

Autism Support in Academic Libraries

AN EXPLORATION AND ANALYSIS OF CHALLENGES
FACED BY ACADEMIC LIBRARIANS

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Declaration

This study was completed for the MSc in Information Management at the University of the West of England, Bristol. This work is my own. Where the work of others is used or drawn on it is attributed.

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Abstract

This dissertation research aims to explore the challenges surrounding autism support in academic libraries, with an emphasis on the opinions and challenges of academic librarians. An exploration and analysis of services offered and the opinions of respondents was conducted through the employment of a literature review and qualitative survey. Findings conclude that, while institutions have a range of accessible services, there is a general lack of autism awareness and training for library staff. As it stands, it is time to begin a significant shift from spreading awareness to spearheading accessibility projects to ensure that services at every academic institution are beneficial to all students.

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Chapter 1: Introduction

1.1 Introduction

We are officially twenty years into the twenty-first century. With continuing conversations about social justice and accessibility, now more than ever “it is essential for academic librarians to identify and remain mindful of the unique needs of an increasingly diverse student demographic to ensure that academic libraries are a welcoming place for all students” (Switzer, 2008, p 280). This not only involves diversity in race and gender, but also ability. In general, academic libraries aim to be welcoming to all of their students and provide a service that is useful. As reflected in the following dissertation, support for students with autism can be quite challenging for academic librarians to achieve. With a greater understanding of autistic students and support for our library staff, we can provide a service that is accessible to all of our students. The vast majority of challenges in supporting neurodivergent students arise from a lack of awareness of their unique needs and the ways in which we can support our students through their education, “while there is some research on strategies for teaching faculty working with students with [autism], there is a dearth of scholarship regarding what librarians should do” (Shea and Derry, 2019, p. 327). The aim of this dissertation is to advance understandings of the challenges surrounding autism support in academic libraries and to contribute insight into best practice for academic librarians. This aim is to be achieved through the following objectives:

- **Objective 1:** Identify and introduce autism, specifically in higher education
- **Objective 2:** Articulate the importance of autism support in academic libraries
- **Objective 3:** Identify the ways in which academic librarians are currently supporting autistic students
- **Objective 4:** Explore the personal opinions of, and challenges faced by, academic librarians offering these services
- **Objective 5:** Discuss the impacts these services have on academic libraries
- **Objective 6:** Offer recommendations for best practice going forward

Objectives one and two will be explored within the Literature Review chapter of this dissertation. The emphasis of the Literature Review being directly informed by the responses of the academic librarians who submitted responses to the questionnaire. It became clear from the start that there was a significant lack of awareness

amongst the surveyed librarians as to the specific needs of autistic students at their institutions. A qualitative study was conducted to meet the requirements of objectives three, four, and five; reaching out to academic librarians in the UK in an attempt to discern their understanding of the needs of students with autism and the ways in which they are supporting autistic students and employing the use of data description, analysis, and synthesis. The final chapter of this report will attempt to contribute to the discussion of what methods librarians can employ in order to obtain and maintain the tools and resources necessary to support all students, including those with autism.

1.2 Disability as a Social Construct and Terminology in this Report

The terminology that we use to have conversations about disability and autism is changing all the time, and there are often debates between individuals about whether or not to use person first language. Autism is defined as:

A lifelong developmental disability that affects how people perceive the world and interact with others. Autistic people see, hear and feel the world differently [...] autism is not an illness or disease and cannot be 'cured.'

(National Autistic Society, 2020).

While general awareness of autism has grown over the past decades, we as a society still struggle to understand the unique needs of autists, and often misuse our language in ways that can be quite hurtful. Even now, the term 'autism spectrum disorder,' or ASD, is being phased out when outside of a medical context. To highlight a significant reason for this, in the words of an autist:

I feel that I 'am' autism/autistic. One cannot separate/cure me from autism. It's not something that's 'wrong' with me, just something I am.

(Skinner, 2020).

Using the term 'autism spectrum disorder' outside of a medical context implies that there is something wrong with the autistic person, where instead the emphasis should be that "students with [autism] are part of a larger group of neurodiverse students on campus" (McMullin and Walton, 2019, p. xii). Functional difference is not inherently wrong, and we must shift away from language that implies as much. As we continue to listen to autistic people we must recognise that they, more often than not, have the agency to speak for themselves, and that it can be extraordinarily dehumanising to reject the language that autists choose to use to describe themselves. Some individuals may prefer different language from that stated above, so it is vital to create an environment that allows our students to communicate those things to us.

It is important to note that there has been a push to discontinue the use of ableist and other problematic language because, “language is one tool of an oppressive system. Being aware of language — for those of us who have the privilege of being able to change our language — can help us understand how pervasive ableism is” (Appendix B; Sojitra, 2020, n.p.). As stated by Sojitra, and understood by most librarians, the language that we use carries significance and reflects the larger social order:

The social norm identifies an [able] person as ‘standard’ or ‘normal’, which therefore characterises disabled persons as ‘non-standard’, ‘abnormal’ and even inferior. Because of that, disabled people are not treated the same way, are marginalised and their needs aren’t taken into account.

(Carlos, 2020, p. 8).

While the emphasis of Carlos's book is on physical disability, the social norm that dictates what is ‘standard’ significantly impacts autistic individuals as well. To reiterate, “ableism is systematic, institutional devaluing of bodies and minds deemed deviant, abnormal, defective, subhuman, less than” (Sojitra, 2020, n.p.) [Appendix A lists manifestations of ableism, while Appendix B outlines ableist language and alternatives to use.] This is why it is so important to use the correct terminology to describe autists and other individuals who function differently or have a disability.

It should go without saying that disabled people deserve as much dignity and respect as everyone else, “therefore, ableism is an oppression to tackle with the aim towards the respect of disabled people, so that they can live their lives as autonomously as possible” (Carlos, 2020, p. 19). Within a library context, this manifests as working towards providing truly accessible spaces and services for all students; ranging from accessible file types to ensuring that library staff receive proper autism awareness training. Generally, academic librarians are comfortable and familiar with the need to create spaces that are physically accessible to patrons. While physical accessibility is highly important, it is vital to shift the conversation of accessibility to include those who are neurodivergent, as their needs are often entirely overlooked, and centre these individuals in the discussion of what needs to be done.

It is vital to discuss the use of the term ‘Asperger’s’, a term that many are familiar with. It has been used to describe autists who are ‘high functioning’ (also problematic) for quite some time. Unfortunately, the term has a dark past: “under Hitler’s regime, psychiatry [...] became part of an effort to classify the population [...] as ‘genetically’ fit or unfit. [...] It is in this context that diagnostic labels such as ‘autistic psychopathy’ (coined by Asperger) were created” (Baron-Cohen, 2018, p. 306). In addition, Asperger “protected the children he deemed intelligent. But he also referred several children to Vienna’s Am Spiegelgrund clinic, which he

undoubtedly knew was a centre of 'child euthanasia,' part of what was later called Aktion T4" (Baron-Cohen, 2018, p. 306). It is important to centre the discussion of the future use of this term on the views of autistic people, particularly those who have an Asperger's diagnosis. The term will not be used elsewhere in this dissertation to refer to autistic individuals, and in practice academic librarians must be mindful of the language that students prefer. This is best done through open communication with students, particularly autistic students and those from other marginalised demographics.

Is autism a disability? Remy and Seaman succinctly stated that, "a disability is medically defined as a potentially limiting physical or mental condition associated with individuals that could impair activity or life supporting tasks" (2014, p. 25). In some regards, autism can be considered a disability, "autistic people have varying and complex needs from 24-hour care to simply needing clearer communication and a little longer to do things" (National Autistic Society, 2020). For those that require greater support, autism could be considered a significant disability. For others, autism is only a disability insofar as the man-made world is designed not be supportive of individuals who vary from the 'norm'. Within a university context, we primarily engage with students of the latter category, who may function well on their own but still face unique challenges at university related to their neurological differences. This is why it is important to consider sociopolitical definition of disability (Remy and Seaman, 2014, p. 25). This definition has gained popularity in recent years, most commonly as the 'social model of disability,' where:

- 1) Disability is a social construct, not the inevitable consequence of impairment,
- 2) Disability is best characterised as a complex interrelationship between impairment, individual response to impairment, and the social environment, and
- 3) The social disadvantage experiences by disabled people is caused by the physical, institutional and attitudinal [...] environment which fails to meet the needs of people who do not match the social expectation of 'normalcy'

(Hosking, 2008, qt. in Burrows, 2018, n.p.).

The social model is hugely important as it recognises individuals are only as disabled as society fails to meet their needs; and it applies to every disability, from severe learning disabilities to physical disabilities that individuals are born with, to disabilities caused by the ageing process, trauma and accident. The model can easily be expanded to include those with autism, "the social model approach promotes inclusive environments and raises awareness and acceptance of students with autism despite their differences" (Shea and Derry, 2019, p. 327). Due to the nature of the social model, inclusion, understanding, and awareness are central.

Functional difference, be it physical or mental, is something to be celebrated, to strive to understand, and to support individuals as they need rather than assuming that they cannot do something because they are different.

Centring the social model of disability to librarianship, autistic students make up part of the greater neurodiverse group of students on campus that librarians may encounter or otherwise support (McMullin and Walton, 2019, p. xiii). As such, in this report autism is not discussed as a disorder, but as a neurological difference that we ought to seek to understand. This research holds the social model of disability as a central ideological starting point and explores the ways in which academic librarians can accommodate the needs of autistic students, and the support that is available to them to meet those students' needs. While it can be a challenge to understand the needs of students with autism, approaching these conversations from a position that promotes inclusive environments allows us to raise awareness and converse with these students to gain understanding, and develop space and services that more adequately meet the needs of all students.

1.3 Chapter Summary

- Due to the growing numbers of autistic students at university, the aim of this research is to advance understandings of autism support at academic libraries in the UK. This will be achieved by articulating the needs of autistic students, the ways in which academic librarians are supporting them and the challenges that they face in doing so.
- Concepts such as the social model of disability and neurodiversity are articulated here and form a basis of understanding to frame the research conducted. Particular emphasis is given to language that the researcher will not be using elsewhere in this dissertation.

Chapter 2: Literature Review

2.1 Introduction to Literature Review

In order to advance understandings of the challenges surrounding autism support in academic libraries, it is important to have an understanding of the unique challenges that autistic students can face in higher education. The challenges that autistic students face primarily arise from a lack of awareness on behalf of librarians, in addition to poor design of space and learning materials. Awareness is the first step in a greater process of moving towards inclusive and accessible academic environments for all students (Anderson, 2018, p. 655). It is established that librarians have a moral imperative to provide equitable access to resources to all patrons. As such, this chapter will satisfy Objectives 1 and 2, outlined in the Introduction: to identify and introduce autism and to articulate the importance of autism support in

academic libraries, linking this directly to the ways in which librarians themselves must be part of this discussion.

2.2 About Autism

There is a significant lack of awareness about autism in our society at large. This lack of awareness stems into our day-to-day work and can have a significant, negative impact on autists whose needs are misunderstood. "It seems that most people view this inner autistic World as dismal grey, as a dungeon without windows. To me, it is a rainbow prism. It can be a world of bright fragments, like stained glass" (O'Neill, 1999, p. 20, qt. in Kinnaer, et al., 2016, p. 193). O'Neill's words are powerful and bring to light one of the greatest misunderstandings about autists – that somehow their lives are muted or less vibrant, with a lack of awareness for the surrounding world and the people in it. While autists can have difficulty interpreting social cues or processing stimulus, they are vibrant individuals who, with the right support, can succeed just as well as anyone else. Considering autism as a spectrum can be useful in understanding how vast the range of experiences of autists, "autism-related conditions have been found to occur in a continuum of different forms and gradations. [...] [R]anging from people needing continuous help to people living and working independently who can tell us about autism from the inside out" (Kinnaer, et al., 2016, p. 180). Typically, the autistic students that we see at university are capable of living and working independently, though it is vital not to minimise the challenges that they can face. It is important to note that autistic students at university may not have a formal diagnosis of their condition, as some do not receive diagnosis until adulthood (Crane, et al., 2018) whilst others, for varying reasons, may never be able to obtain a formal diagnosis of their condition. It should never be a requirement for individuals to prove a disability as a condition to receive support.

2.2a Cognitive Differences

Knowing that autists function differently, it is important to discuss what some of those differences are in order to provide a service that is accessible to autistic students. Much of the existing research focuses on autistic children, but it is important to recognise that autism is lifelong and will not disappear with age. McMullin and Walton briefly list the cognitive characteristics that some autists struggle with: difficulty multitasking, poor time management, poor organisation and planning skills, and difficulty with change and/or transitions (2019, p. 3). These cognitive characteristics can have significant impact on the day-to-day life of an autistic student and their success at university; "absorbing large amounts of new information in a short time frame can be difficult for students with [autism]" (McMullin and Walton, 2019, p. 3). This challenge in and of itself can become hugely difficult for autistic students to overcome if they do not have adequate support from their tutors and librarians.

