Comparing two institutions. *Journal of Postsecondary Education and Disability, 26*(3), 221-232.

Longtin, S. E. (2014). Using the college infrastructure to support autistic students. *Journal of Postsecondary Education and Disability*, *27*(1), 63-72.

Loomes, R., Hull, L., & Mandy, W. P. L. (2017). What is the male-to-female ratio in autism spectrum disorder? A systematic review and meta-analysis. *Journal of the American Academy of Child & Adolescent Psychiatry*, *56*(6), 466-474.

Lund, T. J., & Stains, M. (2015). The importance of context: An exploration of factors influencing the adoption of student-centered teaching among chemistry, biology, and physics faculty. *International Journal of STEM Education, 2*, 1-21. doi:http://dx.doi.org.proxy2.cl.msu.edu/10.1186/s40594-015-0026-8

Lui, X., Hubbard, J. A., Fabes, R. A. & Adam, J. B. (2006). Sleep disturbances and correlates of children with autism spectrum disorders. *Child Psychiatry and Human Development. 37*(2), 179-191.

Lundberg, C. A., & Schreiner, L. A. (2004). Quality and frequency of faculty-student interaction as predictors of learning: An analysis by student race/ethnicity. *Journal of College Student Development*, *45*(5), 549-565.

MacLeod, A., Allan, J., Lewis, A., & Robertson, C. (2018). 'Here I come again': the cost of success for higher education students diagnosed with autism. *International Journal of Inclusive Education*, *22*(6), 683-697.

McLeod, J. D., Meanwell, E., & Hawbaker, A. (2019). The experiences of college students on the autism spectrum: A comparison to their neurotypical peers. *Journal of Autism and Developmental Disorders, 49*, 2320-2336.

Maenner MJ, Warren Z, Williams AR, et al. (2023). Prevalence and characteristics of autism spectrum disorder among children aged 8 years — Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2020. *MMWR Surveillance Summaries 2023*; 72(2)1–14. DOI: http://dx.doi.org/10.15585/mmwr.ss7202a1.

Magaña, S., Lopez, K., Aguinaga, A., & Morton, H. (2013). Access to diagnosis and treatment services among Latino children with autism spectrum disorders. *Intellectual and Developmental Disabilities*, *51*(3), 141-153.

Magaña, S., Parish, S. L., Rose, R. A., Timberlake, M., & Swaine, J. G. (2012). Racial and ethnic disparities in quality of health care among children with autism and other developmental disabilities. *Intellectual and Developmental Disabilities*, *50*(4), 287-299.

Mandy, W., Chilvers, R., Chowdhury, U., Salter, G., Seigal, A., & Skuse, D. (2012). Sex differences in autism spectrum disorder: evidence from a large sample of children and adolescents. *Journal of Autism and Developmental Disorders*, *42*(7), 1304-1313.

Mayhew, M. J., Pascarella, E. T., Bowman, N. A., Rockenbach, A. N., Seifert, T. A., Terenzini, P. T., & Wolniak, G. C. (2016). *How college affects students: 21st century evidence that higher education works (Vol. 3)*. New York, NY: John Wiley & Sons.

McLeod, J. D., Meanwell, E., & Hawbaker, A. (2019). The experiences of college autistic students: A comparison to their neurotypical peers. *Journal of Autism and Developmental Disorders*, February, 1-17. doi:10.1007/s10803-019-03910-8

McElhanon, B.O., McCracken, C., Karpen, S., & Sharp, W. G. (2014). Gastrointestinal symptoms in autism spectrum disorder. *Pediatrics, 133(*5), 872-883.

McKeon, B., Alpern, C. S., & Zager, D. (2013). Promoting Academic Engagement for College Students with Autism Spectrum Disorder. *Journal of Postsecondary Education and Disability, 26*(4), 353-366.

McMahon-Coleman, K., & Draisma, K. (2016). *Teaching university students with autism spectrum disorder: A guide to developing academic capacity and proficiency*. Philadelphia, PA:Jessica Kingsley Publishers.

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation*. New York, NY: John Wiley & Sons.

Micari, M., & Pazos, P. (2012). Connecting to the professor: Impact of the student–faculty relationship in a highly challenging course. *College Teaching, 60*(2), 41-47.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis*. Thousand Oaks, CA: Sage.

Miller, J. K. (2003). *Women from another planet?: Our lives in the universe of autism*. Bloomington, IN: AuthorHouse.

Milton, D. (2012). On the ontological status of autism: The "double empathy problem.". *Disability & Society, 27*(6), 883–887.

Milton, D. E., & Bracher, M. (2013). Autistics speak but are they heard. *Medical Sociology Online, 7*(2), 61-69.

Morales, D. X., Grineski, S. E., & Collins, T. W. (2017). Faculty motivation to mentor students through undergraduate research programs: a study of enabling and constraining factors. *Research in Higher Education, 58*(5), 520-544.

Nachman, B. R. (2022). Preparing Future Faculty to More Inclusively Teach Autistic College Students: Examining an Inclusive Teaching Professional Development Course. *International Journal of Teaching and Learning in Higher Education, 33*(3), 306-318.

Nachman, B. R., & Brown, K. R. (2020). Omission and othering: Constructing autism on community college websites. *Community College Journal of Research and Practice, 44*(3), 211-223.

Nell, N., de Villiers, F., & Griessel, D. J. (2023). Reflections on teaching piano to young children diagnosed with autism spectrum disorders. *Muziki*, 1-23.

Newman, L. A., & Madaus, J. W. (2015). Reported accommodations and supports provided to secondary and postsecondary students with disabilities: National perspective. *Career Development and Transition for Exceptional Individuals*, *38*(3), 173-181.

Nicolaidis, C., Raymaker, D., McDonald, K., Dern, S., Ashkenazy, E., Boisclair, C., ... & Baggs, A. (2011). Collaboration strategies in nontraditional community-based participatory research partnerships: lessons from an academic–community partnership with autistic self-advocates. *Progress in Community Health Partnerships*, *5*(2), 143.

Nicolaidis, C., Raymaker, D. M., Ashkenazy, E., McDonald, K. E., Dern, S., Baggs, A. E., ... & Boisclair, W. C. (2015). "Respect the way I need to communicate with you": Healthcare experiences of adults on the autism spectrum. *Autism*, *19*(7), 824-831.

