

CHAPTER 6

Developing a Library Student Employee Training Program to Improve Interactions with Neurodiverse Students

Sherry Packard and Connie Strittmatter

Introduction

According to the American College Health Association's *National College Health Assessment*, 2.3% of surveyed college students have received a diagnosis of autism spectrum disorder (ASD) by a health professional (2023). This figure does not include the many college students without a formal ASD diagnosis or with other neurodivergent disabilities. The visual, auditory, and social aspects of a library environment can create anxiety and stress for neurodiverse students. Recognizing that we have neurodiverse students at our university, we wanted to assess our current library environment and communication strategies to ensure that we are providing the best possible service to neurodiverse students.

We decided to take a more proactive role in supporting neurodiverse students when the strategic projects librarian attended a program titled, *Supporting College*

Students on the Autism Spectrum: Evidence-Based Strategies for Academic Librarians at the 2018 American Library Association (ALA) annual meeting. The program presenters discussed research and best practices for academic librarians working with neurodiverse students. One outcome of their Institute of Museum and Library Services (IMLS) research grant was a manual, *Project A+: Serving Students with Autism Spectrum Disorder in the Academic Library* which guided academic librarians through an evaluation of their library's environment and services using a neurodiversity lens (Everhart et al., 2018).

In early 2019, we created a small team consisting of the strategic projects librarian, head of reference and research services, and coordinator for public services to evaluate the library using the *Project A+* manual. We completed an in-depth evaluation of our library over two semesters. We conducted an environmental scan, reviewed existing signage, and examined our communication strategies when interacting with all students. This chapter will focus specifically on the development and implementation of a set of training modules for student employees that provide best practices when interacting with neurodiverse students. The training is titled *Alternative Communication Strategies*. While the initial focus of the training was supporting students with ASD, we quickly realized that the content of the training could be applied more broadly to include additional neurodiverse and neurotypical audiences. Throughout the chapter, we use the terms ASD and neurodiverse. ASD is used when we are specifically referencing sources, tools, and content focused on autism spectrum research. Neurodiverse is used as an umbrella term when we are speaking about the broader group of neurodivergent behaviors which include difficulty maintaining attention, interacting socially, and sensory dysfunction.

Developing the Student Employee Training Modules

The purpose of the training was to provide student employees with communication strategies that they can employ in a variety of situations when working at the library or in their everyday lives. Our goal was to create a set of best practices that was relevant to behaviors and situations library students were most likely to encounter. Using resources such as the Centers for Disease Control and Prevention (CDC), *Project A+*, and subject matter experts, we created a list of behaviors and characteristics, examined our current communication strategies when interacting with all patrons, then adapted strategies to address and support our student employees and neurodiverse patrons. These strategies and tools were also meant to provide a means for reducing student employee stress and frustration with patron interactions.

Concerns We Addressed

The development of the student employee training modules began with a team discussion to establish the goals and values that would guide our decision making. We determined it was important to respect our students and community regarding the topic's sensitive nature. We also wanted the training modules to be an effective and efficient use of training time.

In keeping with our values, we needed to be careful that our student employees would not highlight patrons as “other,” different, or attempt to diagnose them. We decided to place the emphasis on defining good customer service by focusing on flexibility and noticing patron discomfort in the library's often overstimulating environment. For example, a student employee might think, “this person won't look me in the eye, I'm not going to force eye contact,” rather than “this person won't look me in the eye; they must be autistic.” We wanted to provide employees with tools they could use when traditional communication strategies were not effective during an interaction, raise awareness of students with ASD, and foster empathy and understanding.

Scope of the Training

As a team, we researched and consulted several documents and articles as we began developing the modules. We consulted with Board Certified Behavior Analysts (BCBAs) and the university's director of disability services for advice and feedback on our training documents, adjusting based on their feedback. For example, the director of disability services recommended we rename “ASD Simulation Exercise” to “Empathy Exercise.” She suggested that the title was more inclusive and better represented our intentions. While there are varying opinions on whether to use person-first or identity-first language, and some people with autism prefer to call themselves autistic, in our training materials, we use person-first language. It was also important to us to include primary sources that individuals with ASD created, such as videos in the modules to ensure that much of the information was coming from the lived experiences and voices of people with autism.