2.2b Sensory Differences

In addition to cognitive differences, autistic individuals often have different sensory experiences that affect their day-to-day lives. Differences in information processing can significantly influence an autistic individual's experience with the surrounding world (Kinnaer, et al., 2016). These differences can present in a range of ways, as each autistic individual experiences the world uniquely. Autists may experience over- or under-sensitivity to sounds, tastes, touch, smell, lights, colours, or struggle to distinguish between fore and background noise, sometimes triggering sensory overload (The National Autistic Society, 2020; Kinnaer, et al., 2016). Such sensory overload can be overwhelming to the point of causing physical pain. An inadvertent lack of awareness of the library's physical environment can have the potential to create and perpetuate spaces that deter autistic students who may have additional needs. Differences in information processing are an excellent example of why the physical space of the library is important, in addition to the services offered and the trainings conducted. What might seem like a bright and cheery library is to an autist overwhelming and unbearably bright. Taking a step back and assessing spaces can provide an opportunity to make adjustments that will not only help autistic students to access services, but will provide greater ease of access for others with sensory differences that may not be related to autism.

2.2c Social/Communication Differences

Autists also manage challenges with communication and social interactions (Anderson, 2018, p. 645). An in-depth study of autists' interactions with their environment reported that "unusual perceptions and information processing, together with impaired regulation of emotions, were found to be central in the autobiographical descriptions" (Elwin, et al., 2013, p. 233). To those with a fundamental lack of awareness of autism, these unique differences can be interpreted as rudeness or challenging behaviour. These difficulties can manifest as:

- Poor eye contact
- Inability to initiate, conduct, or properly end a conversation
- Inconsistent and impulsive verbal and nonverbal behaviour
- The inability to infer body language, humour, and sarcasm
- Difficulty responding to social cues

(McMullin and Walton, 2019, p. 5).

Due to this, it is absolutely vital for library professionals to develop an awareness of autism; not only to understand the ways in which autists function differently, but also to recognise and meet the needs of autistic students. Autistic students at university are "aware that they sometimes miss the social cues and unwritten rules [...] and appreciate when others use straightforward language to explain how things work" (McMullin and Walton, 2019, p. 33). If librarians strive to understand the lived experiences of autistic students and approach all interactions with an air of

openness and support, providing accessible information and resources, the academic success of all students will be fostered.

2.2d 'Stimming'

Academic librarians, and anyone working in a customer-facing or support position, must be aware of what stimming is: “the word ‘stimming’ refers to self-stimulating behaviours, usually involving repetitive movements or sounds” (Pietrangelo, 2019, n.p.). While everyone stims in one way or another, stimming is among the diagnostic criteria for autism because in autists it has the potential to cause issues (Pietrangelo, 2019, n.p.). For some individuals, their methods of stimming do not become disruptive to those around them; for others, the methods they employ to stim may take others by surprise (see Appendix C). Stimming is a coping mechanism that serves a variety of purposes, including:

- To stimulate the senses or decrease sensory overload
- To adapt to an unfamiliar environment
- To reduce anxiety and calm themselves
- To express frustration, especially if they have trouble communicating effectively
- To avoid certain activities or expectations

(Pietrangelo, 2019, n.p.).

Often a response to external factors, academic librarians can strive to create a library environment that is safe, welcoming, and inclusive; working to reduce environmental triggers. Academic librarians must remember that, for many of their students, university can be a daunting and entirely unfamiliar experience. That in and of itself is listed above as a trigger for the need to stim. Creating physical space and services that focus on accessibility and diversity will allow for an environment that fosters learning and academic growth for all students. Engaging autistic students in what changes need to be made in order to ensure that services are accessible is paramount.

2.3 Autism in Higher Education

The exact number of students with disabilities in higher education is unknown for a variety of reasons; namely that not all people wish to declare their disabilities, and universities do not always require them to do so (Clarke, 1991, p. 11; Remy and Seaman, 2014, p.25). The National Autistic Society reports that, “one in 100 people are on the autism spectrum and there are around 700,000 autistic adults and children in the UK” (2020, n.p.). If UK campuses are reflective of the population at large, then one could assume that one in one hundred students is autistic. Such perspective invites student support that opens dialogue and creates an environment of communication and support. Academic librarians, “probably will not

know if a particular student who approaches the help desk or sets up an appointment [...] has [autism]" (McMullin and Walton, 2019, p. 30). This means that librarians must be acutely aware of how they engage with students, to be respectful of their needs and offer support in a range of formats.

2.3a Challenges in Higher Education

The transition into university can be particularly challenging for students with autism because of the challenges discussed above, in addition to a lack of campus support services to help make the transition successful (Shea and Derry, 2019). McMullin and Walton note that this is linked to the fact that, "many [autistic students] have had years of supports throughout their educational history. These supports often disappear at high school graduation" (2019, p. 10) and they step into an environment where there is significant lack of awareness of autism and the support that they need. This evokes even greater challenges in autistic student's transition to, and success in, university. Some of the unique challenges that autistic students face when transitioning to university are directly related to communication skills and executive functioning discussed above. It needs to be noted that, "students with autism [can] struggle to adjust to self-advocating, having difficulty socialising, and need more help with organisation and time management" (McMullin and Walton, 2019, p. 9). Through our role as librarians, if we have an awareness of this fact of life for autistic students, we can extend a more empathetic outreach to our students and provide support to them in such ways that benefit their entire university experience.

A lack of awareness and understanding on behalf of library professionals as to the extent of the support needed allows for the continuation of services that are potentially unhelpful to autistic students. It is unsurprising that student's needs may not always be met. However, while autistic students face unique challenges at university, these challenges in no way imply that they are unable to succeed in their education. Rather, they mean that academic librarians have work to do to gain an understanding of the needs of these students and learn how to best support them.

2.3b Strengths in Higher Education

It is vital to give space to the strengths of autistic students and the gifts they bring with them. Autistic students have great attention to detail, often excellent technological skills, and high levels of intelligence (McMullin and Walton, 2019, p. 4). This attention to detail can manifest as a keen desire to know everything about a subject, and not being satisfied until the individual has complete knowledge of the topic. Autistic students are often creative, approaching tasks in unique ways, and pursue their interests in imaginative ways that neurotypical individuals may not expect (McMullin and Walton, 2019, p.4). Creativity and a desire to thoroughly understand a topic are vital to succeeding in education and in life. While a neurotypical individual may be content with a rudimentary understanding of a topic on their module, an autistic student may dedicate hours, if not days, to gain an

understanding of the topic. Academic librarians should be aware of students' dedication to their studies, and be understanding of the potential deep-rooted desire to know everything about their chosen subjects. This dedication should be fostered through academic and library support to ensure that students gain everything they desire to from their education. None of these strengths should be disregarded when discussing the challenges that these students may face, but it is important to emphasise that autistic students have just as much a right to a successful education as any other student. As academic librarians, the best thing to do is to learn ways to better support autistic students to succeed in their time at university, reflecting on the things already being done and identifying what needs to improve.

2.3c How Librarians Fit In

Students with autism operate in unique, varied ways that are not always easy to understand for neurotypicals. Due to the unique needs of autists, greater effort must be made to support these students (Remy and Seaman, 2014, p. 24). Academic librarians know that they are positioned to support in students' university success, and that they can do so by serving as a welcoming and safe space for students (Anderson, 2018). While it is undeniable that there is a dearth of knowledge on this topic, neurotypical students, [autistic] students, and librarians can benefit from an inclusive and accessible library environment (Remy and Seaman, 2014, p. 27). While academic librarians are doing the best they can, it is their responsibility to be in communication with their students with varying needs, and with each other, to coordinate better resources and support.

There is no one suggestion in how librarians can best serve their students with ASD, but understanding members of this population and their challenges, as well as the areas in which they excel, will lead to a better library experience for both the students themselves and the librarians who serve them in the academic library.

(Anderson, 2018, p. 655).

As greater numbers of neurodivergent students pursue higher education, “librarians face a greater need to raise personal, professional, and library-wide awareness of [autism] so these students can be more appropriately assisted” (Remy and Seaman, 2014, p. 26). The best way to do so is to include autistic individuals in the conversation – by gathering feedback from students and by providing autism awareness training facilitated by autistic individuals (Anderson, 2018). As Shea and Derry argue, “working directly with Autistic people can guarantee librarians are not relying on experts to advocate for people with ASD in the library” (2019, p. 329). It is not only with the moral imperative as curators of knowledge that academic librarians must step into a role of advocates for autistic students at university: as

academic support for all students, librarians have a duty to ensure that support needs are met and that all students are able to thrive in their studies.

2.4 Accessibility

Megan Crabbe and Annie Segarra collaborated to explain accessibility in the context of social media. Their explanations are easily transferrable across sectors, as they provide a clear definition: "'accessibility' simply refers to having access to something [...] disabled and neurodivergent people deserve access to all spaces, period" (Crabbe and Segarra, 2020, n.p.). Carlos expands on this, stating "accessibility isn't an 'effort' or a 'gesture' towards disabled people but a necessary step intended for correcting discriminatory and unfair policies with the objective of establishing a just society" (2020, p. 35). Accessibility feels, in and of itself, a vague concept; however, "lack of accessibility is prevalent in all areas of life, including housing, employment, transportation, education, healthcare, and more" (Carlos, 2020, p. 21). While those of able body and mind have the privilege of disregarding accessibility, those who are physically or mentally different from the norm face challenges in their day-to-day lives. This can have significant impact on autonomy, physical and mental wellbeing, and overall quality of life, when a journey must be thoroughly planned, only to be proven inaccessible on arrival, "it can end up becoming an umpteenth negative or discriminatory experience" and can lead to further isolation (Carlos, 2020, p. 34). Within a support role, academic librarians must engage with conversations of accessibility, create space for feedback, and open avenues of communication with their student body in order to determine if their support is fit for purpose.

2.4a Accessible Library Services

How does one ensure that services are accessible to everyone? In recent years, "library instruction trends are moving toward delivery that meets the needs of a variety of learning styles which nicely dovetails with the concept of neurodiversity and the recognition that not all brains are alike" (Remy and Seaman, 2014, p. 26). A familiarity with the different learning styles can help librarians to understand what it means to be functionally different and have different options to ensure that services are accessible. By expanding knowledge of how students learn and interact with libraries, services can be better adapted to meet their needs. This will not only benefit autistic students but the student body as a whole, as each individual will be able to access services that suit them. As curators of knowledge and key points of contact for students' research needs, academic librarians have an imperative to ensure that all services are equitably accessible to all students. In failing to do so, librarians run the risk of inadvertently damaging their students' ability to succeed at university; the negative impacts of which are unquantifiable. If academic librarians fail to create a space and service that is accessible to autistic students, they themselves become a barrier to student success.

Through decades of discourse, there is a general consensus that physical accessibility for disabled patrons should be a consideration when designing a space. What this looks like varies from one institution to another, but there are a range of methods in existence to provide a framework to ensure that services are accessible. Universal Design (UD) was developed to make products, environments, and buildings as accessible as possible (Shea and Derry, 2019). UD concepts are an excellent starting point, and in many places have already been employed in the library design process; incorporating the needs of all users, including those with disabilities (Pionke, 2017, p. 50). In addition to considerations of the physical accessibility of a space, staff, services, and additional support must also move toward full accessibility. In some places, UD has already begun to be adapted to education through the Universal Design for Learning (UDL) (Shea and Derry, 2019, p. 329). UDL, "seeks to design products and environments that are maximally usable for all and eliminate the need for further adaptation or specialised design" (Remy and Seaman, 2014, p. 27). From UDL has come the development of the Universal Design for Instruction (UDI) which has benefitted librarians greatly in the USA and is discussed by McMullin and Walton (2019) at great length. The principles of UDI are described as follows:

1. Equitable use
2. Flexibility in use
3. Simple and intuitive instruction
4. Perceptible information
5. Tolerance for error
6. Low physical effort
7. Size and space for approach and use
8. A community of learners
9. Instructional climate

(McMullin and Walton, 2019, p. 52).

These principles can and should be applied to each form of instruction or support that the library provides, even though some of the elements seem to counteract each other, requiring clear intentions (Kinnaer, et al., 2016, p. 193). While each academic library is designed under different priorities, adopting UDL and UDI benefits autistic and neurotypical students alike. Librarians also benefit when they use UD, as they will minimise the need for accommodations when students with varying requirements seek out their support, thus reducing their overall workload whilst simultaneously providing more equitable services.

2.4b User Experiences in Libraries

Despite decades of discussion about autism and how to support autistic students, "there is limited research literature describing how college students with [autism]

experience academic libraries" (Shea and Derry, 2019, p. 327). This reflects a dearth in understanding of the lived experiences of autistic students, and is compounded by the fact that there is minimal discussion of their interactions with academic librarians (Anderson, 2018, p. 654). Not only is there limited research, there is next to no discussion of communicating directly with students to gain an understanding of whether their needs are being met. The present lack of communication and understanding is why it is vital to pay attention to the existing research and to continue these discussions in our own libraries. Each academic library is unique, with its own ethos and priorities, but it must be acknowledged that current accommodations may not be beneficial to students.

Autists have functional differences that affect the ways in which they interact with their environment. Academic libraries come in a wide range of shapes and sizes, often bombarding patrons with stimuli, from background noise to flickering lights, and countless others (Remy and Seaman, 2014, p. 25). Clearly designated spaces for quiet and group study benefit students with autism and creates a library space that is structured and functional for the range of students it serves. Such structures and clear signage not only benefit autistic students, but the student body at large. This is the case for the vast majority of requirements that students with differences need — more often than not, they have a knock-on effect of benefitting everyone.

