Increasing the Persistence of Students with Autism Spectrum Disorder in Higher Education Settings: Faculty Perspectives on the Social Skills Needs in Classroom Environments

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INCREASING THE PERSISTENCE OF STUDENTS WITH AUTISM SPECTRUM DISORDER IN HIGHER EDUCATION SETTINGS: FACULTY PERSPECTIVES ON THE SOCIAL SKILLS NEEDS IN CLASSROOM ENVIRONMENTS

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by

Amy Rodriguez

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ABSTRACT

INCREASING THE PERSISTENCE OF STUDENTS WITH AUTISM SPECTRUM DISORDER IN HIGHER EDUCATION SETTINGS: FACULTY PERSPECTIVES ON THE SOCIAL SKILLS NEEDS IN CLASSROOM ENVIRONMENTS

by Amy Rodriguez

Students with autism spectrum disorder (ASD) who transition to higher education environments vary in their level of skills when engaging in social activities. Current research is limited about supporting college students with ASD socially in the classroom. The purpose of this qualitative study was to investigate the perceptions of faculty regarding the social skills support needs of students with ASD in classroom settings that can influence the level of achievement of academic goals in postsecondary environments. Seven faculty members from a comprehensive public university in the west participated in a qualitative interview. The results of this study showed that participants had varying perceptions about the characteristics of ASD, the strategies used by the participants were often based on neurotypical assumptions about behavior when there was a reduced knowledge base about ASD, and participants felt limited in their ability to address the social skills support needs of students with ASD directly. The outcomes of this study contribute to the paucity of research regarding the perspectives of faculty who have a wide range of knowledge, skills, and experience related to ASD, and the perceptions of faculty regarding how to support the social skills needs of this population of students in classroom environments specifically. Implications for institutional policy and practice and suggestions for further research conclude the study.
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Chapter 1: Introduction

I had no idea what I was in for. As I began to construct the emails to send to the deans and department chairs of each college on campus to kindly ask for their assistance in forwarding the request for an interview on to their faculty members, I nervously considered the thought that I would not get many responses. My advisor had recommended that I consider making flyers to pass out to try and recruit participants, too. In fact, one of the participants when answering a question about why he wanted to participate in the study stated as one of the reasons, “I also know it can be difficult for student researchers to recruit participants, so I wanted to do my part to help.” My study aimed to look at the perceptions of faculty on the social skills support needs of students with autism spectrum disorder (ASD) and how these interactions impact the retention rate of these students as they pursue higher education.

As I began to send out the emails, I did not have to wait long for the responses to come pouring in. I received numerous responses of interest from faculty members who wanted to participate. Of the deans and department chairs who replied with messages of support, one person mentioned having a spouse who taught students with ASD, and another person highlighted the importance of this research and shared about having a family member with ASD. Soon, there was a list of 16 faculty members who wanted to participate! I promptly stopped sending out email requests. The series of events clearly illustrated how much interest there was in opening a discussion about students with ASD and how they interact socially in classroom environments in a higher education setting.
As I arranged to meet with faculty members for an interview, I encountered a variety of situations upon arrival. Two of the participants shared their office space with others. One of those interviews was conducted in a conference room which worked out well. Upon meeting with each participant, I observed some key differences between each one whether it was the setting, such as entering an organized office space, or the interaction, such as greeting a participant who seemed nervous. The faculty members represented a diverse group of educators, much like how students bring an array of differences into the classroom academically and socially.

**Background**

Although advances in behavioral interventions and educational rights have allowed students with ASD to pursue higher education goals that were previously out-of-reach to them, navigating the social landscape that is required in the process can effectively sideline these often gifted students. ASD is a developmental disability that currently affects approximately 1% - 2% of the world population (CDC, 2018-a). As of 2010, 1 out of 59 children are being diagnosed with ASD, which is double the number of children being identified ten years earlier. The American Psychiatric Association (2018) describes ASD as the existence of persistent deficits in social communication and interactions as well as the presence of repeating behaviors that can be manifested in each person in a different way. Since the year 2000, the number of children in the United States that have been identified with ASD has increased dramatically, from 1 out of 150 children to 1 out of 59 children (CDC, 2018-a). Many students with ASD are stepping into education settings with significant challenges to overcome.
The movement towards expanded educational opportunities began almost eighty years ago. Leo Kanner and Hans Asperger were two European researchers who attached a name to the complex disorder marked by significant social deficits (Tanguay & Lohr, 2016). In 1975, American educational reform began its forward motion which resulted in students with disabilities receiving more equal treatment in the K-12 educational system. However, it would take many years for ASD to be recognized in the American medical and education communities. In 1980, the third revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM) included autism as a diagnosis (Zeldovich, 2018). A decade later, autism was added as a disability when the Individuals with Disabilities Education Act of 1990 (IDEA) was passed (REACH, n.d.). Because of the positive changes that have occurred over time in both the medical and educational fields, students with ASD have made substantial progress in obtaining skills, which is allowing an increasing number of students to embark on postsecondary journeys. However, research shows that students with ASD may need significant supports in higher education settings to address the social skills needs that they have as they interact with others during classroom activities. It is important to understand these needs from the perspective of faculty who oversee the social interactions in the classroom as they carry out instructional practices. The time has arrived for postsecondary schools to come together to adequately address how to best meet the unique struggles that students with ASD face.

**Problem Statement**

Research shows that although nearly half of students with ASD have at least average, and often higher, intellectual abilities (CDC, 2018-a), the social and communication
difficulties that arise early during the first 12-15 months of life (Tanguay & Lohr, 2016) may continue to be manifested in higher education settings. As students with ASD enter postsecondary environments, the level of social skills they bring can impact their progress towards educational goals (Nasamran, Witmer, & Los, 2017).

**Statement of Purpose**

The purpose of this qualitative study was to investigate the perceptions among higher education instructors regarding the social skills support needs of students with ASD within the context of the classroom that can facilitate or undermine students’ achievement of their academic goals in a college environment. A total of seven faculty members from different academic departments at a comprehensive public university in the west were interviewed to understand their perceptions about the social skills support needs of this population of students in classroom settings. In the fall of 2017, there were 2,818 higher education institutions in the United States that offered a minimum of a four-year degree. Of that number, 750 institutions were public universities (National Center for Education Statistics, 2018).

**Research Questions**

This study sought to answer the following research questions:

1. What are the perceptions of faculty regarding the symptoms of ASD, and how do these perceptions affect how the classroom environment is structured?

2. What are the theories that describe the social development challenges of those with ASD, and how may these challenges affect participation in classroom activities?
3. What are the perceptions of faculty regarding how students with ASD interact socially with peers and the instructor within the context of various classroom activities?

4. What are the perceptions of faculty regarding how faculty and students with ASD should advocate for social skills needs in the classroom?

**Definition of Terms**

For the purposes of carrying out the present research, the study used the following definitions:

Asperger’s syndrome (AS). It was a previous category of autism. It is characterized by normal language and cognitive development, but deficits exist in social interaction skills, such as repeated and narrow interests (Research Autism, 2018).

Autism spectrum disorder (ASD). “Autism spectrum disorder is a complex developmental condition that involves persistent challenges in social interaction, speech and nonverbal communication, and restricted/repetitive behaviors (American Psychiatric Association, 2018, para.1).

Central coherence (CC). It is the ability to think about a situation in multiple ways. It is about not only seeing the individual parts of something but how it all fits together with other pieces as a whole (Research Autism, 2014).

Developmental disability. It is characterized by lifelong delays in milestones in development beginning in childhood. Examples of social communication delays include waving, smiling, and speaking (CDC, 2018-b).
Executive function. It is the ability to think about how previous experiences might affect present behavior (Tanguay & Lohr, 2016).

Folk psychology. It is an adaptation for comprehending another person’s actions, such as why they do something, how they react to a situation, and knowing how social situations affect events (Tanguay & Lohr, 2016).

High-functioning autism (HFA). A person who has ASD symptoms that are less severe in nature. The person may be able to accomplish many everyday life tasks without help (WebMD, 2018).

Social communication disorder (SCD). A disorder that impacts learning, working, and maintaining relationships due to deficits in verbal and nonverbal communication used in social contexts (ASHA, n.d.).

Theory of mind (ToM). The ability to understand that another person has independent thoughts and motives from oneself. A person with ASD that struggles with social and communication difficulties has a hard time grasping this concept (Tanguay & Lohr, 2016).

**Assumptions**

In order to conduct this research, this study assumed the following:

1. All faculty recruited will answer all of the interview questions.
2. All faculty interviewed will have perceptions about the social skills support needs of students with ASD, even if they have not worked with students from this population who have formally disclosed this disability.
Significance

It is imperative that college students with ASD receive effective supports to help them successfully handle the variety of social situations they confront as they pursue higher education goals. The number of research studies about this topic has been growing in recent years. The intention of this study was to add to the literature through increased knowledge of the social skills issues of students with ASD as understood by faculty who teach them. By understanding the social skills support needs that these students have within the classroom from the perspective of faculty, college campuses can consider how policies, procedures, and instructional practices may affect students with social variances, such as students with ASD, and how departments can work together to help these students increase their social skills and progress towards their educational goals.

The following literature review will expand further on the current research on this topic. Faculty need to be informed about which strategies would be most effective in supporting the social skills support needs of students with ASD. As more effective and consistent practices are put into place, students with ASD will be better prepared to advance in higher education settings, faculty and staff will be more effective assisting these students with their social needs, and society as a whole will benefit from the strengths students with ASD bring to careers once their academic goals are achieved.
Chapter 2: Review of Literature

As students with ASD take next steps towards pursuing educational opportunities in postsecondary settings, they bring with them into this unfamiliar environment a certain level of social skills to navigate the many different kinds of social situations that exist on a college campus. The purpose of this qualitative study was to investigate the perceptions of faculty regarding the social skills support needs of students with ASD within classroom environments. The degree to which social skills can be effectively used while engaging in the variety of classroom activities that are expected as part of the college culture may directly impact the level of academic progress students with ASD make towards their educational goals. The following review of the literature will unpack the research that is published about supporting the social needs of students with ASD in higher education settings. The topics include an overview of ASD, ASD and social development, interactions with professors and college staff, participation in group work, navigation of classroom dynamics, engagement with mentors and other social supports, development of friendships and other connections, social communication trends displayed, and disclosure patterns of ASD.

Overview of ASD

ASD has an undeniable presence with approximately 1%-2% of the world population currently being impacted by this complicated developmental disability (CDC, 2018-a). The impairment was first identified through the synchronous research of two European doctors, Leo Kanner and Hans Asperger. The findings of these investigators were
brought to public attention one year apart in the mid 1940s. Coincidently, both researchers identified the complicated condition as “autistic.”

Today, 1 out of every 59 children in the United States is diagnosed with ASD. The disorder does not differentiate between racial, ethnic, or socioeconomic variances in populations. It is seen four times more often in males than in females. In fact, this disability beats out all other developmental disabilities as the most rapidly growing diagnosed condition (CDC, 2018-a).

Within the normal range of social development, children follow predictable stages. Babies demonstrate such actions as eye contact, smiling, and other body language movements within the first few months. Children begin comprehending theory of mind (ToM), which is the ability to observe and understand another’s thoughts based on their behaviors, at around 15 months of age. At about three or four years of age, social development continues to expand to include the ability to ascertain another person’s feelings and intentions (Tanguay & Lohr, 2016).

The social deficits of children with ASD become apparent at just a little over one year of age (Tanguay & Lohr, 2016). The American Psychiatric Association defines ASD as “a complex developmental condition that involves persistent challenges in social interaction, speech and nonverbal communication, and restricted/repetitive behaviors” (American Psychiatric Association, 2018, para.1). Sometimes, early signs point to normal social development, but then development regresses. Many of the typical signs of social development revealed through body language and mental processes are minimal or absent (Tanguay & Lohr, 2016).
In addition to the social shortcomings outlined above, there are additional behavioral factors that are clearly present. A person with ASD will engage in repeated behaviors, and they oftentimes will dedicate an unusual amount of attention to a favored activity. The preceding criteria are what set ASD apart from social communication disorder (SCD). The range of symptoms surrounding social, intellectual, and communication skills vary widely from one person to the next which adds to the complexities seen in this disorder (Tanguay & Lohr, 2016). A case in point is that nearly half of all children with ASD have typical or even high intelligence (CDC, 2018-a).

There have been changes in the education and medical fields that have helped students with ASD receive additional services. In 1980, autism was officially added as a separate diagnosis to the list in the third revision of the DSM. The condition was expanded to include five different forms of autism, including Asperger’s syndrome (AS), in the DSM-IV. The disorder was given the all-encompassing title of “autism spectrum disorder” when the latest revision, DSM-V, was published in 2013 (Zeldovich, 2018). The many laws that have been passed over the last 50 years in the United States have significantly influenced not only the improvement in the quality of life for students with ASD as they are better able to manage their symptoms, they have also opened the door to higher levels of education that were previously unavailable to them.

A landmark law was passed in 1975, The Education for All Handicapped Children Act (EHA). This law detailed the provision of a “free and appropriate public education” for students with special needs. Structures were put in place that outlined both legal rights and educational plans for these students in the least restrictive environment. This
act was the impetus of financial support on a national level for special education programs moving forward (REACH, n.d.). IDEA, a monumental bill that was approved by lawmakers in 1990, brought changes that affected students with ASD specifically. Autism was included as a category of disability eligible for services in this legislature. Assistive technology provisions and transition services were outlined in the bill as well. Additionally, the No Child Left Behind Act of 2001 (NCLB) directly affected students with ASD on a smaller scale (REACH, n.d.).

Once a student graduates from high school, there are two primary government laws that provide protection of rights to students with disabilities in a postsecondary environment. These are the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973. The ADA protects against discrimination in government-funded services, such as higher education environments (Equal Employment Opportunity Commission, 2005). Section 504 of the Rehabilitation Act is geared specifically towards services that are financed by the federal government. It offers similar protections as the ADA in that services for students with disabilities must be accessible. However, some students qualify for additional vocational services under the rehabilitation act (PACER Center, n.d.).

Due to advances in both the medical and educational environments serving the needs of people with ASD, students from this population are entering the doors of higher education institutions in ever-increasing numbers. However, educational success for these students is not easy to obtain. According to one source, over 33% of youth with ASD have not obtained employment or pursued postsecondary education after graduating
from secondary settings (Norton, 2012). A study managed by VanBergeijk, Klin, and Volkmar (2008) found that the percentage of college students with ASD that have entered higher education environments ranges from 0.7% - 1.9%, and the expectation is that the rate will climb. Also, the authors of this study found that the need for support at the college level is hard to ignore, as over 3 out of 4 students with ASD do not complete their postsecondary goals. Not only do educational accommodations need to be put in place, but social assistance is vital for this population of students to navigate the many different environments on campus. The current academic situation is ripe for change, as approximately 50,000 Americans with ASD turn 18 years old each year in the United States (Autism Speaks, n.d.).

**ASD and Social Development**

Studies have been conducted to evaluate the effectiveness of interventions designed to ameliorate the social deficits that are common to people with ASD. A study organized by Goldingay et al. (2015) introduced an intervention to expand flexible thinking, self-control, and perspective taking skills. The group of five teenagers worked together to create a storyline that would ultimately be acted out and recorded as a film. Improvements were seen in these teenagers through evidence of increased imagination and enhanced abilities to think about objects in different ways, although the adolescents evaluated themselves lower in social skills at the end of the intervention. The parents of these teenagers observed a moderate improvement of skills related to compassion and collaboration. However, the participants struggled to conceptualize the entire storyline process and identify the related roles independently.
Trammel et al. (2013) researched the effectiveness of learning appropriate behaviors through watching episodes of a television series. Five students with ASD watched portions of a series of sitcoms of their choice, and instructors explained the desirable behaviors that should be displayed. The instructors encouraged these students to practice these new skills in natural environments, such as college classrooms. By the third session, all students increased in their abilities to apply behaviors seen on the shows and predict how an audience would respond to the behavior that was portrayed.

Students with ASD often struggle with interpreting facial expressions. Eleven students registered with a disability office at a college in the United Kingdom took part in a semi-constructed social conversation with a typical peer to measure the pattern of gaze present. In this study, Hanley et al. (2015) noted that the gaze of the students with ASD on the eyes and mouth of another person was much less than typically developed participants when interacting socially. The participants with ASD focused on different parts of the face instead. The researchers explained that the eyes and mouth are key areas on a person’s face that communicate information when someone is interpreting a social interaction.

Another study was carried out by Mason, Rispoli, Ganz, Boles, and Orr (2012) at a large southern college that assessed the effectiveness of a video modeling program to teach communication skills to college students with AS. Considerable gains in skills were observed in the areas of eye contact, facial expressions, and conversational turn-taking for the first student and in the areas of eye contact and conversational turn-taking for the second student. Students were able to generalize and maintain skills for eye
contact and acceptable facial expressions upon completion of the video modeling intervention.

A finding in a different study completed by Nasamran, Witmer, and Los (2017) linked social abilities to academic progress. The study involved reviewing data from the National Longitudinal Transition Study-2 regarding the level of college success among students with ASD. The data indicated that the level of social skills was directly correlated to educational achievement in higher education environments. Since students with ASD often have deficits in social and communication skills, the authors proposed that if social skills can be taught to a sufficient level, then the likelihood of achieving academic goals in a postsecondary setting will be greater.

**Professors and College Staff**

Social communication in classroom environments includes how students with ASD interact with professors. A study directed by Ashby and Causton-Theoharis (2012) focused specifically on students with ASD who were also nonverbal. It investigated the social interaction experiences of 14 current or recent students from five colleges and universities and two states who typed to communicate with professionals and peers on campus. Some of these students acknowledged using a proactive approach by meeting with the professor to ensure both people were on the same page regarding needed accommodations. However, in another study of 23 students with ASD who were attending college in Belgium, the semi-structured interviews conducted by Hees, Moyson, and Roeyers (2015) revealed that participating in classroom related activities,
such as one-on-one discussions with professors, were difficult for this population of students.

Likewise, professors regularly initiate conversations with the students in their courses to help them maximize their learning opportunities. The researchers, Gobbo and Shmulsky (2014), interviewed 18 full-time instructors who suggested strategies for working with students with ASD. What made this small college in the eastern United States unique was that the student body was composed of students with various learning challenges. The instructors stressed the importance of faculty discussing issues individually with students with ASD in an objective manner. They explained that students may respond to and process ideas more successfully with instructors since the social relationship is more clear-cut to them. The study highlighted the significant influence a professor can have in the classroom through proactive measures that can be put in place. A suggestion was given that faculty set the social tone of the classroom and promote an inclusive environment through acknowledging differences among students at the beginning of a course.

One study organized by Barnhill (2016) reviewed the services provided to professors, college staff, and students with ASD by 31 colleges across the United States, including services to promote successful social interactions in the classroom. Some of the most helpful services indicated in the survey were schools providing social skills training to help these students interact more effectively with professors. Also, the study revealed the priority schools placed on training college staff as well. For an overwhelming majority of the surveyed schools, faculty could meet with disability
program staff to gain knowledge around AS and ASD. Two-thirds of the schools offered presentations to groups of faculty. College staff were informed through newsletters, tip sheets, or PowerPoints in 1 out of 10 schools.

Most schools in this study emphasized the importance of departments coming together to best meet the needs of this population of students. The schools offered suggestions for putting an effective program in place. Recommendations included networking with campus and community resources (Barnhill, 2016). Similar thoughts were expressed by Ashby and Causton-Theoharis (2012) in their study. The researchers highlighted that in order for faculty to understand what adaptations are needed for a student with communication needs, the faculty member may need to be willing to partner with the student in greater ways than is typically necessary.

**Group Work**

Students with ASD have mixed success when working in groups with other students. The study of students with ASD led by Ashby and Causton-Theoharis (2012) uncovered the need for small group conversations which provided an environment for expressing thoughts and ideas in a more engaging atmosphere. A different study initiated by Cai and Richdale (2016) interviewed a group of 23 students with ASD from various colleges about the needs and wishes of these students. The social and communication challenges encountered by students from this population prompted the students to ultimately back off from group conversations and work to avoid the stress that resulted. Similarly, a study completed by Cullen (2015) studied the needs of 24 students with ASD from five different college campuses, who gave feedback through questionnaires, one-on-one
interviews, and group discussions. The answers revealed issues not only when these students interacted with other students in social environments, but detailed problems also emerged regarding their classroom interactions and group projects.

A few studies detailed the struggles that students with ASD have with being flexible during group activities. In one of those studies, Knott and Taylor (2014) facilitated conversations with four students with ASD. The results revealed the struggle these students had comprehending the perspectives of peers and navigating the conflict about how to appropriately respond to these classmates. The interviewed students expressed their frustration that the other students were not meticulous completing group work. Additionally, faculty interviewed in this same study indicated that it was difficult to know how to bridge the gap between the needs of students with ASD and the other students in these group situations. Additional perspectives were offered in the interviews conducted by Gobbo and Shmulsky (2014). One interviewee explained a situation in which a student, thinking that his knowledge was superior to the others in a group, did not want to participate with them. An unwritten social rule had in essence been broken. Another obstacle that students with ASD face with group work is the pace of the process, which can provoke dissatisfaction with the experience for these students. Additionally, the study conducted by Hees et al. (2015) uncovered a similar challenge. The area that posed a challenge for these students was when other students did not stick to the protocol prearranged for these activities.

Students with ASD can struggle with the ambiguity of group settings. The study carried out in the United Kingdom by Knott and Taylor (2014) found students with ASD
struggled to manage the social aspects of group collaboration in classroom settings. Although they knew strategies that were helpful, such as reminders about appropriate behavior, they understood that interacting with typically developed peers did not operate this way. In the study carried out by Cullen (2015) students with ASD expressed the desire for supports in navigating the social nature of groups. These situations often required students to interact with others and in some cases take a leadership role as well. These areas can be a significant struggle for students with ASD. A different study looked at a program that supports the social skills needs of students with ASD. The authors, Weiss and Rohland (2015), reviewed feedback data for the University of Rhode Island’s Communication Coaching Program. Instruction was provided on subjects related to social and communication skills among other topics. Students with ASD attended weekly group meetings around a variety of social subjects. Strategies were demonstrated for such social situations as managing group work and initiating conversations. Feedback from students with ASD in this study expressed improvement in confidence talking with strangers and looking for nonverbal clues in group situations.

Classroom Dynamics

Students with ASD often desire to connect with classmates, but the flexibility required in these situations is not easy for this population. Semi-structured interviews completed by Hees et al. (2015) found that students with ASD struggled when participating in class discussions. A similar finding emerged in the study carried out by Cullen (2015) regarding difficulties in the classroom. Feedback received from students with ASD detailed problems related to classroom interactions, such as when to ask
questions or how to navigate conversations. Another study that looked at the challenges of students with AS in navigating postsecondary environments revealed an additional struggle to manage public speaking activities in classroom settings (Knott & Taylor, 2014).

Additionally, the study led by Weiss and Rohland (2015) reviewed the effectiveness of a program to address some of these classroom participation difficulties. The weekly group meetings included practicing social and communication skills related to classroom social situations, especially in regards to whole group activities. The students with ASD in this study became more aware of the tone of voice used while participating in classroom discussions and learned how other students may react if the tone was not appropriate. The study by Gobbo and Shmulsky (2014) summarized well the challenges that students with ASD face with the social aspects of a classroom setting. Deficiencies can lead to the inability of students with ASD to understand a situation from another’s perspective. Students can struggle to adjust when it is time to transition to a new activity, and they can misjudge when and how long to talk. The minimal or absent eye contact can contribute to problems socially as well.