Nicolaidis, C., Raymaker, D., McDonald, K., Dern, S., Boisclair, W. C., Ashkenazy, E., & Baggs, A. (2013). Comparison of healthcare experiences in autistic and non-autistic adults: a cross-sectional online survey facilitated by an academic-community partnership. *Journal of General Internal Medicine, 28*(6), 761-769.

Nicolle, P. S., & Lou, Y. (2008). Technology adoption into teaching and learning by mainstream university faculty: A mixed methodology study revealing the "how, when, why, and why not". *Journal of Educational Computing Research*, *39*(3), 235-265.

Nuske, A., Rillotta, F., Bellon, M., & Richdale, A. (2019). Transition to higher education for students with autism: A systematic literature review. *Journal of Diversity in Higher Education, 12*(3), 280.

O'Meara, K., Kuvaeva, A., Nyunt, G., Waugaman, C., & Jackson, R. (2017). Asked more often: Gender differences in faculty workload in research universities and the work interactions that shape them. *American Educational Research Journal, 54*(6), 1154-1186.

Oliver, M. (1983;2013). *Social Work with Disabled People*. Basingstoke: Macmillan.

Olson, K. W. (1973). The GI Bill and higher education: Success and surprise. *American Quarterly, 25*(5), 596-610.

O'Meara, K., & Braskamp, L. (2005). Aligning faculty reward systems and development to promote faculty and student growth. *NASPA Journal, 42*(2), 223-240.

Ortega, F. (2009). The cerebral subject and the challenge of neurodiversity. *Biosciences, 4*, 425–445.

Padilla, A. M. (1994). Research news and Comment: Ethnic minority scholars; research, and mentoring: Current and future issues. *Educational Researcher*, *23*(4), 24-27.

Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research, 62*(3), 307-332.

Patrick, S., & Wessel, R. D. (2013). Faculty mentorship and transition experiences of students with disabilities. *Journal of Postsecondary Education and Disability, 26*(2), 105-118.

Pellicano, E. (2010). Individual differences in executive function and central coherence predict developmental changes in theory of mind in autism. *Developmental Psychology, 46*(2), 530-544.

Pellicano, E., Dinsmore, A., & Charman, T. (2014). What should autism research focus upon? Community views and priorities from the United Kingdom. *Autism, 18*(7), 756-770.

Pellicano, E., & den Houting, J. (2022). Annual research review: Shifting from 'normal science' to neurodiversity in autism science. *Journal of Child Psychology and Psychiatry, 63*(4), 381-396.

Pellicano, E. and Stears, M. (2011) Bridging autism, science and society: moving toward an ethically informed approach to autism research, *Autism Research, 4*(4), 271-282.

Peña, E. V. (2014). Marginalization of published scholarship on students with disabilities in higher education journals. *Journal of College Student Development, 55*(1), 30-40.

Peña, E. V., Gassner, D., & Brown, K. R. (2020). Autistic-centered program development and assessment practices (Practice Brief). *Journal of Postsecondary Education and Disability, 33*(3), 233-240.

Peña, E. V., & Kocur, J. (2013). Parents' experiences in the transition of students with autism spectrum disorders to community college. *Journal of Applied Research in the Community College, 20*(2), 25-32.

Porter, S.R. (2007). A closer look at faculty service: What affects participation on committees? *The Journal of Higher Education, 78*(5), 523-541.

Prasad, P. (2015). *Crafting Qualitative Research: Working in the Postpositivist Traditions: Working in the Postpositivist Traditions*. New York, NY: Routledge.

Prince-Hughes, D. (2002). *Aquamarine blue 5: Personal stories of college students with autism*. Athens, Ohio: Swallo Press. Retrieved from https://ebookcentral-proquest-com.proxy2.cl.msu.edu.

Provasnik, S., & Planty, M. (2008). *Community colleges: special supplement to the condition of education 2008. Statistical analysis report. NCES 2008-033*. Washington, DC: National Center for Education Statistics.

Rao, K., Ok, M. W., & Bryant, B. R. (2014). A review of research on universal design educational models. *Remedial and Special Education, 35*(3), 153-166.

Rando, H., Huber, M. J., & Oswald, G. R. (2016). An academic coaching model intervention for college students on the autism spectrum. *Journal of Postsecondary Education and Disability, 29*(3), 257-262.

Reed, D. K., Rimel, H., & Hallett, A. (2016). Note-taking interventions for college students: A synthesis and meta-analysis of the literature. *Journal of Research on Educational Effectiveness, 9*(3), 307-333.

Remenick, L. (2019). Services and support for nontraditional students in higher education: A historical literature review. *Journal of Adult and Continuing Education, 25*(1), 113-130.

Rhoades, G. (1998). *Managed professionals: Unionized faculty and restructuring academic labor*. Albany, NY: SUNY Press.

Ritchie, J. (2003). The applications of qualitative methods to social research. In J. Ritchie and J. Lewis (Eds.), *Qualitative research practice: A guide for social science students and researchers* (pp.*24*-46). London, UK: Sage Publishers.

Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (Eds.). (2013). *Qualitative research practice: A guide for social science students and researchers*. London, UK: Sage Publishers.

Rokeach, M. (1968). *Beliefs, attitudes, and values: A theory of organization and change*. San Francisco: Jossey-Bass.

Roberts, R., Edwards, M. C., & Ivey, T. A. (2019). Planned behavior typologies of agricultural education teacher educators regarding service learning as a method of instruction: A national mixed methods study. *Journal of Research in Technical Careers, 3*(2), 36-58.

Robinson, O. C. (2014). Sampling in interview-based qualitative research: A theoretical and practical guide. *Qualitative Research in Psychology, 11*(1), 25-41.

Rooy, R., (Producer & Director), & Savarese, D. J. (Producer). (2017). *Deej* [Motion picture]. United States: Rooy Media and ITVS.

Rose, D. (2015). Regulating opportunity: Title IX and the birth of gender-conscious higher education policy. *Journal of Policy History, 27*(1), 157-183.

Rosqvist, H. B., Botha, M., Hens, K., O'Donoghue, S., Pearson, A., & Stenning, A. (2023). Being, knowing, and doing: importing theoretical toolboxes for autism studies. *Autism in Adulthood, 5*(1), 15-23.