An excellent example of this is the social interactions that autistic students have with academic librarians, as their social discomfort can discourage them from asking for help (2019, p. 329). Pionke expands upon this, pointing out that:

Negative interactions with library employees revolved around the lack of expertise and more importantly the lack of compassion and empathy. Interactions with library employees that turned negative usually involved needing some accommodation for disability that wasn't necessarily obvious.

(Pionke, 2017, p. 51).

Not only are students negatively affected by these interactions, well-intentioned academic librarians can also have negative experiences. A shocking number of academic librarians in the UK have expressed that they feel a great lack of understanding of how to support autistic students, some stating that they had never received autism awareness training. Autistic students in Pionke's study, "expressed a deep frustration with the clear lack of training and sensitivity regarding interacting and assisting people with disabilities" (Pionke, 2017, p. 52). This lack of training is highly problematic, though the stakes are much higher for the students themselves.

Autistic students are fully aware that they have specific needs that differ from the norm, and are also aware that librarians tend not to have the training required to meet those needs and provide support that they can benefit from. One of the

greatest concerns in Pionke's study was the resounding notion that autistic students do not want to be seen as a burden to library staff (2017, p. 51). The feeling of being burdensome can further impact a student's probability of reaching out for help, even when in dire need of support.

Moreover, additional exhaustion is caused by the need to mask, or emulate neurotypical behaviours such as eye contact and tone of voice, alongside managing other processing differences (Remy and Seaman, 2014, p. 25); also known as masking, a form of camouflage to allow the individual to pass as neurotypical. Without proper understanding, it is easy to interpret these internal struggles as rudeness, as autistic students may not behave in ways that librarians expect. However, "patrons with disabilities are not asking for special treatment. They are concerned with being able to use the resources of the library without penalty when their disability gets in the way" (Pionke, 2017, p. 52). Neurotypical individuals must never interpret a request for support as a hope for special treatment. This is why it is hugely important for academic librarians to gain an understanding of the lived experiences of autistic students. Positive outcomes include improved student retention and academic success, and programmes and facilities that benefit all students, and broader disability awareness (Remy and Seaman, 2014). Truly accessible services are designed to be used not only by those with physical differences, but by those who are neurodivergent as well. The benefits of accessible services extend far beyond the patrons they are designed for, benefitting also those who do not have specific additional needs. Academic librarians must strive to provide accessible support and approach each interaction with compassion.

2.5 Chapter Summary

- Autism is a diagnosis for neurological differences that can impact an individual's sensory processing and executive functioning skills. Physical and cognitive differences can significantly impact an individual's day-to-day life, in addition their experiences at university.
- The challenges that autistic students face at university are primarily related to an inaccessibility of services and a general lack of awareness of academic staff when it comes to the support, and type of resources, that these students may require.
- It is imperative for academic librarians to develop an understanding of the unique challenges and research support needs that autistic students may have, and to advance provisions and services to be more equitable, just, and accessible.

Chapter 3: Research Methods

3.1 Introduction to Research Methods

It is with an understanding of the above that the researcher framed their study, looking at the ways in which academic librarians are supporting autistic students in space and in practice, and determining whether academic librarians feel as though they have adequate training to support these students. Before delving into the research methods for this study, it is necessary to reiterate aims and objectives. The empirical research conducted and discussed below works to satisfy Objective 3: to identify the ways in which academic librarians are supporting autistic students, Objective 4: to explore the personal opinions and challenges of academic librarians offering these services, and Objective 5: to discuss the impacts these services have on academic libraries. Little work has been done up to this point to communicate with academic librarians in the UK about whether they believe their services and support are fit for purpose, let alone to assess whether they believe that they are receiving adequate support themselves. This chapter will discuss the research strategy for this project, the data collection methods employed, a framework for data analysis, and a discussion of the limitations and potential problems with this study.

3.2 Research Strategy

The research undertaken in this study takes the form of a literature review and a survey with the intent to focus on the unique challenges that autistic students can face at university and explore the role that academic librarians play in supporting autistic students. Research for the literature review revealed that accessibility of services is incredibly important, accompanied by the realisation that there is a dearth of scholarship speaking directly to librarians and to autistic students themselves. After thorough discussion with the dissertation supervisor, it was decided that this study would focus on academic librarians in the United Kingdom. While the researcher acknowledges the extreme importance of turning these conversations to autistic students themselves, it is also important to open these conversations with the very librarians who are supporting students.

There was an initial intention to conduct interviews as a means of collecting empirical data for this study, to gain rich qualitative data, but the methodology of this project was altered to protect the researcher and subjects from potential risk of COVID-19. Alongside the removal of any health risk to participants, an online survey allows participants to begin the study, take a break, and return to it later. A lack of time constraints, other than the closure of the study, removes additional pressure from the participant and allows them to take any time necessary to ponder their answers. The survey was designed to incorporate some tick box questions and some open-ended questions. The details of data collection will be discussed under the heading of the same name. Sampling from this study was random, as academic

librarians were free to opt in to the study; however, the reach of distribution was limited to what the researcher was aware of and had access to. The smaller pool of data aligned well with the scope of the study and the time constraints of the academic year. While it would be ideal to speak with each academic librarian in the UK, such a study was not possible at this time. Despite a limited reach, the rich responses collected provide ample room for discussion and analysis.

There are several reasons for opting to use an online survey to conduct this research, as they offer anonymity, security, and privacy (Braun and Clarke, 2013, p. 137). Anonymity of participants was central to the design of the questionnaire; for ease of compliance with data protection and privacy regulations and to give space for participants to provide honest answers without risk of professional fallout. This allowed librarians to reflect on their own training, or lack thereof, without personally identifying themselves. For those who wished to further engage with the study, participants were provided with a space to give their contact details should they be willing to discuss their responses. As a first-time researcher, an additional benefit of the survey format is that it provides consistency in how questions are posed to participants (Braun and Clarke, 2014, p. 137). It is important to note that despite uniformity in questions, respondents are given the space to say whatever they like (Braun and Clarke, 2014). With the priority of librarians' insights central to the study, this format was ideal for gathering the required data, particularly given the global circumstances.

3.3 Data Collection

In order to make ample use of the online survey format, the researcher designed a questionnaire of primarily open-ended questions to meet the requirements of objectives three and four, and begin exploring objectives five and six. Questions were designed to obtain information as to the ways in which academic librarians are currently supporting students with autism and to create space for the articulation of opinions and challenges faced. The researcher was unaware of the number of librarians who would be willing to participate in the study, and was aiming for fifteen to twenty data-rich responses. The questionnaire was generated using Qualtrics, a specialist software for creating and distributing surveys (Qualtrics, 2020, n.p.). Open-ended questions were drafted to gain insight into the opinions of academic librarians with regards to autism support and explore the challenges that they face, while tick-box questions were used to identify some services offered, as doing so allowed for ease of completion of the questionnaire. On completion, the questionnaire employed fourteen questions in total, including that which confirmed participants' consent and status as academic librarian in the UK. Data was collected in this way to provide as detailed feedback as possible through remote, anonymous engagement with the questionnaire (Appendix D). Braun and Clarke note that a significant benefit of online qualitative surveys is that they "are a quick and inexpensive way to collect data from lots of people in a short period of time" (2014, p. 137). This was particularly beneficial given the time scale allowed.

Once drafted and revised to a suitable standard, a link to the survey was distributed to academic librarians in the UK through the use of JISCMAIL; more specifically, to the lists DISABILITYCHAMPS, LIS-ARLG (Academic and Research Libraries Group), LIS-RESEARCHSUPPORT, and LIS-ACCESSIBILITY. JISCMAIL allowed the researcher to quickly distribute the survey to many librarians in one go, with the added benefit that the recipients remain entirely anonymous. For those willing to participate in the study, responses were quick and relatively easy.

3.4 Framework for Data Analysis

Balancing discussion of experience, understanding, and a critical lens will provide space to closely analyse the ways in which librarians interact with autistic students and the shortcomings that arise from a lack of awareness. Analysis of findings will be done in a thematic manner, looking directly at physical space and services, personal opinions on accessibility and challenges as reflected in responses, as well as institutional challenges that academic librarians face when offering these services. The chosen themes function as methods for identifying the ways in which academic librarians are already supporting autistic students and the range of challenges that they face. Data analysis will provide the groundwork for the true aim of this research: to offer recommendations for best practice to academic librarians in the UK.

3.5 Limitations and Potential Problems

There are limitations to this study due to the nature of the delivery. Unless voluntarily provided, the researcher does not have contact details to follow-up or gain clarity on responses provided. This means that, if a response is particularly thin or unclear, there is no capacity to follow-up. While this disallows any accountability, it creates a space for greater honesty. Surveys are also limited by the interpretation of the respondent. If a question is misunderstood, there is a risk of results that either do not substantially contribute to the research or omitted responses. In order to minimise confusion as much as possible, a trial run of the survey was completed by peers of the researcher to allow space for feedback and revision before its release.

It is also important to note the limitations of the distribution of this particular survey. Whilst JISCMAIL is an extremely useful resource for communicating with academic librarians in the UK, it only reaches individuals who have subscribed to those particular mailing lists. While each of these lists has many subscribers, not every academic librarian in the UK can be expected to be on one of these mailing lists, thus limiting reach. Additionally, partaking in the survey was voluntary, further limiting that number. Limiting factors aside, distribution for this research obtained an adequate number of responses for analysis.

3.6 Chapter Summary

- The research methods and strategy for data collection are discussed: a literature review, followed by a qualitative

survey distributed to academic librarians in the UK through the use of assorted lists on JISC Mail.

- A framework for data analysis is provided, articulating that data will be analysed in a thematic manner; emphasising physical space and services offered, and the personal challenges and opinions of those surveyed.
- Finally, the limitations and potential problems that have cropped up through conducting this research, particularly the limitations of online surveys – from errors in interpretation to limited reach of distribution.

Chapter 4: Qualitative Survey Findings: Description, Analysis and Synthesis

4.1 Introduction to Qualitative Survey Findings

To advance understandings of the challenges surrounding autism support in academic libraries, a questionnaire was employed to gather responses from academic librarians in the UK. Research was designed to obtain information about services offered to students, the physical space of academic libraries, the challenges that librarians face, and their opinions on offering additional support to autistic students. Contributing primarily to Objective 3, physical space and services offered will be discussed under the heading of the same name. The challenges that librarians face and their opinions on offering support to autistic students, Objective 4, will be discussed and analysed under the heading 'Personal Opinions and Challenges'. Finally, the institutional and structural challenges that are identified by librarians will be briefly discussed, addressing Objective 5. These groupings allow for clear discussion of the data with relation to each objective and the themes discussed in the Literature Review, and relate the themes that arose inadvertently from the data collected. [Survey questions can be found in Appendix D and examples of selected responses can be found in Appendix E.] Each heading will allow space for description of the results, discussion of what was found, and integrative analysis of empirical data against the findings of the Literature Review.

4.2 Physical Space and Services Offered

Academic librarians were asked a range of questions about their library space and the services offered to students. In order to gain an understanding of whether services are accessible or not, it is important to look at the physical services that are offered, for all students and for those who require additional support. First and foremost, respondents to the survey were asked if autism support is a priority at their library (Figure 1). Of the 22 responses to the question, 50% indicated that sometimes support for autistic students was a priority. 31%, indicated that this support was a priority most of the time, and only 13%, said that autism support is always a priority in

their library. One respondent indicated that support for autistic students was never a priority at their institution. These results begin to reveal the current priority of autism support in academic libraries in the UK.

Q1 - Is support for students with an ASD a priority at your library?

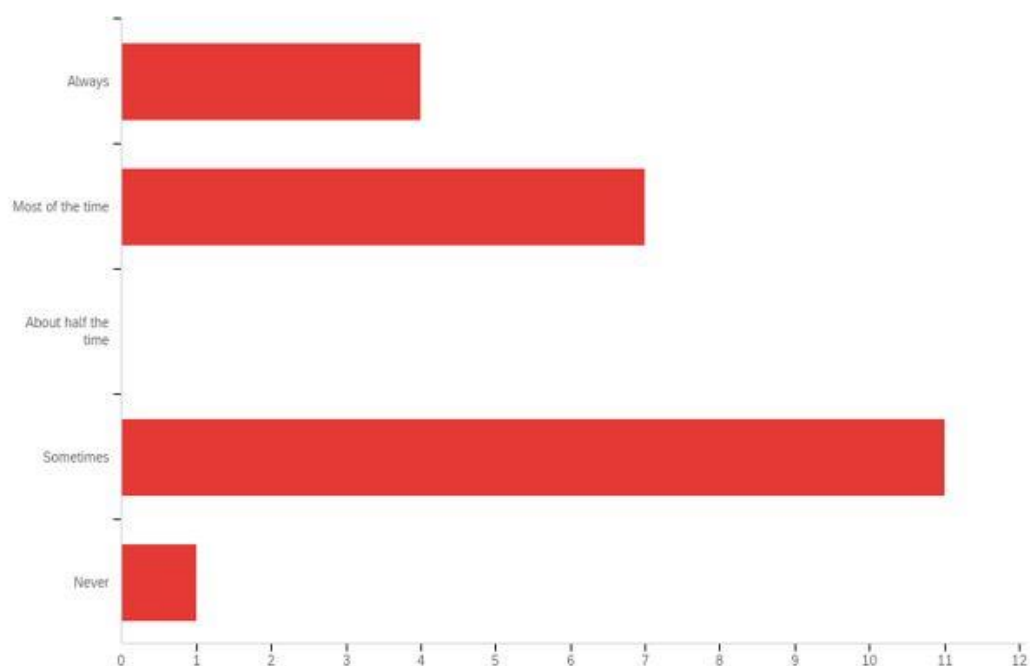


Figure 1: Question 1 Visualisation

When respondents were asked for specifics regarding what services are offered to students, three highlighted that their libraries have Disability Librarians, a Disability Support Team, or other staff support, “our disability and neurodiversity team has a central and visible position within the library” (Respondent 11). Two librarians indicated that they have online resources, such as accessibility support pages, available to students; one of which “produced guides to the library buildings that aim to help out ASD students navigate their way [...] (the guides also tell students if areas are likely to be busy, noisy, have strong smells, etc.)” (Respondent 15). Online and digital resources to help students navigate the library are extremely important to neurodiverse students. Information regarding layout, noise levels, smells, and library rules help autistic students to plan journeys to the library, to know what to expect, and to navigate directly to the spaces that they need. Providing this information online and through print resources also reduces the amount of time that library staff spend on directing students to study space and other resources (not to say that these queries should not be properly responded to should students approach staff for help!).