**Mentors and Social Support**

Students with ASD had different feelings about utilizing mentors and social groups to address their social skills support needs. In one study initiated by Jackson, Hart, Brown, and Volkmar (2018), an online survey was used to gather data from students about college-level social experiences among other issues. Fifty-six adults with ASD attending higher education institutions from around the United States provided information for the
researchers. Seventeen students pointed out the need to improve accommodations in the form of social groups and mentor programs. However, this view was not shared by students with AS in the study carried out by Knott and Taylor (2014). Although staff members expressed how mentoring would be helpful in developing social skills, 3 out of 4 of the students interviewed were against the idea. A different approach was suggested in a study conducted by Shattuck et al. (2014). One recommendation made by the researchers was to offer social support services through a format offered to all students on campus in order to promote an inclusive environment for students with ASD.

The studies detailed various approaches for implementing social and mentor programs on college campuses. One study organized by Ashbaugh, Koegel, and Koegel (2017) examined the effectiveness of an organized social program to increase social interaction skills in students with ASD. Three students from this population received specialized assistance in social skills from an undergraduate mentor who helped these students find activities that appealed to their interests. Participants increased the amount of events attended in a week, and they engaged in a higher number of interactions with peers. A similar approach was taken in a study directed by Koegel, Ashbaugh, Koegel, Detar, and Regester (2013) that employed a structured intervention to increase social skills for college students with ASD. The once-a-week meetings that occurred over a 33-week period allowed students with ASD to plan for social events that were of interest to them with the assistance of a coach. Although the students with ASD in this study had been unhappy with previous experiences in college and with classmates, not only did
their satisfaction in both areas increase, students saw positive changes in conversation skills, too.

Additional studies uncovered the desire of students with ASD to improve their social skills. One study initiated by Lucas and James (2018) examined the effects of a mentorship experience which aided integration into college life and provided a sense of connection on campus. Students with ASD desired assistance in multiple areas including developing personal relationships and increasing social skills. These students’ expectations were met during the first semester, especially in obtaining skills to form new relationships. In a study completed by Ames, McMorris, Alli, and Bebko (2016), 12 students with ASD completed assessments after one academic year participating in a popular mentorship program at a university in Canada. The success of the individual sessions was evident in that 58% of the students met with their mentor once a week. The evaluations indicated that social skills were among the most popular goals pursued by the students. The authors concluded that due to the social and communication difficulties experienced by college students with ASD, it is vital that coaching is provided in social skills in a college setting.

Some studies revealed the relational benefits of mentorship programs. The study overseen by Lucas and James (2018) highlighted the success of a mentorship relationship. Students expressed how the relationship with a mentor was personal to them, how strategies were formulated with the assistance of the mentor, and how the student was enabled to navigate the college setting successfully as a result of the relationship. This theme was repeated in the study managed by Ames et al. (2016).
Students rated the one-on-one meetings with a mentor as one of the best parts of the program. The students enjoyed being transparent with their mentors about the problems they faced. Success was even seen in an online version of a mentor program at an Australian university. Three students with ASD were connected to mentors and interacted through email or by phone one to four hours per week. The authors recognized that although the goals of the program were academic in nature, both mentors and students benefited from the mutual social relationship that had formed (Suciu, 2014).

In addition to mentorship programs, some campuses organized social support groups. One study organized by Hillier et al. (2018) implemented what the authors described as a novel approach to challenges that students with ASD face: a support group to address a variety of issues, including social communication. Fifty-two college students with ASD met in the ASD specific group weekly for seven weeks, and they learned about the frequently identified issues that are encountered on college campuses. Students with ASD noted on individual surveys how this material assisted them in building social skills, encouraged them to reach out to others, and helped them develop strategies to solve relationship issues. Additionally, some students saw advantages in meeting with other students with ASD in the support group. Similarly, in the study carried out by Weiss and Rohland (2015), students expressed a preference for meeting with other students with ASD in the social groups exclusively. Students increased in skills around seeing issues from multiple viewpoints, evaluating nonverbal communication, and navigating interpersonal conversations. The rules about respecting personal space were addressed, and the process for initiating appropriate topics of choice for certain social situations was
broken down. In another study, group activities with other students with ASD were not rated as highly as the individual meetings that were offered. However, this may have been because the students suggested more group activities be integrated into the program throughout the year (Ames et al., 2016).

In the study conducted by Barnhill (2016), many positive practices were outlined. Some of the most helpful services provided by the schools surveyed were helping students get connected to campus events and educating mentors to work with students with ASD. Peer coaches were utilized in 3 out of 4 of the programs. Many schools explained that students with ASD connected better with peers than with disability support staff. However, the particular roles of the peer mentors varied by school. The reviews were mixed when it came to the success of social support groups and social activities. One of the recommendations outlined in the study was to provide sufficient training for mentors.

**Connections and Friendships**

Friendships are important to some students with ASD. A study led by Retherford and Schreiber (2015) reviewed the surveys completed by students and family members over a 6-year period who had participated in a weeklong campus orientation. The program had been designed for 11th grade, 12th grade, and high school graduates with High-functioning autism (HFA), AS, and SCD intending to enroll in a higher education setting. Both parents and campers expressed needs in improving social skills related to building and keeping friendships. In the study directed by Weiss and Rohland (2015), students
with ASD attended weekly group meetings and learned strategies which helped them manage different aspects of a conversation.

Although students with ASD often desire to connect with classmates, the flexibility required in these situations does not usually come naturally for this population of students. In one study, students with ASD expressed that they felt it was necessary to engage in activities with other students to fulfill their desire to interact with others socially. One area in particular that posed a challenge for these students was when other students did not stick to the protocol prearranged for these activities (Hees et al., 2015). A different viewpoint was offered by Knott and Taylor (2014) in their study of on-campus activities for this population of students. Students with AS and staff at the school agreed that organized social activities on campus offer an environment that is easier to handle socially.

Students with ASD have varying levels of desire to connect with others. However, some studies indicated that these students often feel disconnected on a college campus. The study managed by Jackson et al. (2018) found students had a variety of social connections with others, with the average report being one or two school friendships. Although feelings of disconnection were reported on the survey, the authors reminded readers that not all students with ASD desire intimate friendships with others. Some respondents, in fact, disclosed that they had no close friendships and felt relatively satisfied with this. Even though students with ASD experienced different levels of success in developing personal relationships, over 75% of them indicated that the loss felt by disconnection with others was a regular occurrence. Many of these students described
that they struggled to feel connected with the campus setting overall. A similar view was expressed by Ashby and Causton-Theoharis (2012) in their study. For some of the students, the void of connection was strongly felt. One student described the heartfelt desire for classmates to aid in his sense of belonging. The researchers summarized, “He is simply asking for peers to look at him because he is human, desiring positive social interaction and connection” (p.270).

A few reasons were given as to why students with ASD may have positive connections in a college setting. One finding discovered by Ashby and Causton-Theoharis (2010) in their study was that some students with ASD described the positive feelings experienced due to engaging in a classroom environment that was not exclusively for disabilities for the very first time. However, another student in this study explained how although her relations to peers was not on the level of friendships, she was feeling more connected to campus. Additional findings were discovered by Hees et al. (2015). The students with ASD communicated that a high priority was developing social relationships within the college setting. They took steps to successfully blend into the environment, such as by learning the type of language used for certain conversations. Participants shared that interacting with peers in a higher education environment was easier than in a secondary setting because there were more opportunities to discuss similar academic interests in this setting.

A couple of studies highlighted the fact that students with ASD have a wide range of social needs. According to the study led by Cai and Richdale (2016), only 27.3% of the students with ASD stated that their needs related to social interactions were adequately
met. Another 27.3% of them did not have social integration concerns. However 72.7% of the students studied recognized that engaging in social relationships were part of their college experience. Additional information was discovered in the study managed by Cullen (2015). Students with ASD explained that they struggled to know how to meet others who shared interests related to theirs, although some of the students commented that they did not feel the need to meet others. However, another finding in the study confirmed that online connections worked well for some students with ASD to meet others with similar interests. Other students in this study had experienced positive outcomes through structured group events. In summary, many of the students with ASD had developed friendships at college, while others had sought out other sources, such as family, as a primary way to meet their social needs.

Social Communication Skills

Students with ASD may be aware of how their social skills differ from other students. In the study carried out by Cai and Richdale (2016), the authors discovered that students with ASD were aware of communication deficiencies and worked to minimize these shortcomings as much as possible. This awareness was demonstrated by the fact that 18.2% of the students with ASD had not pursued social goals because of obstacles related to communication and social factors. Social awareness was a theme as well in the study initiated by Knott and Taylor (2014) that looked at the level of social skills in students with AS. Although the students with ASD knew strategies that were helpful, such as reminders about appropriate behavior, these students understood that interacting with typically developed peers did not operate this way.
Students with ASD often have difficulties initiating and sustaining conversations with others. In the study organized by Cullen (2015), for in-person events, this population of students detailed difficulties beginning conversations. There were positive outcomes in a study by led by Koegel et al. (2013). Students with ASD saw positive changes in conversation skills. The program promoted cooperation between these students in the study and advisors who assisted the students with ASD in accessing structured activities of interest to the student, which led to opportunities for personal interactions with others. In a different study organized by Weiss and Rohland (2015), students with ASD attended weekly group meetings about a variety of social topics. Strategies were incorporated to assist students with understanding the nuances of communication, such as figurative language and jokes. Similarly, a study conducted by Wenzel and Rowley (2010) discussed a first-year course that was amended to accommodate the needs of students with ASD by adding instruction in interpersonal skills. Nonverbal communication skills were taught using social stories, videos, and personal histories. The primary goal was to help this population of students to successfully navigate the social changes they would encounter.

Self-advocacy emerged as a skill that students with ASD should develop according to a couple of studies. The study led by Retherford and Schreiber (2015), found that many of the campers who had been taught self-advocacy skills had gone on to successfully complete postsecondary goals. This priority was echoed in the study completed by Barnhill (2016). The schools surveyed offered suggestions for putting an effective program in place, including incorporating self-advocacy training for students with ASD.
In a different study, college students with ASD varied in their perceptions of the level of disability that was experienced according to the findings in the study conducted by Shattuck et al. (2014). Approximately 33% of the students with ASD in this study did not identify as having a disability. However, an overwhelming majority of the students studied indicated that they had the ability to self-advocate to gain information needed and to be heard by campus staff.

**Disclosure**

When considering the social needs of students with ASD, there are different viewpoints regarding whether or not a student should formally disclose the disability to college staff. The findings of interviews conducted by Knott and Taylor (2014) with both students with ASD and staff at the college clearly outlined the differences in how the issues were viewed. Staff interviewed in the study expressed how knowing the diagnosis of the student with ASD would help explain deviances in behavior that are evident in order to understand and respond accordingly. On the other hand, students with ASD interviewed in this study had mixed feelings about revealing their disability to anyone on campus. However, students were more willing to open up to staff about their condition than to peers.

Students with ASD often choose not to reveal their disability if they think they can manage social situations on their own due to the perceived drawbacks of disclosure. The study initiated by Hees et al. (2015) found that the students felt conflicted about when to disclose their disability to others on campus. When considering the social landscape of college life, many students with ASD were quite aware of the perceptions of other
students as well as their lack of understanding of ASD. Many students in this study desired to start anew in a college setting, and they were even more likely not to discuss their symptoms in social situations if the student could hide them well. For students who struggled to manage their ASD, when the weight of carrying the information became overwhelming, when the student felt secure, or when the student needed an accommodation, these situations prompted the student to disclose. Even under those circumstances, students with ASD were more likely to report their disability to a disability support services program before discussing their impairment with others on campus. Students in this study expressed many fears that caused them to hold back, such as discrimination, exclusion, and previous unfavorable interactions. On the other hand, some of the students with ASD in this study had experienced positive results when they shared their ASD to classmates and instructors.

**Conclusion**

The research clearly shows how students with ASD can struggle to manage the social intricacies that are required to participate fully in classroom activities. From approaching professors, navigating group dynamics, or knowing when to advocate for needs, students with ASD often feel conflicted about the proper way to handle a variety of social situations. It is vital that faculty incorporate pedagogical practices that increase equity for students with ASD in the classroom and remove barriers to educational access. By actively incorporating the social supports needed for students with ASD to increase success academically, these students will be provided the framework that will increase the likelihood that they will achieve their educational goals despite the social variances
that may be present. The following methodology will describe the qualitative interview process used to obtain rich data from the participants in this study.
Chapter 3: Methodology

In order to gather detailed information regarding the social interaction patterns of students with ASD in a higher education environment, a qualitative interview was utilized. As the direction of the research was solidified, it became evident that it would be beneficial to look at the structure of classroom environments where students spend the majority of their time on campus. The current literature described the complexity of needs that students with ASD can have when interacting in many different social contexts on a college campus. Furthermore, the level of effectiveness in using these skills when interacting with others in the classroom can significantly impact the rate of success in achieving academic goals (Nasamran et al., 2017). Although faculty bring expertise in the area of the discipline that they teach, they may not have adequate skills to address the social variances that a diverse student body may bring into the classroom.

A review of the literature revealed a gap, as there were few studies that had interviewed faculty from diverse backgrounds about their perceptions of the social skills support needs of students with ASD in higher education settings, and even fewer studies existed that focused on the impact of social skills within the classroom environment specifically. Although there were a number of studies that had investigated the different types of social situations that occur in the classroom, many of these studies were conducted either from the perspective of the student with ASD, or from the viewpoint of faculty with significant experiences teaching students with disabilities. Qualitative interviews would be useful for investigating this unexplored area as it relates to the perceptions of faculty with a wide range of knowledge, skills, and experience on the topic.
of ASD, since the majority of faculty who would interact with this population in a higher education setting would have minimal training on this subject.

In order to gather rich data for the current study, faculty members were recruited through an email request to participate in a qualitative interview. An email was sent to the disability resource center director, and a similar email was sent to deans and department chairs in multiple departments at a comprehensive public university in the west in order to contact the highest number of faculty on campus. A copy of the recruitment emails has been included in Appendix A and B. As a way to meet the goal of recruiting a participant pool with a diversity of knowledge, skills, and experience on the topic of ASD, participants were not required to have previously worked with students with ASD who had either formally or informally disclosed their ASD diagnosis. A chart describing participants’ demography and context is provided in Appendix C. Participants were asked to engage in an approximately one-hour interview at a convenient location on campus. A copy of the consent form and intake form has been included in Appendix D and E.

A qualitative interview was a more effective method to gather data than a quantitative approach. A quantitative study would not have provided sufficient data to capture the nuances of the impressions expressed by the participants of the social skills support needs of students with ASD as these students participate in classroom activities. Additionally, the follow-up questions that the semi-structured interview process allowed gave participants an opportunity to elaborate further on their perceptions in order to glean more fully the meaning of the lived experiences of the participants. Additional
observations were made during the in-person qualitative interviews that added context to the data, such as the body language and emotions of participants and the setting of the interview location. Participants were asked if they would be interested in participating in a second interview. All of them agreed, although one participant commented that he felt he had “exhausted” what he had to say. A copy of the interview questions has been included in Appendix F.

Data from the qualitative semi-structured interviews were collected through an audio recording format. Upon completion of each interview, a written transcript was created. Interview scripts were organized through a coding process. This process began with open coding which sorted data into groups. As this coding process continued, the groups of data were arranged into categories, and themes were identified as a result of this process. The themes were integrated in such a way that a theory about the subject being studied developed (Cohen & Crabtree, 2006). As noted by Yi (2018), themes do not simply “emerge” from the data. They are the result of a careful and systematic process with the goal of discovering the meaningful story the transcripts are telling about the subject of study. The data in this study were analyzed through the lens of the original research questions proposed at the beginning of the study as another measure of the validity of the data.

The interview process was based on a research method first described by researchers Glaser and Strauss in 1967 (Cohen & Crabtree, 2006). The grounded theory approach was an appropriate research method for this study because as information was collected through in-person interviews. The data from one interview was analyzed with data from
the other interviews through a process called the constant comparative method. Cohen and Crabtree (2006) described this method as “the researcher moving in and out of the data collection and analysis process” (para. 9). The cycle of data collection and analysis repeated multiple times. The interview process continued until saturation of the data was reached, when the information provided in beginning interviews began to repeat in later interviews. The seven faculty members who participated in this study came from three separate academic colleges on campus.
Chapter 4: Results

The purpose of this qualitative study was to investigate the perceptions among higher education instructors regarding the social skills support needs of students with ASD within the context of the classroom that can influence the level of achievement of their academic goals in a college environment. A total of seven faculty members from three academic colleges at a comprehensive public university in the west were interviewed to understand their perceptions about the social needs of this population of students in classroom settings. Information from the qualitative semi-structured interviews was collected through an audio recording format. Upon completion of each interview, the transcription of the recording was reviewed to identify themes from the data.

An editing process was used to increase the readability of scripts without changing the inherent meaning of the transcripts. Superfluous words, such as “like” and “you know”, were deleted from the text as well as words that were repeated in a sentence during the process of discourse. Brackets were inserted into the transcripts for two reasons: to replace words that contained identifying information with more general terms and to insert words that the participant omitted but would commonly be used to communicate the message more clearly. The goal of the editing process was to increase clarity of the message communicated while reducing the distraction of language common in verbal interactions, but potentially distracting in written form, that could take away from the meaning of the message the participant intended to portray (Cordin & Sainsbury, 2006).
The following themes were identified: interpersonal communication patterns, the impact of faculty, peer to peer interactions, and the role of advocacy.

**Interpersonal Communication Patterns**

In typical social development, students will usually demonstrate communication patterns, such as eye contact, smiling, and other body language movements. They are able to both observe and understand another’s thoughts as well as comprehend another person’s feelings and intentions. Conversely, atypical social development results in communication differences that for students with ASD follow certain patterns, such as minimal or absent body language and mental processes (Tanguay & Lohr, 2016). However, it is important to consider how cultural differences may impact social communication. For example, a student might not look directly at a faculty member when speaking out of respect for the instructor, or for other cultural reasons, not because the student has ASD. Students with ASD may engage in particular behaviors and display communication patterns, such as repeating certain actions and focusing exclusively on a specific subject of interest (Tanguay & Lohr, 2016). The participants in this study described examples of interpersonal communication patterns, and they shared specific stories of how these patterns have been displayed in students with ASD or in students who exhibited symptoms that would suggest the presence of ASD.

**Verbal communication differences.** A study by Gobbo and Shmulsky (2014) showed the variance in social skills that can exist when students with ASD struggled to know when and how long to talk in classroom environments. Nonetheless, this population of students is often aware of how their behavior deviates from other students
in the classroom. A different study by Hees et al. (2015) further observed how this population took steps to blend into the social environment by learning proper language for conversations. This theme was reflected in a study by Cai and Richdale (2016) who discovered that students with ASD took steps to minimize shortcomings in the area of interpersonal communication. These studies appear to show a conflict that is going on within these students. When they participate in the classroom, they often do not know appropriate limits socially. Conversely, their awareness of their social difficulties may cause them to become more cautious verbally in an attempt to fit in socially.

The participants in this study described the sharp contrast that can be seen in communication during classroom activities. Annie is a Japanese woman with nine years of teaching experience in the College of Humanities and Arts. She shared her thoughts about whole group discussions within the classroom, “What I experienced is two types of ASD students. One is really quiet. Whatever happens, the student was so quiet all the time. And, the other student was talkative. He can’t stop talking.” Brooke shared similar thoughts in more detail.

So, I am thinking of students who I have thought might have autism but who did not disclose it. And so, I think there are two patterns that I might identify. So, one is the pattern of not participating in whole group and maybe taking the observer role because it might be overwhelming. So, that student who might pull off to the side, and who I have to work to join into the conversation. And then, there’s the other kind of pattern which is more dominating pattern of not recognizing the social cues of their classmates that somebody else wants to talk. So, if they get on a topic that is really interesting or that they feel passionate about . . . this can happen to a student who does not have ASD.

Brooke is a Caucasian female with five years of experience in the College of Education. She made the distinction that although students with ASD can exhibit these behaviors,
one should not automatically assume that the person has a disability. Sal is a Caucasian male with less than one year of teaching experience in the College of Education. He explained why the behaviors may possibly indicate that a student has ASD.

I think like any student it can go a variety of ways just because my experience has been working with even at the university level students that have high levels of social skills and low levels of social skills. In my experience, though, there’s no real comfortable medium either. They’re really excited to share out and they dominate the conversation and not necessary let other people take turns and provide input. Or, they’ll withdraw, maybe listen a little bit, and not necessarily verbally contribute to the conversation. So, that’s been my experience in terms of what I’ve seen. And, then lining up to theory and research in autism it kind of lines up with that as well. If it’s an area of high interest, they’re going to have lots to contribute. They are going to be excited to talk about it. If it’s with unfamiliar people which sometimes you don’t know everyone in your class with an unfamiliar topic, you might shy away, withdraw from the conversation, and not necessarily take part.

The participants were communicating a message that reminded me of the concept of cultural competence. According to Mio, Barker-Hackett, and Tumambing (2012) (as cited by Kite, 2015), cultural competence is comprised of multiple skill areas including increasing in understanding of a person’s own cultural values and biases, embracing the value of cultural worldviews of other people different from oneself, and building interpersonal skills that are flexible to meet the cultural needs of a diverse group of people. In discussing the multicultural competence of student affairs professionals, Pope and Mueller (2011) discussed how for professionals, such as faculty members, who teach a diverse student body in a postsecondary setting, it is important for them to engage in professional development to obtain proficiencies in a variety of areas, including multicultural competence. The authors pointed to a model created in 2004 by Pope, Reynolds, and Mueller (as cited by Pope & Muller, 2011) to measure these competencies.
The model not only identifies specific categories of expertise for student affairs professionals to develop, it displays a picture of movement between these concepts as each one influences the other. For example, since multicultural competence is one of the proficiencies in the model, it influences all of the other areas of proficiency as well, such as research and administration areas (Pope & Mueller, 2011).

This idea of multiple influences is echoed from a different perspective in an article by Wilder, Dyches, Obiakor, and Algozzine (2004) that discussed multicultural competence in teaching students with ASD who come from multicultural backgrounds. The authors described the complex situation that education professionals encounter when servicing students that not only struggle with a disability, such as ASD, but who also may have linguistic and cultural differences as well. If these three factors were not complex enough for multicultural students with ASD to navigate, their educational outcomes could very well be influenced by the perceptions of the teachers who come from diverse backgrounds and experiences in each of these areas. According to the authors, teachers may carry assumptions and biases that ultimately affect their interactions with multicultural students with ASD. If teachers are not very self-aware, the result may be lower educational achievement for these students with ASD due to the teacher’s reduced expectations, prejudice, or lack of knowledge around multicultural strategies.

One organization that is dedicated to increasing self-awareness and skills related to assisting students with ASD is the VCU Autism Center of Excellence. The center offers a variety of online resources to train stakeholders, such as parents, teachers, and administrators, to increase the level of understanding of ASD. According to their
website, vcuautismcenter.org, the evidence-based trainings are designed to meet a standard of competencies that are outlined in a rubric. I have included a copy of the rubric from the VCU Autism Center of Excellence in Appendix G. The rubric has been adapted to measure the knowledge and skills of the studied participants related to the social skills support needs of students with ASD in college classrooms (Table 1).

Table 1

*Faculty Level of Knowledge of ASD Characteristics*

<table>
<thead>
<tr>
<th>Level of Competence</th>
<th>Knowledge of ASD Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novice</td>
<td>Exhibits little expertise. Cannot identify needs in pedagogical practices.</td>
</tr>
<tr>
<td>Progressing</td>
<td>Exhibits some expertise. Trouble identifying needs in pedagogical practices.</td>
</tr>
<tr>
<td>Experienced</td>
<td>Exhibits broad expertise in some areas of needs in pedagogical practices.</td>
</tr>
<tr>
<td>Advanced</td>
<td>Exhibits broad expertise in all areas of need in pedagogical practices. Resource for other faculty.</td>
</tr>
</tbody>
</table>

*Note.* Adapted from VCU Autism Center for Excellence “Performance Standards and Evaluation Criteria Rubric for Special Education Teachers”

Sal’s competency in his knowledge of ASD while working with students with ASD in a postsecondary setting based on the adapted VCU rubric is at the “advanced” level. He
completed three degrees in special education, and he taught students with ASD for two years in a public school setting. Additionally, he conducted research focused on children with ASD. He explained that this population of students may be quiet in the classroom because they do not know other students in the class. Many neurotypical students would probably behave this way, too. However, for students with ASD, self-awareness about their differences in social skills would certainly compound an already uncomfortable situation in the classroom (Cai & Richdale, 2016; Hees et al., 2015).