Roux, A. M., Shattuck, P. T., Rast, J. E., Rava, J. A., & Anderson, K. A. (2015). National autism indicators report: Transition into young adulthood. *Life Course Outcomes Research Program*. Philadelphia, PA: AJ Drexel Autism Institute, Drexel University.

Rudolph, F. (1991/2021). *The American college and university: A history*. Athens, GA: The University of Georgia Press.

Rynkiewicz, A., Schuller, B., Marchi, E., Piana, S., Camurri, A., Lassalle, A., & Baron-Cohen, S. (2016). An investigation of the 'female camouflage effect' in autism using a computerized ADOS-2 and a test of sex/gender differences. *Molecular Autism, 7*(1), 10.

Sandler, B. R. (2007). Title IX: How we got it and what a difference it made. *Cleveland State Law Review 55*(4): 473–489.

Sanford, C., Newman, L., Wagner, M., Cameto, R., Knokey, A. M., & Shaver, D. (2011). *The post-high school outcomes of young adults with disabilities up to 6 years after high school: Key findings from the national longitudinal transition study-2 (NLTS2) (NCSER 2011–3004)*. Menlo Park, CA: SRI International. Retrieved from http://www.nlts2 .org/reports.

Sarrett, J. C. (2018). Autism and accommodations in higher education: Insights from the autism community. *Journal of Autism and Developmental Disorders, 48*(3), 679-693.

Sasson, N. J., & Morrison, K. E. (2019). First impressions of adults with autism improve with diagnostic disclosure and increased autism knowledge of peers. *Autism, 23*(1), 50-59.

Schreffler, J., Vasquez III, E., Chini, J., & James, W. (2019). Universal design for learning in postsecondary STEM education for students with disabilities: A systematic literature review. *International Journal of STEM Education, 6*(1), 1-10. doi:10.1186/s40594-019-0161-8

Schuster, J. H., & Finkelstein, M. J. (2006). *The American faculty: The restructuring of academic work and careers*. Baltimore, Maryland: Johns Hopkins University Press.

Schwartz, L. S. (2010). *Faculty role in responding to the acutely distressed college student*. The George Washington University, Washington, DC.

Shore, S. M. (2003). *Beyond the wall: Personal experiences with autism and Asperger syndrome*. Shawnee Mission, Kansas: AAPC Publishing.

Shakespeare, T. (2006). The social model of disability. In L. J. Davis (Ed.) *The Disability Studies Reader, 2* (pp.197-204). New York, NY: Routledge.

Shattuck, P. T., Narendorf, S. C., Cooper, B., Sterzing, P. R., Wagner, M., & Taylor, J. L. (2012). Postsecondary education and employment among youth with an autism spectrum disorder. *Pediatrics,* 129(6), 1042–1049.

Sheppard, E., Pillai, D., Wong, G. T. L., Ropar, D., & Mitchell, P. (2016). How easy is it to read the minds of people with autism spectrum disorder?. *Journal of Autism and Developmental Disorders*, *46*(4), 1247-1254.

Simon, J. A. (2011). Legal issues in serving students with disabilities in postsecondary education. *New Directions for Student Services, 2011*(134), 95-107. Chicago

Sinclair, J. (1993). Don't mourn for us. Retrieved from http://www.larry-arnold.net/Autonomy/index.php/autonomy/article/view/AR1

Sinclair, J. (1999). Why I dislike "person first" language. Retrieved from http://www.larry-arnold.net/Autonomy/index.php/autonomy/article/view/OP1

Singer, J. (1999). 'Why can't you be normal for once in your life?' From a 'problem with no name' to the emergence of a new category of difference. In M. Corker & S. French (Eds.), *Disability and discourse*. Buckingham/Philadelphia: Open University Press.

Smith, C. P. (2007). Support services for students with asperger's syndrome in higher education. *College Student Journal, 41*(3), 515-532.

Sniatecki, J. L., Perry, H. B., & Snell, L. H. (2015). Faculty attitudes and knowledge regarding college students with disabilities. *Journal of Postsecondary Education and Disability, 28*(3), 259-275.

Someki, F., Torii, M., Brooks, P. J., Koeda, T., & Gillespie-Lynch, K. (2018). Stigma associated with autism among college students in Japan and the United States: An online training study. *Research In Developmental Disabilities, 76*, 88-98.

Stevens, C. M., Schneider, E., & Bederman-Miller, P. (2018). Identifying Faculty Perceptions of Awareness and Preparedness Relating to ADA Compliance at a Small, Private College in NE PA. *American Journal of Business Education, 11*(2), 27-40.

Sturm, A., & Kasari, C. (2019). Academic and psychosocial characteristics of incoming college freshmen with autism spectrum disorder: The role of comorbidity and gender. *Autism Research*, 12(6), 931-940.

Stupnisky, R. H., BrckaLorenz, A., Yuhas, B., & Guay, F. (2018). Faculty members' motivation for teaching and best practices: Testing a model based on self-determination theory across institution types. *Contemporary Educational Psychology, 53*, 15-26.

Taylor, M. J. (2005). Teaching students with autistic spectrum disorders in HE. *Education & Training, 47*(7), 484–495.

Terosky, A. L., & Gonzales, L. D. (2016). Scholarly learning as vocation: A study of community and broad access liberal arts college faculty. *Innovative higher education, 41*(2), 105-120.

Thomas, S. B. (2000). College students and disability law. *The Journal of Special Education, 33*(4), 248-257.

Thompson, A. R., Bathea, L. , & Turner, J. (1997). Faculty knowledge of disability laws in higher education: A survey. *Rehabilitation Counseling, 40*(3), 166-180.

Tipton, L. A., & Blacher, J. (2014). Brief report: Autism awareness: Views from a campus community. *Journal of Autism and Developmental Disorders, 44*(2), 477-483.

Tondeur, J., Van Braak, J., Ertmer, P. A., & Ottenbreit-Leftwich, A. (2017). Understanding the relationship between teachers' pedagogical beliefs and technology use in education: a systematic review of qualitative evidence. *Educational Technology Research and Development, 65*, 555-575.

