

Where you AT?

**Supporting Clients Through Virtual Assistive Technology:
A 2022 review of the impact virtual support had on the practice of assistive technology**



DISCLAIMER:

AT³

The authors of this paper recognize the use of the term White Paper holding racial bias as a form of anti-Black racism¹. We have chosen to use Discussion Paper from this point forward.

The authors of this Discussion Paper do not benefit financially from this publication. The opinions, data, etc., are those of the authors and are in no way related to their employer. All survey responses were used in aggregate to maintain the anonymity of the data.

In this Discussion Paper, we will use certain words interchangeably and recognize that they may have different meanings. Please consider these words to hold a similar meaning within the context of this Discussion Paper. These include:

- Assistive and adaptive: consider this to mean any item, equipment, software, or product used to support the functional limitations of a person with a disability. For simplicity, we will use assistive throughout this Discussion Paper
 - We will use the abbreviated term AT(s) to denote Assistive Technologist(s)
- Student, patient, and client: consider this to mean the person with whom the Assistive Technologist (AT) is supporting. For simplicity, we will use student throughout this Discussion Paper
- Virtual and remote: consider this to mean the AT is not occupying the same space as the student and supporting at a distance connected via digital communication, e.g., video conferencing, remote assistance, telephone, etc. For simplicity, we will use virtual throughout this Discussion Paper
- Organization and institution: consider this to mean the ATs place of work or employer. For simplicity, we will use organization throughout this Discussion Paper

The data in this report is based solely on the feedback from the respondents. It is reasonable to assume that one can extrapolate the results from this survey to extend to the larger population of ATs across different sectors. Readers are encouraged to process these responses as though they relate to the work.

ATs do for their students across regions and organizations The reader holds the responsibility for the interpretation and use of this paper.

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¹Anti-Black racism

Anti-Black racism is prejudice, attitudes, beliefs, stereotyping and discrimination that is directed at people of African descent and is rooted in their unique history and experience of enslavement and its legacy. Anti-Black racism is deeply entrenched in Canadian institutions, policies and practices, to the extent that anti-Black racism is either functionally normalized or rendered invisible to the larger White society. Anti-Black racism is manifest in the current social, economic, and political marginalization of African Canadians, which includes unequal opportunities, lower socio-economic status, higher unemployment, significant poverty rates and overrepresentation in the criminal justice system.

"Data Standards for the Identification and Monitoring of Systemic Racism." Ontario.ca, <https://www.ontario.ca/document/data-standards-identification-and-monitoring-systemic-racism/glossary>.



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We have tremendous appreciation for the members of the following Listservs², who contributed to the survey, including members from:

- College Committee on Accessibility Issues (CCAI)
- Network of Assistive Technologists (NOAT)
- Quality Indicators for Assistive Technology (QIAT)
- Access Technology Higher Education Network (ATHEN)
- Inter-University Disability Issues Association (IDIA)
- Learning Specialists Association of Canada (LSAC)
- Can Alt Format
- Jisc
- Rehabilitation Engineering and Assistive Technology Society of North America (REASNA)

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Dedicated to Teenie, Jace & Twero.

²A Listserv is a method of communicating with a group of people via email. You send one email message to the group email address, and the software sends the email to all individual subscribers.

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The COVID-19 pandemic introduced many challenges to service provision for people with accessibility needs. Assistive technology users required support in school, work, and life despite disruptions to service resources and product supplies impacting organizations during the pandemic. Access to appropriate and effective assistive technology increases access to education, employment, and independence³. Many schools, organizations and companies quickly pivoted to providing virtual assistive technology to support students during the pandemic. The pandemic revealed that barriers to assistive technology are reduced when an equal set of solutions exists.

With the switch to virtual support, we surveyed Assistive Technologists (ATs) across multiple sectors to gauge how effective virtual support is for students, ATs, and organizations. We identified many findings related to the provision of supporting students virtually. The consensus points to virtual support as an improved means of assessing and demonstrating assistive technology to students⁴. The feedback revealed an acceleration of growth and adoption of virtual assistive technology support and equally acknowledged the gaps in access and availability of products and services.

The survey responses revealed the following aspects of virtual assistive technology support:

- We learned that greater than 80% of respondents identified that virtual support has been positive for students and the institution, with fewer than 18% of respondents identified virtual support as not working for students
- Greater than 92% of respondents support continuing virtual disability support with students; with 74% indicating it is a better experience for students
- 67% of respondents indicated they have fewer missed appointments due to virtual assistive technology support
- 83% of surveyed ATs have been better able to provide support across locations reducing the need to travel to multiple sites and supporting more students irrespective of location.
- More than 69% of respondents have seen an improvement in their training through screen-sharing technology

From a student service perspective, respondents shared that most students have access to high-speed internet and a computer/device, with fewer devices shared with others in the home. More than 70% of those surveyed have identified that virtual assistive technology support has reduced potential physical barriers to students which may exist onsite. Virtual support made it easier to involve students' support people, e.g., parents, advisors, Educational Aids, etc. We even witnessed an improvement in cost savings and environmental impact by providing virtual support.

³This article notes that AT is a foundational support that produces multiple and life-altering benefits that impacts individuals with disabilities in relation to their education, employment, and ability to live independently.

Assistive Technology: Impact on Education, Employment, and Independence... https://www.researchgate.net/publication/287620473-Assistive_technology_impact_on_education_employment_and_independence_of_individuals_with_physical_disabilities.

⁴Notwithstanding assistive technology that must be demonstrated in person, i.e., certain types of hardware devices and technology which cannot be demonstrated virtually.



ASSISTIVE TECHNOLOGY SERVICE RECOMMENDATIONS

This Discussion Paper examines the collective feedback from AT professionals. The data indicated a preference for virtual support becoming a permanent aspect of supporting students with assistive technology needs. This paper also provides recommendations for how virtual support can persist in the assistive technology profession. We felt it was essential to capture elements that support virtual services continuing at your organization. Below are some directions on how virtual support can operate effectively:

- When assistive technology is prescriptive⁵, determine if the training requires in-person delivery based on the students' needs, e.g., the software is delivered virtually whereas the hardware requires in-person support
- When assistive technology supports are assessment-based⁶, schedule initial appointments to occur virtually and then, based upon the student's assistive technology needs, determine if it is best to continue in-person or virtually
- The AT and the student can determine ongoing appointment modality based upon assistive technology support needs
- Ensure ATs have access to the assistive software and hardware needed to demonstrate to students, whether working from home, their office or shared office space

⁵Prescriptive referrals imply the referring role has done an assessment of needs and preselected the assistive technology the student will require.

⁶Assessment-based referral implies the AT will determine what assistive technology would best support the student/client.



INTRODUCTION: ASSISTIVE TECHNOLOGY SUPPORT IN THE VIRTUAL WORLD

Remember the days when you would demonstrate an assistive technology tool, and the student would peer over your shoulder, squinting to see what buttons you were clicking and straining to hear the audio? Nowadays, we can share our screen and audio with a click. Within moments and from a distance, we are delivering virtual and hands-on assistive technology demonstrations.

The daily challenges that an Assistive Technologist (AT)⁷ encounters are becoming more multi-dimensional in terms of the diverse needs of students and how we support them. We are constantly sourcing solutions, trying to stay up to date with emerging technologies, methodologies, and the instruction utilized to train students. This iterative process requires continual evaluation. The shift towards virtual support has significantly improved our capacity to demonstrate technology-based services and products to students.