Other participants in this study shared thoughts about the talkative pattern that emerges during discussions in the classroom. Joanna is female instructor of unidentified ethnicity with four years of teaching experience in the College of Humanities and Arts. She acknowledged that students can display high levels of intelligence, yet struggle with managing their own communication.

I had another student, the one who I’m pretty sure was on the spectrum, but was undiagnosed. Extremely intelligent person, [he] had issues with not talking. He would talk constantly. He had issues with attention, and knowing when to stop talking, and when not to dominate the conversation in class.

Annie shared an example of how conversations sometimes do not make much sense.

From my point of view he looks like he can’t control himself. He can’t control his wants to talk on something because he has knowledge. He wants to show that knowledge to other people and the topic jumps very much. I can see the little connections, but it’s really not really connected . . . the topics [are] just so many kinds and we ended up like, “What was the original question?”

In their study, McKeon, Alpern, and Zager (2013) found that faculty witnessed how students with ASD would struggle to interact appropriately in classroom discussions. These students struggled with asking and answering questions as well as discussing a topic not related to the conversation.
Participants in this study explained that strategies are necessary to manage these situations. For example, Brooke shared that students in her classes often get passionate about certain topics during classroom discussions. Although these students may or may not have ASD, she offered the following suggestions.

If a student were talking and dominating the conversation, it depends on really what the motivation is. So, sometimes it will be asking, we’ll be talking about an upcoming assignment, and then all of a sudden the student is asking very particular questions. So then, it would be, “OK. We can meet at the break to talk through your project.” So, interrupt that way . . . and so, kind of bringing it back to, “OK. I hear what you are saying, but we need to kind of move into thinking about, so what can we do with that information?” And then, trying to bring it into the whole class conversation.

Brooke’s competency in her knowledge of ASD while teaching students with ASD in a college environment based on the adapted VCU rubric is at the “advanced” level. In addition to having two advanced degrees in special education, she has been certified as a board behavior analyst, a person who is trained to assist others with developmental disabilities. She carried out research focused on children with ASD as a research assistant, and she taught children with disabilities in a public school setting. She brought up an important point to critically evaluate the communication patterns seen. Simply because someone is passionate and talks excessively about a topic does not mean the student has ASD. It is vitally important for faculty to observe the behavior over time to detect if a pattern develops. Sal shared a similar strategy for managing students with ASD who display excessive talking during discussions.

If I ask a question, they could be excited to share out. And sometimes, I have to, say, cut them off in the middle, “Thank you for your response. Let’s see if we can hear from someone else.” Or, I try and get everyone to contribute one or two times.
Annie detailed with frustration her struggles with handling these difficult interactions, especially when a student with ASD did not respond to her intervention.

Even in the classroom he kept talking, even though I [would] say, “Please, stop because other people have to talk too . . . you can come to my office hours, and I [will] spend much time with you, and we can talk on this topic as much as you want.” But, he didn’t come.

Martin is a Caucasian male with two and a half years of teaching experience in the College of Science. He had a student who had registered with the disability resource center on campus and disclosed to him that he had trouble “reading social cues.” He discussed a situation that occurred with this student during a whole class discussion that shows how when students struggle with social cues, such as students with ASD, it can be difficult to self-manage their behaviors.

As I mentioned before, the student who would ask question after question after question until told to stop asking questions, and I specifically remember, we were doing an exam study session, and he didn’t understand one particular thing. And, he asked, more or less rephrased, the same question three or more times in a row before I said, “You know, maybe it would be better to ask about this after class.” He said, “OK” and put his hand down. “Does anyone have any questions?” His hand went back up. “OK. Let’s talk after class.”

Martin explained during the interview that the student had accommodations in place to reduce the number of questions asked during classroom discussions by cuing the student through a request to talk to him after class. The student appeared unable to make the connection to stop raising his hand to ask additional questions after Martin’s request had been made. This may be due to disturbances in executive functioning. It appeared that the student struggled to make connections from previous experiences and apply them to his present behavior (Research Autism, 2014). This example illustrates the complexity that may exist in addressing social skills support needs in the classroom. Joanna
approached this overtalking issue from a different way with one student which had positive results.

But, it [was] challenging in the classroom because, he would dominate. And so, my approach to him . . . he was constantly in the front asking questions. But, what I figured out is that he needed something extra to do in the class. So, I gave him a job . . . he has these little cards, and they have photos on it, and he marks when [the students] participate. I put him in charge of that. And, that actually worked really well because it gave him something to do and a sense of responsibility. And, [this] gives him something that would keep him from dominating [the] class conversation . . . he just needed somewhere else to be, for his brain to be, and maybe hands to be. He probably had that like, the ADHD type autism.

Joanna’s competency in her knowledge of ASD while assisting students with ASD in a higher education setting based on the adapted VCU rubric is at the “advanced” level. Although she does not have formal education in ASD, she has a middle school aged son with ASD, and she has had significant training in ASD. Also, she has spent many hours working with service providers and attending social skills workshops. She organizes trainings for teachers in K-12 settings to help them understand how to work with students with ASD. Even though her comments about the comorbidity of this student’s condition are not substantiated, her personal experiences have most likely informed her opinion. When students with ASD display significantly different communication patterns, the situation becomes even more complicated when there are multiple disabilities present in that student. Celine is a white female with 20 years of experience in the education field, and she was one of my previous instructors as a graduate student. She had volunteered to participate in an interview when she learned about my study. Celine indicated that her primary motivation was her interest in learning more about the topic of ASD. I considered ways in which our existing rapport might have impacted trustworthiness. It is
plausible that there was benefit in terms of trust and familiarity facilitating candor. Likewise, it is possible that my desire to perform well during the interview could have impacted how I proposed questions. However, based on the number of follow up questions asked, and the quality of data that was obtained during the interview, our prior relationship did not appear to mitigate the effectiveness of the interview process or the data elicited. With regard to her classroom experiences with students who have ASD, Celine explained that such interactions have been mainly with students who had relatively quiet demeanors. However, she described a different type of verbal communication pattern in one of her students who was more talkative in class. Although it was not a dominating pattern, it appeared to be a distracting one.

I can think of a couple of students that were not quieter per se. However, [she] spoke in a manner that was not typical. And, I had the feeling that in this case her fellow students were wondering why she spoke the way she did. It was a little bit of repeating and patterns and more speaking than one would think. And, I think that was a little bit bewildering, perhaps, for some students.

Celine’s observation concurs with research about how people with ASD can display repetitive patterns of behavior (Tanguay & Lohr, 2016). Annie offered her insights into why some students may possibly talk too much.

One time, I asked him, “Did you see other people’s facial expressions or eyes?” And, he said, “No, because I was sitting in front. I didn’t see anybody’sfacials.” “Oh, OK. Everybody looked so sad when you were talking. You need to see around.” . . . they don’t look at others. So, they just keep raising their hands and keep talking . . . they don’t read other people’s facial expressions . . . seems like they are not interested in other people. They are inside of their world.

Annie’s competency in her knowledge of ASD while assisting students with ASD in a higher education environment based on the adapted VCU rubric is at the “progressing” level. She does not have formal education in ASD, but she has researched information
about ASD on her own, and she has worked with a few students with ASD in the classroom. Annie believes that ASD is more prevalent in people from a particular cultural background based on her experiences teaching a significant amount of students from this specific culture. In her description, Annie begins with “him” and later switches to “they.” She drew the conclusion that their behavior may mean that they are not interested in other people. Based on her comments, it appears that she generalizes her perspective of these behaviors to the population as a whole. However, her thoughts do not concur with the findings of two studies that indicated that students with ASD are interested in others because they desire a connection with them. One of these looked at the experiences of nonverbal students with ASD. In this study by Ashby and Causton-Theoharis (2012), the authors found that these students felt a significant disconnection from others on campus. A similar finding by Jackson et al. (2018) concluded that 3 out of 4 of the students with ASD in their study felt disconnected from others regularly.

A few of the participants described the communication patterns of students with ASD that displayed a low level of verbal communication. Martin offered this perspective on why a student with ASD might exhibit this quiet pattern of communication.

It is important to generally gauge if students are willing to participate in front of everyone or not. But, I think a lot of that is understanding that some students just don’t want to ever be called [on], and don’t ever want to be noticed at all, regardless of what they might have in terms of potentially a disorder . . . if people are getting together to work on a problem, I have noticed that if you tell people to get into groups, you can definitely see some people that just don’t talk to their neighbors at all, whether [or not] some people are just anti-social. So, I don’t mean to imply all those people are on the spectrum, but perhaps they might be less likely to actually talk to the people next to them . . . than [a] typical, neurotypical student.
Martin’s competency in his knowledge of ASD while teaching students with ASD in a college environment based on the adapted VCU rubric is at the “novice” level. He has not had formal training in ASD, and he has not worked with students who have revealed a diagnosis of ASD in the classroom. However, he has a nephew with a nonverbal form of ASD and this has prompted him to read a couple of books about this disorder. His perception is that students with ASD may be less talkative. However, the stories of other participants have clearly described how students with ASD are not always less talkative.

Lenny is a Caucasian male with 12 years of teaching experience in the College of Science. He explained how it can be difficult to know whether or not a student has a disability. So, we’re always trying to get them to talk to us. So, certainly [students with] ASD probably would be shyer than most. So, all I can do throughout the semester is encourage the students to use my office hours. It’s hard to tell whether they have a disability or if just [subject] is too difficult for them. So, once I get to talking to them and see how they are working through or unable to work through problems, only then can I get where they are.

Lenny added his perspective about how students with ASD may be feeling. Well, I’m going to my understanding of autism spectrum is that people tend to keep to themselves. So, just on that, with that knowledge, I would say they will shy away from social interactions with professors and students. So, you have to be sensitive to what they’re thinking, and I can appreciate being shy. When I was a student, I never, rarely, asked questions. And, [I was] terrified of my professors. So, now that I am in that position . . . I’m pretty easy on my students. So, I can look at things from their point of view, too.

Lenny’s competency in his knowledge of ASD while working with students with ASD in a postsecondary setting based on the adapted VCU rubric is at the “novice” level. He has not had any formal training in ASD, and he has not worked with a student who has officially disclosed an ASD diagnosis. However, he has had some legal training related
to people with intellectual and developmental disabilities which is an area he is interested in learning more about. In describing this population of students, he used words such as “shyer” and “keeping to themselves,” which are not technical terms to describe a disability. Additionally, he offered his viewpoint about how students with ASD may be feeling in the classroom based upon his own personal feelings in the situation. Because ASD is a developmental disorder, one cannot necessarily draw conclusions by comparing typical behavior patterns to atypical behavior patterns.

Although data from Lenny’s interview was included in this study, there is less data from him compared to the other participants for two reasons. First, Lenny was my first interview participant and thus I didn’t yet have accounts from other participants to guide my impromptu assessment of possible follow-up questions or other areas to explore that would have surfaced more meaningful data. At the beginning of the interview, Lenny spoke about “reasonable accommodations” but not specifically from a social skills context. Hence, the usefulness of the data provided by this participant was limited in terms of his considerations of students with ASD. Yet, the fact that his initial responses focused on accommodations further illustrates my reasons for describing him as having a novice level of preparation to engage students with ASD in his classes. Later in the interview, Lenny discussed both the course concepts that he taught and the strategies that he used with the students in his class. With the benefit of hindsight, these dialogues could have been redirected sooner. Even so, it is doubtful that much data specific to the social skills support needs of students with ASD would have been gleaned, as Lenny seemed to struggle to articulate his perceptions about the experiences of students with
ASD in the classroom when answering questions. In contrast, Sal’s more advanced competence was evident in how he communicated the importance of engaging students in a manner consistent with their current developmental status:

But, also understanding that everybody participates differently. I know personally, for myself, I’m not very vocal when I’m in classroom settings. I like to take everything in, listen to what other people are saying, and kind of contribute where I feel I can contribute. But, mostly I’m a listener. I like to get used to an environment first before I openly contribute, I guess. So, understanding everybody, even people with or without autism, go about it.

Sal used a personal example to show that he is empathetic to students who struggle socially in the classroom environment. He stops short of stating that students with ASD would feel similarly to him, but he appeared to make the point that when faculty structure classroom activities, they should take into account the different personalities of students when seeking to understand why students behave a certain way socially. In addressing how to help students who need support, such as students with ASD, to become more involved in classroom activities, Brooke offered a couple of strategies.

I’ll do things like where we have to get up and move and it might just be if it’s everyone over here and one student across the room I might say, “Come on over here because I am going to be facing this way to have this conversation.” Or, I might break up the whole group. So, “We are going to break into 3 groups and count off and 1s, 2s, and 3s,” and show them where to go.

Sal agreed that putting structures in place can help students with a wide range of social skills, such as students with ASD, grow more comfortable participating in classroom discussions.

If they’re not responding just prepping them for success. So, I catch them on a day and I know I’m going to talk about something, “Hey, later in the lecture we are going to talk about this. Here’s the topic. I really want to hear from you on this. So, raise your hand [and] check in with me about halfway through. Let me know that you are comfortable sharing out.”
Celine noticed that a student who displayed ASD traits and was struggling to communicate in the classroom felt more comfortable talking with a smaller group of students. Even so, she expressed her eagerness to learn more about how to help these students be integrated into whole group classroom activities more successfully.

The class itself wasn’t that large. However, it was large enough that when one spoke as a student, I think it was a little bit, it could’ve caused anxiety. In smaller groups, especially very small, like 2 or 3 students, I noticed the student opening up more . . . I think I could’ve facilitated [whole group activities] better. Going forward, I would like tools on how to involve students who perhaps are used to not interacting with students as well, and they’re out of their comfort zone, and yet they’re vulnerable enough to be in a class. So, I would like to know how to incorporate them better, how to make it easier for them to open up, not just in a smaller group, but in front of an entire class, and to volunteer to state their opinion, to participate.

Celine’s competency in her knowledge of ASD while assisting students with ASD in a higher education setting based on the adapted VCU rubric is at the “novice” level. She has not had formal training in ASD, but she has researched information about the topic on her own. She has worked with a few students who voluntarily disclosed their ASD diagnosis to her. It is possible that her personal experiences may influence her interest on this topic as well. She has a son with a chronic medical condition that impacts his learning in the classroom. Her son discloses his condition to his classmates each year in order to make the space more comfortable for everyone. Celine wishes to provide a similar space to the students that she works with in her classroom.

At the end of the day, whether students with ASD demonstrate talkative or quiet communication patterns, even with the best measures in place, communication may still be a struggle. Celine detailed an example of a student who was motivated to participate
in classroom activities despite his ASD diagnosis, but his behavior changed over the course of the evening class.

I had a student [with ASD] in [class] more recently, and when he would come to class I felt like because the class was so long, at least a couple of hours, that in the beginning he had an easier time kind of following discussions and paying attention and perhaps even participating a bit. But then, as the evening wore on, I noticed just from my perspective that he would kind of rock a bit, or I don’t know the terms, but his hands would move. And, I almost thought I noticed he was whispering to himself a little bit, almost like a child would get tired toward the evening, and maybe some self soothing. I don’t know. That’s what I noticed from where I was standing, and I noticed a shift in his involvement, in his presence, in his focus in the class . . . and of course for me this is such a steep learning curve on having a student not only come forward and introduce himself even before the course through email, stating that he has this, I don’t know if I’m supposed to say, disability or this condition, but then also willing to sit in the front row and participate. And so, I noticed that he was attempting very much to be involved in the class. But then, in my opinion, just from what I saw, that became more difficult as the evening went on.

**Variance in conversation skills.** Students with ASD often struggle to initiate conversations with others (Cullen, 2015; Weiss & Rohland, 2015). Participants in this study discussed their observations of the various levels of conversation skills displayed by students with ASD or who presented with symptoms of ASD. Brooke explained how navigating a conversation may be complex for these students.

I could see it would be a little bit easier for a student with ASD to maybe understand some roles that we have. So, “How do I ask a question? What sort of topics are we going to talk about?” Those would be more clearly defined in the student-professor relationship than they might have with their classmates . . . on the other hand, it could be that sometimes when someone [is] in a position of authority, that could be daunting. Or, you might, especially, when some people with ASD have kind of inflexible thinking. And so, if you said something one way, but . . . “We have to change that assignment.” This could lead to more friction than they might experience with their classmates who may not set up the rules.
Brooke’s comments are in agreement with the studies that concluded with mixed findings. On the one hand, a study by Hees et al. (2015) found that students with ASD described struggling with one-on-one conversations with professors. However, in a different study, Gobbo and Shmulsky (2014) found that students processed ideas more productively because of the professor-student relationship. These findings were based on interviews with instructors who had experience teaching this population of students.

I asked participants in this study to describe how students interact spontaneously. One part of the communication process that came up during our discussions was the conversation opener. Participants described some of the specific situations that have played out with students. For example, Sal described that these experiences for students with ASD may not be all that different from neurotypical students.

Definitely at the start, everyone’s coming in. They’re greeting each other going through those formalities of, “Hello! How’s your day going?” Usually, it’s with someone you are familiar with, but that’s all of us. We are not going to just greet strangers. In my opinion, it typically is somebody they feel safe communicating with . . . before and after class it would just be those general, “Hey! How’re you doing?” “Hey, great! I’ll see you next week.”

Martin stepped in to directly assist a student with a conversation, “I sort of equate lack of social skills or being overwhelmingly introverted with as being correlated with spectrum traits. I have tried to bring other students into conversations randomly with people somewhat near them.” Martin used a non-technical term “introverted” to describe his perception of the social behavior of this population of students in the classroom. His view is similar in this way to Lenny’s perception that students with ASD display less verbal communication. Again, we have seen other participants share examples of students with ASD who demonstrate talkative behavior patterns. Annie had taken the
initiative to engage students socially as well, “I always ask other people to interact with them [students with ASD], because always the beginning of the conversation is so abrupt.” When reflecting on this statement later, I was uncertain if she meant asking neurotypical students to interact with or without disclosing that the student had ASD first. She described one spontaneous conversation that occurred with a student outside of class while walking with another student.

One time, when I met [a student] on the campus, I was with his classmate. And, he came to us and suddenly he said, “Why are you talking about me?” And, we were like, “What? No. We aren’t talking about you!” . . . the beginning of the conversation is always weird. At that point, people stop, “What is this?” It’s weird . . . as a conversation opener.

Annie emphasized how conversation openers can possibly make or break spontaneous interactions with others.

I think the skill to start the conversation is really important for them to acquire. So, how do you start the conversation without [being] absurd . . . I think successful experiences. So, once he noticed that if he does this, this begins [a] very successful conversation or enjoyable conversation. I think he becomes confident and he tries to begin conversation spontaneously. But, if you [have a] failure experience, bad experiences piled [up], I don’t think he will be motivated spontaneously . . . I think conversational opener is really, really important. Even if it’s formulaic, that’s OK. Most of our conversations are formulaic, especially at the first meeting. So, that’s [the] thing they need to acquire, I think.

It seems reasonable to think that if students with ASD successfully initiate a conversation, this could increase the chances of the student initiating conversations in the future. However, beginning a conversation does not guarantee that the conversation will be sustained.

I asked participants in this study to describe why students with ASD may connect with others in the classroom spontaneously. Participants shared a wide range of
situations that they have witnessed. For example, Lenny stated about his students in
general, “Few of my students talk to each other, before or even after class . . . they’re
very quiet. I’ve noticed they have gotten quieter in recent years. I attribute it to iPhone
and all that.” Martin made a personal connection with this question as he offered a
perspective about why students might connect with one another.

I think physical proximity is generally the most common thing. If people sit in
the same places every day, they tend to start talking to the people around them. In
a smaller class, there’s usually a couple of students who show up very early. And,
if they’re the only two people in the room, they’re likely to chat. But, yeah, it is
sort of a weird thing. I’m like imagining myself as a student, somewhat
introverted, and [I did] not talk to someone unless they talked to me first. So, it’s
hard to answer this question without having sort of a some strong personal bias.
Like, well, why wouldn’t I try to talk to someone before class?

Brooke shared her thoughts from the perspective of graduate students, a population that
she teaches.

Well, I think that very much like other friendships, there are connections that
students make. Maybe they met during orientation. They were part of a group
there. So, they have some sort of connection. And so, that might lead to
spontaneous social interactions in the class. I am trying to think, again, not
having had a student disclose it to me in higher ed., I can’t think of a concrete
example of a situation where a spontaneous social interaction happened between a
student with ASD and another student. But certainly, spontaneous social
interactions I see, a lot of them [are] in another class together, and they were
talking about the other class. So, since I work with graduate students . . . their
social connection is through other classes. They don’t tend to necessarily hang out
after school. They’re kind of spread out geographically and that
seems to be the connections. So, that students with ASD would have that sort of
connection. “What was that about that assignment?” [or] “Did you get that
email?” That sort of thing.

Martin agreed that students seemed to be motivated to connect based on a shared
academic goal, “If there’s a particularly hard assignment or something due, then they are
more motivated to talk to each other right before or right after class to try to compare
notes.” Although the perceptions expressed here seem to make sense, they are ultimately rooted in neurotypical behavioral patterns. Sal observed that students with ASD do not necessarily reach out to others for assistance.

I don’t see a lot of help seeking behavior that you might see from their peers. Like, if you don’t understand something, “Hey, can you explain this to me?” I don’t see that help seeking behavior with peers as much.

The absence of help seeking behavior may be due to impairments in executive function. A student with ASD who struggles with executive function may not be able to make certain connections, such as using previous experiences to control one’s actions and seeing how this could guide one’s conduct. These difficulties would limit this student’s ability to think creatively when interacting in social situations (Research Autism, 2014). Sal emphasized that for students with ASD, their conversation skills are usually quite limited.

I have not seen a lot of sustained conversations socially in, during, or after class . . . very rarely will they initiate a social conversation. It might be, “Hey, how are you doing?” It is up to the other person to ask, “What did you do this weekend?” or “Are you doing anything fun after class?” In rare instances, I have seen students with autism maybe bring up an area of their interest that the other person might not be interested in. And, because if it’s typically the person they feel safe with they’ll listen and say, “Oh, that’s cool.” and politely end that conversation with that person.

This one-sided conversation is an example of a communication pattern that Tanguay and Lohr (2016) would attribute to ASD. People with ASD are often intensely focused on a particular subject of interest to them. Two other participants reflected on their classroom experiences with this topic. Annie shared how this tendency of students with ASD to have particular interests had complicated conversations with other students.
Although they need help from us, sometimes they cannot deal with the relationships with classmates. So, in our class because it’s the nature of the language classes we have to work or let them work within a pair or with groups. Sometimes, they insist on their preference or their interests too much with others, very stubborn. So, that kind of thing happens during the class.

Sal expressed similar thoughts, including how others could have responded to this behavior.

I don’t want to stereotype students with autism all into one category. But, I think the common thing you see with people with autism is particular interests in certain subject areas or certain topics. And, if it’s not about that topic, they can be very rude, or it can be perceived as rude. They don’t want to talk about what you might want to ask them to talk about, or they might be overly excited and go on forever and not necessarily take turns in those exchanges with other people.