Our initial list of behaviors and characteristics were:

- Avoids making eye contact or looks away when speaking,
- Unaware of proximity to others, invades personal space,
- Hyper-focused topics, extended conversations,
- Reluctant conversation, trouble initiating or maintaining a balanced conversation,
- Difficulty processing and answering open-ended questions,

- Preference in asking their peers for help or reluctance seeking help from their peers,
- Preference for routine (i.e., using the same computer each visit),
- Echolalia, repeating others' words or sentences,
- Self-stimulatory behavior or "stimming" (i.e., tapping, making sounds, etc.), and
- Melt-down, involuntary response to sensory or emotional overload.

Although we included all these behaviors in our introductory module document *Alternative Strategies to Address ASD Behavior*, we were aware that creating full modules for each of these behaviors would make the training too long. Instead, we chose to focus on the most relevant behaviors including eye contact avoidance, difficulty answering open-ended questions, and heightened anxiety or sensory overload.

Initially, the training materials were developed for student employees to serve students on the spectrum, but we found that the same strategies applied to a wider range of neurodiverse students or students who were having a stressful day. Students could also be anxious or shy, and what we have discovered is that many of these communication strategies apply to many students. Therefore, we modified our documents to support anyone who might need extra help in communicating their need for assistance.

Implementation of Online Training Modules

There are currently two types of training that our student employees are given. First, new student employees receive individual, general training in their primary job responsibilities, which include circulation desk duties, customer service, Library of Congress call numbers, and basic reference skills. Returning students receive refresher training in these areas, as well. Every student receives their general training during their regularly scheduled shifts. Challenges we have encountered with individual training are that it is time intensive, can be interrupted with patron questions, and can vary depending on which staff members provide the training.

The second type of training occurs in the middle of the semester and focuses on specialized topics, such as active shooter training, how to represent library skills on a resume, and disaster recovery. The specialized training is typically held as a two-hour group session. The benefits of group training are that information is shared efficiently, student employees can socialize, and outside guests can present on specialized topics. The downside of group training is that not every student employee can attend due to schedule conflicts.

With the benefits and challenges of individual and group training in mind, we decided on the modality of our new *Alternative Communication Strategies* training. We initially decided that the training would be an annual in-person, group training where we would go over potential situations students might encounter, work through strategies, and perform in-person exercises and activities. Our first training session was scheduled in March 2020, but it was canceled due to the COVID-19 pandemic.

The postponed training session created an opportunity for us to create more robust content in an online environment. During the summer of 2020, we developed an asynchronous training course within the university's learning management system, Blackboard, which is the platform that library staff and student employees use to communicate with each other online. Moving the exercises and content to an online platform created some challenges. Activities based on in-person contact between two people, such as the eye contact exercise and practicing of open-ended questions, had to be reconfigured. We could not assume that two students would be scheduled to train simultaneously, performing exercises together. In addition, the Blackboard navigation often caused frustration with student employees and some features did not work as we had hoped. For example, we had to find a work-around for discussion board posts to ensure that students could not view the responses of other students before posting their own responses.

In the summer of 2020, we invited both the library staff and the director of disability services to complete the training modules to solicit their feedback. We discussed how the strategies could apply to their work at the library or how alternative communication could have helped in a past situation, other uses for this training, and the possibility of expanding the training to others on campus. We piloted the training modules in March 2021 as a specialized training program to library student employees.