Tracy, S. J. (2010). Qualitative quality: Eight "big-tent" criteria for excellent qualitative research. *Qualitative Inquiry, 16*(10), 837-851.

Travers, J., & Krezmien, M. (2018). Racial disparities in autism identification in the United States during 2014. *Exceptional Children, 84*(4), 403-419.

Trembath, D., Germano, C., Johanson, G., & Dissanayake, C. (2012). The experience of anxiety in young adults with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities, 27*(4), 213-224.

Trigwell, K., Prosser, M., & Taylor, P. (1994). Qualitative differences in approaches to teaching first year university science. *Higher Education, 27*(1), 75-84.

Trolian, T. L., Jach, E. A., Hanson, J. M., & Pascarella, E. T. (2016). Influencing academic motivation: The effects of student–faculty interaction. *Journal of College Student Development, 57*(7), 810-826.

Trowler, P. R. (2001). *Academic tribes and territories*. London: McGraw-Hill Education.

Trowler, P., Saunders, M., & Bamber, V. (Eds.). (2012). *Tribes and territories in the 21st century: Rethinking the significance of disciplines in higher education*. New York, NY: Routledge.

Tsai, L. Y., & Ghaziuddin, M. (2014). DSM-5 ASD moves forward into the past. *Journal of Autism and Developmental Disorders, 44*(2), 321-330.

Turner, L. M., Stone, W. L., Pozdol, S. L., & Coonrod, E. E. (2006). Follow-up of children with autism spectrum disorders from age 2 to age 9. *Autism, 10*(3), 243-365.

Twombly, S., & Townsend, B. K. (2008). Community college faculty what we know and need to know. *Community College Review*, 36(1), 5-24.

Underhill, J. C., Ledford, V., & Adams, H. (2019). Autism stigma in communication classrooms: exploring peer attitudes and motivations toward interacting with atypical students. *Communication Education, 68*(2), 175-192.

VanBergeijk, E., Klin, A., & Volkmar, F. (2008). Supporting more able autistic students: College and beyond. *Journal of Autism and Developmental Disorders, 38*(7), 1359-1370.

Veysey, L. (1965). *The emergence of the American research university*. Chicago, IL: University of Chicago Press.

Viezel, K. D., Williams, E., & Dotson, W. H. (2020). College-based support programs for students with autism. *Focus on Autism & Other Developmental Disabilities, 35*(4), 234–245. https://doi-org.proxy2.cl.msu.edu/10.1177/1088357620954369

Vincent, J., Potts, M., Fletcher, D., Hodges, S., Howells, J., Mitchell, A., ... & Ledger, T. (2017). 'I think autism is like running on Windows while everyone else is a Mac': using a participatory action research approach with students on the autistic spectrum to rearticulate autism and the lived experience of university. *Educational Action Research, 25*(2), 300-315.

Wagner, M., Newman, L., Cameto, R., Garza, N., & Levine, P. (2005). After high school: A first look at the postschool experiences of youth with disabilities. A Report from the National Longitudinal Transition Study-2 (NLTS2). *Online submission*.

Wei, X., Christiano, E. R. A., Yu, J. W., Blackorby, J., Shattuck, P., & Newman, L. A. (2014). Postsecondary pathways and persistence for STEM versus non-STEM majors: Among college students with an Autism Spectrum Disorder. *Journal of Autism and Developmental Disorder,* 44(5), 1159–1167.

White, D., Hillier, A., Frye, A., & Makrez, E. (2019). College students' knowledge and attitudes towards students on the autism spectrum. *Journal of Autism and Developmental Disorders, 49*, 2699-2705.

White, S. W., Elias, R., Salinas, C. E., Capriola, N., Conner, C. M., Asselin, S. B., ... & Getzel, E. E. (2016). Students with autism spectrum disorder in college: Results from a preliminary mixed methods needs analysis. *Research in Developmental Disabilities, 56*, 29-40.

White, S. W., Ollendick, T. H., & Bray, B. C. (2011). College students on the autism spectrum: Prevalence and associated problems. *Autism, 15*(6), 683-701.

Whitehouse, A. J., Hickey, M., & Ronald, A. (2011). Are autistic traits in the general population stable across development?. *PLoS One, 6*(8), e23029.

Wilder, C. S. (2013). Ebony and Ivy: Race. *Slavery, and the Troubled History of America's Universities*. New York, NY: Bloomsbury Press.

Wilke, A. K., Evans, N. J., Varland, C. E., Brown, K. R., & Broido, E. M. (2019). Access and integration: Perspectives of disabled students living on campus. *Journal of College & University Student Housing, 46(1), 46–61*

Wing, L., Gould, J., & Gillberg, C. (2011). Autism spectrum disorders in the DSM-V: better or worse than the DSM-IV?. *Research in Developmental Disabilities, 32*(2), 768-773.

Winter-Messiers, M. A., Herr, C. M., Wood, C. E., Brooks, A. P., Gates, M. A. M., Houston, T. L., & Tingstad, K. I. (2007). How far can Brian ride the daylight 4449 Express? A strength-based model of Asperger syndrome based on special interest areas. *Focus on Autism and Other Developmental Disabilities, 22*(2), 67-79.

Wiorkowski, F. (2015). The experiences of students with autism spectrum disorders in college: A heuristic exploration. *The Qualitative Report, 20*(6), 847-863.

Wood, J. L., Hilton, A. A., & Nevarez, C. (2016). Faculty of Color and White Faculty: An Analysis of Service in Colleges of Education in the Arizona Public University System. *Journal of the Professoriate*, 8(1), 85-109.

Xie, J., & Rice, M. F. (2021). Professional and social investment in universal design for learning in higher education: Insights from a faculty development programme. *Journal of Further and Higher Education, 45*(7), 886-900.

Yergeau, M. (2013). Clinically significant disturbance: On theorists who theorize theory of mind. Disabilities Studies Quarterly, 33(4), n.p. https://doi.org/10.18061/dsq.v33i4.3876.

Yergeau, M. (2018). *Authoring autism*. Durham, North Carolina: Duke University Press.

Yssel, N., Pak, N., & Beilke, J. (2016). A door must be opened: Perceptions of students with disabilities in higher education. *International Journal of Disability, Development and Education, 63*(3), 384-394.