In a study carried out by Gobbo and Shmulsky (2014), the authors pointed out that students with ASD can struggle with ToM, a process that allows them to understand another person’s perspective (Tanguay & Lohr, 2016). Additionally, the rude behavior that Sal described could be linked to disruptions in executive function, a process that helps to control impulsive behavior. Taking these factors into account, it is reasonable to see how these behaviors Sal described could occur.

Participants in this study expressed different ideas about how to address the conversation dynamics that occurred. Brooke detailed a specific strategy for managing conversations between group members that could provide more structure for all students, including students with ASD.

I do a lot of collaborative work. I do a lot of get into groups and talk about something and then share it back out with the class. And so, I’m trying to be better about assigning roles: someone who is taking notes, and someone who is monitoring the time and that sort of thing. So, that way, there is a clear negotiation of those roles in the group. Whereas students who do not have ASD don’t necessarily need that negotiation. Because people might just jump in, say, “I am going to do this or that.” If you have ASD, or come from another
background where you just don’t jump in like that, you might not be included in
the discussion in the same way.

Brooke’s suggestion to designate roles for group projects lines up with a suggestion made
in a study by Gobbo and Shmulsky (2012). In the article, the authors discussed the
importance of clearly describing or modeling the group process as well as assigning roles
as a way to promote appropriate social interactions. Sal broke down in detail an approach
which summarized well how understanding the communication challenges of students
with ASD could benefit everyone involved in these types of social situations.

I have plenty of experience and training in how to interact with people with
autism, and also how to, I guess, train them to develop social skills. So, in terms
of knowing how to prompt them for responses or understanding, maybe some
types of behaviors or social communication challenges they might have. I think
having knowledge of that just provides a different approach of interacting [with]
someone. And, if it’s an exchange where I need to get information out of that
somebody, I know how to prompt them through it to exchange that information
with me. Whereas other people might not know how to go about that exchange . . .
I think when you look at communication and how it goes, you have to have joint
attention talking about the same topic, and then you need to have turn taking
exchanges. Oftentimes, students with autism don’t follow those rules. And,
either from the professor side, or even if I am socializing with somebody, if
someone I am interacting with breaks those rules, and it’s due to complications of
autism, I know how to go back and do conversation repair. Whereas other people
might not and just would abandon that conversation one or two turns in. Whereas
I know how to repair the conversation and have it go four or five or six exchanges
until it comes to a conclusion. Whereas other times it might just be this abrupt
end.

According to Tanguay and Lohr (2016) young children with ASD may not display
specific behaviors due to disorders related to social communication. Some of these
include turn-taking abilities, discussing a topic of the other person’s choice, or initiating
conversations simply to be friendly. It makes sense that if these abilities were minimal or
absent, a sustained conversation between two or more people would most likely not naturally occur.

**Peer to Peer Interactions**

Although faculty often lecture on academic content within a college classroom setting, peer to peer interactions may be incorporated to help process this information on a deeper level. For students who may have varying levels of social skills, it may feel overwhelming to not only focus on learning content, but also to simultaneously engage in social situations that are incorporated into academic activities. The participants in this study discussed their observations of social exchanges between students with ASD, or students who display ASD characteristics, and other peers in the classroom, and they described strategies that they have used to address the complex social circumstances that were present.

**Educating students about ASD.** Many of the participants in this study felt that it was important to educate both students with ASD and neurotypical students about how to work with one another. Joanna offered this view of the postsecondary social landscape that can exist within the classroom.

> The autism spectrum is a big spectrum. So, I would say probably at [university] and in higher education in general, you’re going to have the more high functioning students . . . the other students have to manage this person’s obliviousness to social cues and tendency to talk too much.

Annie described an example that illustrates the social disconnect that can exist for students with ASD when interacting with peers.

> I really want them to participate in any types of social interaction with other students. Sometimes, because of their features they don’t cooperate with us . . . they don’t like to put away things . . . I always say, “You know after, putting
away things, that’s part of the training. It’s a part of the thing. You have to cooperate with others and put away things.” But, until the end, he didn’t.

One strategy that Annie has tried to encourage collaboration between students with ASD and neurotypical students is disclosing the disability to the other student with the disclosing student’s permission.

I always have some struggle if I should disclose his information to the classmates who will work with him. That’s a kind of struggle. So, I ask the person if I can disclose his information to the classmates who will work with you. And, if he says “yes” then I will disclose. Imagine it, you work with a person who is weird and apparently has some kind of disability. But, if you don’t know how to deal with it right, it doesn’t work well . . . and, I explain what it is, and how he or she should work with [the student] with the disorder.

Joanna offered a strategy that promotes a strengths-based approach to educating students who react negatively to the atypical social interactions of students with ASD.

I think other people in the classroom [think], “I don’t want to deal with the person . . . he’s talking too much, he’s invading my personal space, he doesn’t understand when to stop,” that kind of thing. So, It’s hard. I don’t have a solution for that really except education. Especially educating the neurotypical peers to look for the special qualities, the special positive qualities behind the annoying . . . behaviors because they’re behaviors, right?

Annie and Joanna’s comments bring up an important question about how it would be best to integrate students with ASD into the social environments of the classroom. Would it be more effective to disclose the disability, with permission, to select neurotypical peers who would work with students with ASD, or would a more appropriate approach be for faculty to acknowledge more generally the diverse social skills that students bring as a way to promote inclusion? Sal shared thoughts about how providing opportunities for students to work with students with ASD can change their perception of this population of students.
I have seen it positively. But then, if you assign group work, I have also seen, “Oh, great. We have that guy or that girl in our group. How are we going to go about doing this?” So, the persuasion part is hard and I don’t always want to put it on one student or group of students who I know are warm and welcoming because that person is going to leave my class and enter the community one day. And, I want everybody to have the experience of interacting with someone with autism or interacting with people with disabilities. So, they can feel welcoming. I think the easiest way to avoid something feeling weird is to have had experience, put a face to it. I think there’s a lot of instances where if you interact positively with someone with autism you view it differently.

Sal desires to use these situations as teachable moments for all students. However, there are a couple of studies that discussed how it may be best to group students with ASD with others. In these studies, it was suggested to pair up students with ASD with partners or groups that were complementary with each other, such as considering personality and skills that group members would bring. One study even suggested keeping the group the same throughout the semester (Gobbo, Shmulsky, & Bower, 2018; Shmulsky & Gobbo, 2013). This may be important to consider, as Annie described the mixed success she has seen with student interactions in the classroom.

So, if I know [about the disability] in advance, I can take care of it. And, I can talk with the certain students who can deal with that. Some people are very accepting [of] students who have autism or ADHD, but some students are not. Even though I explain [it] to them, some students don’t accept it . . . some of the students can’t understand. They think that they are selfish, and they’re very stubborn, but it comes from [the] disorder. And, one time, some of the students, their dreams were to become [a] teacher. So, I said, “In order to become [a] teacher in the future, this is a really important opportunity for you to [work with] this kind of people. Because once you become the teacher, you can’t refuse students. That’s our fate as a teacher. So, you have to be accepting people. And, maybe you become more human beings after finishing this experience successfully.” So, sometimes it works. But, even though they understood, sometimes it doesn’t work. The head is OK, but body or behavior isn’t . . . but at least having knowledge, I think, is a gate.
Joanna offered a couple of more thoughts about educating students and how to help them make a personal connection with the topic of ASD.

So, to be honest, I think that there’s two things that has to happen. One is teaching the autistic person to adopt neurotypical modes of interaction as much as possible, even though they don’t understand it on an intuitive level to connect social cues with certain expected behaviors of them. But also, teaching people who are not on the spectrum, who are neurotypical, about what autism looks like so that they can say to themselves, “OK. This person’s not trying to be annoying.” But also, teach them to look for the strengths of that person . . . in my particular situation, since I actually teach teaching and I have a whole section on teaching atypical students, I try to get students to talk about their experiences with autism. So many people have a cousin or a nephew or something. And so, I make that a part of the classroom, and I use my expertise to frame their personal experience to kind of educate everybody, “Oh. This is something that’s very much a part of our society. So, we should understand what it means to be neurotypical and what it means to deviate from that.”

Joanna’s explanation highlights the fact that both neurodiverse students and neurotypical students should make adjustments to accommodate the other in these types of social situations. This finding is definitely something faculty should consider since McKeon et al. (2013) discovered in their study that approximately 85% of faculty observed atypical behavior from students with disabilities, including students with ASD, either “occasionally” or “frequently” as noted on a survey. Gobbo and Shmulsky (2012) suggested addressing inappropriate behavior and directing the student to a replacement behavior instead. If needed, the professor can create a cue system with the student to issue reminders about adjusting a particular behavior. Also, the authors advocated for addressing the class as a whole as a way to educate neurotypical students about how all students bring a diverse set of skills related to social expression.

**Relationships with other students.** The participants in this study detailed experiences about the connections between students with ASD, or who displayed
symptoms of ASD, and neurotypical students in the classroom. Celine observed that although students are often apprehensive about how to respond to students who interact socially in atypical ways, when students with ASD disclose their disability, it can reduce the discomfort that may be palpable in the environment.

I wouldn’t say he had many friends. However, I felt like he was more included in class discussions after that was announced . . . by volunteering by default, “My topic is to make employers aware of employees who have autism and here are the signs,” and you know, it was just suddenly known. He might as well of announced it at that point . . . it was refreshing to have a student kind of say it out, as if I have brown hair, to say, “I have this. I am on the spectrum.” And then, it was almost like people could move forward and connect better.

I asked Celine if the other students responded to him differently after it became more obvious that the student had ASD.

It’s been a while and I can’t pinpoint an exact moment, but in my subconscious feeling of how the class went, every class has its own feel, yes. I would definitely say the elephant had been pointed in the room, people were relieved, they were more willing to turn and look and smile and open up and say his name, and include him in conversations.

As mentioned previously, Celine has a son with a diagnosed medical condition. Since specialized staff must attend to his needs during the school day, her son discloses his medical condition to his classmates each school year, as a way to alleviate the tension felt due to the inquisitiveness of his peers. She offered this insight, “I think it might be [that] people are curious, and they don’t know what it is, and they want to know that that person is open and friendly, when perhaps they don’t appear friendly or open just by nature.”
Two of the participants in this study shared how neurotypical students may initiate a social interaction with a student with ASD. Sal detailed how the social encounter can sometimes unfold in the classroom.

The pattern that typically follows is that [a] person goes and seeks out that student [with autism]. So, the person without autism, typically without my intervention or someone else’s intervention, will go out of their way to try and make the person feel welcome in the class. And, that is something which I appreciate and I try to build but I cannot force. Someone goes out of their way to realize this person might be withdrawing. What can I do to make them feel welcome? They’ll say, “Hey, can you come join our group?” And, that invitation says, “I am a safe person to communicate with. Feel free to do that.”

Joanna described an experience involving a neurotypical student who had patiently engaged with a student with ASD outside of the classroom.

One student I had who was on the spectrum in the [name of class], I think other students maybe perceived him as annoying, and maybe not that bright, and I think it would of been difficult for them to want to be close with him. What’s interesting, [a] former student of mine, who I was in touch with, she told me that she became friendly with him, and just was almost kind to him, almost like kind of pity kindness. And, she said that he started trying to contact her too much, and he was not understanding the social boundaries, and that was annoying. But, she was kind. And so, she would continue to interact and chat with him.

Joanna shared an example of how the social interactions between a student with ASD and other students in the class had evolved over multiple semesters.

This is an interesting class because it’s a four-semester class. And, all of the students are together the entire time . . . by the time I had that group, they had already been together for a couple of semesters already. I think that his interactions with the students were pretty kind and they were . . . they had a kind of sympathetic, but slightly kind of humorous approach toward him. They kind of knew he had these issues, but they accepted him for who he was . . . so they were kind, and they knew him, and they accepted him, and they appreciated him, I think, because he was so smart.

It appears that the students who had been in class together for an extended period of time grew in their acceptance of the student with ASD, and they even seemed to view his
intelligence as an asset. Joanna described another situation regarding the student with ASD that not only uncovered his strengths, it also led to positive interactions with the other students because of this experience.

We did a production of Beowulf . . . we decided to act it out in the class. And, he played the main character, the aspie student, and they loved it because he was so theatrical. And, he was amazing at articulating, and he had practically memorized his part . . . they were appreciative, I think, of his eccentricities and intelligent approach to the material.

These examples highlight the complex nature of social settings in the classroom. The social situations that occur can change with the dynamics of a particular class. As Celine mentioned previously, “every class has its own feel.” It is recommended that faculty be willing to assess the particular social needs of the students in each class and learn about strategies that can adequately address these diverse situations accordingly.

Two of the participants in this study recalled examples of students who came to the defense of other students displaying symptoms of ASD. Martin expanded further on the situation with his student who had an accommodation for his challenge “reading social cues.” He explained what happened next after one incident when he asked the student to stop asking questions.

And then, another student in the class said, “Hey, come on. Answer his question!” He asked the same question he asked four times in yet a different way and the student sort of looked down sheepishly. But, overall I could tell there was a lot of discomfort on my part, on the student who interjected . . . and on the student who had self declared he had issues reading social cues.

I asked Martin if he knew why the student may have interjected the way he did.

I think that that student was trying to help me be fair. But, of course, I don’t really know that either. But, I think in general if most people, if they view a behavior that they think is unfair, they have somewhat of a negative reaction to it whether they speak up or not.
A student in Joanna’s class submitted a negative faculty evaluation regarding her treatment of a student who exhibited symptoms of ASD in her classroom.

One of the evaluations from a disgruntled student in my class, that person said that they felt that I had been too hard on the obviously disabled student in the class, and was really critical with me about that . . . there was also an evaluation from the autistic student which was just full of praise, and he came up to me at the end of class and thanked me personally, and it was really nice, very sweet.

Martin and Joanna’s experiences of neurotypical students coming to the defense of students with ASD were an unexpected finding. What Martin stated makes sense, though, because many students are aware of social justice issues. It appeared that these students, despite what their personal opinions may be about students with ASD, felt it was important to stand up to the perceived injustice done against students with disabilities. Although the topic of social justice is important, misunderstandings between students and faculty can happen because, as the examples demonstrated, the participants were actually trying to support the social skills needs of these students. Another point to consider is that even when students have a social justice mindset, this does not necessarily mean that neurotypical students are willing to interact with, or enter into relationships with, students with ASD.

The Impact of Faculty

For students who struggle with the ambiguity of social situations in the classroom, faculty can have a powerful influence on the outcome of these experiences. Faculty should aim to create instructional practices that address the diverse learning needs of students, including their social skills needs. A finding by Ashby and Causton-Theoharis (2012) was that faculty may need to be willing to partner with students with ASD in
greater ways than is normally necessary in order to understand the communication needs of this population. Participants expressed thoughts about how their role could impact students with ASD, or students who exhibit signs of ASD, through their pedagogical methods.

**Professional demeanor characteristics.** Participants in this study described how they could use the natural power differential that exists between faculty and students as an advantage to assist this population of students socially. Celine described how her relationship with a student from this population could be different from how a neurodiverse student may interact with other neurotypical students.

I think there is by nature a little bit of a hierarchy with an instructor because of the power of the grade. Although that’s less, I think, in a master’s program. But still, perhaps peers feel like they’re just working with each other on the same path, while an instructor, at the end of the day, I have requirements that he or she needs to meet, and perhaps that leads to more of a, well, a different kind of dialogue and a different type of interaction.

Joanna explained how she seeks to develop rapport with her students and how this could potentially help all students, including those with ASD, feel more comfortable seeking assistance from faculty.

I have two general philosophies about running a classroom. One is that you really need to adapt to the particular group you have, and the particular students you have, and the other is that as much as possible, it’s important to respond to the individual learning styles of students. And so, I think that the more I am open about responding to those particular needs, the other students might see and recognize that they can benefit from that, too. And, I am very responsive to different students and their needs, and sometimes their personal needs. And so, I try to be as flexible as possible as a teacher. And, I think if the students see my being flexible, usually that will encourage them to reach out as well.
Although Celine recognized her need to learn more specific strategies for working with students with ASD, she described a couple of techniques she might use to promote collaboration with these students.

I don’t have a list of strategies yet, other than being open and not being afraid to communicate with the student, and finding out from them what they need. Perhaps if I was checking in with students throughout the year, to pull the student aside and ask, “How are you doing in the class? How do you feel like interactions are going with your classmates?” and asking that student what can I do to help . . . I think learning as much as we can from students on the spectrum, what they need and want, and making sure that we are open and approachable is very important for faculty.

Celine detailed how she could take the initiative to have discussions with students about their social skills needs. This idea aligns with a finding from a study conducted by Gobbo and Shmulsky (2014). A conclusion from the study was that students with ASD may be able to process ideas more successfully in a one-on-one conversation with a professor because the social relationship is more clear-cut to them. Lenny recognized the fact that faculty play a role in how students perceive how approachable they are. He explained his approach to students in more detail.

Students are reluctant to talk to the teacher. So, all I can be is myself, trying to be friendly and open and have them approach me . . . I try to be as patient and as open as possible. You want me to talk about my personal teaching style? It is to imagine what I would have wanted taught to me when I was in their situation.

Joanna, Celine, and Lenny all realized how they could maximize their influence to create a welcoming and safe environment for students with ASD, and I believe this is an important starting point. The study by Hees et al. (2015) looked at the circumstances under which students with ASD would be most likely to disclose their disability in a higher education setting. One of those situations was if the student felt secure. Even
though students with ASD in this study were most likely to disclose their diagnosis to disability resource staff first, I believe this finding still illustrates the importance of the classroom atmosphere being a safe environment, and this may persuade students with ASD to reach out for assistance. However, the perception of a safe environment may not be enough to encourage students with ASD to take the initiative and seek assistance from faculty for their social skills needs. Sal shared specific strategies for helping students with ASD successfully engage in social situations in the classroom. Since Sal has extensive training in special education and experience working with students with exceptional needs, including those with ASD, it is probable these suggestions are informed by his background.

For me, it’s really about just prepping them for success. I don’t want to add any undue anxiety. I think social situations could be anxiety riddled for that population. I always let them know I’m available to talk if they want to preview information, what we are going to do this next week. Even if I have to give them some notes … like, “Hey, this is what we are going to talk about. Maybe you can add this to the conversation.” . . . and using office hours wisely in working with those students who might need help to prep them for success in lecture.

Sal took the initiative to reach out to students with ASD to prepare them in advance. This idea is consistent with a recommendation in an article by Gobbo and Shmulsky (2012). The authors discussed how creating predictability through a detailed syllabus and schedule can both reduce feelings of worry and help the student with ASD adjust to changes in the course in advance. Although Sal described the benefit of using office hours to assist students, I felt it pertinent to discuss the topic of office hours with a couple of other participants, who felt that the traditional model for office hours does not necessarily work for all students. They shared a couple of modified ways of serving
students that illustrated their openness to meeting students needs in a more flexible format, which incidentally, could also help in a social context. Brooke described a current trend in communication between students and faculty.

It seems that not a lot of students are accessing office hours anymore. So, I’m not really sure, it’s a bit anachronistic where in the olden days, it was the only way you [would] see the instructor. But now, a lot of students do a lot of connections through emails. And so, that seems kind of a balancing act of how are we meeting the needs of students. And again, some students are never going to feel comfortable coming into office hours because it’s daunting, even if you say, “my door is open” and all of that.

Lenny, on the other hand, proposed a different approach to meeting students in a more flexible way, “I’m having my office hours after the class in the classroom there. So, I think they’ll be more comfortable coming up and asking questions. They don’t have to take long to walk to the [department] building here.” The findings from studies were mixed when it came to how well students with ASD interacted one-on-one with faculty. Ashby and Causton-Theoharis (2012) conducted a study involving students with ASD who type to communicate. Some of the students actively reached out to professors to achieve a mutual understanding. However, another study by Hees et al. (2015) found that students with ASD struggled with one-on-one conversations with professors.

Although the participants discussed many strategies to successfully encourage students to approach them with their needs, many of them expressed the conflict that they personally felt discussing a student’s disability more directly. Celine communicated her desire to reach out to students who may need assistance, but she recognized the need to do so in a sensitive way.
So, maybe a strategy or technique could be being more open, putting myself out there, making the first move, trying to communicate. But, I don’t know. There’s a fine line between calling someone out, when they don’t want that. I certainly wouldn’t do anything publicly in front of a group. I would want to make the first moves individually, and trying to keep it general instead of asking, “Do you feel comfortable?” Something like, “How is the year going for you?” I’m open.

Celine suggested a strategy of initiating a meeting privately with a student who may need assistance. This resonates with a thought that Sal shared previously that one way to promote success in the classroom for students with ASD is by preparing them in advance. Because Annie had taught students with ASD before in the classroom, she recognized similar symptoms in another student who had not disclosed a disability. However, Annie shared her frustration about not being able to help a student she approached. Her method was in stark contrast to Celine’s strategy.

I approached him once, “Don’t you have this type of disorder?” and “Have you ever [been] told that you have this one?” He didn’t reply, or he said, “I don’t want to answer about it.” That case, whatever I do, it’s useless.

Annie’s directness may have overstepped the boundary of this student’s right to privacy in this situation. The Family Educational Rights and Privacy Act of 1974 (FERPA) is a federal law that is designed to protect a student’s privacy related to education records (U.S. Department of Education, 2011). It is ultimately a student’s choice whether or not to voluntarily disclose a disability to others in a higher education setting. The student’s resistance toward Annie most likely signaled that he was not comfortable discussing his personal situation with her. Sal, likewise frustrated, shared an example about how a discussion with a student about investigating additional services did not go well, even though the student had disclosed a disability.
So, how we respect their privacy and then their own decision making. It’s hard to seek out people with disabilities, and I’ve had it be a very contentious conversation with a student before that, “Hey, have you ever considered going to the [disability resource center]?” and that really not sitting well with them. So, even though they had disclosed they had a disability, I can do as much as I can do.

Lenny felt that awkward feelings would arise if he tried to address social situations individually with a student.

I can’t say, “Listen, I see you have some problem.” . . . “Why don’t you speak up more?” . . . I don’t feel I can talk about their social skills needs . . . “You should speak up more in class.” I can’t do that. I shouldn’t do that. I am putting myself in your position. I would be embarrassed.

Brooke added her thoughts about the dilemma of approaching students who may need social assistance in the classroom. She expressed in detail an example of how this may play out in a classroom environment.

It does make it difficult when you suspect but don’t know, but you are not allowed to ask, that would be inappropriate. So, that almost, that is probably the most challenging. It’s like, OK. I see that you are making these moves in class that are turning your classmates off, but I can’t have an explicit conversation with you that these are the things that are happening. I don’t have that opening. And so, in those situations, I think it’s trickier. So, all of those strategies that I use, would be the strategies I would continue to use, but then also making sure that I am modeling appropriate interactions and giving some guidance to the whole [group] about how we interact, making sure that the social parameters are clear.

Joanna agreed that approaching students directly may not have positive results. She suggested a more general approach to addressing the needs of students who do not approach faculty.

It’s awkward because you don’t want to call people out, right. So, it would be awkward also to confront someone individually and say, “You seem kind of autistic. Do you need help?” So, I wouldn’t do that . . . maybe I could say something, “I know a lot of students are suffering from mental health issues, or anxiety, or a whole range of issues.” I might not mention the spectrum . . . maybe I could give them a list of resources and give them to everyone. So, that might be a way.
As mentioned earlier, the ADA and Section 504 of the Rehabilitation Act are laws that govern services that are federally-funded, such as services in higher education institutions. These laws protect students with disabilities against discrimination, and the services offered must be accessible to these students (Equal Employment Opportunity Commission, 2005; PACER Center, n.d.). However, because it is important for faculty to respect the right of a student to choose whether or not to disclose a disability in a higher education setting, it places restrictions on how faculty reach out to students whom they recognize may need additional assistance. Although I am not suggesting in any way that any of these laws or educational practices be changed, I merely point this out to highlight the fact that the options for how faculty can offer assistance for the social skills support needs of students with ASD are limited.