Moving forward, we decided to incorporate *Alternative Communication Strategies* training into the individual, general training for new student employees. The reasons are twofold. First, if we made it a specialized, group training session, it would use most of the session time and impede on other topics. Secondly, the training program does not necessarily need to be completed annually. We did not want returning student employees to have to continually repeat the training. When new student employees are hired throughout the year, they can complete the training closer to their start date, rather than needing to wait until the next group training session, a potential 10-month delay. Using an online format answered another concern we had raised previously regarding attendance. Since the modules could be completed over multiple sessions, we could be flexible in blocking out student employees' regularly scheduled shifts to complete training.

Training Modules

We developed six training modules for the library student employee training which take approximately 75 minutes to complete. Student participation was optional and accommodations are given as needed. An overview of each module is provided below.

Module 1: Introduction to Autism Spectrum Disorder

This module laid the foundation for the training by providing an overview of ASD so student employees were more knowledgeable about the condition and more empathic to those who may have ASD. This module took approximately 20 minutes to complete. The module opened with a short video from the public services coordinator defining ASD. She framed the training as a tool to bring awareness about ASD and provide student employees with strategies to help reduce the anxiety other students may experience when using the library. She also stressed that the training was not meant to diagnose students, but rather to encourage and support students during their library visit.

The second part of this module included an excerpted clip from Schaber's video *Ask an Autistic #23: What is Autism?* (Schaber, 2015). We selected this video because we wanted our student employees to watch a video in which a person with autism, Schaber, explains what autism is and is not. She explains autism is not a disease or illness but rather a developmental condition that begins before birth. Autism affects every aspect of a person's life. We thought it was valuable for student employees to hear how Schaber views and explains the effects of autism on her life.

The third part of the module was a presentation created by the authors that provided statistics about autism, characteristics that students on the spectrum may exhibit, and definitions of terms associated with ASD. The goal of the presentation was to provide student employees with examples of social and personality characteristics that they may have seen patrons exhibit. By providing student employees with this information, we hoped they would be able to recognize these behaviors are part of the person and not indications of an individual being rude or intentionally difficult.

The fourth part of the module consisted of a PDF file *Alternative Strategies to Address ASD Behavior* that provided student employees with a list of behaviors they may encounter and strategies to help make the interaction successful. Topics covered in this document include strategies for student employees to try when individuals do not make eye contact, stim, or are reluctant to engage in conversations.

The fifth part of the module consisted of an empathy exercise adapted from *Project A+*. Individuals with ASD may experience auditory and visual overstimulation that can make an ordinary day-to-day activity more difficult. The goal of the exercise was

to simulate some of the possible daily experiences of students on the spectrum, which can include challenges with organizational functioning, working memory, and attention span. We hoped the exercise would help student employees develop empathy for students with ASD by having them complete an exercise in an auditory and visually stimulated environment to demonstrate some of the challenges that students with ASD may experience in a library environment.

The exercise consisted of three parts. Each exercise lasted 45 seconds and the slide changed every two seconds. In part one, a word appeared on the screen and students were asked to read the word out loud. For example, if the word “green” in red font appeared on the screen, they would respond by saying “green.” The goal of this exercise was to maintain focus and attention. For the second part of the exercise, a word appeared on the screen, but instead of reading the word, student employees were asked to state the color of the word. For example, if the word “green” in red font appeared on the screen, student employees would respond by saying “red.” The goal of the second exercise was to not only maintain attention, but also to exercise cognitive flexibility. For the final exercise, students were asked to read the color of the word as they did in part two but with additional auditory and visual stimuli. While completing the exercise, varying volumes of music were played, and visual effects were added to the slides. The goal of the third exercise was to maintain focus while practicing their cognitive flexibility in a highly stimulated environment.

Lastly, students were asked to discuss their experience with the ASD empathy exercise by answering the question below in their discussion board.

- What were the easiest parts of the exercise to complete?
- What were the most challenging parts of the exercise?
- Was it difficult to focus while completing any of the exercises?
- Did the exercises provide you with any insight into the experiences of students with ASD?

Module 2: Eye Contact

Module 2 primarily addresses one of the defining characteristics of ASD: difficulty making or maintaining eye contact. The behavior not only makes social interactions harder but can lead to miscommunication among cultures where eye contact is taken as a sign of trust and respect. This module took about 15 minutes to complete.