Zeedyk, S. M., Bolourian, Y., & Blacher, J. (2018). University life with ASD: Faculty knowledge and student needs. *Autism*, 1362361318774148.

Zakai–Mashiach, M. (2023). " It is like you are in a golden cage": How autistic students experience special education classrooms in general high schools. *Research in Developmental Disabilities, 134*, 104419.

Zhang, D., Landmark, L., Reber, A., Hsu, H., Kwok, O. M., & Benz, M. (2010). University faculty knowledge, beliefs, and practices in providing reasonable accommodations to students with disabilities. *Remedial and Special Education, 31*(4), 276-286.

APPENDIX A: RECRUITMENT EMAILS

Recruitment email to faculty

Dear Faculty,

Hello. I am a doctoral student at Michigan State University in the Higher, Adult & Lifelong Education PhD program in the College of Education. I would like to invite you to participate in my study which seeks to better understand how faculty are responding to the needs of students with autism. In this research I am supervised by my dissertation chair Dr. Leslie Gonzales (gonza645@msu.edu).

For my research, I am interested in learning more about: How faculty, working in a teaching, research, service or mentoring capacity are interacting with students with autism.

If you have had interaction with a student with autism over the course of one semester or term and would like to share your experiences with me for the purpose of this research, please feel free to contact me at kanhaida@msu.edu.

The extent of your participation would include **completion of a short online survey and one virtual or face-to-face interview and perhaps a follow-up email or phone call to collect clarifications or elaboration for a previous response**. The online survey will take no more than **5-8 minutes** to complete, the interview will take between **60-90 minutes**, and any follow-up inquiries would require no more than **10 minutes** time. If you agree, the interview will be audio recorded. At the conclusion of the interview, you will be given a $50.00 gift card as a token of my appreciation.

All participation is voluntary, meaning that there is no legal or formal obligation to participate and you may withdraw from the study at any time. The risks are minimal in that your name (or that of others) will never be used; **you will be fully protected by a pseudonym** and the **university name will be masked.** The interview recordings and transcripts will be stored on a secured and pass-word protected server.

If you are willing to participate, please email me at kanhaida@msu.edu. If you should have any questions, please feel free to contact me at [cell number] or via email. You may also go directly to the following link for a fuller description of the research project, to complete the consent form and the online survey: https://msu.co1.qualtrics.com/jfe/form/SV_6KlFZ4t51vS2aTr

Thank you for your time and consideration,
Dana Kanhai

Recruitment email to autism-specific services and program coordinator

Dear Coordinator,

Hello. I am a doctoral student at Michigan State University in the Higher, Adult & Lifelong Education PhD program in the College of Education. I am conducting my dissertation research on how faculty are interacting with college students with autism. I am supervised in this research by Dr. Leslie Gonzales (gonza645@msu.edu) and have full IRB approval from MSU to conduct this research. For my research, I hope to interview about 25-30 faculty to learn more about:

- How faculty working in a teaching, research, service or mentoring capacity are interacting with students with autism.

I am writing to ask your willingness to help facilitate recruitment of faculty participants for my research. If you are willing, I would like to ask you to send a recruitment email (attached) on my behalf to faculty at your institution. This email will detail the purpose of the study, criteria for participation in the study, how faculty are being asked to participate and my contact information.

I can chat further with you at your convenience about my research. Please let me know if you would be able to facilitate my request or if you think there might be a better way to recruit participants for my study. I sincerely appreciate the time you've take to read my email and to respond to my request.

Yours sincerely,
Dana Kanhai

APPENDIX B: INFORMED CONSENT FORM

Research Participant Information and Consent Form

1. EXPLANATION OF THE RESEARCH

- You are being asked to participate in a research study on how faculty, working in a teaching, research, service or mentoring capacity are interacting with students with autism. In this study you will be asked to participate in a short online survey and a 60-90 minute long interview.
- The short online survey questions related to your appointment type, disciplinary background, race/ethnicity, gender and the role in which you interacted with a student with autism
- During the interview you will be asked questions about how you interacted with a student with autism as a faculty member involved in a teaching, research, service or mentoring capacity with that student.
- You will be asked to complete the online survey and indicate your willingness to participate in the interview. If you consent to participating in the interview, I will contact you to set up a convenient day, time and place to conduct the interview.
- You must be at least 18 years old to participate in this research.

2. YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW:

- Participation in this research project is completely voluntary. You have the right to say no. You may change your mind at any time and withdraw. You may choose not to answer specific questions or to stop participating at any time.

3. COSTS AND COMPENSATION FOR BEING IN THE STUDY:

- There are no costs to you to participating in this study.
- As a token of my appreciation for participating in this study, you will receive a gift card valued at $50.00.

4. CONTACT INFORMATION FOR QUESTIONS AND CONCERNS:

If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact the researcher Dana Kanhai, [redacted], kanhaida@msu.edu or my dissertation supervisor Dr. Leslie D Gonzales, gonza645@msu.edu.

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 4000 Collins Rd, Suite 136, Lansing, MI 48910.

5. DOCUMENTATION OF INFORMED CONSENT.

Your signature below means that you voluntarily agree to participate in this research study.

_____ _____

Signature Date

Consent Form for Online Survey

Dissertation Research Study: How are faculty, in their roles as teachers, researchers, advisors or mentors, interacting with and supporting students on the autism spectrum in the college context.

Contact: Dana Kanhai, doctoral candidate, kanhaida@msu.edu / [redacted]

Participant Survey

You are being asked to participate in a research study. The purpose of the study is to explore how faculty, working in a teaching, research, advising or mentoring capacity are interacting with and supporting students with autism in the college context.

Your participation is voluntary. You can withdraw from this survey before you submit your responses. You indicate that you voluntarily agree to participate in this research study by submitting the survey. You must be 18 years or older to participate.

This study requests that you participate in an online survey and an interview. The online survey contains 9 questions, you are asked to complete questions 1 through 5 of this survey in order to participate. Questions 1 through 5 relate directly to the purpose of the study and the criteria for participating in the study. This survey asks you to provide some demographic information about yourself as well as some information about your interactions with and commitment to supporting students on the autism spectrum.