**Classroom culture and management practices.** Some of the questions I posed to the participants in this study targeted pedagogical practices from a social standpoint. Faculty generally agreed about the importance of addressing diverse learning needs, but they had different thoughts and preparation for managing social situations specifically. Brooke emphasized how all students are divergent in some way.

This is something that I am trying to work on, be a bit more intentional about. Even though I have not had students who have disclosed they have ASD, but just recognizing that all students kind of have different backgrounds they are bringing into the classroom, culturally and ability and temperament wise.

Annie believes that it is important to communicate to the students in her classroom that everyone struggles in some way in order to promote an environment that helps students with disabilities, including student with ASD, feel more accepted.
I always said if you need help . . . I’m always welcome to help you. That kind of thing I always talk [about] at the beginning of [the] semester. And, the students feel like, “Oh, this is [an] accepting class.” . . . even though sometimes they don’t tell [disability resource center] about [the] disorder or disability but tell me . . . some people tell me, so that makes my work easier.

Joanna shared about her approach of setting clear expectations for all students, including students with ASD, about behavior in the classroom.

I think that that we have a certain set of expected behaviors of students in the classroom. And, I think that for the autistic student, they might not understand what those are. And so, I think articulating those, but to everyone, right? So that, it’s a reminder to everyone.

Sal felt that faculty should establish expectations for all students, to highlight the fact that students bring varying levels of social skills to the classroom environment.

I think one thing I try to do, and I hope that works, and that others I would recommend could do, is establish norms in the classroom. You don’t want to out somebody as having a disability, or disclose confidential information, but just propose that everyone communicates differently.

The ideas the participants proposed are consistent with findings by Gobbo and Shmulsky (2014). The authors suggested that faculty can set the tone of the classroom at the beginning of the course and promote an inclusive environment by acknowledging the differences that students have. The same authors discussed the topic of diversity in another article and offered the following explanation to propose to students, “We’re all going through the same course, but we’ll all do it differently” (Gobbo & Shmulsky, 2012, p. 42).

Besides putting structures in place to manage the social interactions that occur in a classroom, participants in this study shared about the culture of the classroom socially. Participants offered differing viewpoints about their classroom culture. Martin’s
classroom activities do not encourage very much social interaction in his lecture-styled courses. He elaborated in more detail about his classroom culture and how it influences social situations.

I also don’t know that, at least from a [subject] perspective, in a normal [subject] course where the skills you’re supposed to get are [subject] skills, I don’t know that I would ever encourage a student to try to improve their social skills. I don’t think I’ve even assigned any small group projects at a university level. So, all of the social situations that I require are very much in the classroom and for very short periods of time with very little, let’s say, it might be group quizzes or something. If you did it all yourself, or if you worked on it yourself, or didn’t work with your group, I would never penalize points for it. So, I am never going to motivate them from a content or course perspective to use their social skills.

As noted earlier in the study, the VCU Autism Center for Excellence offers evidenced-based trainings that are designed to meet a standard of competencies that are outlined in a rubric. The rubric has been adapted to measure the knowledge and skills of the studied participants related to the social skills support needs of students with ASD in college classrooms (Table 2).
Table 2

Faculty Level of Instruction in Social Skills Development

<table>
<thead>
<tr>
<th>Level of Competence</th>
<th>Instruction Includes Social Skills Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novice</td>
<td>Rarely incorporates practice opportunities.</td>
</tr>
<tr>
<td>Progressing</td>
<td>Normally incorporates practice opportunities but less consistently.</td>
</tr>
<tr>
<td>Experienced</td>
<td>Normally incorporates practice opportunities.</td>
</tr>
<tr>
<td>Advanced</td>
<td>Always incorporates practice opportunities. Able to coach faculty.</td>
</tr>
</tbody>
</table>

Note. Adapted from VCU Autism Center for Excellence “Performance Standards and Evaluation Criteria Rubric for Special Education Teachers”

Martin’s competency in his social skills instruction of students with ASD in the college classroom based on the adapted VCU rubric is at the “novice” level. He previously explained he helped students engage with other students in conversations in the classroom. However, besides his group quizzes, his lecture-style courses provide limited opportunities for social interaction. In this example, Martin compared the level of social skills needed to the subject of the course. Should the content of a subject determine what social skills are necessary? If students interacted more with one another, despite what subject they are studying, this could potentially increase mastery of the course content.
For example, if students participated in the group quizzes and had opportunities to discuss concepts with one another, this could not only encourage growth around social skills, but it could help students learn content using peer learning strategies (Boud, Cohen, & Sampson, 2013). Lenny explained that although he encourages the students to ask questions, his course activities parallel Martin’s courses from a social standpoint.

For example, Lenny shared about a conversation he had with a colleague.

That colleague I was talking with a couple of days ago … she has classroom activities. She has quizzes. I said to her, “There is just not enough time to give quizzes.” So, I don’t give quizzes. She said her quizzes are group activities the students can talk to each other [and] work on the problems together. That’s a good idea to break the ice at least and make them feel more comfortable. But so, unfortunately, I don’t have these class activities. I just lecture to them.

Lenny’s competency in his social skills instruction of students with ASD in a postsecondary education classroom based on the adapted VCU rubric is at the “novice” level. Although he welcomes students to participate in class discussions, his classes are not structured in a way that provides many social interaction opportunities due to the lecture-style focus of his courses. However, Lenny recalled a situation that stood out regarding a previous student with a hearing disability, who also showed some ASD-related symptoms, and how his presence influenced the environment of the classroom.

I don’t call on students too much to answer a question, but if there’s more of an open discussion between me and the class, then I could see conceivably actually call on a person who I knew had [ASD] . . . I’m sure that’s the appropriate thing to do. I think I would let them come forward . . . I am remembering another student from a few years ago. So, I’m not sure if it was ASD; he had a hearing disorder. So, he had a hearing aid and some kind of amplifier. And so, he was actually quite surprising because he asked the most questions of anybody else in the class . . . it got me since he was actually asking questions. I would interrupt myself more often and call on students from the class. So yeah, when students asks questions it makes it easier for me, loosens me up, and certainly get a better
idea what I said clearly or not clearly. So, I really encourage when they do. I would ask for questions more.

In this example, Lenny described the high level of interaction this student engaged in during class. Although Lenny previously indicated his perception that students with ASD would be “shyer” than other students, this student did not fit the description of “shy” since he was asking questions. He was surprised at the level of interaction this student, who exhibited symptoms of ASD, displayed in the classroom. Also, Lenny seemed a bit apprehensive about how to engage with this population of students in the classroom. He stated he would allow them to participate in class discussions, but he thinks aloud about what the right thing to do would be. Joanna’s classroom culture promotes more social interactions in the classroom. She explained how she sought to increase learning in a student with a diagnosed disability, such as during whole group discussions.

Sometimes, you have to just individualize your instruction. So, in some cases, I’ll do that in the class, where I’ll work with one particular student . . . I have a student with ADHD in the classroom, or ADD, and he tends to get very distracted. I will call him out specifically, and I will ask him, “What do you think of this?” And, I think he appreciates it. He sees me trying to help him. And, he then came up, actually, and told [me] he had just been diagnosed. I’d given him an alternative to doing a speech by making a little video. So, I do a combination of not allowing things to get out of hand in class and working privately with the students. And, maybe some students find that offensive or abrasive. But, that’s the way I do it. I haven’t ever had a complaint, I mean from one of the students who was on the spectrum, or who had any kind of disability.

Although Lenny seemed unsure about how much to engage with students with ASD during whole class discussions, Joanna takes a more proactive approach in challenging students with disabilities, including those with ASD, to grow academically and socially during these types of classroom activities. She even suggested working individually with
these students. Celine detailed another example of a whole class activity, and how she tried to integrate a student with ASD.

I tried to include the student in class discussions and treat the student no differently than anyone else, which is difficult to do. And, I don’t know if I did it effectively . . . I’d like to think that I brought the student in and helped him that way. The student didn’t always volunteer to participate, and I believe I tried to include the student more. So, perhaps that was helpful.

Celine’s competency in her social skills instruction of students with ASD in a college classroom environment based on the adapted VCU rubric is at the “progressing” level. She has taken steps to incorporate students into classroom discussions, and she sees the value in reaching out to students who may have ASD proactively to help them feel more comfortable seeking assistance. It appears that Celine’s approach is focused on equal treatment of students in her classroom, which would be congruent with her desire to promote an inclusive environment, but I believe Joanna’s example demonstrated that students with ASD may also need specialized instruction, and this could appear to set them apart in the classroom in a constructive way. Joanna included the student in classroom activities, but she adjusted her teaching style to meet the specific learning needs of the student with ASD, including working individually with the student as needed. The idea to individualize instruction is addressed in a study by Gobbo et al. (2018). A finding from this study showed that assignments can be individualized by allowing the student with ASD to complete it around a high-interest topic, since one of the characteristics commonly seen in students with ASD is an intense focus on a specific subject of interest (Tanguay & Lohr, 2016). Although this may not always be feasible in courses that faculty teach, this is an example of how instructors can use a strength-based
strategy to increase success in students with ASD. Joanna even received positive feedback from a student with ASD when she did not allow the student to underperform.

There was a student in the class who I’m pretty sure was on the spectrum, and he was the one who disclosed a disability to me. I, actually, later found out through a mutual former student of mine, who’s also was friends with him, that he was autistic . . . I didn’t give him the opportunity to underperform below what I believed his kind of capacity was. So, I was demanding on him in class. Like, if he said something, I would demand he use critical thinking, that he backed up what he said with evidence. And, in some cases, he wasn’t making certain connections, and I would, actually, in the class walk him through the process of being a more critical thinker . . . he came up to me at the end of the class and was extremely appreciative. He said that he had never had a teacher who had done that, and he had learned so much.

Joanna’s competency in her social skills instruction of students with ASD in a postsecondary classroom setting based on the VCU rubric is at the “advanced” level. In addition to setting high expectations for students with ASD, she has taken steps to establish expectations for behavior in the classroom, and she individualizes instruction as needed. She previously spoke about the importance of looking for strengths in students with ASD. There are a number of studies included in the literature about students with ASD working with a mentor or coach to increase their social skills. For example, in a study conducted by Koegel et al. (2013), the authors found that for students with ASD who met with a coach on a weekly basis, they saw positive changes in social skills. Similarly, in another study led by Lucas and James (2018) of a mentorship program, the researchers discovered that students with ASD desired to improve their social skills, and the mentorship experience resulted in a sense of connection on campus. Joanna was able to find a way to provide instruction to the class as a whole while providing more direct intervention to students with ASD. Her strategy appeared to positively impact these
students in the classroom, just as individualized approaches have been successful in many mentorship programs on campus.

The previous examples represented how when faculty are willing to provide additional supports to help students with ASD as well as other disabilities, they can flourish academically and socially. The participants in this study elaborated on the learning difficulties of students with ASD that could impact their social experiences in the classroom. Joanna offered her insights based on personal experiences with her son’s middle school academic and social struggles due to his ASD.

I can tell you a little something about my son whose very bright and is twelve, and he may carry some of these issues forward to higher education . . . so one of [the] things I notice is that he does not understand the assignment. He doesn’t know what’s being asked of him. And, he also doesn’t know to ask to clarify. So, he might misunderstand something. And, I think that is probably something that students on the spectrum will have trouble with.

Annie has observed how when students misunderstand directions given by the instructor, this can contribute to social difficulties for students with ASD.

When I give assignments, they sometimes don’t understand what I ask of them. So, I think maybe because they are not good at seeing things from others point of view. So, it’s very hard for them to interpret what other people want them to do.

Annie’s competency in her social skills instruction of students with ASD in a college classroom setting based on the adapted VCU rubric is at the “experienced” level. She has encouraged students with ASD to work collaboratively with peers in the classroom, and she recognizes how scripts may help these students to interact with peers more successfully during conversations. She looks for other ways to incorporate students with ASD in social situations in the classroom, such as working with peers to put materials
away. Joanna described another difficulty that students with ASD often have that could potentially lead to negative social repercussions in the classroom.

The other issue is that a lot of these kids suffer from extreme anxiety, as I’m sure you know. And the theory is, and my theory is, and I know this is backed up by the literature, is that they . . . because they don’t generalize from particulars, they don’t always know what’s coming. And, there’s a lot of anxiety involved with that. And, my son, his anxiety comes across as defiance. And, a lot of teachers don’t understand this, even very smart teachers, teachers who have had kids on the spectrum.

There are multiple influences described in the literature that address the challenges students with ASD face that can directly impact their level of social skills. Some of these include ToM, folk psychology, executive function, and central coherence (CC). ToM and folk psychology are both theories that describe understanding the perspective of others and how they might react in a situation. Executive function and CC both focus on mentally understanding how experiences affect behavior and how details fit together into the big picture of a situation (Research Autism, 2014; Tanguay & Lohr, 2016). Based on these descriptions, it is not difficult to imagine how disruptions in the balance of these areas could impact social communication in the classroom, as the examples from Joanna and Annie have shown. The various classroom strategies that are recommended for working with students with ASD in a college setting include outlining clear expectations regarding classroom activities, incorporating routines with minimal changes, and creating detailed syllabuses and schedules (Gobbo & Shmulsky, 2012; Gobbo et al., 2018; Shmulsky & Gobbo, 2013).

Overall, the participants in this study understood the importance of presenting content in multiple formats to address the diverse academic, linguistic, and social needs of
students. Some of the participants discussed the theory of Universal Design for Learning (UDL). According to a 2001 study conducted by Scott, Shaw, and McGuire (as cited in National Education Association, n.d.), there are principles that should guide pedagogical practices in higher education classrooms in order to meet the diverse range of learning needs that students have. Two of the principles that the authors discussed in this study include creating a positive instructional environment and increasing the social interactions between students and instructors. Brooke saw the importance of viewing these strategies with social skills in mind.

So, within class I do think that faculty should be using strategies that are going to meet the needs of the widest range of students . . . but I have been in discussions where I have heard faculty say, “I’m not going to give the PPT slides.” . . . “You are not supposed to need that.” I think faculty should reevaluate some of that thinking recognizing the wide range of student abilities that come into our class . . . and that would include the social skills needs . . . if I say I only lecture, that is not going to meet the social and learning needs of a good portion of my class. But, if I say I only do group work, that’s also not going to meet the needs of all of my students. So, looking at how do you balance and move back and forth between these modalities, so that all students have a way in.

Brooke’s competency in her social skills instruction of students with ASD in a higher education classroom based on the adapted VCU rubric is at the “advanced” level. In addition to her suggestion of differentiating instruction to meet multiple needs, including students with ASD, she recommends assigning roles to students who work in groups. She had additional ideas for incorporating students into whole class discussions. Brooke’s thoughts have emphasized the importance of teaching content in multiple ways to address the different learning needs of students. Joanna had also made a comment previously about how students have different learning styles. These ideas corroborate with a study that discussed strategies for teaching students with ASD in college settings,
including incorporating multiple modalities when presenting content to students (Gobbo et al., 2018). Sal views these supports as a way of supporting not only students with ASD, but other students with a range of social skills needs as well.

I try to make it equitable. Because not only students with autism fear social situations, especially at a university like SJSU, where we have high cultural, linguistic, and cognitive diversity in our students. So, if I provide this for one student let’s make it fair and provide it for all students. Unless that student needs a service that I don’t typically provide . . . specifically related to social skills, I think it goes back to creating and crafting those norms with the students and laying out your expectations of interactions . . . between everybody.

Sal’s competency in his social skills instruction of students with ASD in a college classroom environment based on the adapted VCU rubric is at the “advanced” level. In addition to his suggestion about establishing norms in the classroom, he recommends preparing students with ASD for success in advance. Additionally, he has training that enables him to extend conversations with students with ASD beyond the level of most people. He makes a great point about how when faculty consider how to address the social skills needs of students with ASD, these measures will undoubtedly benefit many others who struggle with social communication as well. As faculty take intentional steps to assist students, such as those with ASD, with their social skills support needs, it will be one more way of addressing the diverse learning needs of all students.

The Role of Advocacy

According to an article by Cox (n.d.), teachers can advocate for students through the process of empowerment using strategies with students, such as advising, encouraging, and listening. In higher education settings, empowerment is the mechanism that transfers these skills of advocacy increasingly from professional to student. One of the goals of
higher education institutions is to nurture the process of self development, so that students, including students with ASD, can become productive members of their community. To adequately address the social skills support needs of students with ASD, the participants in this study expressed their ideas about how a partnership can be formed between students, families, and education professionals in order to increase the probability that this population of students will reach their educational goals.

**The challenges of self-advocacy.** The participants in this study shared examples of specific social situations that detailed why students with ASD may or may not disclose their disability to faculty, staff, and peers on campus. Annie discussed how knowing that a student has ASD at the beginning of the semester can make a significant difference in the educational outcome for that student in her course, especially if the student is socially reclusive.

I come to gradually know he have ASD or ADHD. In the beginning, they are very quiet. Gradually, they begin to talk and [I] notice something wrong, or after marking the papers, or something, like tests. “Oh, he’s not understanding what I ask.” That kind of experience tells me that he might or she might have some kind of trouble. But, if I have the notification from the [disability resource] office from the beginning . . . I keep eyes on him or her. That’s really different. That’s really, really, different.

Annie’s thoughts are consistent with findings in a study of college staff conducted by Knott and Taylor (2014). Participants expressed how knowing that a student had ASD would help them address atypical behavior in the classroom appropriately. Sal outlined the dilemma that students with disabilities face when deciding whether or not to disclose their disability in a higher education setting.

I think there is a huge concept in special education looking at the concept of self-determination and knowing that in order to receive the accommodations that they
may need to be successful in college would be the driving motivation. But, I also know there’s a motivation to not ask for them as well because they fear it might make them stand out . . . they fear the stigma that comes with it and it really just hurts their self confidence . . . I think ultimately the motivation comes from knowledge of how the system works . . . so, I guess, I know they all want to be successful. So, I think that is a driving factor. But, also having the knowledge to go out and seek those, like knowing where to go and how to get those things.

Sal’s viewpoint echoes what Hees et al. (2015) captured in their study about the various thoughts and feelings that students with ASD may experience when beginning their higher education journey. According to the study, many of these students desired a fresh start, and they feared discrimination and exclusion if their disability was revealed. Students were less likely to disclose their disability if they felt they could hide their symptoms well. When students are informed about their choices, this could help them weigh their options, when deciding whether or not to disclose their ASD diagnosis.

Furthermore, a study conducted by Cai and Richdale (2016) found that only 40.9% of students with ASD knew they had legal rights to services in Australia. Brooke agreed that not all students with ASD know that assistance for their social skills may be available to them.

I think that a lot of students with ASD don’t necessary realize that they can get supports through the [disability resource center]. A lot of the students that don’t have some of our more classic needs, I don’t think they realize that the [disability resource center] is there for them.

I asked participants in this study to describe what factors would motivate students with ASD to disclose their disability. In her 20 years of teaching, Celine has noticed an increasing trend in the number of students with various disabilities who are choosing to disclose the diagnosis to her. She speculated about why these students, including students with ASD, may be more open to disclosing their disability at the college level.
Perhaps they felt more comfortable describing it. I’ve noticed that with many
different disabilities, from attention deficit to a physical disability, where the
students were more free to tell me at the very beginning of the year . . . I feel like
in my own informal awareness that maybe as a mother that when the link
somebody had falsely made about vaccinations and autism came about, that
people started having more of a dialogue, albeit probably an incorrect one, in the
beginning, before people were aware. And, I think I read that, especially in this
area, that the increase is much higher. So, perhaps because it’s talked about more
in general, that’s why.

It is important to note that the participants in this study had a connection to the topic of
ASD in one way or another. Two of the participants have family members with ASD.
Two other participants have done research on their own due to relationships formed with
others who have ASD. One participant has an interest in understanding the laws that
affect people with intellectual and developmental disabilities, including people with
ASD. The final two participants have degrees in special education combined with direct
work experience with this population of students. It seems more common today in our
society that a person either knows someone with ASD, or they have a connection with
someone else who knows a person with ASD.

Many of the participants in this study shared their perceptions that students with
disabilities would need to see the personal gain in revealing their condition to others on a
college campus. Annie felt students would be motivated to disclose their ASD diagnosis
for both personal and academic reasons.

Maybe if he knows the better outcome if he discloses the information . . . better
outcome for the class and for him as well. Because everything starts from
accepting what he is right now. Without that, even though how much I try to do
something, nothing works.

Martin felt that students with ASD would view the decision whether or not to disclose
their disability from a practical point of view.
In general, I guess the only reason they would disclose [is] if they felt like it would be beneficial to them . . . if they think either they have special needs or there are certain things that they feel would make class easier for them if you understood.

Martin’s perception is similar to a finding in a study by Hees et al. (2015). One of the reasons discovered why students with ASD would disclose their disability is if they needed an accommodation. However, in this same study, it was noted that students from this population would be most likely to disclose a diagnosis to disability resources staff first. Even so, the accommodation would be provided in a collaborative effort between the student with ASD, the disability resource staff, and the faculty member.

Some of the participants in this study mentioned that the level of social interaction required of students with ASD in the classroom could play a role in whether or not students chose to disclose their disability. I asked Martin if he thought students with ASD would be more likely to disclose their disability in the subject of the class he teaches.

I almost somehow feel slightly the opposite because it’s all very dry and logical . . . everything in all problems and assignments is very specifically written in logical detail and there’s rarely connotations to the questions that you might need more social awareness to understand . . . it might be more comfortable. But, I have no evidence either way on that.

On the other hand, Brooke saw how the social situations in her classroom may be more difficult for students with ASD to navigate, and this could motivate these students to disclose their disability.

I have not had a student voluntarily disclose that they have ASD. And, because I haven’t had that experience, I’m not sure what would motivate the students to disclose their disability. But, I can see that coming up if the student [is] kind of struggling with some of the social aspects of the courses that I teach. I do a lot of collaborative work so that could be a challenge.
Martin and Brooke’s organization of their courses require a different level of social skills. Both of them recognize that the level of interaction required could play a role in whether or not students decide to disclose their ASD. This thought process is consistent with two additional reasons that Hees et al. (2015) highlighted in their study why students may disclose their ASD on campus: if students with ASD were either struggling to manage their symptoms or if they felt overwhelmed carrying this knowledge. The structure of classroom activities in a course could motivate students with ASD to disclose for these reasons.

Some of the participants in this study envisioned that students may be more likely to disclose their disability to a faculty member directly for a variety of reasons. Celine observed that when the students chose to disclose a disability, they seemed to desire a partnership with faculty to help them reach their educational goals.

I think students are advocating for themselves more, and I’ve noticed over the years [that] students are more free in advocating when they need something and wanting to get the best education they can get. And so, these few students that confided in me in the beginning, I feel their motivation was to almost get their money’s worth from their education and to even the playing field, by having me be on their team and know about certain limitations in order that they can learn just like everybody else.

Martin believed that since faculty are required to keep a student’s personal information confidential, students with ASD may feel a sense of safety and choose to confide in them.

If they’re registered with the [disability resource center], they’re much more likely to disclose that to a professor who they know is legally obligated to keep that confidential and treat that information appropriately. So, I think they are more likely to disclose their issues to a professor rather than to a peer who might not understand or might share that information inappropriately with others.
Annie shared that when students with ASD choose to disclose their disability to faculty first, this could help ease the discomfort they feel in the classroom.

First me, because you see things from their point of view. I think it’s scary to open [up about] their disorder from the beginning, especially when their parents are not accepting of his or her disability based on their experience. They don’t disclose their information, right? So, I think first me, then gradually pair or group, not in the beginning to all the people.