Accompanying this drastic change to the medium of our assistive technology work, we now have access to robust, vast, and reliable integrated assistive technology across all devices. More and more students have access to devices and technology to support their assistive technology needs. We moved to support students virtually throughout COVID-19, with some ATs working from home and others in the office. We learned innovative ways to use screen-sharing, video conferencing, and telecommunication platforms to assess and train students in assistive technology.

This Discussion Paper intends to examine whether the practice of assistive technology has changed as a result of virtual support. This paper aims to encourage discussion around the efficacy of virtual assistive technology support. It is meant to guide AT professionals, and administrators to determine the best means of providing support for students.

⁷An Assistive Technologist supports people with disabilities in selecting and using technology products and services that improve their functional limitations. This group includes roles known by other names; the commonality is the type of work performed.

SURVEY METHODOLOGY

At the beginning of 2022, we surveyed ATs worldwide that provide assistive technology support. In this process, we learned more about the profile of ATs, including their utilization of virtual tools for assessment and training, and whether virtual support is an effective method of providing training to students.

Data collected in the survey was both qualitative and quantitative. A structured questionnaire in the form of multiple-choice and short answers was used to elicit responses. Certain questions were definitive yes/no whereas others requested a response to clarify. This method allowed fluidity in responses and space to provide more background and logic. The survey was conducted via Qualtrics® experience management software through a web platform and delivered to respondents via a web link which was emailed across assistive technology Listservs.

The target population was Assistive Technologists across all sectors and similarly named roles within these sectors. We believe AT practitioners were best suited to analyze the impact of virtual support relevant to the COVID-19 pandemic. We choose ATs as the primary group to survey based on their experience delivering training to students. Subsequent surveys will benefit from seeking feedback of students, administrators, and other individuals who provide and receive virtual assistive technology support. The data analysis involved extracting amalgamated responses.

All contributors to this Discussion Paper reside in Canada. The contributors involved in creating this Discussion Paper did not declare any conflicts of interest.



AT ARCHETYPE

The profile of an Assistive Technologist (AT) is as inclusive as any other group of professionals, ranging in gender, education, experience, and geographical location. However, there are common threads among our group which we used to create a profile of an AT. Presented here is an amalgamation of the feedback from respondents used to help build this profile.

ATs work across many sectors, including education, supporting students in elementary school (ages 4 – 14), secondary school (ages 14 – 18), post-secondary school (ages 17+), private sector corporations, healthcare, community organizations, etc. 60% of respondents work in the post-secondary education sector, including colleges and universities. 89% of respondents support all categories of disability/exceptionality with their assistive technology needs, with less than 6% focusing on specific categories of disability.

51% of respondents were between 36 and 50 years old (Fig 1.0), with most residing in the US and Canada (Fig 1.1). The survey accounted for individuals across the gender spectrum. The breakdown among genders presented an interesting measure. 63% of respondents are women, which may be representative of the field or may relate to those who tend to complete surveys; we are unsure based on the data. 86% of ATs are full-time employees (Fig 1.2), with 66% as support staff and 67% belonging to a union.