To participate in this research, participants must: (1) serve in a faculty role (assistant, associate or full professor; non-tenure or tenured/tenure track) at their institution, (2) interact with and be supportive of a student with autism in a teacher/student, advisor/advisee, mentor/mentee, or researcher (PI)/research assistant relationship dynamic, OR have been actively engaged and demonstrated interest in learning how to support students with autism in your various roles as a faculty member AND (3) be willing and available to participate in one 60-90 minute long interview regarding their experiences with students on the autism spectrum.

Contact: If you have any questions, please contact Dana Kanhai, doctoral candidate, Michigan State University, kanhaida@msu.edu / [redacted]

Please answer the questions below if you are interested in participating in this study.

1. Your name: _____
2. Your preferred contact information: _____
3. What is/was the role in which you interacted with a student with autism (please do **not** provide identifying information about your student): _____
4. For how long did you play this role? _____
5. Please check the response that best describes your current title:
   - □ Assistant professor
   - □ Associate professor
   - □ Full professor
6. What is your disciplinary background? _____

7. Please check the response that best describes your current appointment type:
    - □ Non-tenure track
    - □ Tenured / tenure track
8. Preferred gender identification and preferred pronouns: _____
9. Racial/ethnic identification: _____

By clicking on the button below, you indicate your voluntary agreement to participate in this online survey and to be contacted to participate in an interview.

Thank you for completing this survey.

APPENDIX C: INTERVIEW PROTOCOL

Introduction / Script

Thank you for participating in my research. I really appreciate you taking the time to chat with me today. Before we get started with the interview, I wanted to give you an overview of how I've structured the questions in the interview and to ask you if you have any questions or need any clarification before we begin.

I am conducting this study to better understand how faculty are interacting with students with autism. Specifically I'm interested in learning about how faculty, performing the various roles such as instructor, advisor, researcher or mentor, are directly interacting with students with autism and what factors might be influencing faculty's interactions.

This interview is divided into three parts and will take about 60-90 minutes.

- In the first part, I will ask you to tell me a little bit about yourself and your current position.
- In the second part of the interview, I will ask you some questions about your experiences with students with autism
- In the third part, I will ask you some questions about the factors which influence/d how you interact / have interacted with students with autism. Specifically, I will ask questions related to (1) any advantages or disadvantages for you or the student or others that came out of how you interacted with the student, (2) questions related to people, policies or practices you take/took into consideration or consulted when interacting with the student and (3) and finally any questions related to barriers or supports which influenced how you interacted with the student.

During the interview I will take some notes, this is to help me keep track of what we've talked about and to remind me if I need to ask you any follow up questions.

Throughout this research I will make every effort to protect your confidentiality. I will use a pseudonym for you and your institution when I transcribe the interview, in my final dissertation paper and in any presentations or articles that come out of this research. Is there a pseudonym that you would prefer? I will also mask the names of anyone who you may mention during the interview.

I would also like to ask your permission to audio tape this interview. Would you be okay with recording this interview?

I also wanted to let you know again that you are not obligated to take part in this interview and that if you wish to stop anytime, please feel free to tell me. You may choose not to respond to any questions that you don't want to answer. And if at any time you would like me to pause or turn off the recorder, please feel free to ask me to do so.

I wanted to leave a little time before we get started for you to ask any questions that you might have, please feel free to ask me any questions about this study.

Part 1

In this first part of the interview, I want to ask you to tell me a little bit about yourself.

1. Please describe your current work for me (e.g., title, teaching load, etc).
    a. What classes do you teach?
    b. What kind of service are you currently involved in?
2. What aspect of your work are you enjoying most right now?

Part 2

We're moving on to part two of the interview questions now. This section asks questions related to the experiences you've had with students with autism and how you've interacted or responded to them.

3. Without identifying your student(s) by name, please help me understand the context in which you interacted with a student(s) with autism.
4. How did you know this student(s) had autism?
5. Please describe the experiences you've had with student(s) on the autism spectrum both inside and outside the classroom setting.
    a. How did you respond (…student in the situation participant explained)?

Part 3

In this third and final part of the interview, I'm going to ask you questions about the factors that influenced your responses to students with autism.

These next set of questions relate to any advantages or disadvantages experienced by you, the student or others as a result of your interactions with the student.

6. So first, thinking about your response(s) to the student with autism, what were the advantages of the approach you took?
    a. Were there any advantages for you?
    b. Were there any advantages for the student(s)?
    c. Were there any advantages for other individuals e.g. other students, faculty, etc.?
    d. Were there any advantages that you expected or didn't expect?
7. And what were some of the disadvantages, if any, to the approach you took with the student?
    a. Were there any disadvantages for you?
    b. Were there any disadvantages for the student(s)?
    c. Were there any disadvantages for other individuals e.g. other students, faculty, etc.?
    d. Were there any disadvantages that you expected or didn't expect?

These next questions relate to your perceptions of the expectations placed on you by others to respond to students with autism.

8. Please recall and describe any conversations you might have had with colleagues, other faculty members, staff, students, friends or family members about how to respond to a student(s) with autism.

9. How important was it to you to take what they said into consideration when responding to a student with autism?
10. Or were there any observations you made of others who interacted with people or students with autism that might have influenced how you responded to your student?
11. How does your university suggest to you how you should respond to student(s) with autism?
12. What were the university policies or procedures that guided your response(s) to the student(s)?
    a. What made you consider these policies or procedures before responding to the student(s)?

These last questions relate to any barriers or supports which you perceive as influencing your response to students.

13. What supports are available to you to help you respond to student(s) with autism?
14. What makes it easy or challenging for you to respond to students with autism?

Closing questions

15. Finally, if you were to meet another student with autism in (setting), how do you think you would respond in the future?
    a. Why would you take that approach?
16. Before we close off the interview, is there anything I didn't ask that you thought I would or is there anything else you'd like to add or have a question about?

Thank you again for participating in my study. What will happen next is I will transcribe our conversation and send the transcript back to you for your editing. If there is anything you'd like to change, correct or delete on the transcript, please feel free to do so. If not, then please don't feel obligated to spend any time editing. If I do need some clarification or have any follow up questions however as I transcribe, would it be okay to contact you via email or phone? As I make progress with my research, I can send you preliminary themes coming out of my research if you are interested or a summary of the findings when I have completed the research. Would you be interested in seeing these?

Again, thank you for chatting with me today.