The overview page described how avoiding eye contact can make social interactions harder and lead to miscommunication. We stressed that it is important to pay attention to other clues, like patron discomfort and not to assume that if a student is avoiding eye contact, they are not interested in communication or are no longer listening. The suggested strategy was not to force eye contact but to limit your gaze and redirect attention to the conversation subject, such as a computer screen.

The first part of the module was a clip from Schaber's video series *Ask an Autistic* #21 - *What About Eye Contact*. In the video, she explains why a person on the spectrum or people with sensory processing disorder may avoid eye contact. She explains that maintaining eye contact can create sensory overload due to the intense amount of information being conveyed. A second reason why a person may have atypical eye contact is related to the brain's cognitive abilities and processing. For example, they might have trouble following a conversation if there is other background noise. Removing extra information coming from eye contact can allow them to focus more on what is being said (Schaber, 2014).

The second part of the module was an exercise in which student employees would have a conversation with a peer without making eye contact. This exercise was designed to give the students practice communicating and directing attention. They would then answer two questions in their discussion board: "Record what you found easy or difficult about the conversation" and "What was missing that made it challenging to carry on the conversation?"

Module 3: Asking Questions

Module 3 was designed to train student employees in alternative communication strategies during the typical reference interview. Asking open-ended questions is standard practice for learning more about what a patron's information needs truly are, but sometimes open-ended questions can create more anxiety and break down communication rather than expand understanding.

The module took approximately 15 minutes to complete and consisted of an introduction video on how employees can modify how they ask questions when they feel that a patron is becoming anxious or if communication is beginning to decline. It explains how changing tactics in response to a communication breakdown can reduce anxiety and help ensure a better interaction.

In the second part of the module, student employees participated in an online discussion board exercise to convert open-ended or general questions into closed or unambiguous questions. Examples of an open-ended question or statements we asked students to convert to closed questions were "What kind of information sources do you need?" and "Tell me about your topic."

Module 4: Supporting Students Who Experience Sensory Overload

Module 4 was focused on increasing awareness of students' surrounding environment, within the library and around campus, exploring how certain factors might affect a person who experiences sensory overload. It began with a video titled "*Carly's Café - Experience Autism Through Carly's Eyes*". The video is derived from a section of the

book *Carly's Voice: Breaking through Autism* which describes the experiences of Carly Fleischmann. She is 17 and has non-verbal autism. The video is filmed from Fleischmann's perspective and begins in a busy cafe where she is seated with her father and sister. The noise, lights, movement of other cafe patrons, along with her own wishes not being understood, become overwhelming to her, and she experiences heightened anxiety and sensory overload (Fleischman, 2012).

After watching the video, students responded to questions on the discussion board. We wanted students to think critically about areas in our library that might become overwhelming and how those areas might be improved. This module builds upon the *Alternative Strategies to Address ASD Behavior* document provided in Module 1 to provide support and options for students who are becoming overwhelmed.

- What were some of the trigger points for Carly?
- What is one area in our library that might be overwhelming for Carly? How might that area be improved?
- Where else on campus might Carly feel overwhelmed?
- What campus events or situations might also cause sensory overload? How might we support students with ASD in these situations?

Module 5: Recognizing the Strength of Individuals on the Spectrum & Conclusion

We ended the training session highlighting the strengths of people with ASD rather than their perceived weaknesses. Individuals with ASD have strengths and characteristics that make them unique and set them up for success. The authors created a narrated slide presentation recognizing and celebrating the strengths and accomplishments of 26 individuals with ASD. Examples of individuals highlighted included Temple Grandin and Greta Thunberg, along with other scientists, artists, musicians, and inventors.

This module finished with a final video from the coordinator of public services reiterating the purpose of the training, which was to raise awareness of neurodiversity within our library and university and provide student employees with tools and strategies to improve the experience of our library visitors.