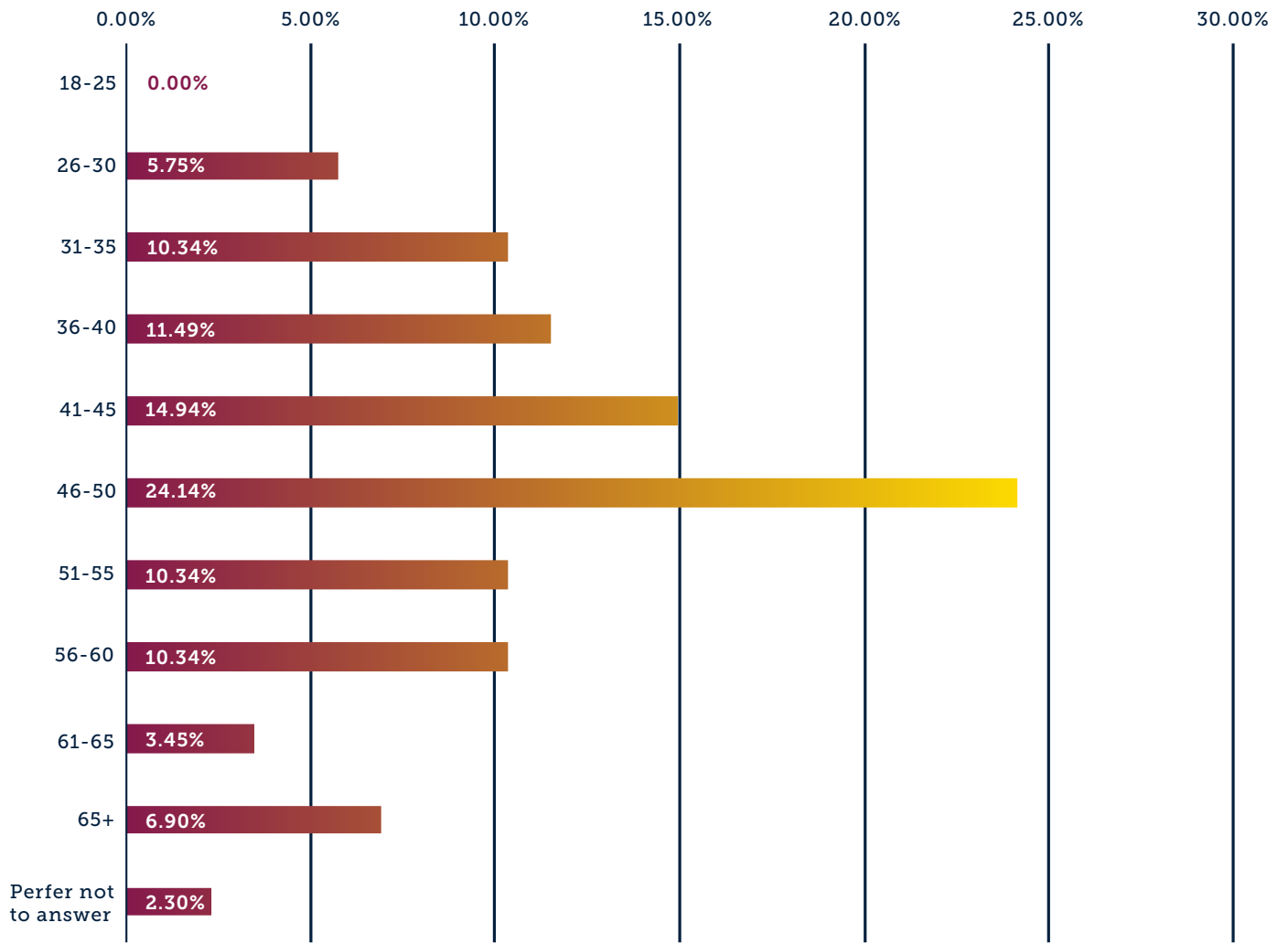


Figure 1.0, Age Range of Assistive Technologists Surveyed

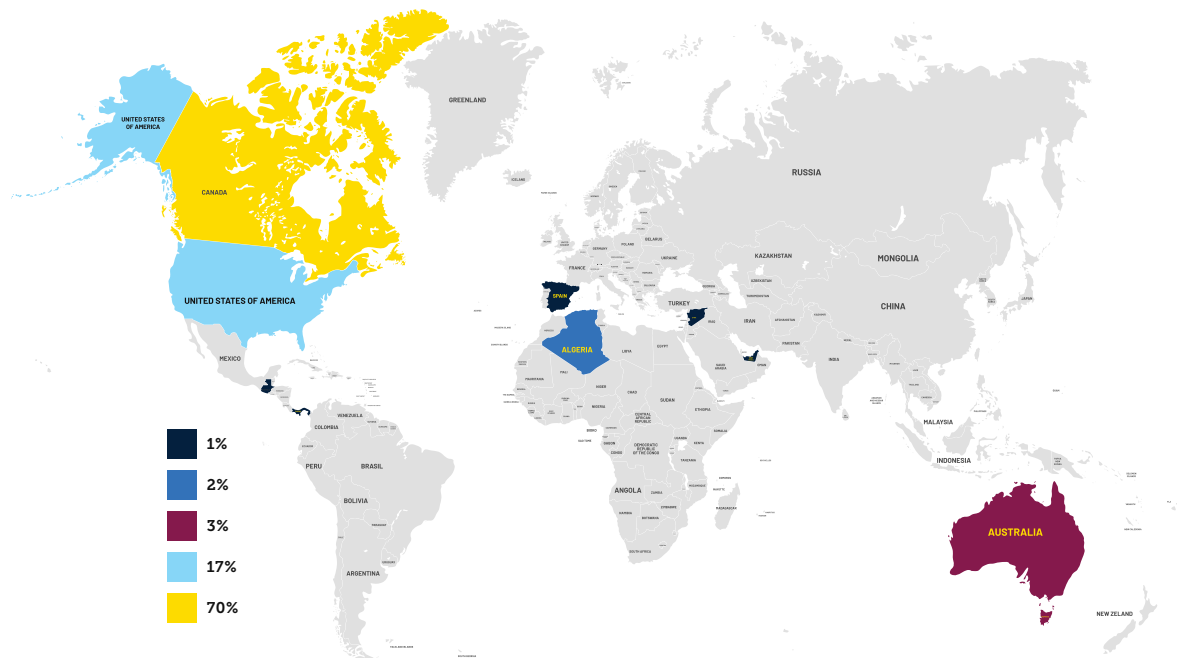


Figure 1.1, Geographical Location of Respondents Surveyed, Respondents from 5 Continents and 10 Countries Around the World

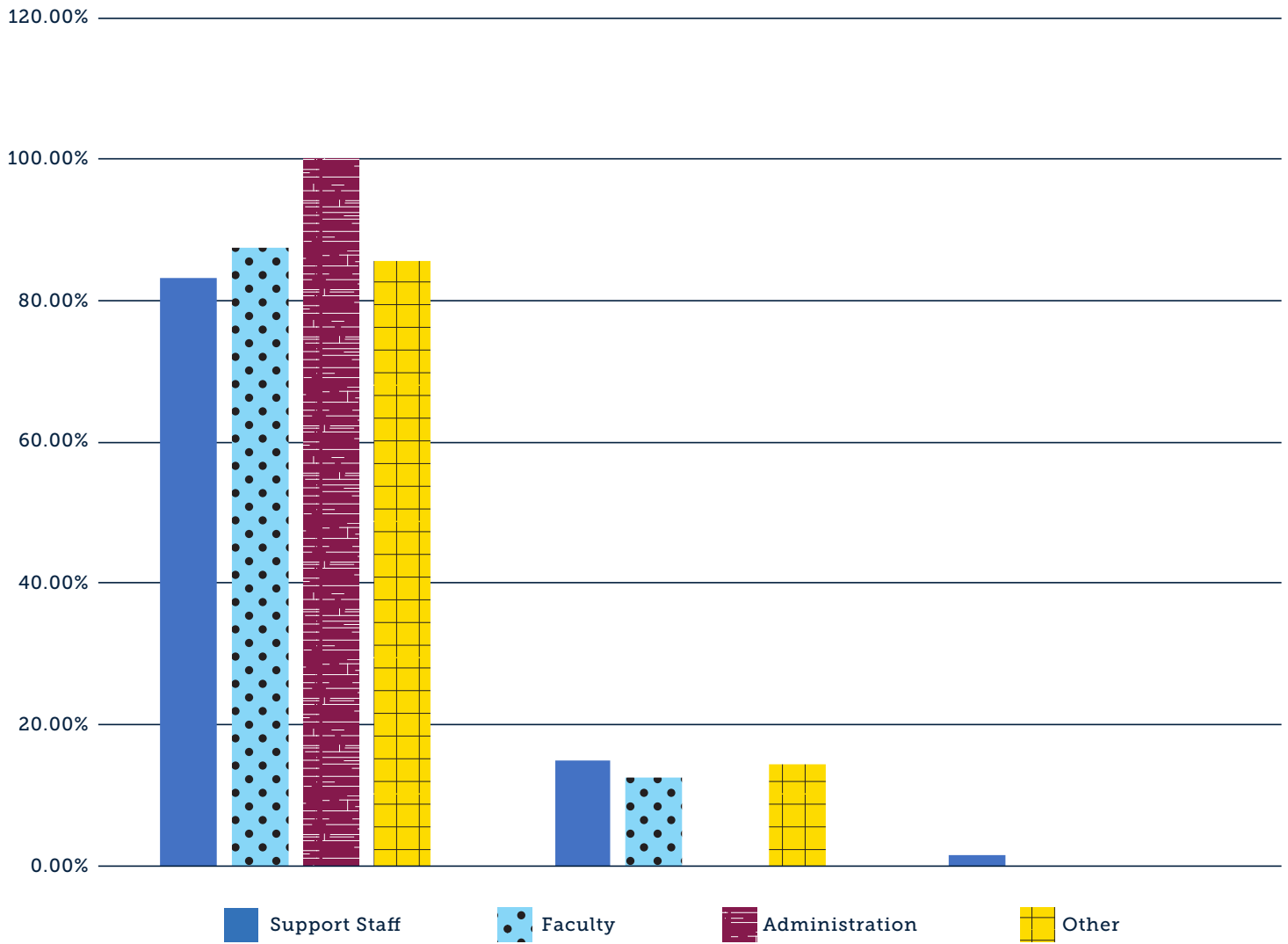


Figure 1.2, Employment Status of ATs surveyed



EXPERIENCED AND EDUCATED

Experience and education are integral components of being an effective AT, evident in the various pathways people take to enter this field. ATs mainly enter the field through healthcare, education, disability services, or technology. With many ATs finding this career through multiple channels, experience and education play critical roles in assessing and supporting the assistive technology needs of students. The survey data revealed most ATs had 11-15 years of experience in the field, with 1/4 having 6-10 years of experience. In addition, ATs are an educated group of practitioners with the following breakdown in education (Fig 1.4). Most ATs surveyed had post-secondary education, with the largest percentage being University credentialed. The most common fields of study were science and education, at 70% of respondents. Figure 1.5, Field of study of ATs surveyed