Several stated a reliance on students disclosing their disability or explicitly communicating their need for additional support with relation to their disability,

"students are identified and support targeted to individuals" (Respondent 5). Multiple librarians indicated that their support for students is reactionary, rather than proactive, overlapping with the requirement of students to disclose their disability in order to obtain additional support. The necessity to disclose one's disability can be, in and of itself, a barrier to the accessibility of services and support.

The requirement of disclosure can become even more problematic when it dovetails into statements such as Respondent 5's, that "when we are supporting an individual then it is a top priority, when we are not then we consider the needs of autistic people alongside other priorities" (Respondent 5). It has already been articulated that the needs of autistic students can vary greatly from that of neurotypical students, and may require accommodations in order to succeed. In contrast, another respondent stated that at their institution, "[autistic] students [...] do not have to disclose their condition unless they believe that the mainstream service is not accessible" (Respondent 9). While well-intentioned, it can be extraordinarily difficult for those with communication difficulties to articulate to support that services offered are inaccessible. This is made exponentially more difficult when academic support lacks awareness of the needs of autistic students and are dismissive of support requests. If academic libraries do not explicitly articulate that they provide accessible services, alternative formats, and additional support whether or not students have a diagnosis, students have no way to know that their request will be taken seriously and made a priority.

One respondent makes the observation that, while "we pay attention to accessibility with our provision, autism itself hasn't been explicitly mentioned" (Respondent 7). If autism itself has not been explicitly mentioned, then it is likely that provision is missing key accessibility needs for autistic students.

**Q3 - In what ways do students with an ASD interact with your library?
(please tick all that apply)**

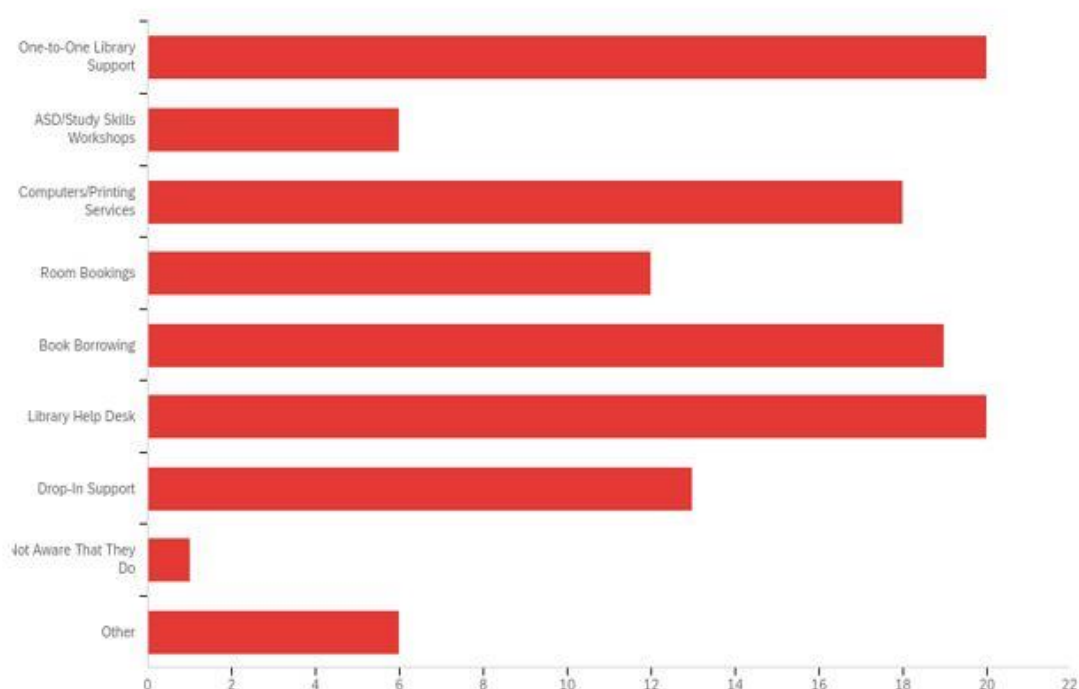


Figure 2: Question 3 Visualisation

The majority of academic libraries in the UK offer a range of services to students. While each may not have the capacity to offer all of the services above (Figure 2), many strive to offer more than one service to students. Each respondent indicated that their library offered multiple points of interaction for autistic students, and often neurotypical students alike, with the majority stating that their library offered one-to-one library support, computers and printing services, book borrowing, and a library help desk. Room bookings and drop-in support were also a common offering to students; however, only six respondents indicated that their library offered autism support or study skills workshops to their students. With a knowledge that autistic students can benefit greatly from this type of support, it could be highly beneficial to students if these services were offered at a greater number of institutions.

The category of 'Other' (Figure 2), allowed librarians to add a comment to their submission, one stating that "we don't advertise any services as particularly suitable for those with [autism]" (Respondent 7). If services designed to support autistic students are not advertised, can it be assumed that said students know that accessible services are available to them? If additional services are not advertised and not offered to students, it begs the question of the priorities of the institution and whether they believe that all of their students function in the same way. One could argue that if specific services are not advertised as being accessible, the assumption would be that they are not. Especially for those with additional needs, it cannot be

assumed that accessibility will have been a priority in the design process. When the world is ableist, accessibility is radical.

Q4 - How is additional (library related) support advertised to students with an ASD? (please tick all that apply)

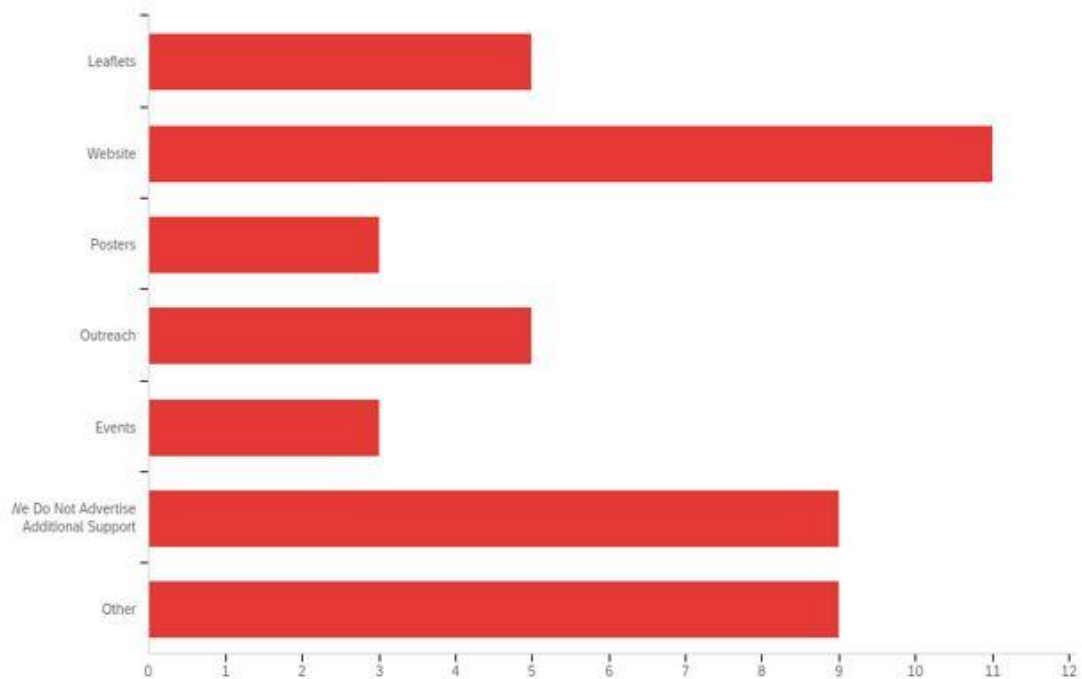


Figure 3: Question 4 Visualisation

Respondents were then asked to indicate how additional support is offered to students (Figure 3). Eleven respondents indicated that additional support is advertised to students through a website, and most respondents to the question ticked multiple methods for advertising support. At Respondent 2's institution, additional support is advertised through leaflets, website, posters, and events, with additional signposting to disability services when necessary. Respondent 3's answers are similar, including support during induction. Several respondents indicated that additional support was contingent on a direct referral, for example a "direct email from the Liaison Librarian to students if identified as needing additional support" (Respondent 18). In contrast, nine respondents indicated that they do not advertise additional support in any way. For so many respondents to indicate that their institution does nothing to promote support for autistic students is of great concern. There are few things that send a clearer message of a lack of empathy on behalf of the institution than to in no way show students that there is support for them should they need it.

Q5 - In what ways does your library gather feedback from students with an ASD? (please tick all that apply)

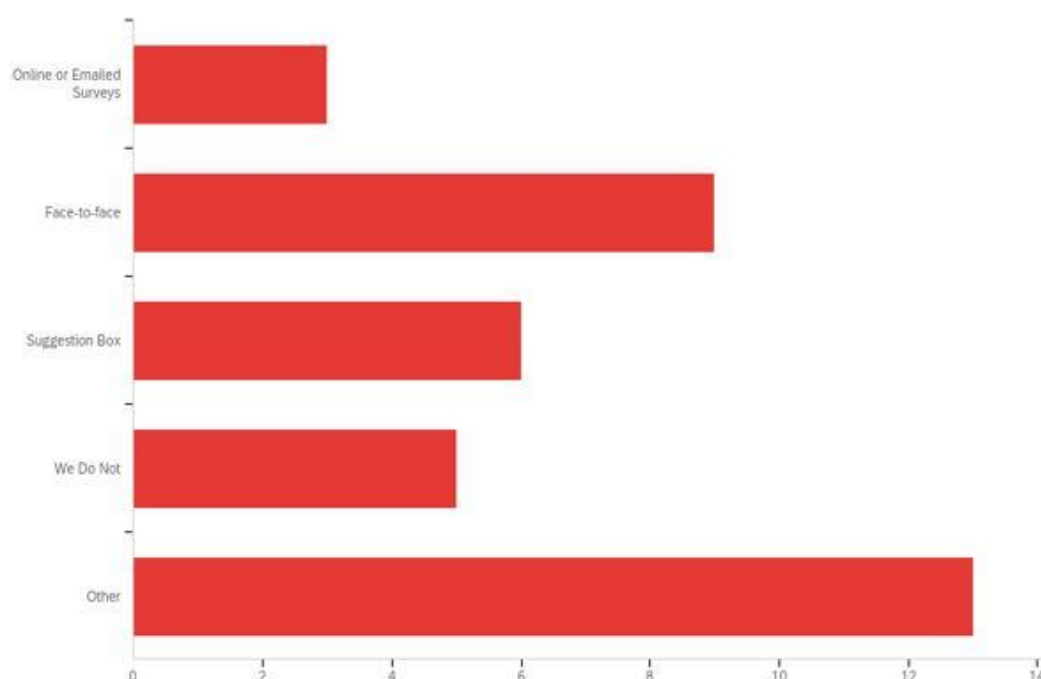


Figure 4: Question 5 Visualisation

The primary source of feedback from students, as reflected in the responses to question five, is face-to-face feedback, followed closely by a suggestion box (Figure 4). While face-to-face feedback can be very helpful to librarians, students may not be comfortable voicing grievances directly to library staff, particularly if they have difficulties communicating with others. Suggestion boxes and online spaces for feedback provide a useful alternative for students, as the social pressures involved with face-to-face feedback are reduced or eliminated. Several respondents indicated that, while they gather feedback from the student population more generally, they “don’t gather feedback specifically from students with [autism]” (Respondent 16). Five respondents indicated that they do not gather feedback from autistic students in their libraries. If academic librarians intend to offer academic support to their patrons, how can they determine they are doing so well if they do not gather feedback from their service users? A lack of space for feedback for any student implies an apathy on the part of the institution, as it bars avenues of communication and eliminates any capacity for improvement of services.

Knowing that physical spaces can be just as much a barrier to accessibility as a lack of awareness, it is vital to explore the types of spaces that autistic students are expected to interact with. Sixteen respondents indicated that their library provides quiet areas for study. Thirteen stated that students have access to specialist technologies and software; including, but not limited to: text-to-speech, screen tinting, mind mapping and research productivity software, etc. Easy-to-use websites

and clear signage are also reflected as common; however, it is crucial to note that only six respondents indicated that compatible file types for eReaders are provided, and that only three provide safe storage for belongings whilst using the library.