Joanna suggested that the perception students with ASD have about how approachable faculty are could be a reason these students may ultimately reveal their disability to them,

“I couldn’t really say from my personal experience that it would be knowing that the teacher was kind of welcoming or understanding about that because I obviously am.”

Although participants felt that students with ASD may feel comfortable disclosing their disability status to faculty on campus, the findings in studies about this topic are inconclusive. One study led by Knott and Taylor (2014) found that students would be more likely to disclose their diagnosis of ASD to college staff than with peers. The authors in another study concluded that students with ASD would be more likely to disclose their disability to staff members of a disability resource center than to others on campus (Hees et al., 2015).

Some of the participants in this study reflected on the social environments that exist in their classrooms. They thought about how if students with ASD were willing to reveal their disability openly, it could help faculty and students connected to that class adjust to the atypical behavior observed. Annie shared about the negative result that could result if a student’s ASD diagnosis were not known conclusively to others in the classroom, “I think they should ask for help because that helps their academic result, and so they can
interact with other people, and it can be [a] social window. Without knowing that, everyone thinks, ‘Oh. This person’s weird. That’s it.’ That’s too sad.” Celine echoed similar feelings about the impact that this difficult social situation could have on others in the classroom.

I don’t think anyone has to do anything that makes them feel uncomfortable. But, having said that, if a student felt welcomed enough to somehow bring up their . . . what their personality is like in kind of a matter of fact way, that would open up people to feel more comfortable.

Celine elaborated further by describing the awkwardness that she has felt personally in these social situations, and how students with ASD could be motivated to disclose due to their own feelings of awkwardness socially.

Perhaps they would be similar to me in the experience that I had where I was almost uncomfortable, when I didn’t know what was going on with a student. When I thought over the years, “Why are they a little bit off? Why are they speaking this way? Why are they acting this way?” And, I made my own assumptions that they were probably on the spectrum.

Celine hopes that this population of students could ultimately overcome their conflicted feelings about disclosing their disability, and they could even find a way to embrace self-acceptance in the process.

I would like to see that as well for people on the spectrum, to be able to not be judged, and to be more free, to say a little bit about their personality, and not worry about repercussions . . . I would like to say that if a student would be brave enough to advocate for themselves and say, “I have this, but I’m really happy to be here and work with anybody on anything. And, I’m open to feedback or interactions or something.” That must be very difficult to do.

Celine’s comments are congruent with a couple of different studies. Students with ASD can feel ambivalent about disclosing their ASD diagnosis due to possible negative repercussions (Cai & Richdale, 2016; Hees et al., 2015). Furthermore, a finding in a
study by Hees et al. (2015) indicated how students with ASD were keenly aware of the perception that other students on campus had of them as well as their lack of understanding of ASD. For these reasons, the decision whether or not to disclose a disability is a complicated process. Whether or not students with ASD choose to disclose their disability to others on campus, the complex social situations that can arise in the classroom setting can make engaging in activities difficult for everyone involved.

**The importance of professional collaboration.** Most of the participants in this study shared thoughts about how a variety of professional relationships could help students with ASD be successful in a higher education environment. Participants responded to the question I presented about how students should be responsible for seeking assistance for their social skills support needs. Brooke expressed her thoughts about this issue, “So, in higher [education] I know the expectation is that students with disabilities will advocate for themselves. The challenge is whether or not they’re prepared to advocate for themselves.” Martin share his strong feelings about how it is definitely not the responsibility of a student with ASD to proactively seek support related to social skills.

That’s a very dangerous phrase in general especially for anyone that’s a . . . [disability resource center] candidate simply because a lot of issues students have either socially or even physically or mentally make it hard to seek assistance at all. So, saying that a student should be responsible for seeking assistance, putting the impetus on the student to seek assistance, is, I think, a very dangerous thing to do.

Joanna added a different perspective when she shared how students with ASD probably did not have the ability to seek out assistance for their social skills needs on their own.
I think that kind of self-awareness and that kind of step-by-step method of trying to get help, that’s executive function. And, if you have a deficit in executive function, then it would be hard. I’d be hard-pressed to say that it’s your responsibility to do that.

This insight seems to line up with the effects of disruptions in mental functions that can occur in students with ASD. This process includes the ability to think about how a person’s previous experiences might affect present behavior (Tanguay & Lohr, 2016). Also, it requires flexibility in thinking about the situations the person encounters as well as controlling one’s actions and how these would guide one’s conduct (Research Autism, 2014). If students with ASD did not have sufficient skills to initiate the process of requesting services in a higher education setting, then I believe training these students to know how to advocate for their needs would be really important. The need for advocacy training was highlighted in a study by Retherford and Schreiber (2015) which studied students with ASD, AS, and SCD planning to attend college. This need was similarly listed as a recommendation by respondents to a survey distributed to multiple colleges that offer a variety of services for students with ASD (Barnhill, 2016). In fact, some of the participants in the current study discussed how students with ASD should be prepared ahead of time for the transition to college. Joanna’s son struggles to understand school assignments and to ask for clarification from the teacher, and he does not generalize information well from particular situations. She described why she organizes trainings for K-12 teachers.

The reason I am doing intervention at a lower level is because I feel like teachers need to understand certain things and have certain strategies . . . what does autism look like in the classroom, and how can we deal with it. If those teachers know, then by the time these students get to college, they may have developed some of these skills.
Sal recognized that although students with ASD are responsible to proactively seek assistance for their social skills needs, K-12 professionals have an important role in helping students with ASD build skills in self-advocacy.

I think I stand behind that because they are adults. It’s really what the law requires, your going from the Individuals with Disability Education Act protections to the Section 504 protection. But, I also push back that some of that responsibility should be on their public school teachers who in 10th, 11th, and 12th grade should be preparing them.

Brooke agreed that K-12 professionals should be preparing students with ASD to advocate for themselves as they transition to a college environment.

I think that it’s important since I am in special [education] because that is something that [teachers] are supposed to know when they’re working with students in K-12; Because we’re supposed to be building the capabilities of students coming into higher [education] and knowing how they need to advocate for themselves.

Some of the participants in this study discussed how even at the higher education level, advocates should include other significant relationships of the student with ASD, such as family and friends. Lenny expressed his opinion about how these outside influences could help students with ASD be successful as they seek assistance for their social skills needs in the classroom.

I don’t feel that I can put a burden on them to be responsible. Again, you have to coax the student into . . . speaking up, asking questions, answering questions. Again, students in general have a problem in this regard. I would take it especially easy on the students with this kind of disorder and not make them responsible for anything. But, I assume that they have outside support, right? There’s family, friends, or professionals. So, I think these persons should be the first line, urging them to speak up, urging them to talk to me during office hours.

Similarly, Sal recognizes the influence that families can have when advocating for the needs of students with ASD. He added to this discussion by expressing the importance of
families knowing how to guide students with ASD to seek out services at the college level, especially if these students decide to seek them as a way to address their social skills support needs in the classroom.

It’s hard for me to go one way or another. I think [a] student does have to seek them out, but I don’t want to put those things on these students, especially because some students don’t want them due to the stigma applied to it . . . I think the students should seek them out. Also, make sure that students and families [know] about how to do that if that’s the route.

Joanna, too, agreed that parents have a role in helping students with ASD get connected to services on campus, “I think it’s the students’ parents responsibility to make sure that they know to register with disability services and to seek formal help. I’m not sure that the student can even know to do that.” Annie described her perceptions about the influence of families on students with ASD.

Those students who don’t disclose their information most of the case, parents don’t know about it, or even parents don’t accept the fact from the beginning. They don’t like the children. They refuse to treat the children as children with [a] disability or something like that. So, I thought that they’re not treated well from the beginning. So, they have heartbreak from the beginning. So, that’s why they don’t show their facts to their classmates or even me, so that they try to protect themselves.

She recounted other situations when she collaborated with the families of these students.

Most of the cases when they disclose their information, parents are accepting, too. So, in collaboration with parents, we made a team. And, I always express what I asked in the classroom, and what he did, and this is something he needs to work on. So, that kind of interaction and teamwork, it really works for the student.

It appears that Annie has connected with many families of students with ASD. Her perceptions about how successful students with ASD can be in the classroom appear to be strongly influenced by her impressions of these students’ relationships with their families.
A couple of the participants in this study mentioned how a partnership with the disability resource center on campus is a key collaboration. Martin highlighted how the professionals at the center could offer their expertise to assist students with ASD with their social skills support needs.

I think the [disability resource center] is in a much better position to understand and direct students appropriately from there. And, because they get one-on-one interactions with the student, they get more information about the exact nature . . . I don’t even want to say the disability but I believe that’s the language that’s used . . . and hopefully they would know better whether to encourage the student to specifically reach out specifically to their professor.

Annie shared about her frustration working with the disability resource center when she consulted with staff from this department about how to assist a student with ASD in her classroom.

It is so sad that what the [disability resource center] can do is limited. At the beginning, when I consulted with the [disability resource center] they said, “You don’t have to do this kind of thing.” And, I said, “What? I don’t have to? But, the student is there. I cannot ignore the student.”

Some of the participants in this study discussed their beliefs and experiences related to how faculty can advocate for the social skills support needs of students, including students with ASD. Sal thoughtfully reflected on the question about how to best meet these needs in the classroom.

I think all of us, even at the university level, our goal is to make sure students are ready to contribute at their place of work and in their community. So, even at work and the community they have protection from the Americans with Disabilities Act, but there’s not necessarily social skills protections in there. So, how do we prepare them to advocate for themselves because at one point or another those things just go away, and you’re expected to . . . go day to day without them. So, how do we provide them and then fade them as appropriate and make sure they are ready for life outside of school.
Sal discussed fading the social skills supports provided in a higher education setting so that the student can operate with them. A different perspective was given through an interview conducted by Gobbo et al. (2018), who spoke with STEM faculty who have worked with students with ASD. These faculty members spoke about the need for services to prepare students with ASD to interview, obtain, and even maintain a job.

They noted that the social challenges in the workplace may be different from a college environment. This viewpoint is similar to a finding by Barnhill (2016). One suggestion made by these surveyed schools that offer services to students with ASD was to partner with not just campus resources but community resources as well. As mentioned previously, Martin worked with a student who had trouble “reading social cues.” He explained in more detail how he provided this accommodation related to social skills.

I’ve had several students from that were registered with the [disability resource center] and one student in particular who mentioned that he had issues regarding reading social cues, but never specifically said autism spectrum disorder . . . this particular student specifically asked that if he was asking too many questions during lecture and I was trying to get him to stop that I should specifically say “Please ask me these questions after class and stop asking them now,” and he would do so presumably.

Annie has experienced mixed success advocating for students with ASD in her classroom. I asked her if students are more receptive to assistance once they disclosed their ASD diagnosis with her, “They are more open to my help. They are so cute once they disclose it. They are like, ‘This is the only one professor I would follow.’ It’s so cute.” However, she also offered her view regarding students with ASD who resist help in the classroom.

It’s very hard for them to interpret what other people want them to do. So, I try to explain because it seems like he didn’t understand my question very well. So,
when I noticed that I tried to help him, but he was like, “No.” So, that was the basic problem. Sometimes, if the person is not accepting [of] himself, [of] his disorder, they refuse my help. They don’t want to admit that [a] professor like me think that he has [a] disorder. So, that’s why he refused.

Although Annie stated that the student refused her help because he did not want to disclose his disability, she also described the student’s inability to understand what other people want that student to do. Could the student’s refusal for assistance be related to the inability to understand what is being asked? As discussed previously, there are multiple factors that describe how the mental processes of students with ASD can be impaired including folk psychology, a process that explains how a person has the capacity to both understand another person’s actions and the purpose behind someone’s behavior (Tanguay & Lohr, 2016). However, it is possible this student did understand Annie’s intentions and simply decided to refuse her help. On a similar note, Brooke expanded on the issue of reaching students with disabilities who may need accommodations, but who either refuse to disclose a diagnosis, or who do not realize they have a disability.

They need to choose to disclose. I think that is important and good. But, what’s challenging is, how do we get to those students who might not necessarily think that they need to disclose or that they have something to disclose?

Brooke also expressed that although she seeks to put supports in place that benefit all students in the classroom, she wonders how effective she was in connecting with students who may need additional services.

I am thinking, “Do I do a good enough job?” But, I try to have that if you need support you need to let us know. And also, separate from needing accommodations for a disability, but like, if you have a major family emergency, I understand. But, you need to let me know. We can’t do things after the fact. We need to do this proactively. So, having these conversations hopefully help [with] bringing out the students who might need some extra supports.
Celine was motivated to participate in an interview due to her desire to learn more about how to help this population of students in the classroom. Her thoughts were similar to Brooke’s in wondering how well she was doing serving these students who may need assistance. She recalled an example of one student who showed symptoms of ASD.

I had one student where it was more clear that the student was on the spectrum. And, I think other students in the class perhaps felt uncomfortable and not knowing how to approach the student. And, I thought about it quite a bit. I wonder what I would of done differently. I tried to include the student in class discussions and treat the student no differently than anyone else, which is difficult to do. And, I don’t know if I did it effectively. And, I don’t know if I could’ve been better at kind of bringing to light without pointing somebody out. But, kind of making everybody feel more comfortable. I don’t know. That’s why I’m here.

Martin wondered how to put this issue of social skills needs of students into proper context and if there are practical ways to address these types of needs in students with ASD.

I can’t recall ever hearing anyone discuss the social skills needs of autism spectrum students. So, I’m not sure whether this is simply because not much is known, and therefore, if you don’t have studies explaining what the needs are then it’s silly to try to tell people how to address them . . . perhaps we’re less aware of the social skills needs of students simply because [experts in this subject] are less likely to have normative social skills ourselves . . . I suspect that a quick Google is not going to give good answers for how to create a classroom environment that embraces diverse learning needs of students or addressing social skills needs of students.

The questions the participants in this study raised highlight the need for collaboration among departments and across institutions so that faculty can be informed and supported regarding these issues. There are studies that address collaboration among college professionals as well. For example, in their 2017 study, Austin and Pena found that collaborative campus support was one of the keys to success for faculty working with students with ASD. In particular, they spoke about partnering with the disability resource
center on campus as well as working with other colleagues to best meet the needs of these students. In the study led by Barnhill (2016), it was found that the majority of schools offering ASD specific services provided opportunities for faculty to meet with the disability resource center staff and to access information about ASD. Feedback from the surveys also emphasized the importance of departments coming together to best meet the needs of students with ASD.
Chapter 5: Discussion

As more students with ASD enter higher education settings, the level of support that is in place to accommodate their social skills needs can greatly impact their achievement of educational goals. A qualitative interview was conducted to better understand the lived experiences of faculty regarding these needs in classroom environments. The findings of this study have resulted in implications for practice at the faculty, department, and institutional level. Recommendations are suggested to further understanding about the social skills support needs of students with ASD in classroom environments from different perspectives.

Summary

The findings of this study indicated that participants had a wide range of perceptions in their understanding of ASD, participants with less knowledge about ASD employed strategies based on neurotypical assumptions of behavior, and participants felt limited in how they could approach students directly about the social skills support needs they may have. Because some of the participants did not appear to have a knowledge base of the ASD theories of social development, this may have impacted their perceptions in all of these areas.

Perceptions of the characteristics of ASD. Although each of the participants in this study had a personal interest in the topic of ASD for various reasons, their knowledge about the characteristics of ASD and their perceptions of how these characteristics manifested in students from this population were diverse. For example, while some participants with greater knowledge of ASD were usually able to identify specific
atypical behaviors and relate them to attributes of this disorder, such as talking about a subject of high interest and not recognizing facial cues, other participants who were less knowledgeable identified behaviors more generally using neurotypical terms, such as “shy” or “introverted.” The level of knowledge that the participants had often directly related to how they viewed the behavior they saw in students with ASD, or who displayed ASD features.

**Strategies based on neurotypical assumptions.** As a result of the perceptions that participants in this study had about the atypical behavior that they witnessed in students with ASD, or who exhibited ASD symptoms, the strategies they recommended were often rooted in those perceptions. For example, the participants who were more informed about ASD typically suggested strategies that often provided structure for these students to compensate for disruptions in mental functioning, such as telling a student how many times to ask a question or assigning roles for group assignments. On the other hand, the participants without much knowledge about this topic often recommended strategies that were general in nature and regularly used with neurotypical students, such as asking students to come to office hours at a later time to discuss a topic further or not pushing a quiet student too hard. These participants sometimes addressed the social situations they encountered by relating how they would personally feel in those circumstances and connecting that feeling with how students with ASD might feel, too.

**Limitations in addressing social skills needs.** All of the participants in this study felt a certain level of conflicting feelings about how to approach students with ASD directly about their social skills needs. The limitations present were frequently due to a
combination of both respecting the legal right of students to choose to ask for assistance for their social skills needs and feeling discomfort about approaching a student about a social issue. Although they felt the limitations imposed upon them, participants utilized strategies to maximize the opportunities they had in their role. They presented an open, welcoming, and approachable demeanor and intentionally reached out to help students with ASD, or who displayed signs of ASD, become more involved in various classroom activities.

**Implications**

The outcomes of this study contribute to the paucity of research about this topic in two ways. First, current studies focus primarily on the faculty perspectives of those who have experience working with students with special needs. Second, of the studies that focused on the needs of students in higher education settings, few have focused specifically on how faculty can support the social skills support needs of these students in classroom environments. Based upon findings gleaned from the lived experiences of faculty in this study, the following implications are suggested for university policies and procedures as well as for pedagogical practices.

**Support network for faculty.** Participants in this study demonstrated varying levels of familiarity with ASD and instructional strategies intended to engage this population of students effectively. As such, faculty could benefit from collaboration on campus with other departments. Faculty could not only receive support from a university disability resource center, but they could receive assistance from fellow colleagues as well, especially those knowledgeable in ASD (Austin & Pena, 2017). Although a disability
resource center could provide faculty access to the knowledge base of ASD characteristics, a network of faculty members could provide direct support around effective instructional strategies based on personal experiences.

Two of the participants in this study openly questioned if they were providing sufficient support to students, including students with ASD, or those who displayed ASD symptoms. Interestingly, one of the participants was not very knowledgeable about ASD, while the other participant had both knowledge and experience with this population. This seems to indicate that regardless of the level of training that faculty may have on the topic of ASD, they would benefit from the moral support that a fellow colleague could provide in dealing with the wide range of challenging social issues that can arise in the classroom. However, as faculty collaborate and pool their resources of knowledge about instructional strategies (Austin & Pena, 2017), this effort would not only improve the social atmosphere of a classroom for students with ASD, other students struggling with social difficulties from various sources could benefit from these changes as well.

**Universal pedagogical structures.** As mentioned previously, participants who had a significant background in ASD suggested strategies that provided structure to this population of students. Because these students can struggle with managing conversations due to difficulties understanding another person’s perspective (Tanguay & Lohr, 2016) and not see what is coming up next due to challenges seeing the big picture of a social situation (Research Autism, 2014), providing appropriate accommodations during classroom activities could greatly improve the social interaction outcomes of students with ASD, or for students who manifest these symptoms. When understanding how
students with ASD are challenged socially due to disruptions in mental functioning, faculty could thoroughly review their instructional practices at all points of contact socially with a student in order to proactively address potentially troublesome social situations. Faculty can increase support through consistent classroom routines that provide detailed expectations and instructions for activities in the course (Gobbo & Shmulsky, 2012; Gobbo et al., 2018; Shmulsky & Gobbo, 2013). As a couple of the participants described in this study, it may be beneficial to prepare students for success through advanced and even individualized preparation and intervention.

**Culture of acceptance of social variances.** Participants in this study highlighted the challenges that arose with neurodiverse students interacting with neurotypical students. They explored strategies, such as seeking to involve students in conversations with one another and encouraging students to work together with one another. Some of the participants felt that neurotypical students should be willing to engage socially with students with ASD, or those showing signs of ASD, as a way to learn in a classroom setting how to interact with this population out in society. Although there are benefits in fostering growth in students in these ways, it can be difficult to encourage neurotypical and neurodiverse populations to interact collaboratively in an academic environment. However, faculty have an influential role in establishing the social tone of a classroom setting. One way they could promote openness in students is by explaining to the class as a whole at the beginning of the semester that in the process of learning students bring a diverse set of skills related to social expression (Gobbo and Shmulsky, 2012; Gobbo and Shmulsky, 2014). Creating a culture of acceptance of the social variances of students on
campus should be a message that is weaved through a higher education institution’s values of inclusion and social justice.

**Faculty professional development.** As some participants shared in this study, faculty can model acceptance in a variety of ways, such as communicating expectations about behavior and publicly recognizing the strengths that students with ASD bring to the classroom. In order to foster an environment of inclusion in the classroom for this population of students with social skills support needs, it is recommended that faculty pursue training around multicultural competence, not only as a way to better support students with ASD, but the knowledge and skills obtained could very well serve the educational needs of a wide range of students. As faculty seek to grow in multicultural competencies, it is important as educators to look inward and increase self-awareness about how one’s backgrounds, experiences, and skills may directly help or hinder student growth and success in the classroom (Wilder et al., 2004).

**Recommendations for Future Research**

Although there is a growing number of studies about the experiences of students with ASD in postsecondary institutions from multiple perspectives, more research is needed to better understand the social skills support needs of this population of students in classroom environments. The experiences shared by the participants have sparked additional questions that could be explored in future research studies. The following topics are suggested areas of research.

**Course structure.** While interviewing the participants, it became evident that the social culture of the classroom was sometimes influenced by the structure of a course as
well as the perception of importance of integrating social skills development by the participant. For example, a couple of the participants who taught lecture-based courses expressed that social skills would rarely be needed, and these skills would not be actively developed in students with ASD in the course. It would be helpful to know better the degree that social skills are important in certain course structures, such as lecture-based courses. Another area that could be investigated is how the subject of a course influences the level of social skills used in the classroom, such as a STEM course versus a philosophy course.

**Sensory needs.** While the primary focus of the current study has been on the perceptions of faculty regarding the social skills support needs of students with ASD based on the impact of neurodiversity in these students, another area of focus could be on the sensory needs of this population of students. It would be helpful to understand how changes in the classroom environment, such as lighting, noise, and temperature, affect the social interactions of students with ASD. Additionally, understanding could be furthered through knowing which sensory sensitivities influence social situations in the classroom more than others.

**Cultural influences.** One of the participants in the current study expressed her opinion based on her professional experiences that the number of students with ASD was higher in a certain ethnic culture of students on campus. It would be beneficial to understand how different ethnic cultures affect the social experiences of students with ASD. Also, as noted in the study, it is important to remember that even though students with ASD may not make eye contact with others, the lack of eye contact of a person
could be for cultural reasons as well. Comprehension could be increased by knowing what other cultural influences, besides eye contact, could be confused as symptoms of ASD by others.

This study has sought to understand the perceptions of faculty of the social skills support needs of students with ASD in classroom environments. The findings of the study indicated that faculty have a variety of knowledge, skills, and experience related to ASD that impacted their perceptions of student behavior. They often based their pedagogical practices regarding these students on neurotypical assumptions that would not necessarily be effective for students with ASD due to their neurodiverse natures. These findings further highlighted the issue of multicultural competence, and how improved knowledge, skills, and experience in this area could increase self-awareness and strategies that could ultimately be extended to a wide-range of diverse students from many different backgrounds.