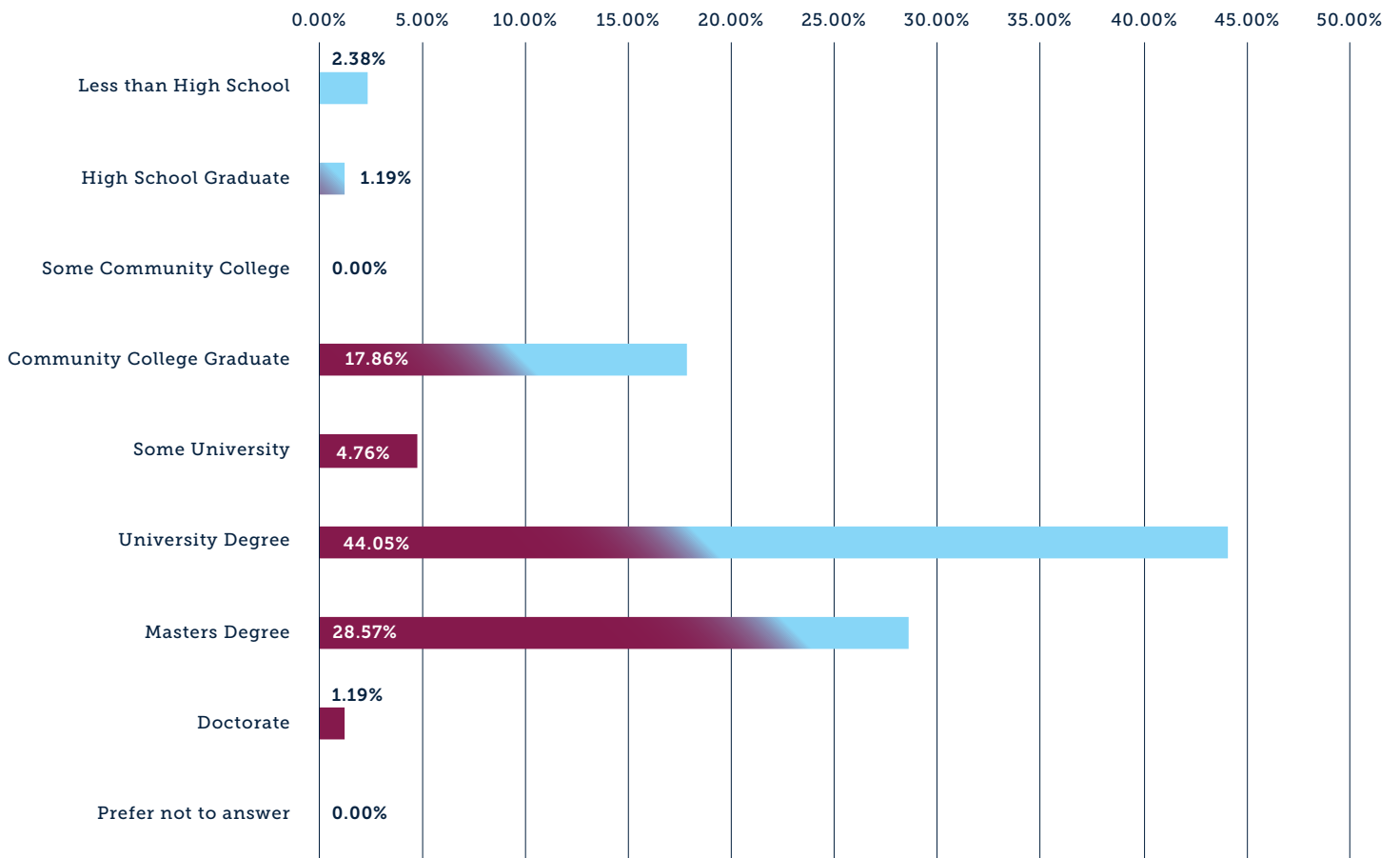


Figure 1.4, Education of ATs surveyed

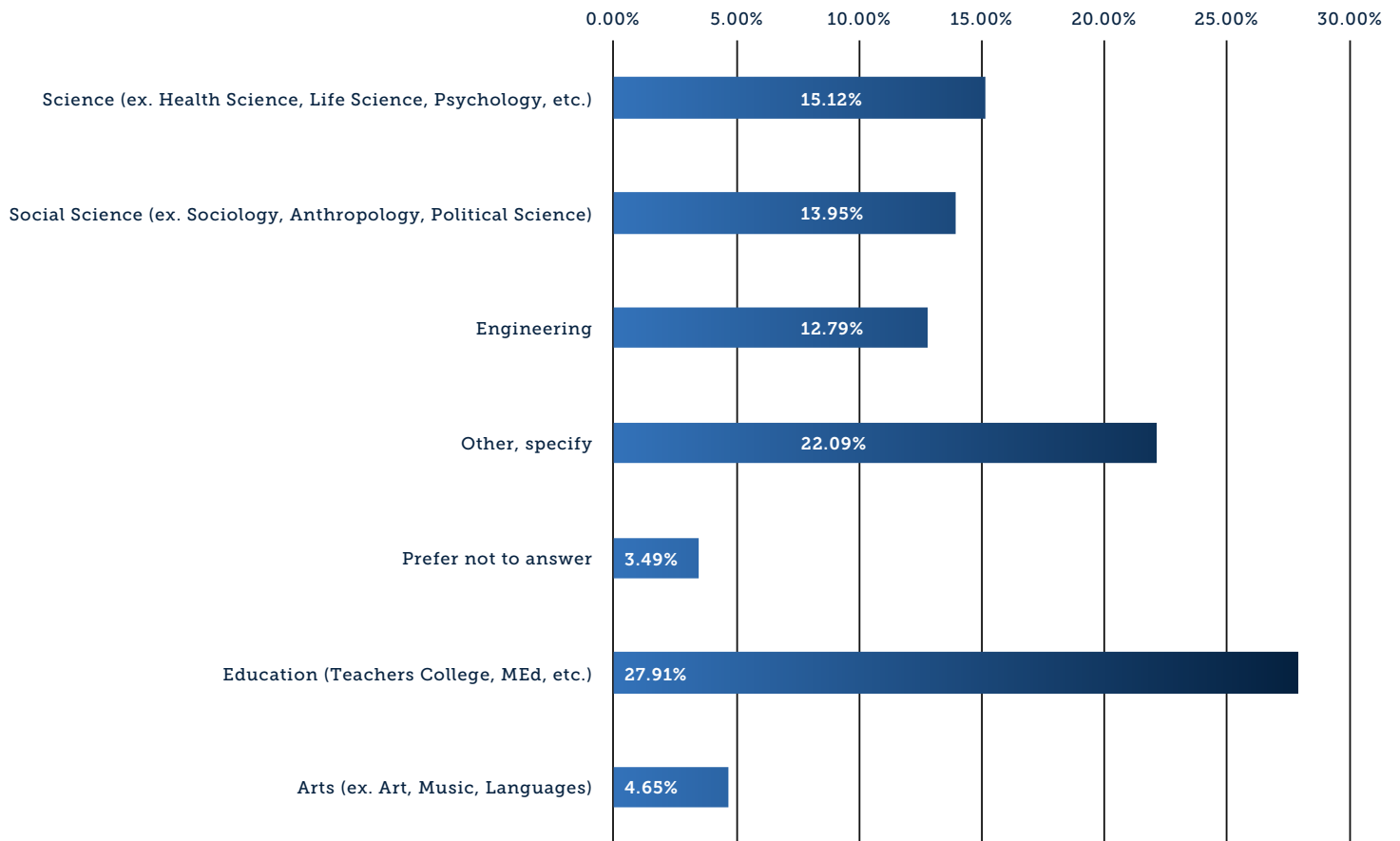


Figure 1.5, Field of study of ATs surveyed



ASSISTIVE TECHNOLOGY APPOINTMENTS

AT³

Assistive technology appointments provide students with an opportunity to get direct one-on-one support for their technology-based accommodations. The AT will formulate an assistive technology plan which may encompass introductions, training, provision, and support of the recommended assistive technology. The survey revealed that the average number of appointments per day is 3.84, with an appointment length averaging 53 minutes. 79% of respondents use a digital record-keeping system to capture their notes.

In many cases, the referral⁸ process to an AT comes through another role in the organization. This referring role is usually a Counsellor, Advisor, Case Manager, Administrator, Human Resources Officer, etc. The referrals are delivered in one of two ways, either prescriptive or assessment-based.