Making use of the free-text space, Respondent 9 stated that “all of the above are designed to be, in as much as possible, accessible and inclusive to all users. The needs of disabled students (including those with [autism]) [...] are always considered” (Respondent 9). Respondent 14 indicated that their library offered all of the above services, save safe storage, in addition to tours and one-to-one support for students. Respondent 12 stated that they “do not currently have a particular policy or plan in place for [autistic] students” (Respondent 12), while Respondent 3 was also unaware of any methods their library uses to minimise barriers. Given the ever-growing numbers of autistic students attending university, it is deeply concerning that multiple institutions surveyed do not have, or are not aware of, policy or plans to support autistic students. There have been decades of study on autism and accessibility and it is shameful how far behind institutions are in providing equitable and accessible services to their students, particularly when they have a right to access information under law.

Responses to how libraries are minimising barriers to students overlap significantly with personal challenges and opinions of academic librarians. The majority of responses indicate that their institutions offer a range of study spaces, including quiet areas. Respondent 9 stated that they “offer named contacts, one-to-one inductions, internet and messaging services, self-loan machines and return drop boxes, and extended loans and online renewals,” in addition to digital resources and an “option of reserving some spaces in advance” (Respondent 9). Respondent 18 stated that their library offers a “buddy support [...] to help with navigation and familiarity with the building and processes” (Respondent 18). Recruiting people to help familiarise students with library spaces and how to best use services is a vital option to provide for autistic students.

Signage is mentioned by several respondents, with one stating the creativity employed by their library through the use of colour-coded signage to indicate noise levels “red = silent, orange = some talk, green = social space” (Respondent 7). It is imperative is that signs be clear and easy to follow. For example, Respondent 14 stated that support desks are distinguished for different support with signage, “e.g. not just Info Desk but what you can ask there” (Respondent 14). Respondent 15 makes a point of the utmost importance, that all being done to support autistic students is a work in progress. Expanding by stating that, “staff are encouraged to take a flexible approach where individual students might benefit from a specific adjustment” (Respondent 15). An attitude of flexibility and a desire to meet the needs of students are absolutely essential and must form the basis of library services.

The physical space of the library has significant impact on whether or not it is accessible, and the language used to describe it can provide valuable insight when analysed in relation to the Literature Review and needs of autistic students. Many

stated that their libraries were very open, big, and varying, “the entrance to the libraries can be very busy during normal times, but we do have a wide range of study spaces” (Respondent 1). Similarly, Respondent 5 stated that “the area in which the books are housed is now pretty quiet but is still very open” (Respondent 5). Respondent 16, in their statement, describes the library as a big, imposing, and light. Many of the libraries are described as light, welcoming, noisy, and social. Whilst the majority of respondents indicated that their libraries have quiet study spaces available, most often these spaces are only accessible via busy library entrances. Even with clear signage, busy, noisy, and bright spaces can be overwhelming for autistic students, as they can trigger sensory overload. While it can seem ideal to have open, “welcoming” libraries, if autistic students do not know where they can go for reprieve beforehand, the thought of simply going to the library can be too much.

Whilst several librarians stated that signage is clear and their library is easy to navigate, others state that they are not easy to navigate due to unclear and impractical signage. In the same statement, a library is deemed welcoming “but sometimes just how to get in and out is difficult [...] too many signs!” (Respondent 2). Several librarians stated that their libraries have problems with physical accessibility as well, “it’s not ideal for disabled users” (Respondent 14). When academic librarians are assessing whether their library spaces are accessible to students, whether the space and atmosphere could be overwhelming to individuals must be considered. The best way to determine whether a space is suitable for autistic students is to provide multiple modes of communication for students to provide staff with feedback and to ensure that staff are properly trained in supporting autistic students.

4.2a Physical Space and Services Offered Summary

- The services and provisions of academic libraries vary greatly, as does their priority of accessible services and autism awareness. A shocking number of institutions do not prioritise the needs of autistic students when developing services and provisions.
- Accessibility can be enhanced by providing services online and face-to-face, allowing opportunities for feedback, and providing clear guidance on what services are offered where and how to use the library and its services.

4.3 Personal Opinions and Challenges

In a transition from discussion of physical space to personal opinions and challenges, Respondent 16 provides the perfect segue:

I am autistic and I would not want to be an autistic person using our library.

(Respondent 16).

Let us pause and think about that for a moment. "I am autistic and I would not want to be an autistic person using our library" (Respondent 16). There are so many reasons why this statement could be made. Their library is described as big, imposing, and light (Appendix E). What many view as big and welcoming is frightening and overwhelming for autistic individuals. Reflecting on the discussion above, a significant number of libraries are described as big, light, welcoming, and open. The physical spaces alone may be too overwhelming for autistic students to function in, providing a stark barrier to accessibility. The attitudes of librarians themselves may be problematic, as a lack of awareness and support not only negatively impacts librarians, but those students who need the most support.

There is significant range in the tone of responses and the challenges identified by the academic librarians surveyed; however, patterns did arise. Several librarians stated that communication can be a major challenge when supporting students with autism. Respondent 6 reflects: "I support a student with [autism] who is also visually impaired [...] what I've learnt from this student [...] is that things need to be explained clearly and concisely and be followed up in writing" (Respondent 6). Communication can be a significant challenge for autistic students, compounded by librarians' lack of awareness of autists' unique struggles. It is only those academic librarians who work closely with autistic students on a regular basis, and those who also receive adequate training, that are aware of various methods to employ to ease communication with autistic students and provide accessible support.

Multiple librarians also stated difficulties surrounding a lack of awareness of who needs support:

Sometimes these students have no formal diagnosis or have not disclosed their diagnosis to their department, so I worry that they are not getting the full range of support that they should get while at university.

(Respondent 1).

Some of this lack of awareness is down to a lack of training. However, when academic librarians are kept in the dark as to who needs support, they are unable to provide it. When institutional policy requires student disclosure, a student may not receive the support they need. Disclosure can be a barrier to accessibility. A way to mitigate the need to know exactly who has a diagnosis can be to design services using UDL and UDI. This allows for a flexibility of use from the start that can accommodate the needs of students whether or not they disclose to the university that they need additional support. Institutions must develop support policies that do not require student disclosure of disability in order to receive additional support, as accessibility should not be conditional.

Several librarians indicated issues with timekeeping and other issues related to executive functioning challenges that autistic students can face. Respondent 10 noted that it can be difficult for autistic students to remember overdue items, and that overdue items can trigger worry or upset in the student. Challenges with planning and executive functioning can cause significant stress when combined with the unfamiliarity of a university environment. Respondent 19 similarly stated that, “students make appointments to meet and I am of a condition they haven’t until they arrive.” The difference here being that, while Respondent 10’s statement suggests empathy, Respondent 19’s language suggests indignance that students do not always keep appointments, with a stark lack of understanding as to why that may be and the methods that could be employed to help the student mitigate such challenges. This bias is called ableism, and while it can be broadly found in policy and practice, it can also be prevalent in an individual’s bias and lack of empathy for those who are different to them (Appendix A; Appendix B). Such biases can be traumatic for autistic individuals to experience, and training must be provided for academic librarians to develop autism awareness and the skills needed to support these students in their academic success.

To gain an understanding of the training offered to academic librarians, and how that may impact their ability to support autistic students, respondents were asked the training and support offered to them in their roles.

Q10 - What training and support exists for librarians with regards to supporting students with an ASD? (please tick all that apply)

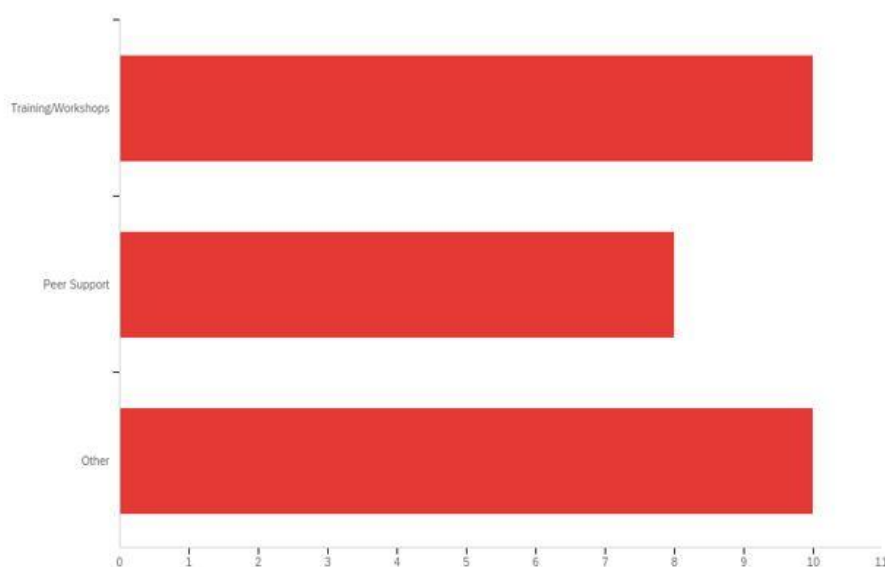


Figure 5: Question 10 Visualisation

Ten respondents indicated that their institution provides training and/or workshops to support them in supporting autistic students, while eight indicated that they are provided with peer support in this area (Figure 5). There were few

respondents who indicated that they are provided with both training and peer support. One respondent stated that they are also provided with “training online or face-to-face with a Disability Librarian; disability committee meetings where staff can voice concerns” (Respondent 9). This type of support is reported in a minority of responses. With an understanding of the requirements of autistic students, and the growing number of autistic students attending university over the last twenty years, it is surprising that there is still so little institutional support for academic librarians to develop the skills necessary to support these students. Both students and librarians alike suffer from a lack of training and support in this area.

Two respondents used the free text space here to indicate that they use CLAUD (claud.org.uk). CLAUD is a group of libraries in the South and Southwest of England that works to create accessible libraries for users with disabilities (CLAUD, 2020). CLAUD can be a very useful tool for academic librarians, but is limited in scope in that it only supports specific regions. Resources such as JISC Mail, as employed by the researcher, can also be used to network and communicate with academic librarians working in disability support in the UK. Though some email lists are more active than others, they can be a useful tool to build a digital network of support liaisons. Only two respondents stated that they felt their autism awareness training was adequate, one stating that they “usually try to go to one a year with the Autism Mentors on campus” (Respondent 6). Of those who felt they had proper training on autism awareness and how to support autistic students, all of them stated that they sought out the training themselves.

While a few respondents stated that they received various forms of training and support, five stated that their institution did not offer training in this area. Several mentioned that they were unsure if their institution provided autism awareness training or support in assisting autistic students. Respondent 3 stated that, although autism support training is not provided, their institution does offer disability and mental health training. This implies there are institutions moving in the direction of understanding functional differences, but the UK is yet to establish proper training for autism awareness and understanding neurodivergence across the country. It is becoming established that institutions, in practice, do not necessarily prioritise autism support to the degree that they advertise.

The vast majority of responses stated that they did not feel they received adequate training, one going so far as to discuss the training that they did receive, stating that:

It was quite dehumanising and infantilising and I think it made [autistic] people seem “other”. It wasn’t useful in the sense that it didn’t give help for just dealing with people like they’re real human people with some differences.

(Respondent 14).

This is very often the case in autism awareness training. Taught by neurotypical individuals, it fails to truly understand the challenges that autistic experience in the world and falls into the trap of speaking for a marginalised group entirely capable of speaking for themselves. If, on the wider scale, support reflects what is discussed by respondents of this survey, there is a shortage of support for academic librarians to develop their skills in supporting autistic students; and the support available is often lacking in substance. It is clear to these students when those in support roles do not have an understanding of the challenges that they face or the methods in which to assist them. As academic support, it is imperative for librarians to pursue autism awareness training throughout their careers in order to develop the skills necessary to support the growing number of autistic students, and it is of even greater importance for institutions to prioritise offering this training and support to their staff.

4.3a Personal Opinions and Challenges Summary

- There is a significant lack of autism awareness among academic librarians as a result of a lack of training and support. While some institutions are beginning to prioritise autism awareness training and support for students and staff, a significant number are not doing so. This compromises the accessibility of services, student success at university, and librarians' confidence in supporting neurodiverse students.
- There can be significant issues with autism awareness training when it is conducted by neurotypical individuals, as it is often infantilising and dehumanising. Greater effort should be made to hire autistic individuals to teach autism training, and such training should be regularly repeated.

4.4 Institutional and Structural Challenges

Respondents were asked to identify some of the positive and negative impacts that offering accessible support can have on their libraries. Many indicated positive impacts that offering accessible services have on their library, with a resounding notion that "offering these services/support just enhances the services for everyone" (Respondent 10). Not only do all students benefit from accessible services and resources, with accessible design staff's overall workload is reduced. While it is clear that accessible services are to the benefit of all students, it is important to discuss the challenges identified by respondents. Respondent 3 articulates a major current challenge at their institution:

The current emphasis on proactive adaptation for all disabilities potentially is very time consuming and sometimes threatens to restrict the design of learning materials which could benefit the vast majority of students. That's not to say that we

should not take this approach, but it needs to be properly resourced and thought through.