Module 6: Further Readings

The final section of the training included a curated list of readings, in order of relevance, for students to consult if they wanted to learn more about students with ASD and their experiences in an academic library. The selected readings can be found in Appendix 6A.

Student Feedback for Changes

We recognized that the training was not finalized and wanted feedback from student employees who had completed the training to learn which modules resonated with them and which needed improvement. We applied for and were granted IRB approval to interview our student employees and share their feedback more broadly. We developed the interview questions to help us refine the training program and collect information about the library's space and broader university environment.

Although the interview process was completely voluntary, all 16 of our student employees participated. Students were informed that they would have complete anonymity and confidentiality. While none of our student employees identified as neurodiverse, some of them shared that they had siblings or friends on the autism spectrum.

The interview questions were divided into four parts: feedback on layout and navigation; content in the training modules; library and campus environment; perspectives and future use.

Layout and Navigation

Overall, students thought the length of the training and the layout of the content were good. When we asked them what parts of the training they did not like, they said that some parts were repetitive. Some students felt that there would be a benefit to having this training done in-person, especially the Eye Contact and Asking Questions exercises.

Content in the Training Modules

Students found the Empathy Exercise, Carly's Café, and the *Alternative Strategies to Address ASD Behavior* document most interesting and helpful. They reported that they felt engaged with the topic and felt that they gained important insight into the experiences of students on the spectrum. One student said, "I feel like I have the inside scoop on how their minds work and how I can better work around that. I have autistic people in my life, I learned how to better interact with them." Each student indicated that they would like to continue learning more about supporting patrons with autism and other neurodiversities.

Library and Campus Environment

We asked students, "What is one area in our library that might be overwhelming for a person on the spectrum? How might that area be improved?" Several students cited the high traffic areas of the library where the open computers and printers are located.

It is worth noting that some of the strategies presented in the training were given as answers to interview questions. “The first floor, everybody goes there, most noisy with the printers and computer stations. The best thing to do is to help guide them to a quieter part of the library like the 3rd and 4th floor,” one student said.

Perspectives and Future Use

Several students also suggested that we broaden the training to support a wider range of neurodiverse patrons. Responses to the question “Should we continue to offer this training to library student employees?” were overwhelmingly positive, with the added suggestion that the training should be offered to anyone on campus who works in customer service. “Every student on campus should take this training. Our generation knows nothing about autism,” one student said. “Yes, I think when they first get hired. Not a lot of jobs in the world teach you how to talk to someone who might look different or have a disability, you’re not taught that,” another said.

We not only wanted students to be able to apply aspects of this training to their work in the library, but also to their everyday lives. Some students saw how they could apply these techniques elsewhere. Students reflected on their past experiences and how they may change their behavior or actions towards others in the future. “Sometimes people have rough days. So being patient, have a kind tone, not aggressive. You don’t always know if someone has a disability or not,” one student said. Another said: “A patron asked a question but wouldn’t look at me. I didn’t know what to do at the time, so I would try to make eye contact and I thought they were being rude, but after this [training], I can see that they weren’t being rude. I would have used different strategies.”

Conclusion

While developing the *Alternative Communication Strategies* training, we had to exercise flexibility and adaptability. Our initial plan of offering the training in person during a student employee training session in spring 2020 did not occur due to the COVID-19 pandemic. Not knowing when we could gather again as a group, we decided to re-create the training in an online format. While we may have lost some of the interactivity of an in-person training, in hindsight, online training proved to be a better format because we were able to fold it into the overall new student employee training experience.

Training modules such as the one we developed need to be reviewed and updated periodically to ensure that the content is relevant and accurate. This training was first conducted in 2021. Since then, the coordinator of public services has retired, and we have a new head of access services. The training is due for review and update. The

authors want to collaborate with the head of access services to gather her perspective and ideas about the training. Based on student employee feedback, potential additions to the training modules include an exercise on when to apply the strategies and creating an additional module that explores the use of person-first and identity-first languages. We may also solicit feedback from students with autism to ensure that our content is representative, comprehensive, and thoughtful. We expect to revamp the training during 2026, so version 2.0 will be ready for the fall semester. On a larger scale, since many of the strategies taught in the training can be applied to other departments on campus, we may explore expanding the training to other university departments that employ students and openly licensing the content for other institutions to use.