Prescriptive: When referrals are prescriptive, another role on the team has identified the assistive technology accommodations. This method relies on the referee's knowledge and awareness of assistive technology and how it can help accommodate students. Generally, this method does not require an AT to assess the needs of their student or make recommendations based upon those needs. These appointments are strictly meant to provide training on specific assistive technology.

Assessment-based: When referrals are assessment-based, they are delivered to the AT with limited to no recommendations for assistive technology. These types of referrals allow the AT to consider the student's narrative in combination with any supporting documentation or any additional assessment tools⁹. ATs review the student's functional limitations and identify appropriate assistive technology. Assessment-based referrals provide greater utilization of the ATs expertise in supporting students and allow for more individualized support.

64% of ATs surveyed identified their referrals come through one of the roles as mentioned above, with 73% providing assessment-based support to students. 11% of referrals come with suggestions, and only 7% are prescriptive. The high percentage of assessment-based referrals across institutions supports confidence in the skills and knowledge an AT holds in supporting students.

AT TIP

Consider ATs with greater than five years in the field as experienced Assistive Technologists.

⁸AT Referrals occur when a separate role/service directs a student to meet with an Assistive Technologist who may support their assistive technology accommodations, training, funding, and acquisition of technology.

⁹Additional assessments tools include:

Interview: informal functional assessment

Planning for Success: Self-Assessment Inventory - Glenn Crombie Centre

Student, Environment, Tasks, Tools (SETT) Framework - Zabala

Wisconsin Assistive Technology Initiative (WATI) Assessment

High Incidence Accessible Technology (HIAT)

Executive skills Questionnaire - Dawson & Guare

Child Occupational Self-Assessment (COSA) - Kramer, Kielhofner & Smith

ROWNAA Framework - Williams

International Classification of Functioning, Disability and Health (ICF) - WHO

Human Activity Assistive Technology (HAAT) model - Cook & Hussey



ASSISTIVE TECHNOLOGY SUPPORT BEFORE COVID-19

Prior to COVID-19, most Assistive Technologists (ATs) would provide on-premises assistive technology assessment and training. Students had to book an appointment (or drop-in) to see the AT, who would assess and train in person in an office or lab. As we transitioned to providing virtual support, some ATs experienced a discomfort migrating to virtual with concerns the service would be diminished. Greater than 71% of ATs did not provide virtual or remote support before COVID-19. This data suggests that there may have been a belief that assistive technology support must be in-person to be effective, collaborative, integrative and reflective.

However, the survey data revealed that some ATs were ahead of the curve and already utilizing virtual technology to support students. Approximately 22% of ATs employed some form of virtual technology to connect with their students before COVID-19. 40% provided assistive technology support over the telephone, and 23% were using screen-sharing technology like Teamviewer® or similar to provide support. Interestingly, 53% of respondents indicated they considered the possibility of delivering virtual support before COVID-19 but had not yet taken action to implement it.

AT TIP

Avoid reverting to what used to work; utilize technology or techniques to improve the engagement and understanding of students.





ASSISTIVE TECHNOLOGY SUPPORT DURING COVID-19

As the COVID-19 pandemic continued to unfold, more organizations began pivoting to virtual support for students' assistive technology needs. There was some catching up to do for ATs who were not accustomed to utilizing virtual supports. ATs had to adjust for scheduling and attending virtual meetings over the internet. This transition involved selecting platforms robust enough to provide quality two-way audio and video, screen-sharing, and file transfer while being secure and confidential to maintain the privacy needed for our service.

Assistive Technologists (ATs) set up home offices, equipped with the tools and technology needed to provide assessments and training, including laptops/desktops, webcams, softphones, Virtual Private Network (VPN) access, Software as a Service (SaaS) product access, virtual services, etc. Many ATs (76%) could duplicate much of the office environment in their home office. For some, it was not perfect but had the hallmarks of a conducive setting to engage in our assistive technology practice.

It is important that organizations provide ATs with assistive software and hardware essential to their work. ATs require access to assistive technology to perform quality demonstrations and training with students. Additionally, when ATs share office space with other roles in accessibility services, ATs benefit from a consistent space where their assistive technology can be easily accessed and securely stored. 1 in 4 respondents cited shared space as a concern when returning to the office.

Another variable ATs were challenged to manage was inequitable access students had to the internet and required technology. In some instances, students did not have reliable enough internet to maintain virtual conferencing connections or a dedicated computer (laptop or desktop). They were using smartphones or tablets to connect with assistive technology services. In addition, students were challenged to share devices among other family members. Device access posed a significant challenge for both parties. The survey revealed an inverse correlation of access. We learned, when students had access



to sufficient broadband internet and devices, including laptops and desktops, there was little to no sharing of devices in their home. Conversely, when there were higher rates of sharing of devices, there were lower rates of access to internet and devices (Fig 2.0). The latter was a challenging area for both students and ATs to manage.