Anfara et al. (2002) recommends mapping the interview questions against the research questions to help visualize and ensure that the questions asked address the research questions of the study. For simplicity, I show research sub-questions (a) and (b) mapped onto the interview questions.

Table 6

Mapping of interview questions against the research questions

TPB Construct	**Research Questions**	**Interview Questions**
Behaviors	a. How do faculty respond to autistic college students?	Part 2 3. Without identifying your student(s) by name, please help me understand the context in which you interacted with a student(s) with autism. 4. How did you know this student(s) had autism? 5. Please describe the experiences you've had with student(s) on the autism spectrum both inside and outside the classroom setting. a. How did you respond to (…student in the situation participant explained)? 15. Finally, if you were to meet another student with autism in (setting), how do you think you would respond in the future? a. Why would you take that approach?
Behavioral beliefs	b. What behavioral, normative and control beliefs guide the responses of faculty to autistic college students?	Part 3 6. So first, thinking about your response(s) to the student with autism, what were the advantages of the approach you took? a. Were there any advantages for you? b. Were there any advantages for the student(s)? c. Were there any advantages for other individuals e.g. other students, faculty, etc.? d. Were there any advantages that you expected or didn't expect? 7. And what were some of the disadvantages, if any to the approach you took with the student? a. Were there any disadvantages for you? b. Were there any disadvantages for the student(s)? c. Were there any disadvantages for other individuals e.g. other students, faculty, etc.? d. Were there any disadvantages that you expected or didn't expect?

Table 6 (cont'd)

TPB Construct	Research Questions	Interview Questions
Normative beliefs	b. What behavioral, normative and control beliefs guide the responses of faculty to autistic college students?	8. Please recall and describe any conversations you might have had with colleagues, other faculty members, staff, students, friends or family members about how to respond to a student(s) with autism. 9. How important was it to you take what they said into consideration when responding to a student with autism? 10. Or were there any observations you made of others who interacted with people or students with autism that might have influenced how you responded to your student? 11. How does your university suggest to you how you should respond to student(s) with autism? 12. What were the university policies or procedures that guided your response(s) to the student(s)? a. What made you consider these policies or procedures before responding to the student(s)?
Control beliefs	b. What behavioral, normative and control beliefs guide the responses of faculty to autistic college students?	13. What supports are available to you to help you respond to student(s) with autism? 14. What makes it easy or challenging for you to respond to students with autism?

APPENDIX D: CODING MANUAL

Table 7
Coding manual

Code Label	Behavior (Response)
Definition	Tangible actions taken by faculty member.
Description	Language which describes action taken by a faculty member in relation to an autistic student.
How data could potentially reflect elements	A participant states that she attended a workshop to learn more about teaching autistic college students. A participant expresses that he avoided an autistic student.
Code Label	Behavioral beliefs
Definition	Salient beliefs which influence a faculty member's attitude towards a behavior.
Description	Language which describes why a faculty member may have a favorableness or favorableness attitude towards a particular behavior.
How data could potentially reflect elements	A participant states that using universal design for instruction benefits the autistic student as well as other students in the class. A participant states that acting as a mentor to students (not just autistic) takes too much time away from activities which they are evaluated upon such as doing research.
Code Label	Attitude
Definition	A faculty member's feeling of favorableness or unfavorableness (Ajzen, 1991) towards a behavior.
Description	Language which describes feelings about the outcomes of a behavior.
How data could potentially reflect elements	A participant expresses that it is important to advise autistic students how to participate in classroom discussions with their neurotypical peers. A participant remarks that while she understands that autistic students have sensory issues, she cannot allow students to withdraw from participating in certain activities that might make them uncomfortable.
Code Label	Normative beliefs
Definition	Salient beliefs which influence a faculty member's perception of the social pressure to act in a particular way.
Description	Language which describes the faculty member's perception of how specific groups or people think the faculty should behave.
How data could potentially reflect elements	A participant mentions that a highly respected colleague conducted a research project with a research team which included an autistic student. A participant argues that neurotypical students in the class express that they do not appreciate the use of inclusive teaching strategies.

Table 7 (cont'd)

Code Label	Subjective norm
Definition	A faculty member's perception of social pressures (Ajzen, 1991) to act or not act in a certain way.
Description	Language which describes faculty member's perceived expectations of important others.
How data could potentially reflect elements	A participant expresses that he feels pressure from his institution to change the way he teaches to address the needs of autistic students. A participant states that her institution does not emphasize to faculty that they should work with the student disability office to get autistic students what they need to succeed.
Code Label	Control beliefs
Definition	Salient beliefs which influence perceived behavioral control.
Description	Language which describes the factors which make faculty members express that they are able or not able to act in certain ways.
How data could potentially reflect elements	A participant states they have personal experience with someone who has autism and so feel confident in their ability to interact with an autistic student. A participant states that it is not possible to spend extra time in office hours with an autistic student to explain the requirements of an assignment because of all the competing priorities to which the participant has to devote time.
Code Label	Perceived behavioral control
Definition	A faculty members perceived control over acting in a particular way.
Description	Language which describes a faculty's perception of their ability to act in a particular way.
How data could potentially reflect elements	A participant states that she knows how and feels capable to refer an autistic student to autism specific campus services and programs if necessary. A participant states that he had no idea how to teach an autistic student who was having challenges in the class.
Code Label	Intentions
Definition	"the motivational factors that influence behavior; they are indicators of how hard people are willing to try, of how much of an effort they're planning to exert, in order to perform the behavior. As a general rule, the stronger the intention to engage in a behavior, the more likely should be its performance" (Ajzen, 1991, p. 181).
Description	Language which describes the intent and the strength of the intent to act in a particular way.
How data could potentially reflect elements	A participants stated that they intent to or are committed to using responsive pedagogical strategies with their autistic students.