Acknowledgements

We would like to thank Kim Smalley and Lori Steckervetz for providing valuable and constructive feedback on our chapter. We would also like to thank Kelly Boudreau, the retired coordinator for public services, for working with us as we developed the student employee training modules.

References

- American College Health Association (2023). *National college health assessment: Reference group data report*. https://www.acha.org/wp-content/uploads/2024/07/NCHA-III_FALL_2022_REFERENCE_GROUP_DATA_REPORT.pdf
- Anderson, A. *Wrong planet, right library: College students with autism spectrum disorder and the academic library*. (2016). (Publication No. 10120566). [Doctoral Dissertation, Florida State University]. http://purl.flvc.org/fsu/fd/FSU_2016SP_Anderson_fsu_0071E_13037
- Anderson, A. (2018). Autism and the academic library: A study of online communication. *College & Research Libraries*, 79(5), 645–658. <https://doi.org/10.5860/crl.79.5.645>
- Everhart, N., Woods, J., & Anderson, A. (2018). *Project A+: Serving students with autism spectrum disorder in the academic library*. Diginole. http://purl.flvc.org/fsu/fd/FSU_libsubv1_scholarship_submission_1524754052_db70ce00
- Fleischmann, Carly. (2012, May 24). *Carly's Café - Experience Autism Through Carly's Eyes*. [Video]. YouTube. <https://youtu.be/KmDGvquzn2k>
- Longtin, S. E. (2014). Using the college infrastructure to support students on the autism spectrum. *Journal of Postsecondary Education and Disability*, 27(1), 63–72. <https://files.eric.ed.gov/fulltext/EJ1029568.pdf>
- McMullin, R. & Walton, K. R. (2019). *Supporting student on the autism spectrum: A practical guide for academic libraries*. Bloomsbury Publishing. <https://www.bloomsbury.com/us/supporting-students-on-the-autism-spectrum-9781440863967/>
- Schaber, A. (2014, Nov. 20). *Ask an autistic #21: What about eye contact?* [Video]. YouTube. <https://youtu.be/QXM9Mj5Zd7I>
- Schaber, A. (2015, Apr. 18). *Ask an Autistic #23: What is Autism?* [Video]. YouTube. <https://youtu.be/Vju1EbVVgP8>

Appendix 6A

Readings

These are the selected readings for Module 6.

- Everhart, N., Woods, J., & Anderson, A. (2018). *Project A+: Serving students with autism spectrum disorder in the academic library*. Diginole. http://purl.flvc.org/fsu/fd/FSU_libsubv1_scholarship_submission_1524754052_db70ce00
- Anderson, A. (2018). Autism and the academic library: A study of online communication. *College & Research Libraries*, 79(5), 645–658. <https://doi.org/10.5860/crl.79.5.645>
- McMullin, R. & Walton, K. R. (2019). *Supporting students on the autism spectrum: A practical guide for academic libraries*. Bloomsbury Publishing. <https://www.bloomsbury.com/us/supporting-students-on-the-autism-spectrum-9781440863967/>
- Longtin, S. E. (2014). Using the college infrastructure to support students on the autism spectrum. *Journal of Postsecondary Education and Disability*, 27(1), 63–72. <https://files.eric.ed.gov/fulltext/EJ1029568.pdf>
- Anderson, A. *Wrong planet, right library: College students with autism spectrum disorder and the academic library*. (2016). (Publication No. 10120566). [Doctoral Dissertation, Florida State University]. http://purl.flvc.org/fsu/fd/FSU_2016SP_Anderson_fsu_0071E_13037