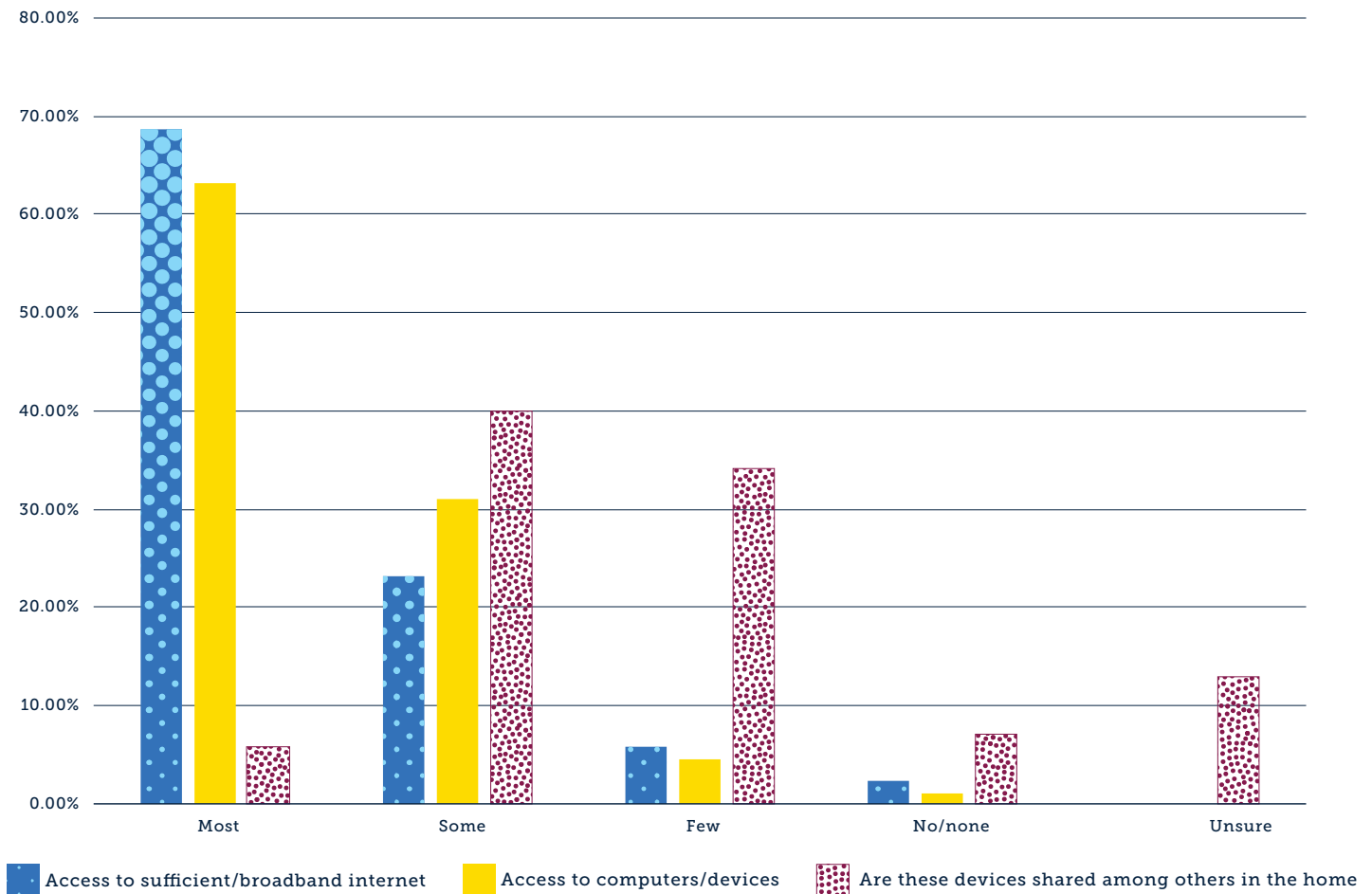


Figure 2.0, Devices shared with others in the home

During the transition to virtual assistive technology support, we witnessed technological and platform improvements. Many ATs began to use robust virtual conferencing software which contained accessibility components, including:

- Automated and human captions and transcripts
- Keyboard shortcuts and navigation
- Screen-reader compatibility
- Downloadable recordings with synced captions
- Auditory indicators
- Spotlighting sign-language interpreters
- Access for external disability support providers

ATs identified virtual conferencing platforms that contained these components, with survey respondents indicating their preferred platforms: Zoom® (39% usage), Microsoft Teams® (35% usage), etc. (Fig 2.1).

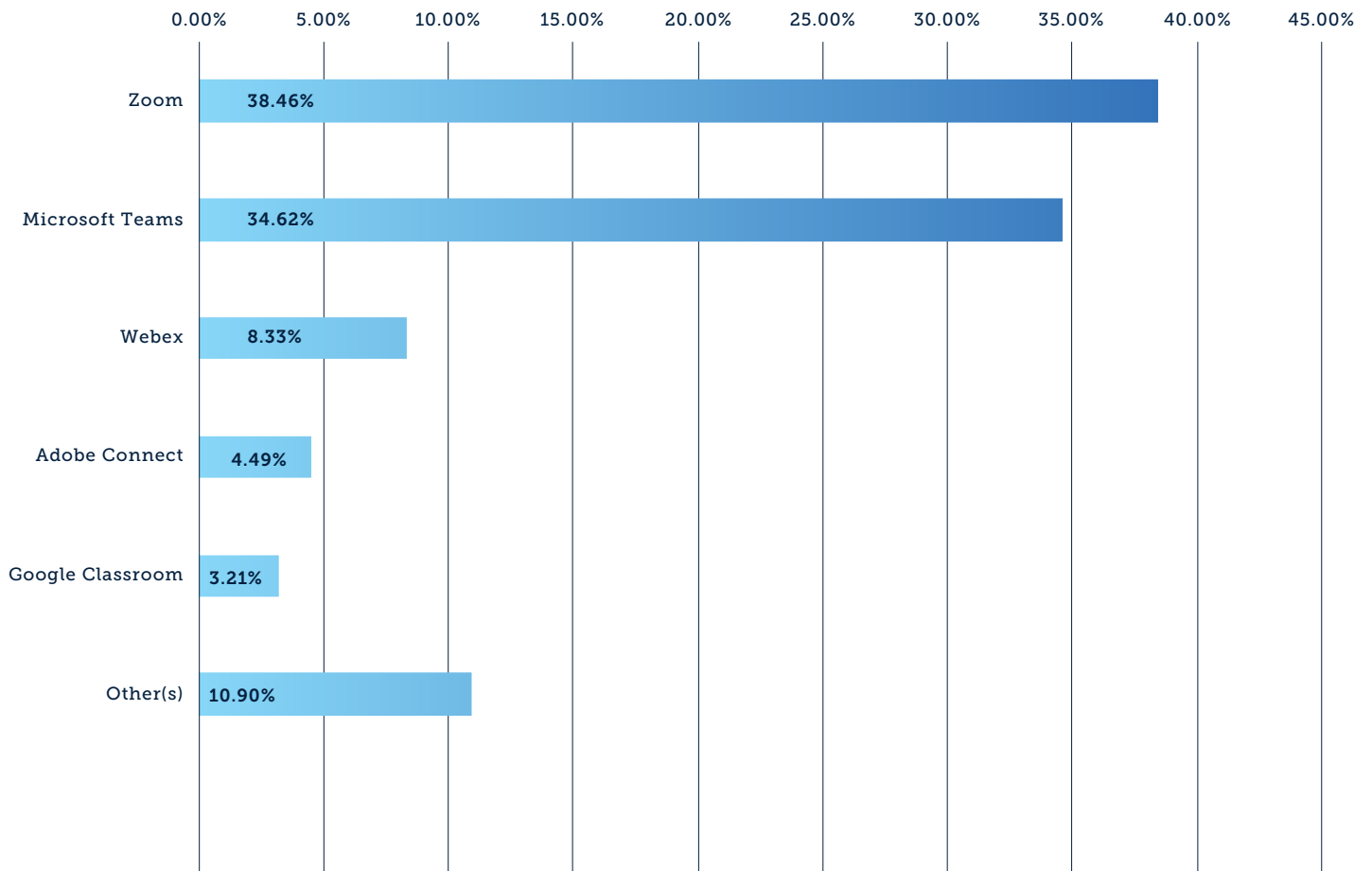
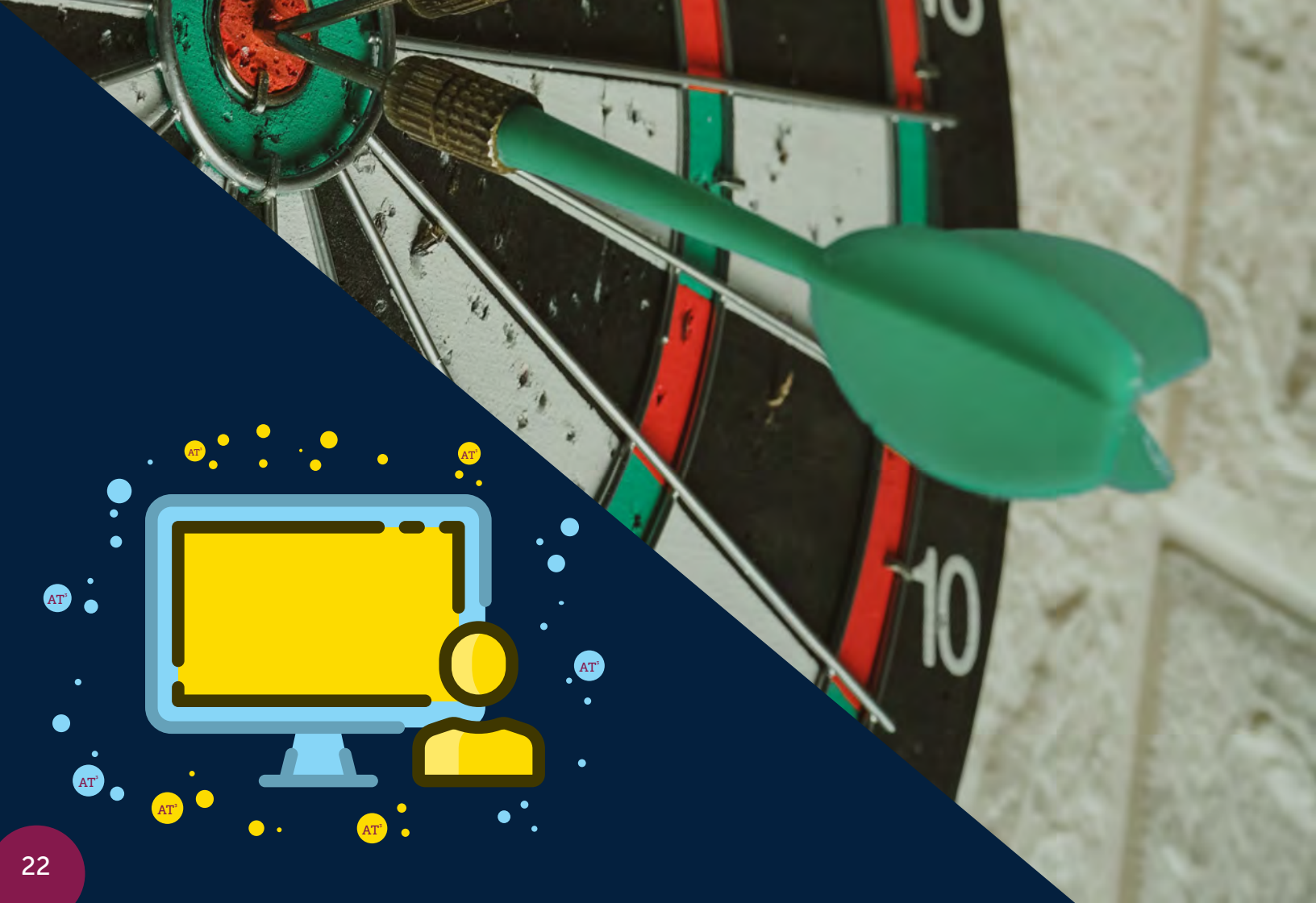