(Respondent 3).

The current expectation is that services be adapted for each individual student on a reactive basis, rather than an emphasis on accessibility from the point of design. This not only puts a strain on librarians, it can imply to the student that a request for support is burdensome. There is no indication of a clear structure or framework for librarians to use to ensure that the resources they provide to students are accessible as possible. UDL and UDI should be employed by institutions to begin to fill in these resource gaps and provide a structure for academic librarians to follow. It should be commonplace for academic librarians to have access to resources to help them to design support materials in the most accessible way possible. Not only does this reduce their workload, as later accommodations will be minimised, it enables any excess time and resources to be used in other ways.

Finally, Respondent 14 stated that, "time and money for training, implementing solutions, and for staff to offer additional services" can be a strain on the library. It is undeniable that academic librarians already have their work cut out for them in offering support to students, and the work that they do cannot be understated. It is truly a challenge to find time and money to implement changes, let alone to identify what changes need to be made. This challenge is made greater by the expectations discussed above. With so many academic libraries serving hundreds, if not thousands, of students, the expectation of adapting everything on an individual basis is unattainable; that is why a shift into the use of UD is so beneficial. Not only are services designed to be of greater accessibility, such design does not shoulder the same requirement of adaptations later on; and, if it does, is flexible enough to be easy to do so.

4.4a Institutional and Structural Challenges Summary

- Providing accessible services based on concepts of UDL and UDI benefit all students and academic librarians alike.
- Prior to adopting such structures, it can be extraordinarily difficult for institutions to support such a diverse student population.
- Time, money, and training to make the shift to accessibility are often lacking; negatively impacting library services, staff and patrons.

4.5 Chapter Summary

4.5a Positive Observations

- Respondents identified that autists can struggle with communication difficulties and that they may need

communication training in order to provide for these students.

- Librarians identified that their spaces may be inaccessible, and seemed honest about the challenges that they face at their institutions.
- Some said that they did their best to provide for these students, albeit on a case-by-case basis.
- Respondents indicated that they learned from disabled people and that training provided by neurotypical individuals was not up to an adequate standard.
- Growing awareness that disclosure can be a significant barrier to accessibility.

4.5b Negative Observations

- Not all respondents received autism awareness training, and many who did needed to seek it out themselves. When training was provided, it was not reported in a positive light (it often infantilised and dehumanised autistic people).
- There is a general lack of awareness of the challenges that autistic students can face with regards to timekeeping, social communications, and executive functioning that colour the opinions that respondents have of autistic students.
- There is an underlying assumption that accessibility is an inherent strain on resources; which, while it may be for able individuals, it is significantly more of a strain for disabled people to operate within a world that is designed without their existence in mind.

4.5c Final Notes

- Universal Design will not fix everything, but it will help to provide both academic librarians and their service users with a more cohesive and flexible starting structure.
- Autism awareness and support skills training must become mandatory across all academic institutions and for all academic and support staff. This training should be provided by autistic trainers.
- Academic libraries require greater resources to implement these solutions. Autistic students have a right to accessible services, just like any other student, and the need for accessibility is not a request for special treatment.

Chapter 5: Conclusions

5.1 Research Objectives: Summary of Findings and Conclusions

This chapter will discuss the conclusions based on the research and literature review in the above chapters. Each subheading will include a summary of findings and concluding statements in relation to each of the research objectives. After discussing conclusions objective by objective, space will be given to improvements and room for further research.

5.1a Objective 1

Identify and introduce autism, specifically autism in higher education

The discussion regarding Objective 1, to identify and introduce autism in higher education, is articulated within the Introduction and Literature Review. A summary of the findings are as follows:

- Autistic individuals make up part of the greater neurodiverse population of people, both within universities and the community at large.
- Autists can have cognitive, sensory, social, and communication differences that can significantly impact their day-to-day lives and academic success at university.
- Autistic students face unique challenges at university, but the necessary accommodations to assist them often benefit the student body at large.

Over the last two decades, greater numbers of autists have been able to receive a professional diagnosis of their condition. Of those individuals, growing numbers are attending university. However, institutions must refrain from requiring disclosure of medical diagnoses in order for students to obtain the help that they need. Not only can disclosure be distressing for the individual, but the process of doing so can be immensely challenging. In addition, those without formal diagnoses should not be denied assistance and accessible services simply because they cannot “prove” that they require it. It is imperative that academic librarians develop provisions and other services that are accessible to all. Awareness of the challenges that these students face is essential, as is a greater level of empathy on behalf of academic librarians.

5.1b Objective 2

Articulate the importance of autism support and accessibility in academic libraries

A lack of accessibility, or poor accessibility, can have significant impact on an individual's capacity to succeed at university and have a positive university experience. As academic support, it is imperative for academic librarians to be educated on the importance of autism support and accessibility in their libraries, and be provided with support to make these services accessible. A summary of findings is as follows:

- Lack of support and accessibility can have significant impact on the autonomy, physical and mental wellbeing, and overall quality of life of individuals who are autistic. This impact translates to university life, and is often compounded by typical university stresses.
- Within a support role, academic librarians must engage with accessibility and strive to create a service that is accessible to all library patrons, including those who are autistic.
- Universal Design concepts can be an extraordinary tool for achieving accessible services and resources to benefit all library patrons and staff, and can provide an excellent starting structure.
- Librarians must be conscious of the services they provide, the ways in which they interact with their students, and the physical space of their libraries, along with any other ways in which they could inadvertently be creating barriers to accessibility.

There is a general consensus that academic spaces be accessible for those who are physically disabled. There is far less awareness of the accessibility needs of those with neurological differences. As academic librarians provide support to students in their studies, naturally varied from institution to institution, they must consider the accessibility of provisions and services for their neurodiverse students. Clearly articulated above, autism awareness must become a priority, and academic staff, including librarians, must be provided with training in autism awareness and resources to support this demographic of students. Until greater understandings of autism and accessibility, and the implementation of accessible services, are achieved it cannot be assumed that services are truly accessible. A very useful tool for determining whether services offered are truly accessible to students is to provide multiple avenues for communication and feedback from students regarding the library, its staff, and services, as it is possible for each of these things to become a barrier to accessibility if not properly checked.

5.1c Objective 3

Identify the ways in which academic librarians are currently supporting autistic students

There is no single way to support autistic students. As such, flexible and varying support must be offered. While some academic libraries are significantly lacking in their support of autistic students, other libraries are doing exceedingly well in providing assistance. Liaising with Disability Support, or providing Disability Support Librarians specifically, goes a long way in ensuring that autistic students are supported.

Through the use of varying formats, assistive technology, online resources, and additional support, academic libraries are beginning to prioritise the needs of autistic students. Providing guidance to students regarding library layout and resources available can reduce barriers to accessibility, as students are able to plan their journeys and anticipate which areas will be quiet, etcetera. Naturally, academic librarians are limited in time and resources; therefore, moving towards UDL and UDI can allow for greater accessibility of services and reduce the time and effort spent on accommodations for students who need additional support.

Additionally, it is time to move from an emphasis of awareness to that of accountability. Conversations regarding accessibility, for those who are physically disabled and for those who have neurological differences, have been ongoing for the last two decades. It is required by law in the UK (UK Government, 2020) that all information services be accessible. Academic institutions must be held accountable and be mandated to implement policy and provide resources for these services to be developed and rolled out to students.

5.1d Objective 4

Explore the personal opinions of, and challenges faced by, academic librarians offering these services

- The general consensus of participants was that supporting autistic students, and providing accessible services, is to the benefit of all students.
- There is still significant lack of autism awareness and training to develop the skills and understanding necessary to support these students. Some of this is reflected in inaccessible services, but it is also represented in the opinions of librarians as articulated in a lack of empathy for the challenges that autistic students can face and a provision of solutions for these individuals.
- Participants predominantly reported that they never received autism training. While those who did often had to seek it out themselves.
- It was noted that the training provided by neurotypical individuals is often dehumanising and infantilising of autistic individuals.

While the majority of respondents believe that supporting these students is important, there are those who do not believe that autistic individuals interact with the world in different ways and lack empathy regarding the challenges that these students can face. These biases are perpetuated by a lack of adequate training, further compounded by apathy on the part of the institution and a refusal to provide it. Several respondents indicated that they struggle with their institutions not providing them with training and resources to support these students. Institutions

must provide staff with the resources and training necessary to support all students, including those with autism. Until they do so, they are creating barriers to accessibility and potentially severely impacting the academic success of their students.

5.1e Objective 5

Discuss the impacts these services have on academic libraries

- The greatest positive impact of providing accessible services is that they benefit all library patrons, be they neurodivergent, neurotypical, disabled or abled.
- Offering flexible services and resources can reduce the workload of librarians in that fewer adjustments will need to be made to accommodate students, and those adjustments should be built into the design.
- Respondents noted that time, money, and training are limited resources that impact whether their institutions prioritise accessibility.

In short, the pros outweigh the cons. While it should not be understated that providing accessible services does require resources, the impact of not doing so is significantly greater. Not only do autistic students not have access to resources, academic librarians do not have all of the skills and resources required to support these students. It is through no fault of the respondents that their institutions do not provide autism awareness training, but their institutions should be held accountable for not doing so. By opting out of providing training, they are doing a disservice to their students and staff. Additionally, without the proper resources to support these students, when they do require help, greater effort is needed to do so. As such, academic institutions must muster up the impetus to provide training to staff and provisions for supporting students of all abilities. Until they do so, they are sending a clear message to students and staff that autism and disability support is not a priority, and that those students' needs are not acknowledged.

5.1f Objective 6

Offer recommendations for best practice

A book that should be on every academic librarian's shelf is McMullin and Walton's *Supporting Students on the Autism Spectrum: a Practical Guide for Academic Libraries* (2019). The book not only discusses autism at length, but provides excellent guidance for how academic libraries can support this demographic of students: from physical space to research support.

- Providing library guides that include the layout of the library, such as silent and group study spaces, computer programme locations, which spaces have strong smells or bright lights, and behavioural expectations of students at each location in the library. This information should be

provided online and in print format (Anderson, 2018; McMullin and Walton, 2019).

- Library help desks that clearly indicate on a sign what help can be obtained there (Anderson, 2018; McMullin and Walton, 2019).
- Additional support and access to resources should not be dependent on student disclosure of a disability. If additional help is requested, students should not be required to provide evidence or endure an arduous application process to receive support.
- Gathering feedback and doing usability testing, on all provisions and services, can allow for greater understanding of how spaces and services can be adapted for greater accessibility for all library patrons (Pionke, 2017; Anderson, 2018; McMullin and Walton, 2019).
- When providing support, it can be beneficial to consider the development of time management and executive functioning skills alongside research and study abilities (Remy and Seaman, 2014). These provisions should be developed with the involvement of Disability Advisors or Disability Support whenever possible.
- UDL and UDI are useful starting points for developing accessible services and provisions within academic libraries (McMullin and Walton, 2019). Assistive technologies and software programmes, and additional formats must be considered alongside these developments.

When starting from scratch, providing accessible services and provisions can seem a daunting task requiring unlimited resources. However, balking at the potential cost with the knowledge of the importance of providing accessible services indicates to students and staff that accessibility and equity are not a priority. Institutions must be held accountable to the promise that they will provide accessible services and refrain from delaying the process when it is clear that there is more work to be done. The participants in this research agreed that providing these services is important and benefits all students.

5.2 Improvements and Room for Further Research

Additional research should do individual case studies to determine the current state of services across all academic libraries in the UK, and advise solutions on a case-by-case basis to ensure that all services are accessible to an appropriate standard. It has been pointed out by Pionke (2017), and Shea and Derry (2019), among others, that autistic students themselves are often left out of conversations regarding accessibility and their needs relating to the library and its services. Moving forward, these students should be central to conversations regarding accessibility.

Finally, little to no research has been done to acknowledge intersectionality, disability, and the library (ObeySumner, 2018, n.p.). This is a major oversight that must be rectified in order to provide services that are truly accessible, equitable, and just. Academic librarians have a moral, ethical, and legal obligation to provide accessible services to their patrons. They must not be hindered in doing so by institutions that are unwilling to invest in their training and in the provision of necessary resources.

5.3 Self-Reflection

As with any project, this dissertation had its highs and lows. All things considered, particularly the circumstances of the year, the process went surprisingly well. A useful number of academic librarians were willing to participate in the study, and they provided responses that were rich in information. The drafting process went smoothly and much was learned from the data analysis process.

Alongside the successes are challenges and things that could have been done better. On reaching the data analysis stage of this project, the researcher realised that more time should have been spent developing and producing research strategies prior to the construction and distribution of the questionnaire; rather than only having a simple outline at that stage. Had the entire research process been fully articulated, some of the survey questions would have been altered slightly to target different responses. Biggam's book (2018) was an extremely useful tool in the research and drafting process, from the proposal to the final dissertation; and the guidance therein was used throughout the project.

5.4 Final Points

Cultivating empathy, empowerment, and universal design across all aspects of the library and its services will create an environment that is fair and accessible to all. It must be remembered that intent does not equate impact. We must be better and do better by our students. The first step is to open avenues of communication between staff and students, and create an environment that is open and willing to change to benefit all.