Conclusion

The study contributed to the minimal research that exists in that faculty with varying levels of knowledge, skills, and experience about the topic of ASD were interviewed about their perspectives regarding the social needs of this population of students and that focused attention was given to the social needs in classroom settings in particular. Although it is not realistic to expect that faculty would become experts on the subject of ASD, the implications focused on broader changes that could be made to improve the educational experiences and success of students with ASD and others with social variances. As additional students with ASD pursue goals related to higher education, it is
imperative that steps be taken at the faculty, department, and institutional levels to not only change practices and policies to increase access for students with ASD, but to promote a culture that values the neurodiverse strengths that students with ASD bring into the classroom, in an educational environment that supports equity, inclusion, and social justice priorities for all students.
References


Boud, D., Cohen, R., Sampson, J. (Eds.). (2013). *Peer learning in higher education* [PDF file]. Retrieved from file:///home/chronos/u-7eb40cd3df0a3cefd30d109d5243c0976262b5c8/Downloads/9781315042565_google_preview.pdf


Trammell, J. (2013). Practice brief: Modeling positive behaviors for postsecondary students with Autism/Asperger's--the use of "television coaching". *Journal of Postsecondary Education and Disability, 26*(2), 183-187.


Appendix A: Recruitment Email #1

Subject: Faculty Recruitment for Graduate Research Study

Dear (college dean or department chair),

My name is Amy Rodriguez, and I am a graduate student with the Counselor Education Department. I am working on my Master’s thesis and conducting research to understand faculty perspectives on the social skills needs of students with Autism Spectrum Disorder in classroom settings. I am recruiting SJSU faculty members to interview about their views and experiences about this topic. May I please ask for your assistance forwarding this email to faculty members in your department? I would also welcome you to volunteer for an interview.

Faculty do not need to have specialized knowledge or direct experiences working with this population, but are invited to answer questions concerning this topic more generally. The study involves meeting with me at a campus location, such as your office, for an approximately one hour interview. The interview would take place at an agreed upon location and time during the Fall 2018 semester.

Questions about this research study may be forwarded to either Amy Rodriguez, graduate student at amy.rodriguez@sjsu.edu, or Dr. Jason Laker, Faculty Advisor at jlaker.sjsu@gmail.com.

Sincerely,

Amy Rodriguez
Appendix B: Recruitment Email #2

Subject: Faculty Recruitment for Graduate Research Study

Dear (disability resource center director),

My name is Amy Rodriguez, and I am a graduate student with the Counselor Education Department. I am working on my Master’s thesis and conducting research to understand faculty perspectives on the social skills needs of students with Autism Spectrum Disorder in classroom settings. I am recruiting SJSU faculty members to interview about their views and experiences about this topic. May I please ask for your assistance regarding the names of faculty members that I could contact who you think could be interested in an interview on this subject?

Here is some additional information about my study. Faculty do not need to have specialized knowledge or direct experiences working with this population, but are invited to answer questions concerning this topic more generally. The study involves meeting with me at a campus location for an approximately one hour interview. The interview would take place at an agreed upon location and time during the Fall 2018 semester.

Questions about this research study may be forwarded to either Amy Rodriguez, graduate student at amy.rodriguez@sjsu.edu, or Dr. Jason Laker, Faculty Advisor at jlaker.sjsu@gmail.com. I appreciate any assistance you may be able to provide.

Sincerely,

Amy Rodriguez
## Appendix C: Participant Characteristics

<table>
<thead>
<tr>
<th>Participant Name</th>
<th>Academic College</th>
<th>Gender</th>
<th>Ethnicity</th>
<th>Years of Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Celine</td>
<td>Education</td>
<td>Female</td>
<td>White</td>
<td>20</td>
</tr>
<tr>
<td>Annie</td>
<td>Humanities &amp; Arts</td>
<td>Female</td>
<td>Japanese</td>
<td>9</td>
</tr>
<tr>
<td>Joanna</td>
<td>Humanities &amp; Arts</td>
<td>Female</td>
<td>N/A</td>
<td>4</td>
</tr>
<tr>
<td>Martin</td>
<td>Science</td>
<td>Male</td>
<td>White/Caucasian</td>
<td>2.5</td>
</tr>
<tr>
<td>Sal</td>
<td>Education</td>
<td>Male</td>
<td>Caucasian</td>
<td>Less than 1</td>
</tr>
<tr>
<td>Brooke</td>
<td>Education</td>
<td>Female</td>
<td>Caucasian</td>
<td>5</td>
</tr>
<tr>
<td>Lenny</td>
<td>Science</td>
<td>Male</td>
<td>Caucasian</td>
<td>12</td>
</tr>
</tbody>
</table>
Appendix D: Consent Form

AGREEMENT TO PARTICIPATE IN RESEARCH

TITLE OF THE STUDY: “Increasing the Persistence of Students with Autism Spectrum Disorder in Higher Education Settings: Faculty Perspectives on the Social Skills Needs in Classroom Environments.”

RESEARCHER  Amy Rodriguez, San Jose State University graduate student

(Thesis supervisor: Professor Jason A. Laker, Ph.D. Department of Counselor Education)

Students with Autism Spectrum Disorder who transition to higher education settings vary in their level of capability when engaging in social activities. Social skills difficulties can lead to higher attrition rates. Ineffective communication skills can contribute to problems in a variety of social situations on a college campus, including classroom environments.

PURPOSE

The purpose of this qualitative study is to explore the social skills needs of students with Autism Spectrum Disorder in a higher education environment. Faculty will be interviewed to better understand the social interaction experiences of this population of students while engaging in classroom activities.

PROCEDURES

If you agree to participate in this study, you will be asked to participate in an interview lasting approximately one hour. The interview will occur at a mutually agreed upon campus location and time during the Fall 2018 semester. An audio device will be used to record the interview, and the recording will be transcribed. A follow-up interview(s) may be conducted upon mutual agreement.

POTENTIAL RISKS

The potential risks associated with this study should be minimal. You may feel discomfort due to uncomfortable emotions while describing previous experiences involving students in the classroom.

POTENTIAL BENEFITS

Although it is not expected that you will receive any direct benefits from this study, there may be indirect benefits through contributing to the existing literature on this topic, and possibility gaining new ideas about how to work with this population of students in the future.

COMPENSATION

There is no compensation for participating in this study.

CONFIDENTIALITY

The results of the study will be published. Because your social identity (gender, race, ethnicity, etc.) role, and general area of specialty may be described in the study, confidentiality is not guaranteed. However, your name will be changed to a pseudonym to minimize the possibility of identification. Participants will not be identified as SJSU faculty members in the study. The name of the university will be changed to a pseudonym, and it will be described as a comprehensive public university in the West. Since I am a mandated reporter, I am required to report information that is disclosed about harm to self, harm to others, or if someone may harm you, or if a child or elder has been or could be harmed.
PARTICIPANT RIGHTS
Your participation in this study is completely voluntary. You can refuse to participate in the entire study or any part of the study without any negative effect on your relations with San Jose State University. You also have the right to skip any question you do not wish to answer. This consent form is not a contract. It is a written explanation of what will happen during the study if you decide to participate. You will not waive any rights if you choose not to participate, and there is no penalty for stopping your participation in the study.

QUESTIONS OR PROBLEMS
You are encouraged to ask questions at any time during this study.
- For further information about the study, please contact Student Investigator Amy Rodriguez, amy.rodriguez@sjsu.edu or Faculty Advisor Dr. Jason Laker, jjlaker.sjsu@gmail.com
- Complaints about the research may be presented to Department Chair Dr. Doleores Mena, doleores.mena@sjsu.edu
- For questions about participants’ rights or if you feel you have been harmed in any way by your participation in this study, please contact Dr. Pamela Stacks, Associate Vice President of the Office of Research, San Jose State University, at 408-924-2479.

SIGNATURES
Your signature indicates that you voluntarily agree to be a part of the study, that the details of the study have been explained to you, that you have been given time to read this document, and that your questions have been answered. You will receive a copy of this consent form for your records.

Participant Signature

<table>
<thead>
<tr>
<th>Participant’s Name (printed)</th>
<th>Participant’s Signature</th>
<th>Date</th>
</tr>
</thead>
</table>

Researcher Statement
I certify that the participant has been given adequate time to learn about the study and ask questions. It is my opinion that the participant understands his/her rights and the purpose, risks, benefits, and procedures of the research and has voluntarily agreed to participate.

<table>
<thead>
<tr>
<th>Signature of Person Obtaining Informed Consent</th>
<th>Date</th>
</tr>
</thead>
</table>
Appendix E: Intake Form

STUDY INTAKE FORM

**Title of Study:** “Increasing the Persistence of Students with Autism Spectrum Disorder in Higher Education Settings: Faculty Perspectives on the Social Skills Needs in Classroom Environments.”

Name ______________________________ Date __________________

Department _____________________________________________________________________

Phone ______________ Email _____________________________________________________________________

Place of Interview __________________ Time __________________

Gender __________________ Ethnicity _____________________________________________________________________

How many years have you taught at SJSU?

What courses do you teach?

Why are you interested in participating in this study?

Thank you for participating in this study. All information provided on this form and the interview will be kept confidential.

powering SILICON VALLEY  SJSU EdUCationWorKED
Appendix F: Interview Protocol

1. Do you have any training that has prepared you to work with students with Autism Spectrum Disorder? If so, how did you obtain this knowledge?

2. Have you worked with students from this population who voluntarily disclosed their disability to you? Under what circumstances do you believe these students would be motivated to disclose their disability?

3. How you feel your one-on-one interactions with students with Autism Spectrum Disorder may be different from how these students may communicate with classmates? How could your relationship be helpful when managing other social situations involving these students in the classroom?

4. What may the social interactions look like when this population of students participate in small group activities with other students in the classroom?

5. How may these students engage in social interactions with professors and students during whole group activities in the classroom?

6. What are some examples of situations where you may witness spontaneous social interactions between students with Autism Spectrum Disorder and other students in the classroom? What do you think may persuade these students to connect in these instances?

7. What are some strategies you could use to address the social situations that arise for this population of students in the classroom? How would these strategies be similar or different from ones you would use with other students?

8. What are some examples of ways that you create a classroom environment that embraces the diverse learning needs of students?

9. What is your stance on how this population of students should be responsible for seeking assistance for their social skills requirements in the classroom?

10. What are your thoughts about how faculty should provide assistance to address the social skills needs of these students beyond what is legally required?

11. If asked, would you be interested in participating in a second interview?
# Performance Standards and Evaluation Criteria Rubric for Special Education Teachers

## 1. Professional Knowledge

- **The teacher demonstrates an understanding of curriculum, subject content, and the developmental needs of students by providing relevant learning experiences.**

<table>
<thead>
<tr>
<th>Category</th>
<th>Exemplary</th>
<th>Proficient</th>
<th>Developing/Needs Improvement</th>
<th>Unacceptable</th>
<th>Where to Find Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates accurate knowledge of the learning behavior characteristics of the disabilities of the students with whom they work</td>
<td>Teacher consistently demonstrates knowledge of disabilities by addressing core deficits (i.e., social, sensory, communication, and behavior) in instruction and daily routines. Teacher is also able to instruct other professionals in addressing core characteristics in the educational setting.</td>
<td>Teacher demonstrates some knowledge of disabilities but may have difficulty addressing core deficits (i.e., social, sensory, communication, and behavior) through instruction and daily routines in the educational setting.</td>
<td>Teacher demonstrates knowledge of disabilities but does not address core deficits.</td>
<td>Teacher does not demonstrate knowledge of disabilities and does not address core deficits.</td>
<td>Lessons plans, teacher interview, classroom observation</td>
</tr>
<tr>
<td>Effectively addresses appropriate curriculum standards based on students' individual needs</td>
<td>Teacher consistently addresses student needs by implementing curriculum aligned with state standards, is socially relevant, and will support student growth. Teacher is able to teach other educators to address appropriate curriculum standards based on students' individual needs.</td>
<td>Teacher consistently addresses student needs by implementing curriculum that is aligned with state standards, is socially relevant, and will support student growth.</td>
<td>Teacher provides some rigorous instruction but does not base instruction on students' IEP goals and objectives.</td>
<td>Teacher does not provide rigorous instruction or does not base instruction on students' IEP goals and objectives.</td>
<td>Lessons plans, teacher interview, classroom observation</td>
</tr>
<tr>
<td>Based on instruction on goals that reflect high expectations and are based on students' IEPs</td>
<td>Teacher consistently provides rigorous instruction with high expectations of student growth, based on students' IEP goals and objectives. Teacher is able to assist other educators in promoting rigorous instruction.</td>
<td>Teacher inconsistently uses proactive sensory strategies in the classroom setting. Teacher is also able to instruct other professionals in proactive sensory strategies that can be used in the classroom setting.</td>
<td>Teacher provides some rigorous instruction but does not base instruction on students' IEP goals and objectives.</td>
<td>Teacher does not understand sensory needs of students. Teacher does not use sensory strategies comprehensively.</td>
<td>Lessons plans, sensory or behavior plan, student data, teacher interview, classroom observation</td>
</tr>
</tbody>
</table>

- **Woodall & Layden - VCU Autism Center for Excellence (VCU-ACE) - Revised June, 2015**
<table>
<thead>
<tr>
<th>Category</th>
<th>Exemplary</th>
<th>Proficient</th>
<th>Developing/Needs Improvement</th>
<th>Unacceptable</th>
<th>Where to Find Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates understanding of functions of behavior and is knowledgeable of interventions matched to each</td>
<td>Teacher understands the functions of behavior and is able to consistently match interventions to each. Teacher is able to instruct other professionals about functions of behavior and how to effectively match interventions.</td>
<td>Teacher understands and is consistently able to identify functions of behavior and implement interventions that are matched to each function.</td>
<td>Teacher may understand the functions of behavior, but inconsistently demonstrates knowledge. May have difficulty matching interventions to behavioral function.</td>
<td>Teacher does not understand functions of behavior and is not able to articulate interventions matched to each.</td>
<td>Lesson plans, behavior intervention plans, behavior intervention data, teacher interview, classroom observation</td>
</tr>
<tr>
<td>Demonstrates accurate knowledge of evidence-based teaching practices (reinforcement, prompting, visual schedules, antecedent based interventions, etc)</td>
<td>Teacher is consistently able to demonstrate knowledge of a variety of evidence-based practices specific to students and consistently implements these practices in the classroom setting. Teacher is able to provide accurate information to other professionals on evidence-based practices for students.</td>
<td>Teacher has knowledge and is consistently able to implement at least five evidence-based practices for students in the classroom setting. Teacher is able to individualize these practices based on students' needs.</td>
<td>Teacher may have knowledge of evidence-based practices for students but inconsistently implements these practices in the classroom setting.</td>
<td>Teacher does not demonstrate knowledge of evidence-based practices for students.</td>
<td>Lesson plans, student data, teacher interview, classroom observation</td>
</tr>
<tr>
<td>Demonstrates knowledge of content curriculum and matches appropriate evidence-based practices</td>
<td>Teacher consistently demonstrates knowledge of a variety of evidence-based curriculum and learning materials that are aligned with state standards. Teacher is able to share this information with other professionals.</td>
<td>Teacher consistently demonstrates knowledge of a variety of evidence-based curriculum and learning materials that are aligned with state standards.</td>
<td>Teacher consistently demonstrates knowledge of at least one evidence-based curriculum and/or learning materials that are aligned with state standards.</td>
<td>Teacher does not demonstrate knowledge of evidence-based curriculum and learning materials for students.</td>
<td>Lesson plans, student data, teacher interview, classroom observation</td>
</tr>
<tr>
<td>Understands the importance of communication and its day to day impact for students</td>
<td>Teacher understands the need for communication training in the school setting for students. Teacher consistently implements strategies to target this skill area multiple times a day. Teacher is able to coach other educational professionals to do the same.</td>
<td>Teacher consistently understands the need for communication instruction in the school setting for students. Teacher consistently implements strategies to target this skill area multiple times a day.</td>
<td>Teacher understands the need for communication instruction to occur throughout the day, but has difficulty implementing communication instruction on a daily basis.</td>
<td>Teacher does not demonstrate knowledge of the importance of communication instruction in the school setting. Instruction in communication training not evidenced in lesson plans.</td>
<td>Lesson plans, student data, teacher interview, classroom observation</td>
</tr>
<tr>
<td>Understands the importance of social skill development and its day to day impact for students</td>
<td>Teacher understands the importance of social skill instruction for students and implements strategies to target this skill area multiple times a day. Teacher is able to mentor other professionals to target social skill instruction in the classroom.</td>
<td>Teacher consistently understands the importance of social skill instruction in the school setting for students and implements strategies several times a day. Teacher consistently implements strategies to target social skill instruction in the classroom.</td>
<td>Teacher consistently demonstrates understanding of the need for social skill training in the school setting. Teacher does not consistently implement strategies to target this skill area.</td>
<td>Teacher does not understand the importance of social skill instruction and training for students. Teacher does not provide social skill instruction in the classroom setting.</td>
<td>Lesson plans, student data, teacher interview, classroom observation</td>
</tr>
</tbody>
</table>
### 2. Instructional Planning

The teacher plans using the Virginia Standards of Learning, the school's curriculum, effective strategies, resources, and data to meet the needs of all students.

<table>
<thead>
<tr>
<th>Category</th>
<th>Exemplary</th>
<th>Proficient</th>
<th>Developing/Needs Improvement</th>
<th>Unacceptable</th>
<th>Where to Find Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses students learning data to guide planning</td>
<td>Teacher consistently uses student performance data to guide daily and weekly planning. Teacher is able to model and explain how to use learning data to guide weekly and daily lesson plans.</td>
<td>Teacher consistently uses student performance data to guide daily and weekly planning. Lesson plans are modified on a weekly basis.</td>
<td>Teacher inconsistently uses student learning data to guide weekly planning. Lesson plans are modified on less than a weekly basis.</td>
<td>Teacher does not use student learning data to guide educational lesson planning. Lesson plans are not modified weekly.</td>
<td>Lesson plans, student learning data, teacher interview, and observation</td>
</tr>
<tr>
<td>Aligns IEP goals with instructional plans</td>
<td>Teacher consistently aligns IEP goals with daily and weekly instructional plans. Teacher is able to model and explain how to align IEP goals to guide educational planning efforts to other educational professionals.</td>
<td>Teacher consistently aligns IEP goals with daily and weekly instructional plans.</td>
<td>Teacher may align IEP goals with instruction but is not able to implement these plans consistently in the classroom.</td>
<td>Teacher does not align IEP goals with instructional plans.</td>
<td>Lesson plans, student learning data, teacher interview, and classroom observation</td>
</tr>
<tr>
<td>Master schedule is used by all staff in the classroom</td>
<td>Teacher and classroom staff consistently keep a classroom routine and follow a master schedule posted in the classroom. Teacher is able to assist other teachers in creating a master classroom schedule.</td>
<td>Teacher and classroom staff consistently keep a classroom routine and follow a master schedule posted in the classroom.</td>
<td>Teacher and staff have an inconsistent classroom routine. Master schedule is not posted in the classroom.</td>
<td>Teacher and staff do not follow a classroom routine. There is no evidence of a classroom master schedule.</td>
<td>Classroom observation, classroom management plan, and teacher interview</td>
</tr>
<tr>
<td>Staff roles and responsibilities are clearly communicated with all team members (including paraprofessionals)</td>
<td>There is ample evidence that the classroom teaching team has clear and differentiated roles and responsibilities. Each member of the team is able to communicate these responsibilities to an administrator. The teacher is able to assist other educational professionals in creating staff classroom roles and responsibilities.</td>
<td>There is ample evidence that the classroom teaching team has clear and differentiated roles and responsibilities. Each member of the team is able to communicate these responsibilities to an administrator.</td>
<td>There is some evidence that the teaching team has discussed roles and responsibilities. However, team members are not able to communicate these responsibilities to an administrator.</td>
<td>There is no evidence that the teaching team has discussed roles and responsibilities.</td>
<td>Classroom management plan, classroom team interview, classroom observation</td>
</tr>
<tr>
<td>Instructional materials are organized and accessible to staff prior to instructional delivery</td>
<td>All staff can locate instructional materials when needed throughout the day in a manner that does not take away from instructional time. Materials are organized and labeled so that substitute teachers and support staff may also access them. Teacher is able to assist other educational professionals in setting up classroom spaces that allow for adequate material organization.</td>
<td>All staff can locate instructional materials when needed throughout the day in a manner that does not take away from instructional time. Materials are organized and labeled so that substitute teachers and support staff may also access them.</td>
<td>Some key staff can locate instructional materials when needed throughout the day in a manner that does not take much time away from instructional time. Materials may be organized and labeled so that substitute teachers and support staff may also access them.</td>
<td>In some cases, instructional materials are not organized and accessible to staff during the school day. Instructional time is lost due to disorganization of materials.</td>
<td>Classroom team interview and classroom observation</td>
</tr>
<tr>
<td>Aligned instructional plans to the SOLs and school curriculum</td>
<td>Teacher consistently aligns SOLs and school curriculum with daily and weekly instructional plans. Teacher is able to model and explain how plans can be aligned with SOL and school curriculum to other professionals.</td>
<td>Teacher consistently aligns SOLs and school curriculum with daily and weekly instructional plans.</td>
<td>Teacher attempts, but has difficulty, aligning SOLs and school curriculum with daily and weekly instructional plans.</td>
<td>Teacher is unable to align SOLs and school curriculum with daily and weekly instructional plans.</td>
<td>Classroom lesson plans, teacher interview, and classroom observation</td>
</tr>
<tr>
<td>Category</td>
<td>Exemplary</td>
<td>Proficient</td>
<td>Developing/Needs Improvement</td>
<td>Unacceptable</td>
<td>Where to Find Evidence</td>
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</tr>
<tr>
<td>Develops a classroom management plan and individual behavior plans as needed</td>
<td>Teacher has developed a written classroom management plan and written individual student behavior plans. Teacher has communicated these plans to all members of the students’ team and has trained them on how to take data specific to each plan. Teacher is able to assist other teachers in creating classroom and individual student plans.</td>
<td>Teacher has developed a written classroom management plan and written individual student behavior plans. Teacher has communicated these plans to all members of the students’ team and has trained them on how to take data specific to each plan.</td>
<td>Teacher has not created a classroom management plan or written individual student behavior plans. Teacher has not communicated these plans to all members of the students’ educational team.</td>
<td>Classroom management plan, individual student behavior plans, teacher interview, support staff interview, and classroom observation.</td>
<td>Lesson plans, teacher interview, classroom observation.</td>
</tr>
<tr>
<td>Plans instruction by embedding communication and social skill development</td>
<td>Teacher consistently plans instruction by embedding communication and social skill opportunities into the general education setting and collecting data on the students’ performance. Teacher is also able to model and coach other educational professionals to do the same.</td>
<td>Teacher consistently plans instruction by embedding communication and social skill opportunities into the general education setting and collecting data on the students’ performance.</td>
<td>Teacher plans instruction to include communication and social skill opportunities into the general education setting but has difficulty following through in the course of the day.</td>
<td>Teacher does not plan instruction to include communication and social skill opportunities throughout the day.</td>
<td>Lesson plans, teacher interview, classroom observation.</td>
</tr>
<tr>
<td>Develops plans based on evidence-based practices</td>
<td>Teacher consistently takes a leadership role in developing plans that are based on evidence-based practices. Teacher is able to explain, model, and coach other teachers to develop plans based on evidence-based practices.</td>
<td>Teacher consistently develops plans that are based on evidence-based practices.</td>
<td>Teacher creates plans that include some (three or less) evidence-based practices.</td>
<td>Teacher creates plans that do not include evidence-based practices.</td>
<td>Lesson plan, teacher interview, classroom observation.</td>
</tr>
<tr>
<td>Classroom environment is clearly defined in order to promote students boundaries</td>
<td>Teacher creates an educational environment that has clear physical boundaries (but is still usually open) to assist students in understanding the areas that they are allowed to access, and those they are not allowed to access. Teacher is able to assist other teachers to set up classroom with clear physical boundaries.</td>
<td>Teacher creates an educational environment that has clear physical boundaries (but is still open) to assist students in understanding the areas that they are allowed to access and those they are not allowed to access.</td>
<td>Teacher attempts to create an educational environment that has clear boundaries, but students are unclear as to the areas they are able to access.</td>
<td>Classroom environment is not defined for students. Students do not understand the classroom boundaries.</td>
<td>Classroom observation, teacher interview.</td>
</tr>
<tr>
<td>Plans for post-secondary transition while encouraging self-determination</td>
<td>According to Virginia Department of Education State Guidelines, teacher consistently plans for transition by providing opportunities for self-determination to support the student in reaching their career and college goals. Teacher is able to assist other teachers and team members to do the same.</td>
<td>According to Virginia Department of Education State Guidelines, teacher consistently plans for transition by providing opportunities for self-determination to support the student in reaching their career and college goals.</td>
<td>Teacher may plan for transition while encouraging self-determination. Teacher may not follow all Virginia Department of Education State Guidelines.</td>
<td>Teacher does not follow Virginia Department of Education State Guidelines in transition planning for students with ASD.</td>
<td>Observation, IEP transition plan.</td>
</tr>
</tbody>
</table>
### 3. Instructional Delivery

The teacher effectively engages students in learning by using a variety of instructional strategies in order to meet individual learning needs.