Figure 2.1, Retail Virtual Conference solutions used by ATs



As Assistive Technologists (ATs) settled into this new environment of providing virtual assistive technology support to students, many found it was overwhelmingly positive for students, themselves and their organization.

IMPACT ON STUDENTS

ATs were able to leverage many of the advantages of this virtual medium to better engage with their students. For example,



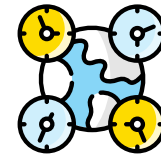
57% of ATs were using webcams in session to connect with students making the appointment feel more personal



74% of ATs had access to a telephone (whether a softphone or a company cellphone) to support students without a computer



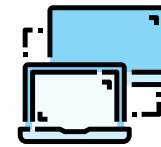
7% of ATs recorded their sessions for students to review in the future



32% have found they are better able to support students who reside in a different region or time zone



68% identify a more physically accessible environment, eliminating in-office barriers for students



58% can better address assistive technology support issues by being able to install, troubleshoot, apply customizations, etc. on their students' computers with screen-sharing technology



90% believe virtual support addresses concerns about immunocompromised students



74% are better able to include others in their sessions, such as campus staff (faculty, counsellors, advising, etc.) or support people (parents, educational aids, support workers, etc.)



The no-show rate went all the way down when I started to work remotely. I've rarely had any students not showing up for their virtual appointments.



IMPACT ON ATS

54% of ATs felt reduced concerns for safety when working after business hours since they were now providing virtual support. 86% of ATs have seen increased flexibility to support students across campuses with a reduced need to travel to multiple locations. 65% of ATs had fewer missed appointments by students since going virtual.

Supporting patients in multiple hospitals in one day is more manageable with the elimination of some travel requirements.



When asked about the quality of training sessions, ATs clearly preferred screen-sharing. Three of four respondents prefer the ability to demonstrate screen-to-screen as opposed to in-person and physically moving closer to the student to demonstrate assistive technology. 76% of ATs expressed that sharing content and training documents, funding applications, etc., was easier via the virtual conferencing platform or email. 89% see a reduction in concerns around hygiene and sanitation of devices when service is delivered virtually.

As a result of switching to digital appointments, many organizations adopted electronic files, documentation, notes, etc. With this conversion, ATs have on-demand access to the required information to efficiently support their students.



IMPACT ON ORGANIZATIONS

In many cases, the relationship between ATs and students is managed by the organization (school, hospital, business, etc.), including decisions about how staff interface with students, budgeting, and facilities. Organizations consider many aspects when examining how services are provided. Survey respondents answered questions related to organizational impact in the following ways:

- 31% of respondents identify the benefit to the environment with less commuting as a motivating factor to maintain virtual support, reducing their contribution to greenhouse gas emissions¹⁰
- 25% saw a reduction in office space needs, including fewer staff onsite and an increase in office space sharing, etc.
- 25% saw lower energy costs for the organization with fewer onsite staff

It is important to note that some respondents cited concerns around the need to consider cost savings for legally required support for students with disabilities and did not want this to be a factor in service delivery.

¹⁰Climate change is caused by the increase in concentrations of greenhouse gases (GHGs) in the atmosphere. These increases are primarily due to GHG emissions resulting from human activities such as the use of fossil fuels or agriculture.

Canada, Environment and Climate Change. "Government of Canada." *Canada.ca*. /Gouvernement Du Canada, 26 May 2022, canada.ca/en/environment-climate-change/services/environmental-indicators/greenhouse-gas-emissions.html.

AT TIP

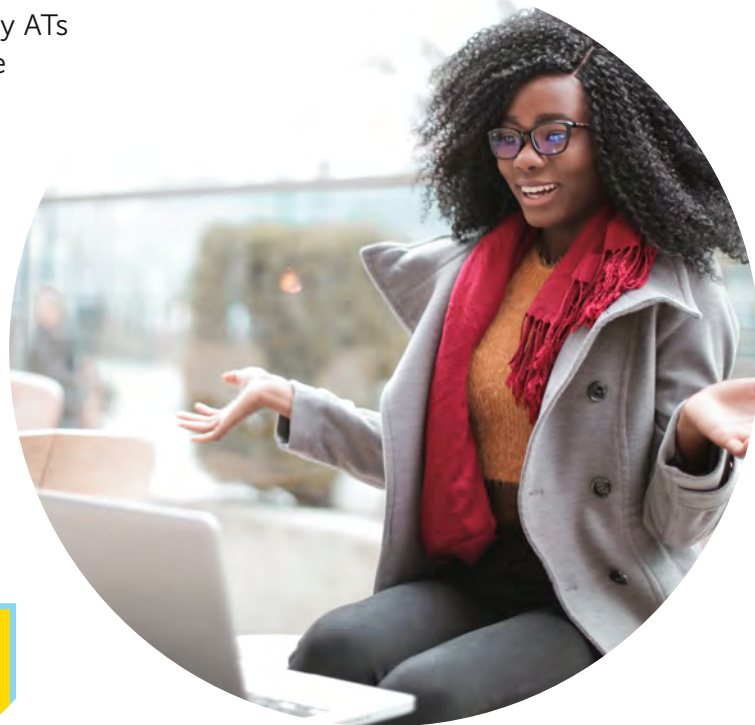
With virtual support working so well, support healthy work/life balance and reconsider the need for onsite AT staff and look towards virtual, hybrid or hyflex models of employment.

Students pay tuition and fees and expect to be able to see a person when needed. I don't think that we should be calculating the cost to the college or environment here, there are other places in society where we need to think about this, not supporting students.