References

- Anderson, A. (2018) Autism and the academic library: a study of online communication. *College and Research Libraries (Online)* [online]. Vol. 79, no. 5, pp. 645-658. [Accessed 12 December 2019].
- Baron-Cohen, S. (2018) The truth about Han's Asperger's Nazi collusion. *Nature* [online]. Vol. 557, pp. 305 – 306. [Accessed 6 October 2020].
- Biggam, J. (2018) *Succeeding with Your Masters Dissertation*. 4th ed. New York, NY: McGraw-Hill.
- Braun, V., Clarke, V. (2013) *Successful Qualitative Research: a Practical Guide for Beginners*. London, UK: SAGE.
- Burrows, C. (2018) Academic Libraries and Disabled Students: an Accessible Story? *Proceedings of the Annual Conference of CAIS* [online]. Available from: <https://journals.library.ualberta.ca/ojs.caais-acsi.ca/index.php/cais-asci/article/download/1004/896/>. [Accessed 25 June 2020].
- Carlos, M. (2020) *I'll Figure it Out: How Ableism Impacts Disabled People's Lives*. Marina Carlos.
- Clarke, H. (1991) Academic Library Services for Students with Disabilities. Available from: <https://lirjournal.org.uk/index.php/lir/article/view/420/446>. [Accessed 25 June 2020].
- CLAUD (2020) *History of CLAUD*. Available from: <https://claud.org.uk/history-of-claud/>. [Accessed 20 October 2020].
- Crabbe, M. J., Segarra, A. (2020) @bodyposipanda. *Instagram* [online]. 19 August. Available from: <https://www.instagram.com/p/CEFG6SUHPFa/> [Accessed 20 August 2020].
- Crane, L., et al. (2018) Autism Diagnosis in the United Kingdom: Perspectives of Autistic Adults, Parents and Professionals. *Journal of Autism and Developmental Disorders* [online]. Vol. 48, no. 11, pp. 1 – 12. [Accessed 5 November 2020].
- Elwin, M., et al. (2013) Too Much or Too Little: Hyper- and Hypo-Reactivity in High-Functioning Autism Spectrum Conditions. *Journal of Intellectual*

Developmental Disability [online]. Vol. 38, no. 3, pp. 232 – 241. [Accessed 26 June 2020].

Kinnaer, M., Baumers, S., Heylighen, A. (2016) Autism Friendly Architecture from the Outside in and the Inside out: An Explorative Study Based on Autobiographies of Autistic People. *Journal of Housing and the Built Environment* [online]. Vol. 31, no. 2, pp. 179 – 195. [Accessed 26 June 2020].

McMullin, R., Walton, K. (2019) *Supporting Students on the Autism Spectrum: A Practical Guide for Academic Libraries*. ABC-CLO.

National Autistic Society (2020) *What is Autism?* Available from: <https://www.autism.org.uk/advice-and-guidance/what-is-autism/> [Accessed 25 August 2020].

ObeySumner, C. / South Seattle Emerald (2018) *Black Autistics Exist: an Argument for Intersectional Disability Justice*. Available from: <https://southseattleemerald.com/2018/12/05/intersectionality-what-it-means-to-be-autistic-femme-and-black/> . [Accessed 11 August 2020].

Pietrangelo, A. / Healthline (2019) *Stimming: Causes and Management*. Available from: <https://www.healthline.com/health/autism/stimming>. [Accessed 6 October 2020].

Pionke, JJ (2017) Toward holistic accessibility: narratives from functionally diverse patrons. *Reference and User Services Quarterly* [online]. Vol. 57, no. 1, pp. 48-56. [Accessed 12 December 2019].

Qualtrics (2020) *Qualtrics*. Available from: <https://www.qualtrics.com/uk/?rid=ip&prevsite=en&newsite=uk&geo=GB&geomatch=uk>. [Accessed 29 September 2020].

Remy, C., Seaman, P. (2014) Evolving from disability to diversity: how to better serve high-functioning autistic students. *Reference and User Services Quarterly* [online]. Vol. 54, no. 1, pp. 24-28. [Accessed 12 December 2019].

Shea, G., Derry, S. (2019) Academic libraries and autism spectrum disorder: what do we know? *The Journal of Academic Librarianship* [online]. Vol. 45, no. 4, pp. 326 – 331. [Accessed 10 December 2019].

Skinner, M. (2020) Instagram message to Erin Brown, 31 July.

Sojitra, V. (2020) @vasu_sojitra, @autictichoya, @decolonizemysself. *Instagram* [online]. 21 August. Available from: <https://www.instagram.com/p/CElqAGnFsh8/> [Accessed 21 August 2020].

Switzer, A. (2008) Redefining Diversity: Creating an Inclusive Academic Library through Diversity Initiatives. *College and Undergraduate Libraries* [online]. Vol. 15, no. 3, pp. 280 – 300. [Accessed 12 December 2019].

UK Government (2020) *Disability Rights: Education*. Available from: <https://www.gov.uk/rights-disabled-person/education-rights>. [Accessed 16 November 2020].

Other Sources Consulted

Berenbaum, M. / Encyclopaedia Britannica (2018) *T4 Program*. Available from: <https://www.britannica.com/event/T4-Program>. [Accessed 08 October 2020].

Bradley-Johnson, S., Johnson, C., Drevo, D. (2015) On CALL: one approach to improving services for students with low-incidence disabilities. *Canadian Journal of School Psychology* [online]. Vol. 30, no. 3, pp. 236-245. [Accessed 12 December 2019].

Brown, R., Sheidlower, S. (2019) Claiming our space: a quantitative and qualitative picture of disabled librarians. *Library Trends* [online]. Vol. 67, no. 3, pp. 471-486. [Accessed 12 December 2019].

Cassner, M., Maxey-Harris, C., Anaya, T. (2011) Differently able: a review of academic library websites for people with disabilities. *Behavioural and Social Sciences Librarian* [online]. Vol. 30, pp. 33-51. [Accessed 12 December 2019]

Connor, H., et al. (2004) Why the Difference? A Closer Look at Higher Education Minority Ethnic Students and Graduates. *Department for Education and Skills* [online]. Available from: <http://www.bristol.ac.uk/ethnicity/documents/educationreport.pdf>. [Accessed 25 June 2020].

Grady, J., Hall, T. (2004) The World is Changing: Why Aren't We? Recruiting Minorities to Librarianship. *Library Worklife* [online]. Vol. 1, no. 4, n.p. Available from: <http://www.ala.org/aboutala/offices/hrdr/placementservice/recruitingminorities/> [Accessed 11 June 2020].

Green, R. (2009) Empowering Library Patrons with Learning Disabilities. *Journal of Access Services* [online]. Vol. 6, p. 59 – 71. [Accessed 25 June 2020].

- Haanperä, T., Nieminen, M. (2013) Usability of web search interfaces for blind users – a review of digital academic library user interfaces. *Lecture Notes on Computer Science* [online]. Vol. 8011, pp. 321-330.
- Hernon, P., Calvert, P. (2006) *Improving the Quality of Library Services for Students with Disabilities* [online]. Libraries Unlimited. [Accessed 25 June 2020].
- Higa, M. (n.d.) Rachel Cuellar: Author of Why is He Doing That? On Autism and Inclusion. *Author: Why is He Doing That?* Available from: <http://www.whyishedoingthat.com/author> [Accessed 11 August 2020].
- Kimura, A. (2018) Defining, evaluating, and achieving accessible library resources. *Reference Services Review* [online]. Vol. 46, no. 3, pp. 425-438. [Accessed 12 December 2019].
- Kflu, T., Loomba, M. (1990) Academic Libraries and the Culturally Diverse Student Population. *ACRL College and Research Libraries News* [online]. Available from: <https://crln.acrl.org/index.php/crlnews/article/view/19446/22803>. [Accessed 25 June 2020].
- Ne'eman, A. (n.d.) *Autism in the Context of Ableism* [presentation]. Available from: https://www.aucd.org/docs/Autism%20in%20the%20Context%20of%20Ableism_FINAL.pdf. [Accessed 21 October 2020].
- Peacock, R., Vecchione, A. (2019) Accessibility best practices, procedures, and policies in northwest United States academic libraries. *The Journal of Academic Librarianship* [online]. Pp. 1-8.
- Pinfield, S., Cox, A., Rutter, S. (2017) Mapping the Future of Academic Libraries: a Report for SCONUL. *Society of College, National, and University Libraries (SCONUL)* [online]. Available from: <https://sconul.ac.uk/sites/default/files/documents/SCONUL%20Report%20Mapping%20the%20Future%20of%20Academic%20Libraries.pdf>. [Accessed 25 June 2020].
- Pontoriero, C., Zippo-Mazur, G. (2019) Evaluating the user experience of patrons with disabilities at a community college library. *Library Trends* [online]. Vol. 67, no. 3, pp. 497-515. [Accessed 12 December 2019].
- Robertson, L. (n.d.) Access for Library Users with Disabilities. *SCONUL* [online]. Available from:

https://www.sconul.ac.uk/sites/default/files/documents/access_disabilities_0.pdf. [Accessed 25 June 2020].

Robledo, J., Donnellan, M., Strand-Conroy, K. (2012) An Exploration of Sensory and Movement Differences from the Perspective of Individuals with Autism. *Frontiers in Integrative Neuroscience* [online]. Vol. 6, no. 107. [Accessed 26 June 2020].

Sanaman, G., Kumar, S. (2014) Assistive technologies for people with disabilities in National Capital Region Libraries of India. *Library Philosophy and Practice* [online]. Pp. 1-14. [Accessed 12 December 2019].

Sanderson, H. (2011) Using learning styles in information literacy: critical considerations for librarians. *The Journal of Academic Librarianship* [online]. Vol. 37, no. 5, pp. 376-385. [Accessed 25 February 2020].

Staines, G. (2012) *Universal Design: a Practical Guide to Creating and Recreating Interiors of Academic Libraries for Teaching, Learning, and Research* [online]. Oxford, UK: Chandos.

Vincent, J. / Arts Council England (n.d.) *Libraries welcome everyone: six stories of diversity and inclusion from libraries in England* [online]. Arts Council England. Available from: https://www.artscouncil.org.uk/sites/default/files/download-file/ACE_Libraries_welcome_everyone_report_July18.pdf. [Accessed 11 June 2020].

Wilson, F. / The Conversation (n.d.) *Hard Evidence: How Many People Actually Use Libraries?* Available from: <https://theconversation.com/hard-evidence-how-many-people-actually-use-libraries-55671>. [Accessed 25 June 2020].

Wójcik, Magdalena (2019) Wearable computing in libraries – applications that meet the needs of users and librarians. *Library Hi Tech* [online]. Vol. 37, no. 4, pp. 735-751. [Accessed 12 December 2019].

Glossary

- Ableism – the systemic oppression of disabled people, from prejudice to discrimination (Carlos, 2020)
- Aktion T4 - T4 Program, also called T4 Euthanasia Program, Nazi German effort—framed as a euthanasia program—to kill incurably ill, physically or mentally disabled, emotionally distraught, and elderly people (Berenbaum, 2018)
- Neurotypical – the majority of people, those who have typical brain functioning
- Neurodivergent – those with any difference of brain functioning, not exclusively those who are autistic

Appendices

Appendix A: Manifestations of Ableism

Disabled People Can Face:	By People Doing This:
• Being seen as charity cases • Being mocked for their disability • Inaccessible public spaces (every outing must be planned in detail and sometimes locations that are meant to be accessible are not) • Being seen as asexual and non-desirable • Sustained looks and/or inappropriate comments • Little to no representation in the media	• Asking intrusive questions • Questioning their disability • Not considering their needs and/or boundaries • Making them feel guilty for being disabled and/or dependent • Thinking they know the disability better than the disabled person • Helping a person with disabilities then asking for endless gratitude

(Adapted from Carlos, 2020)

Appendix B: Ableist Terminology

Ableist Language	Alternatives
• Blind • Blindly • Turned a Blind Eye	• Wilfully ignorant • Deliberately ignoring • Turning their back on • Overcome by prejudice • Doubly anonymous • Had every reason to know • Feigned ignorance

• Handicapable • Specially Abled • Differently Abled	• Disabled person • Physically disabled person • Wheelchair-user • Person with a disability • Medical aid user
• Lame	• Boring • Uninteresting • Monotonous • Lacks Excitement • Uncool • Out of fashion (if using metaphors) • Weak • Sad
• Crippled • Crippling • Paralysed	• Frozen by • Stopped by • Completely stuck • Totally halted all operations (if using metaphors)
• Idiot • Dumb • Moron • Retard • Stupid	• Dense • Ignorant • Lacks understanding • Impulsive • Risk-taker • Uninformed • Silly • Foolish • Reckless
• Crazy • Insane • Psycho • Nuts	• Wild • Confusing • Unpredictable • Impulsive • Reckless • Fearless • Out of control • Ridiculous • Absurd • Thrilling • Exciting • Unreal • Unbelievable • Surreal

	• Scary • Selfish • Self-centred • Toxic • Manipulative
• Bound to a Wheelchair • Wheelchair Bound • Confined to a Wheelchair	• Uses a wheelchair • Wheelchair-user • In a wheelchair

(Adapted from Sojitra, 2020)