APPENDIX E: BEHAVIORS

Table 8
Behaviors theme and sub-themes

Behavior	Theme	Sub-theme	Exemplars
Teaching	Opening a line of communication	Initiating a conversation with the autistic student	Like really, the biggest thing I took away from that is ask the student first. If you hit a roadblock and it's at all possible, ask the student what they need because there's a good chance that some students will just be able to tell you I need x. And you're like, 'Oh, okay, I've been pulling my hair out for three weeks, but Oh, I can do that.' And they're like, great. - Helaine
		Addressing students' needs outside of classroom time	He'll text me like at least every day that we have class [and] he'll confirm something. And so just a lot of confirming and he'll say, 'Is this due?'. And I'll confirm, 'Yes it is'. Or if it's like a module … I just have to make sure that I say, 'Okay, module eight has several elements in it - it has a start page that explains what to do, it has a podcast to listen to, has two articles, a quiz, a short discussion, and a video review assignment in it.' And so that's something I noticed that he likes or he responds well to. - Danielle
		Being direct and straightforward	I found the best way [is] to just say, okay, yeah, I think you've told us enough about that. We're going to go onto somebody else now. And, if he would get into arguments with people in the class, I would talk to him. We might take a break and I would talk to him and say, okay, let's reduce the tenor of this conversation a little bit, there's no need to argue, even though you might enjoy arguing with people about content. But it was usually pretty direct. - Patricia
		Q-TIP – Quit taking it personally	The words he uses sometimes can sound demanding if someone would just read the text that he would send, but I understand that he's just very literal and he's just very direct. – Danielle

Table 8 (cont'd)

Behavior	Theme	Sub-theme	Exemplars
Teaching	Utilizing responsive pedagogical strategies	Differentiated instruction	With a student on the spectrum, I'll typically be very explicit about, you know, I want you to learn this three minutes of this first movement for your next lesson. That's your assignment for next lesson. So I'll be very specific about what is due for me each week and I just find that that tends to be successful. – Russell; I worked out a deal with him so that somebody else could read his speech ahead of time, … If he couldn't handle answering the questions, then he would have someone on his team answer the questions [for him], and so that worked pretty well. – Thomas
		Universal design for learning	We hadn't had syllabi for the independent study, because independent studies are very unstructured usually. And she's really wanted a syllabus and a rubric for the final paper. And then we had to kind of modify the existing rubric to fit with where her writing skills were. But she was very, very literal and she needed each point in the rubric to be very, very literal. And developing those materials really helped with subsequent students, although they didn't all need the rubric to be that literal. She was the only one who used the rubric like that. But having given a structure to the independent study was helpful for later independent study students regardless of whether they were autistic or not. – Evelyn
Teaching	Seeing and using the strengths of autistic students		So you think about an inventory of things that they need to improve upon and you look at a piece that adds a few of those things and you look at something that is their strength and you pick a piece that plays on their strength, that sort of thing. So I'm thinking about a student last year who I chose this big bombastic Khachaturian Toccata because he likes to play really loud. And also he has an incredible rhythmic ability and it requires both of those things. - Russell

Table 8 (cont'd)

Behavior	Theme	Sub-theme	Exemplars
Coaching			One particular case, it's a graduate student, he had been recently diagnosed [and] being a grad student, he also has teaching responsibilities and he was just kind of learning about himself and wanted to talk to me about how does this [autism diagnosis] affect his teaching and how can he work with that to become a more effective teacher. - Sara
Service	Educating people about autism	Teaching a class about autism	My goal now with my teaching is I always use disability examples when I teach research and I use the examples that target the campus culture. So I use my campus climate data and I think the best way that I can now currently support autistic students is to show the curriculum directors, the principals, the administrators who are in my classes, how valuable a supportive campus climate is. - Helaine
		Professional development for others	I gave a talk last year about neurodiversity, about the program that I've been telling you about, and faculty came and listened. And it's like really great because some faculty are in the music department, others are in engineering. And I mean I'm in psychology, which means I'm more exposed to diversity, but I feel like the college is really trying to support these different views on neurodiversity or diversity in general. - Eva
			Colleagues in my own department understand more now, it's more personal to them. And I'm also there to support them through it. So when they have challenges that arise in their classes, I am right there trying to help them figure out how to negotiate those challenges, how to navigate them. And it's made them more willing and more open. - Natalie
	Developing college transition or an autism support program		We wrote a grant to start the autism center. But we did focus groups all around the county, the neighboring county. And a group of parents said we know that our kids can go to college, but no way could they make it because of the movement stuff, the executive functioning. And why can't there be a program that helps them get through college? And it was like, Ah!. So we got the center up and running and then we took on the college part. - Suzie

Table 8 (cont'd)

Behavior	Theme	Sub-theme	Exemplars
			You know, my job... it has a lot of gray area to it. I'm not just the program coordinator. I'm also working with these individuals trying to navigate life as an adult with autism. - Addison
	Engaging in the community		We developed a program to teach kids 3D computer modeling to enhance their potential for employment. And we just found incredibly skilled individuals on the spectrum. And we really tried to minimize the focus on, you know, trying to change their behavior, which a lot of interventions are focused on, and let them be themselves. If they needed to stim, that was fine with us, we weren't going to intervene and tell them that was inappropriate. - Annie
Research	Participatory research		I want to see what autistic self-advocates and autistic students think I should work on. I would like to embrace the participatory approach. And I view this as a great example of social validity. - Nina
	Coauthoring with autistic researchers and students		I said let's co-present, so it's not just his work, but let's co-present and I was able to pull in his information more so than he would have done. – Fleur
	Research on Autism		And then, I became more interested in like, well, okay, I'm certain individuals with autism get older and autism has been with us as a society, are there autistic individuals who are in adulthood and who have experience aging? – Scott

Table 9

Faculty demonstrated behaviors by theme and sub-themes

	Annie	Addison	Danielle	Eva	Evelyn	Fleur	Helaine	Natalie	Nina	Patricia	Russell	Sara	Scott	Suzie	Thomas
Teaching															
Opening a line of communication	x		x	x			x	x	x	x	x	x	x		x
Utilizing responsive pedagogical strategies	x		x	x	x	x	x	x		x	x	x			x
Seeing and using the strengths of autistic students	x					x		x		x	x				x
Service															
Educating people about autism		x		x	x		x	x				x	x	x	
Developing college transition or autism support program				x	x									x	
Engaging in the community	x										x	x	x		
Coaching		x		x	x	x	x	x		x	x	x	x	x	
Research															
Participatory research	x				x				x						
Coauthoring with autistic researchers and students	x				x	x	x		x	x			x		
Research on autism	x			x	x		x	x	x				x		