THE FUTURE OF ASSISTIVE TECHNOLOGY SUPPORT

As mentioned in the introduction, this Discussion Paper aims to examine which medium of assistive technology support works best for students, Assistive Technologists (ATs), and their organizations. The AT³ survey was meant to gauge the perspectives of ATs and determine what was learned from pivoting to virtual support. We analyzed multiple factors with a distinct focus on determining which method of support best benefited our students. We learned virtual assistive technology support works and should remain a permanent option for providing support. There remains a need to maintain a certain level of in-person support for cases that require a hands-on approach. Our survey results revealed high success in providing virtual assistive technology support in most other cases.

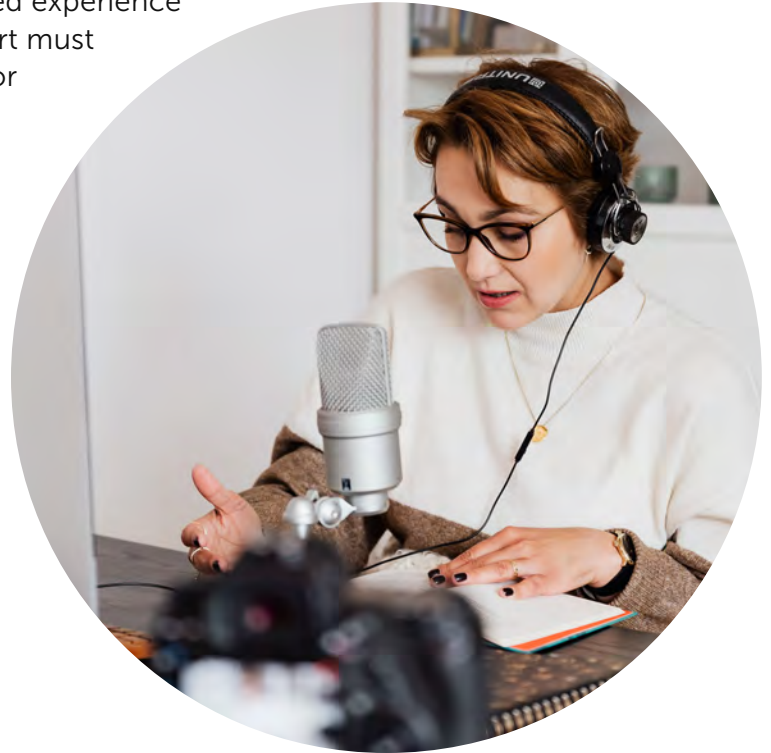
Since the start of COVID-19 in March 2020, many ATs have been in various states of modality and locality. Many ATs are 100% virtual; some are hybrid (working at home and in-office), while others work 100% in-office (supporting virtually and in-person). 80% of ATs have returned to some combination of hybrid work.



virtual support provides an opportunity to work pan-campus and provide support to students regardless of their physical location. It has opened space in our schedules to support more students in a work week.

BENEFITS OF HYBRID ASSISTIVE TECHNOLOGY SERVICES

When asked, greater than 89% of ATs see the benefit of continuing virtual assistive technology support, whether working in-office or remote, as organizations begin to reopen for in-person services. 82% of respondents believe virtual assistive technology support is an improved experience for students. More students are now requesting virtual appointments with their AT. 76% of ATs have an at-home assistive technology setup for their appointments, virtualizing the experience students would have onsite. 73% of ATs indicated virtual support is an improved experience for students. ATs recognize that in-person support must still be available based on students' preferences or the nature of the technology being used. 65% of ATs want to maintain the option of in-person appointments when needed.



It was always difficult when I was sharing offices without my AT tools. I was left to verbalize features and functions or show pictures or videos instead of properly demonstrating the assistive technology.

RECOMMENDATIONS

Our intention is to provide concrete recommendations on how to incorporate virtual assistive technology support as an ongoing service to your students. Please consider the following:

RECOMMENDATION 1: EMBRACING VIRTUAL SUPPORT PERMANENTLY

Virtual assistive technology support must remain a permanent option for Assistive Technology (AT) practitioners to assess, demonstrate, and train students. Virtual support has been proven effective before, throughout, and beyond the COVID-19 pandemic. There are tangible benefits for students, ATs, and organizations. ATs clearly demonstrated their ability to book appointments, meet with students, assess needs, demonstrate assistive technology, provide applicable funding and continue with ongoing training across virtual platforms. Virtual assistive technology support can be utilized for most sessions. Occasional meetings may require in-person contact to demonstrate or train assistive technology that requires hands-on instruction. ATs see the benefit of virtual support for themselves, their students, and their organizations in maintaining a healthy practice and work/life balance.



RECOMMENDATION 2: FLEXIBLE TEACHING AND LEARNING MODALITY

Ongoing assistive technology appointments can be established between the student and the AT. Together they can collaboratively determine whether virtual appointments are sufficient and identify when in-person appointments are required. This method provides the most flexibility to support students with scheduled appointments and on an as-needed basis. Offering ongoing support to students works to eliminate confusion, frustration and ultimately, AT abandonment¹¹.

¹¹Research indicates that if a student does not feel that assistive technology helps with difficult tasks, the technology is more likely to be abandoned (Scherer, 2000).

Petrie, Helen, et al. "Assistive Technology Abandonment: Research Realities and Potentials." SpringerLink, Springer International Publishing, 1 Jan. 1970, <https://link.springer.com/chapter/10.1007/978-3-319-94274-2-77>.

RECOMMENDATION 3: UTILIZING ASSESSMENT-BASED REFERRALS

Referrals to assistive technology services can occur in two ways: prescriptive or assessment-based. Assessment-based referrals are preferred as they utilize the education, experience, skills, and strength of an ATs knowledge of products and services available.



RECOMMENDATION 4: ACCESSING ASSISTIVE TECHNOLOGY

Organizations should ensure ATs can access the assistive technology needed to train students. ATs need access to their tools irrespective of where they work (home, onsite, or hybrid). In situations where an AT is sharing space with other staff, ensure the AT has consistent office space for easy and secure access to their assistive technology.

AT TIP

Avoid limiting the scope of assessment. Provide assessment-based referrals or suggest categories of technology for the AT to consider when working with students, e.g., text-to-speech, magnification, etc.



CONCLUSION

Assistive Technologists are a varied group of accessibility practitioners. They encompass tremendous experience, are highly educated, and are deeply knowledgeable about the tools and technologies that support students with accessibility needs. Virtual support has introduced and revealed a tremendously powerful medium to interface with students: a medium that increases access, comfort, accessibility, ease, and efficiency. The nature of technology is one which grows and expands perpetually. Assistive Technologists follow this same tendency, and it is incumbent that we learn from previous experience and grow our craft. Virtual services have been transformative for students, AT practitioners, and organizations. Moving forward, we must learn from what the COVID-19 pandemic has taught us and implement a permanent and ongoing utilization of virtual assistive technology support.

REFERENCES

"Data Standards for the Identification and Monitoring of Systemic Racism." Ontario.ca, <https://www.ontario.ca/document/data-standards-identification-and-monitoring-systemic-racism/glossary>.

Assistive Technology: Impact on Education, Employment, and Independence ... https://www.researchgate.net/publication/287620473_Assistive_technology_Impact_on_education_employment_and_independence_of_individuals_with_physical_disabilities.

Petrie, Helen, et al. "Assistive Technology Abandonment: Research Realities and Potentials." *SpringerLink*, Springer International Publishing, 1 Jan. 1970, https://link.springer.com/chapter/10.1007/978-3-319-94274-2_77

Canada, Environment and Climate Change. "Government of Canada." Canada.ca, / Gouvernement Du Canada, 26 May 2022, <https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/greenhouse-gas-emissions.html>.

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