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Engages and maintains students in active learning</td>
<td>All students are consistently engaged in work-related tasks that are appropriate for their instructional level. They work independently without frequent breaks.</td>
<td>Students are consistently working on assigned tasks without excessive breaks.</td>
<td>Most students are working on assigned tasks. Some students may take excessive breaks at times.</td>
<td>Students are off task or have little work to do.</td>
<td>Observation, lesson plans</td>
</tr>
<tr>
<td>Promotes independence by using a variety of effective instructional strategies and resources to meet student needs</td>
<td>Teacher consistently uses a variety of effective instructional strategies and resources that are based on individual student needs.</td>
<td>Teacher uses few effective instructional strategies.</td>
<td>Teacher uses few effective instructional strategies and resources that are not related to individual student needs.</td>
<td>Teacher uses few or no effective instructional strategies and resources.</td>
<td>Observation, Lesson Plans</td>
</tr>
<tr>
<td>Provides motivators for students based upon their individual needs and preferences</td>
<td>Multiple and various motivators are present for each student.</td>
<td>Multiple motivations are present for some students.</td>
<td>Few motivators are present and are not related to students' needs.</td>
<td>Few motivators are present.</td>
<td>Observation, lesson plans, teacher interview</td>
</tr>
<tr>
<td>Effectively uses and fades prompts to support students to promote independence</td>
<td>Teacher has a systematic plan for using and fading prompts to encourage student independence.</td>
<td>Teacher systematically uses prompts.</td>
<td>Teacher uses prompts, though not always systematically.</td>
<td>Prompts are not used effectively.</td>
<td>Observation, prompting procedures, interview</td>
</tr>
<tr>
<td>Implements accommodations and modifications defined in the IEP</td>
<td>Accommodations and modifications are consistently implemented as dictated by the IEP.</td>
<td>Accommodations and modifications are implemented.</td>
<td>Accommodations and modifications are not consistently implemented.</td>
<td>Accommodations and modifications are not implemented.</td>
<td>IEP, observation, teacher interview</td>
</tr>
<tr>
<td>Differentiates instruction to meet students' needs</td>
<td>Instruction is consistently planned to include different teaching methods, materials, and student choice.</td>
<td>Instruction is consistently planned to meet students' needs.</td>
<td>Instruction is inconsistently planned to meet students' needs.</td>
<td>Instruction is planned to be uniform for all students.</td>
<td>Observation, lesson plans, teacher interview</td>
</tr>
<tr>
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<tr>
<td>Implements instruction based on students' needs in the areas of communication and social skills</td>
<td>Instruction consistently includes planned and natural opportunities to work on communication and social skills based on individual students' needs. Teacher is able to model and coach other professionals in this practice.</td>
<td>Instruction consistently includes planned and/or natural opportunities to work on communication and social skills based on individual students' needs.</td>
<td>Instruction includes some planned and/or natural opportunities to work on communication and social skills that may or may not be based on individual students' needs.</td>
<td>Instruction does not include planned and/or natural opportunities to work on communication and social skills.</td>
<td>Observation, lesson plans</td>
</tr>
<tr>
<td>Instructional language is clear and concise for the individual learner</td>
<td>Instructional language is consistently given in a manner that is understandable to the student and is typically supplemented by visual supports. Teacher is able to model and coach other professionals in this practice.</td>
<td>Instructional language is consistently given in a manner that is understandable to the student and may be supplemented by visual supports.</td>
<td>Instructional language is sometimes given in a manner that is understandable to the student.</td>
<td>Instructional language is often given in a manner that is confusing or too difficult for the student.</td>
<td>Observation</td>
</tr>
<tr>
<td>Implements classroom management and behavior intervention plans to fidelity</td>
<td>Teacher has a classroom management plan that has been taught to the students and consistently implements this plan. Teacher also consistently implements any behavior intervention plans that are individualized to students and incorporates strategies from the behavior intervention plans into the classroom management plan. Teacher is able to model and coach other professionals in this practice.</td>
<td>Teacher has a classroom management plan that has been taught to the students and consistently implements this plan. Teacher also consistently implements any behavior intervention plans that are individualized to students.</td>
<td>Teacher has a classroom management plan and inconsistently implements this plan. Teacher also inconsistently implements any behavior intervention plans that are individualized to students.</td>
<td>Teacher does not have a classroom management plan. Teacher does not consistently implement behavior intervention plans that are individualized to students.</td>
<td>Observation, behavior Intervention plans, teacher interview</td>
</tr>
<tr>
<td>Implements evidence-based practices during instruction to fidelity</td>
<td>Teacher can identify and consistently use evidence-based practices in the classroom based on individual student needs. Teacher is a resource to others on evidence-based practices.</td>
<td>Teacher can identify and consistently use evidence-based practices in the classroom based on individual students' needs.</td>
<td>Teacher can identify evidence-based practices but uses them inconsistently.</td>
<td>Teacher cannot identify or use evidence-based practices in the classroom.</td>
<td>Observation, lesson plans, teacher interview</td>
</tr>
</tbody>
</table>
### 4. Assessment of and for Student Learning

The teacher systematically gathers, analyzes, and uses all relevant data to measure student academic progress, guide instructional content and delivery methods, and provide timely feedback to both students and parents throughout the school year.

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<tr>
<td>Uses pre-assessment data to develop expectations for students, to differentiate instruction, and to document learning and student growth</td>
<td>Teacher identifies and describes results of pre-assessment data. There is a clear link between pre-assessment data and how lessons are differentiated. Teacher has a clear and systematic method for collecting data on student learning. Teacher is able to model and coach other professionals in this practice.</td>
<td>Teacher can consistently identify pre-assessment data and describe the results. Lesson plans consistenly describe how instruction is differentiated based on that data. Teacher has evidence of how learning is documented.</td>
<td>Teacher can identify pre-assessment data. Lesson plans show evidence of some differentiation but this may not be linked to pre-assessment data. Little to no evidence of documentation on learning and student growth exists.</td>
<td>Teacher cannot identify pre-assessment data. Lesson plans are not differentiated. There is no evidence of how learning and student growth is documented.</td>
<td>Lesson plans, data collection system</td>
</tr>
<tr>
<td>Uses a variety of assessment strategies and instruments that are valid and appropriate for the content and for the individual student</td>
<td>Teacher consistently uses more than two assessments and/or instruments that are valid and appropriate for the content to assess student growth. Teacher is able to assist other educators in identifying appropriate assessments and/or instruments to measure growth.</td>
<td>Teachers consistently use at least two assessments and/or instruments that are valid and appropriate for the content to assess student growth.</td>
<td>Teacher uses one assessment strategy or instrument that is valid and appropriate for the content to assess student growth. Teacher may inconsistently use a second strategy or instrument.</td>
<td>Teachers do not use valid assessment strategies and instruments or strategies and instruments used are not valid or appropriate for the content or student.</td>
<td>Assessments used</td>
</tr>
<tr>
<td>Analyzes data to make data driven decisions</td>
<td>Teacher consistently uses visual displays of data such as graphs or charts to analyze data collected and make decisions about instruction based on the data weekly or more. Teacher is able to model and coach other professionals in this practice.</td>
<td>Teacher consistently uses visual displays of data such as graphs or charts to analyze data collected and make decisions about instruction based on that data at least twice per month.</td>
<td>Teacher uses some visual displays of data such as graphs or charts to analyze data collected but may not use that data to make instructional decisions.</td>
<td>Teachers do not use visual displays of data such as graphs or charts to analyze data collected.</td>
<td>Data collection system, data analysis, teacher interview</td>
</tr>
<tr>
<td>Uses assessment tools for both formative and summative purposes to inform, guide, and adjust students' learning</td>
<td>Teacher uses assessment tools for both formative and summative purposes more than once per week and consistently makes changes to instruction based upon the results of that data. Teacher is able to model and coach other professionals in this practice.</td>
<td>Teacher consistently uses assessment tools for both formative and summative purposes at least once per week and makes changes to instruction based upon the results of that data.</td>
<td>Teacher uses assessment tools for formative or summative purposes less than one time per weak, and sometimes makes changes to instruction based upon the results of that data.</td>
<td>Teacher does not use assessment tools for formative or summative purposes and/or makes no changes to instruction based upon the results of assessments that are available.</td>
<td>Assessment results, lesson plans, teacher interview</td>
</tr>
<tr>
<td>Gives constructive and frequent feedback to students on their learning</td>
<td>Teacher has multiple ways to provide positive feedback to students more than daily about their learning and multiple ways to provide constructive and corrective feedback to promote learning. Teacher is able to model and coach other professionals in this practice.</td>
<td>Teacher provides positive feedback to students daily about their learning and provides constructive and corrective feedback to promote learning.</td>
<td>Teacher provides positive feedback to students less than daily but more than once per week about their learning and provides constructive and corrective feedback to promote learning.</td>
<td>Teacher provides inconsistent feedback to students about their learning and/or feedback is not positive and constructive.</td>
<td>Observation</td>
</tr>
</tbody>
</table>

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<tbody>
<tr>
<td>Collects data related to student’s IEP goals and objectives</td>
<td>Teacher collects data related to student’s IEP goals and objectives more than twice per week. Teacher is able to model and coach other professionals in this practice.</td>
<td>Teacher collects data related to student’s IEP goals and objectives at least twice per week.</td>
<td>Teacher collects data related to student’s IEP goals and objectives less than twice per week but more than once per month.</td>
<td>Teacher does not collect data on student’s IEP goals and objectives or does so less than once per month.</td>
<td>Data collection system</td>
</tr>
<tr>
<td>Uses accommodations and modifications as determined by the IEP when assessing student’s growth</td>
<td>Teacher has a list of accommodations/modifications for each student and consistently implements them during any and all assessments as determined by the IEP. Teacher is able to model and coach other professionals in this practice.</td>
<td>Teacher has a list of accommodations/modifications for each student and consistently implements them during any and all assessments as determined by the IEP.</td>
<td>Teacher has a list of the accommodations/modifications for each student and inconsistently implements them during any and all assessments as determined by the IEP.</td>
<td>Teacher does not implement accommodations/modifications for each student during assessments as determined by the IEP or provides accommodations not determined by the IEP.</td>
<td>IEPs, observation, lesson plans</td>
</tr>
</tbody>
</table>

5. Learning Environment

The teacher uses resources, routines, and procedures to provide a respectful, positive, safe, student-centered environment that is conducive to learning.

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<tbody>
<tr>
<td>Arranges the classroom to maximize learning while providing a safe structured environment while considering students’ individual needs</td>
<td>Students can be seen and monitored for safety by adults in the classroom at all times. Classroom is mostly free of clutter. Individual needs of all students are met through classroom layout. The classroom layout promotes independence of the students and there are separate areas designated for different instructional purposes. Can coach other educational professionals to do the same.</td>
<td>Students can be seen and monitored for safety by adults in the classroom at all times. Classroom is mostly free of clutter. Individual needs of all students are met through classroom layout. Examples may include independent work stations, group work areas, and consideration of distractions, among others.</td>
<td>Students cannot be seen or monitored for safety by adults in the classroom. Classroom is cluttered. Individual needs are not considered for all students.</td>
<td>Students cannot be seen or monitored for safety in multiple areas of the room. Classroom is cluttered and unorganized. Individual needs are not considered for the students.</td>
<td>Observation in classroom</td>
</tr>
<tr>
<td>Maximizes instructional time and minimizes disruptions</td>
<td>Instruction occurs for more than 80% of the observation. Distractions are minimized. Teacher is able to model and coach other professionals in this practice.</td>
<td>Instruction occurs for at least 80% of the observation. Distractions are minimized.</td>
<td>Instruction occurs for less than 80% of the observation. Distractions are present and little is done to minimize them.</td>
<td>Instruction occurs in less than 80% of the observation. There are multiple distractions that are not addressed.</td>
<td>Observation</td>
</tr>
</tbody>
</table>

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</thead>
<tbody>
<tr>
<td>Establishes a student centered climate that promotes dignity and respect</td>
<td>Teacher consistently uses positive language including person first language when talking about students. Teacher uses activities that promote independence for the student. Concerns about the students are handled privately away from other students. Confidentiality is maintained. Teacher coaches others in these skills.</td>
<td>Teacher consistently uses positive language including person first language when talking about students. Teacher uses some activities that promote independence for the student. Concerns about the students are handled privately away from other students. Confidentiality is maintained.</td>
<td>Teacher uses mostly positive language including person first language. Teacher uses some activities that promote independence for the student. Concerns about the students are mostly handled privately away from other students. Confidentiality is mostly maintained.</td>
<td>Teacher uses little if any positive language when talking about students. Teacher uses few or no activities that promote independence for the student. Concerns about the students are not handled privately away from other students. Confidentiality is not always maintained.</td>
<td>Observation</td>
</tr>
<tr>
<td>Uses visual supports including classroom and individual visual schedules to promote independence</td>
<td>Visual supports such as visual schedules or other visual cues that are available in the classroom. Visual supports are individualized to the student and used consistently. Students consistently have access to visual supports. Students are taught to use visual supports in the classroom to promote independence. Can model and coach other professionals in this practice.</td>
<td>Visual supports such as visual schedules or other visual cues based on student need are available in the classroom. Students have access to visual supports. Students are taught to use the visual supports to the classroom to promote independence.</td>
<td>Visual supports such as visual schedules or other visual cues are available in the classroom. Students are not consistently taught how to use visual supports.</td>
<td>Visual supports such as visual schedules or other visual cues are not present in the classroom or individually.</td>
<td>Visual supports, observation</td>
</tr>
<tr>
<td>Multiple simultaneous activities occur that are supported by classroom layout</td>
<td>All students are consistently actively engaged in productive tasks in the classroom. The teacher supports multiple instructional groups simultaneously including individual, small group, and/or large group instruction. Students consistently have little down time.</td>
<td>Most students are consistently actively engaged in productive tasks in the classroom. The teacher supports multiple instructional groups simultaneously including individual, small group, and/or large group instruction. Students consistently have little down time.</td>
<td>Some or few students are actively engaged in productive tasks in the classroom. The teacher uses multiple instructional groups simultaneously including individual, small group, and/or large group instruction on an inconsistent basis. Students have more down time than needed.</td>
<td>Few or no students are actively engaged in productive tasks in the classroom. The teacher uses one instructional grouping such as individual, small group, and/or large group instruction. Students have more down time than needed.</td>
<td>Observation</td>
</tr>
<tr>
<td>Classroom environment promotes language development</td>
<td>Teacher models use of good language. Teacher plans for communication instruction daily and takes advantage of natural opportunities to teach communication skills daily.</td>
<td>Teacher models use of good language. Teacher plans for communication instruction at least three times per week and takes advantage of natural opportunities to teach communication skills multiple times per week.</td>
<td>Teacher sometimes models use of good language. Teacher plans for communication instruction at least once per week and takes advantage of natural opportunities to teach communication skills at least once per week.</td>
<td>Teacher inconsistently models use of good language. Teacher plans for communication instruction less than once per week and does not take advantage of natural opportunities to teach communication skills in a regular basis.</td>
<td>Lesson plans, observation</td>
</tr>
<tr>
<td>Uses routines and procedures to promote a structured and predictable environment</td>
<td>Routines and procedures are evident for multiple tasks during the day. Routines and procedures are taught to students and practiced until they are mastered. Routines and procedures are used to promote independence. Routines and procedures are supported with visual supports.</td>
<td>Routines and procedures are evident for multiple tasks during the day. Routines and procedures are taught to students and practiced until they are mastered. Routines and procedures are used to promote independence.</td>
<td>Routines and procedures are evident for at least two tasks during the day. Routines and procedures are inconsistently taught to students and are not practiced.</td>
<td>Routines and procedures are evident for less than two tasks during the day. Routines and procedures are inconsistently taught to students and are not practiced.</td>
<td>Observation</td>
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</tbody>
</table>
### 6. Professionalism

The teacher maintains a commitment to professional ethics, communicates effectively, and takes responsibility for and participates in professional growth that results in enhanced student learning.

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<tr>
<td>Collaborates and communicates effectively</td>
<td>Teacher consistently collaborates with other teachers and support staff for the students on higher caseload. Teachers consistently plan together at least once per week, share resources on a regular basis, and engage in long term planning to promote successful inclusion of students and student success. Collaborative planning to focus on instructional strategies, accommodations/modifications, promoting independence, increasing communication and social skills, and data analysis, among other appropriate topics. Teachers can model and coach others in this practice.</td>
<td>Teacher consistently collaborates with other teachers and support staff for the students on higher caseload. Teachers consistently plan together at least once per week, share resources on a regular basis, and engage in long term planning to promote successful inclusion of students and student success. Collaborative planning to focus on instructional strategies, accommodations/modifications, promoting independence, increasing communication and social skills, and data analysis, among other appropriate topics.</td>
<td>Teacher inconsistently collaborates with other teachers and support staff about the needs of the students on his/her caseload. Teachers plan together one time per month and share some resources in order to promote greater inclusion of students and student success. Collaborative planning to include items such as scheduling, content, and accommodations/modifications.</td>
<td>Teacher inconsistently communicates with other teachers and support staff about the needs of the students on his/her caseload. Teachers do not plan together on a regular basis.</td>
<td>Observation, collaboration logs, teacher and team interviews</td>
</tr>
<tr>
<td>Adheres to federal and state laws, school policies, and ethical guidelines</td>
<td>Teacher adheres to federal and state laws, school policies, and ethical guidelines on a consistent basis. Teacher asks the appropriate personnel questions about unknown issues related to any laws, policies, or guidelines. Teacher is a resource for others in these areas.</td>
<td>Teacher adheres to federal and state laws, school policies, and ethical guidelines on a consistent basis. Teacher asks the appropriate personnel questions about unknown issues related to any laws, policies, or guidelines.</td>
<td>Teacher inconsistently adheres to federal and state laws, school policies, and ethical guidelines or is late in adhering to such requirements and guidelines. Teacher is inconsistent about asking the appropriate personnel questions about unknown issues related to any laws, policies, or guidelines.</td>
<td>Teacher does not adhere to federal and state laws, school policies, and ethical guidelines on a consistent basis.</td>
<td>Observation, personnel file, IEPs, progress notes, student files, teacher interviews</td>
</tr>
<tr>
<td>Works in a collegial and collaborative manner with administrators, related service personnel, paraprofessionals, other school personnel, and the community</td>
<td>Teacher consistently collaborates with others in the school and community and is often leads collaborative efforts. Teacher has a positive attitude about collaborating with others and frequently offers support to others.</td>
<td>Teacher consistently collaborates with others in the school and community and is often leads collaborative efforts. Teacher has a positive attitude about collaborating with others. Teacher offers support to others.</td>
<td>Teacher inconsistently collaborates with others in the school and community and is often leads collaborative efforts. Teacher has a positive attitude about collaborating with others. Teacher usually has a positive attitude about collaborating with others.</td>
<td>Teacher does not collaborate with others in the school and community. Teacher has a negative attitude about collaborating with others.</td>
<td>Observation, teacher interview</td>
</tr>
<tr>
<td>Follows division and school policy on use of technology including use of personal cell phones</td>
<td>Teacher consistently follows division policies on use of technology and personal cell phones. Teacher promotes the use of technology in higher class in accordance with these policies. Teacher supports others in the school on the use of technology models division and school policies on the use of technology.</td>
<td>Teacher consistently follows division policies on use of technology and personal cell phones. Teacher promotes the use of technology in higher class in accordance with these policies.</td>
<td>Teacher inconsistently follows division policies on use of technology and personal cell phones. Teacher sometimes uses their personal cell phone during the school day not in accordance with the division policy. Teacher is inconsistent in monitoring the use of technology in his/her class in accordance with these policies.</td>
<td>Teacher does not follow division policies on use of technology and personal cell phones. Teacher uses their personal cell phone during the school day not in accordance with the division policy.</td>
<td>Observation</td>
</tr>
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<th>Exemplary</th>
<th>Proficient</th>
<th>Developing/Needs Improvement</th>
<th>Unacceptable</th>
<th>Where to Find Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Builds positive and professional relationships with parents/guardians through frequent and effective communication concerning students' progress</td>
<td>Teacher communicates with parents on a consistent basis in a mutually agreeable format such as phone calls, letters home, and/or e-mails. Teacher communicates students' progress to parents in a timely manner and shares positive feedback with parents.</td>
<td>Teacher communicates with parents on a consistent basis in a mutually agreeable format such as phone calls, letters home, and/or e-mails. Teacher communicates students' progress to parents in a timely manner and shares some positive feedback with parents.</td>
<td>Teacher does not communicate with parents on a consistent basis or in a mutually agreeable format such as phone calls, letters home, and/or e-mails. Teacher communicates students' progress to parents. Teacher does not always communicate in a timely manner and shares some negative feedback with parents.</td>
<td>Parent contact log, copies of notes home, observation</td>
<td>Parent contact log, copies of notes home, observation</td>
</tr>
<tr>
<td>Demonstrates consistent mastery of standard oral and written English in all communication</td>
<td>Demonstrates consistent mastery of standard oral and written English in all communication and supports others in this area.</td>
<td>Demonstrates consistent mastery of standard oral and written English in all communication.</td>
<td>Demonstrates inconsistent mastery of standard oral and written English in some communication.</td>
<td>Observation, written communication.</td>
<td>Observation, written communication.</td>
</tr>
<tr>
<td>Models appropriate social and communication skills with students and adults</td>
<td>Teacher consistently models appropriate social and communication skills with students and adults in all school environments and in the community. Teacher is a resource for others in this area.</td>
<td>Teacher consistently models appropriate social and communication skills with students and adults in all school environments.</td>
<td>Teacher inconsistently models appropriate social and communication skills with students and adults in some school environments.</td>
<td>Observation</td>
<td>Observation</td>
</tr>
<tr>
<td>Avoids the use of seclusion and restraint, and follows all division policies and procedures</td>
<td>Teacher follows all division policies on restraint and seclusion and avoids the use of both unless absolutely necessary for safety of the student or others. Teacher provides support or training to others in how to avoid the use of restraint and/or seclusion.</td>
<td>Teacher follows all division policies on restraint and seclusion and avoids the use of both unless absolutely necessary for safety of the student or others.</td>
<td>Teacher inconsistently follows all division policies on restraint and seclusion but uses them more than necessary.</td>
<td>Teacher does not follow all division policies on restraint and seclusion and uses them unnecessarily.</td>
<td>Observation</td>
</tr>
<tr>
<td>Follows division and school dress codes</td>
<td>Teacher consistently follows the division and school dress codes and ensures that attire is appropriate for the students with whom he/she works.</td>
<td>Teacher consistently follows the division and school dress codes.</td>
<td>Teacher inconsistently follows the division and school dress codes.</td>
<td>Teacher does not follow the division and/or school dress codes.</td>
<td>Observation</td>
</tr>
</tbody>
</table>