Appendix C: Types of Stimming Behaviour

Common Stimming Behaviours	Stimming May Involve
• Biting fingernails • Twirling hair • Cracking knuckles or other joints • Drumming fingers • Tapping pencil • Jiggling foot • Whistling	• Rocking • Flapping hands • Snapping fingers • Bouncing • Jumping • Twirling • Pacing • Waling on tiptoes • Pulling hair • Repeating words or phrases • Rubbing skin or scratching • Repetitive blinking • Staring at lights or rotating objects • Licking, rubbing or stroking particular types of objects • Sniffing at people or objects • Rearranging things

(Adapted from Pietrangelo, 2019)

Appendix D: Qualitative Survey Questions

Question Number	Question
Q1	Is support for students with an ASD a priority at your library? • Always • Sometimes • Most of the Time • Never

Q2	How is that priority manifest and conveyed to students?
Q3	In what ways do students with an ASD interact with your library? <i>(please tick all that apply)</i> • One-to-One Library Support • ASD/Study Skills Workshops • Computers/Printing Services • Room Bookings • Book Borrowing • Library Help Desk • Drop-In Support • Not Aware That They Do • Other
Q4	How is additional (library related) support advertised to students with an ASD? <i>(please tick all that apply)</i> • Leaflets • Website • Posters • Outreach • Events • We Do Not Advertise Additional Support • Other
Q5	In what ways does your library gather feedback from students with an ASD? <i>(please tick all that apply)</i> • Online or Emailed Surveys • Face-to-Face • Suggestion Box • We Do Not • Other
Q6	In what ways are your library services designed with ASD students in mind? <i>(please tick all that apply)</i> • Quiet Areas • Clear Signage • Easy-to-Use Website • Trained Library Support • Distinct Group and Individual Study Spaces • Access to Specialist Software <i>(including, but not limited to: text-to-speech, screen tinting)</i>

	software, mind mapping software, research productivity software, etc.) • Compatible File Types for eReaders, etc. • Safe Storage for Belongings Whilst Using the Library • They are Not • Other
Q7	What methods does your library use to minimise barriers to students with an ASD? <i>(Barriers include: unapproachable staff, communication difficulties, harsh lighting, unclear signage, varying needs with regards to open and busy space versus quiet and smaller spaces)</i>
Q8	Describe, in a few words, the physical environment your library projects.
Q9	How do you, personally, perceive your library? <i>(Is it welcoming to all, easy to navigate, accessible for users with varying needs, foster learning, etc.)</i>
Q10	What training and support exists for librarians with regards to supporting students with an ASD? <i>(please tick all that apply)</i> • Training/Workshops • Peer Support • Other
Q11	What challenges do you experience when supporting students with an ASD? <i>(please be as specific as possible)</i>
Q12	Do you feel that you have received adequate training to support students with an ASD? <i>(What was done well? What could be done better?)</i>
Q13	What impacts, positive and negative, do offering these services have on the library?
Q14	Do you have any additional comments to add? <i>(You may also use this space to provide contact details for potential follow-up to your responses by the researcher, Erin Brown)</i>

Appendix E: Selected Individual Responses

Respondent 1

Question Number	Response
Q1	• Most of the Time
Q2	We have inclusive learning webpages which aim to support students with a range of learning needs, staff training to support students and a range of study spaces including silent and quiet study areas.
Q3	• One-to-One Library Support • Computer/Printing Services • Room Bookings • Book Borrowing • Library Help Desk
Q4	• We Do Not Advertise Additional Support
Q5	• Other ◦ Unsure
Q6	• Quiet Areas • Trained Library Support • Distinct Group and Individual Study Spaces • Access to Specialist Technologies and Software • Compatible File Types for eReaders, etc.
Q7	We have staff trained to understand inclusive learning needs and a wide range of study space. We do quite a lot but I'm sure there is more we could do.
Q8	The entrance to the Libraries can be very busy in normal times, but we do have a wide range of study spaces.
Q9	The library is very welcoming with very friendly and approachable staff. The libraries are not all that easy to navigate and I'm not sure that we have ever assessed them with ASD sensory processing needs in mind.
Q10	• Other ◦ Not sure

Q11	Sometimes these students have no formal diagnosis or have not disclosed their diagnosis to their Department so I worry that they are not getting the full range of support that they should get while at university.
Q12	I have not received specific training
Q13	Unsure
Q14	I have a child with ASD and a particular interest in understanding how libraries can better support these students.

Respondent 3

Question Number	Response
Q1	• Sometimes
Q2	we have a well publicised library support team which includes ASD support; we also have a disability team within the library which works with a wider university disability support team
Q3	• One-to-One Library Support • ASD/Study Skills Workshops • Computer/Printing Services • Room Bookings • Book Borrowing • Library Help Desk • Drop-In Support • Other ◦ all of this is available; however I don't have a specific role in this area so can't say how heavily used these services are by students living with ASD
Q4	• Leaflets • Website • Events • Other ◦ induction
Q5	• Other

	○ I don't know – users of any of our services are usually asked for feedback though
Q6	• Quiet Areas • Trained Library Support • Access to Specialist Technologies and Software
Q7	I don't know
Q8	very mixed; many old buildings, some newer; adaptations where possible for mobility impaired users; libraries tend to be in the more obscure areas of buildings. That said, the libraries themselves feel clean, open and welcoming to me and signposting is good. I don't know how someone with ASD would find areas with strip lighting, our colour schemes and so on.
Q9	I think so: staff are all friendly and helpful, signage is good and most spaces are straightforward to find your way around.
Q10	• Other ○ Not aware of specific ASD training, although disability and mental health training is provided
Q11	I'm not aware of having supported any students with ASD, although I may have done. Through another work role I think I would recognise some characteristics and would be thoughtful about how best to respond.
Q12	I have no specific training re ASD.
Q13	As much as supporting all students with disabilities is important, the current emphasis on pro-active adaptation for all disabilities potentially is very time consuming and sometimes threatens to restrict the design of learning materials which could benefit the vast majority of students. That's not to say that we should not take this approach, but it needs to be properly resourced and thought through.
Q14	There are so many different disabilities and personal circumstances that affect students' ability to make full use of our services, I wonder if we need a slightly different approach whereby we try to create a service which is able to adapt to each individual's unique characteristics, while retaining a

	universal set of standards. Sometimes it feels as though we design a service to meet the needs of one group of students only to find that this makes it more difficult to use for another group and so on.
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Respondent 5

Question Number	Response
Q1	• Most of the Time
Q2	Sorry, but that is a meaningless question. Students with ASD are identified and support targetted to individuals. When we are supporting an individual then it is a top priority, when we are not then we consider the needs of autistic people alongside other priorities.
Q3	• One-to-One Library Support • ASD/Study Skills Workshops • Computer/Printing Services • Room Bookings • Book Borrowing • Library Help Desk • Drop-In Support • Other ◦ Again, this is a rather odd question – students with ASD interact with the library in the same ways as all other students!
Q4	• Outreach • Other ◦ Individual one-to-one support
Q5	• Other ◦ We do not target feedback specifically to students with ASD, we gather feedback in the same ways as for other students
Q6	• Quiet Areas • Clear Signage • Trained Library Support

Q7	Staff training is an ongoing issue due to staff turnover. The counter is a very busy space and that's also an issue because it's a problem that is built into the space (it's right by the barriers) so it's pretty much impossible to make it into a quiet space. We do offer a book fetch service for any student who finds the library space too overwhelming
Q8	We have a variety of spaces, the area in which the books are housed is now pretty quiet but is still very open. There are a few individual study carrels for students with additional needs to use but they are four to five floors away from the books
Q9	
Q10	• Training/Workshops • Peer Support

Respondent 6

Question Number	Response
Q1	• Most of the Time
Q2	The University offers training in Autistic Spectrum Conditions which is delivered by the University ASC mentors in the Wellbeing department. All ASC students are assigned an ASC mentor who works with the student throughout their studies. ASC students are also assigned a Specialist Support Tutor that works one-to-one with the student to help with organisation and planning of academic work. We also have a Transcription Centre who provide alternative formats of course materials for students – these students are referred by the Disability Office but include some ASC students. These students usually have other disabilities alongside ASC. Assistive technologies – site-wide licenses and networked.
Q3	• One-to-One Library Support • Computer/Printing Services • Book Borrowing • Library Help Desk • Drop-In Support • Other

	○ Transcription Centre support. Specialist Tutor support.
Q4	• Website
Q5	• Online or Emailed Surveys • Face-to-face
Q6	• Quiet Areas • Clear Signage • Easy-to-Use Website • Distinct Group and Individual Study Spaces • Access to Specialist Technologies and Software • Compatible File Types for eReaders, etc. • Safe Storage for Belongings whilst Using the Library
Q7	We have areas of the library where there is an emphasis on natural lighting with large windows. These are the Study Hall and the PC labs primarily. The library is looking to replace all unclear signage – this is an ongoing project with Estates. The library offers a variety of study spaces which include larger spaces (such as the study hall) which can get busy, and smaller spaces on the lower levels of the library, in the Law Library (not just for Law students) or in the East Wing.
Q8	Light, big
Q9	Welcoming, confusing (layout) – this is being addressed, light, friendly staff
Q10	• Training/Workshops • Peer Support
Q11	Communication – I support a student with ASD who is also visually impaired. The student was in a routine of reporting issues or communicating with myself and colleagues face-to-face. Since the COVID-19 pandemic, we have been working from home and despite numerous e-mails, have had no communication from the student. Although we're aware they are having regular Zoom sessions with their Autism Mentor. What I've learnt from this student and another we supported a few years ago, is that things need to be explained clearly and concisely and be followed up in writing. If I explain something one way and the student appears confused, I'll try explaining

	a different way. With another student, we had issues with a lecturer who's lack of understanding about ASD meant they were not able to support the student fully on their module. The lecturer was of the opinion they shouldn't have to make reasonable adjustments for 1 student when they have a class of 200. This caused extreme distress to the student, which we tried to address with the department. We're aware that the student provided detailed feedback to the department regarding this particular module.
Q12	I've been on several training sessions and usually try to go to one a year with the Autism Mentors on campus, as it's always good to refresh.
Q13	It ensures a more inclusive service to all students and positive experiences such as the helpfulness of staff in resolving an issue or answering a question, makes the library feel like a safe place for students with ASD. We have found that if we've been able to address queries from ASD students that are outside of our remit, the student will continue to come to us with issues or problems. This has meant we've been involved in some queries without meaning to be. But it's also important that the student feels they can come to us with any issues or queries and knows these will be passed on.

Respondent 9

Question Number	Response
Q1	• Most of the Time
Q2	Support for disabled readers is a priority and that also includes readers with ASDs. We have a full time Disability Librarian, Disability Liaison Librarians in all site libraries, students are individually contacted after disclosure about the support available; liaison with central university disability support; library committee with disabled student reps; feedback listened to and improved where possible
Q3	• One-to-One Library Support • Computer/Printing Services • Room Bookings • Book Borrowing

	• Library Help Desk • Drop-In Support • Other ◦ ASD students use all libraries services. They do not have to disclose their condition unless they believe that mainstream service is not accessible
Q4	• Leaflets • Website • Outreach • Other ◦ Lib guides, library inductions, prospectuses – support for disabled students including ASDs
Q5	• Online or Emailed Surveys • Face-to-face • Other ◦ email contact; social media contact, complaints,
Q6	• Other ◦ All of the above are designed to be (in as much as possible) accessible and inclusive to all users. The needs of disabled students (including those with ASDs) for lockers, individual study spaces, alternative technologies, clear signage are always considered
Q7	We offer named contacts (disability liaison librarians), 1-1 inductions, internet and messaging service, self-loan machines and return drop boxes; extended loans and online renewal; all reading room staff should be trained in disability confidence (online module or face-to-face); communication is done via a variety of means to reach as many stakeholders as possible as well as instructional materials; lighting is improved where possible, different areas have different types and readers can choose them, materials can be borrowed to be taken home; wide selection of digital resources; variety of study spaces throughout the libraries; option of reserving some spaces in advance
Q8	We have around 30 different libraries in a variety of settings. The commonalities are excellent collections and engaged

	staff. Besides that, there is a huge variety from century old reading rooms to new libraries
Q9	A complex and diverse library (2 nd largest academic library in the world), with an engaged work-force who aim to make it accessible to all readers. We work really hard to create an inclusive service where readers feel they can pursue their interest autonomously.
Q10	• Training/Workshops • Peer Support • Other ◦ Training online or face-to-face with Disability Librarian; disability committee meetings where staff can voice concerns; contacting Disability Librarian, we can also contact central University service for training; use CLAUD to know what other institutions around the country do
Q11	Students don't often know what services are available no matter how hard we try to advertise
Q12	Not initially – I received training as I went along in my career
Q13	An inclusive service where readers are able to be independent releases library staff to pursue other projects

Respondent 16

Question Number	Response
Q1	• Sometimes
Q3	• One-to-One Library Support • Computer/Printing Services • Book Borrowing • Library Help Desk
Q4	• We Do Not Advertise Additional Support
Q5	• Face-to-face • Suggestion Box • Other

	○ We don't gather feedback specifically from students with ASD – just as part of the student body
Q6	• They Are Not
Q7	Autism awareness training
Q8	Big space, imposing, signage (not sure it is adequate but it's better than it used to be), light
Q9	I am autistic and I would not want to be an autistic person using our library.
Q10	• Training/Workshops
Q12	I think more training is needed from actual autistic people, rather than someone else talking about us and our needs.
Q13	Library staff are more aware of the needs of autistic people.