Assistive Technology Outcomes and Benefits Volume 16, Issue 1, Winter 2022, pp. 84-97 Copyright ATIA 2022 ISSN 1938-7261 Available online: www.atia.org/atob

Voices from the Field

The Assistive Technology Services Experience of the 2020-2021 School Year

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ABSTRACT

Assistive Technology Services (ATS) is the central group of itinerants and resource staff directly working with students and schools to provide assistive technology accommodations within the Fairfax County Public School (FCPS) system in Virginia. When schools closed in March 2020 because of the COVID-19 pandemic, the group was required to make immediate, yet impactful adjustments to its daily operation. ATS worked within the purview of the evolving technology climate that was gradually occurring with the district's FCPSOn technology initiative. This initiative went from a yearly rollout to placing computer devices in all students' hands in the scope of a few months. Assistive Technology Services was able to collaborate with diverse groups in the school system, assist in safely providing access to technology devices, assess specific student assistive technology needs, and develop effective training practices within a new virtual learning environment. As concurrent learning emerged and students returned to school in January 2021, Assistive Technology Services adapted its standard operating procedures to that of the "new normal" that will continue to evolve not only as the pandemic subsides, but as emerging technologies continue to change the face of education.

Keywords: assistive technology, inclusive technology, assistive technology services, virtual instruction, assistive technology assessment

THE ASSISTIVE TECHNOLOGY SERVICES EXPERIENCE OF THE 2020-2021 SCHOOL YEAR

Fairfax County Public Schools (FCPS) is a large school district with nearly 200 school locations serving approximately 188,00 students while staffing nearly 25,000 employees (Fairfax County Public Schools, 2021). Assistive Technology Services (ATS) is the central group of itinerants and resource staff directly working with students and schools to provide assistive technology accommodations within the Fairfax County Public School system in Virginia. Thirty-two AT Coaches, two Assistive Technology Specialists, and a manager comprise the personnel supporting assistive technology use in a very diverse school district supporting over 200 schools and special education centers. ATS provides AT service by directly evaluating individual students for required classroom AT accommodations, training individual students and teachers on AT use, participating in IEP meetings, coaching large numbers of staff on the use of inclusive technology benefiting all student populations and are active members of school technology implementation teams. An Assistive Technology coach may regularly visit six to twelve schools in a two-week time period, directly supporting 100 students with IEP assistive technology accommodations and continuously evaluating new students who may or may not require AT placements.

The FCPS assistive technology (AT) program has been in place since 1989, and since that time, it has become accustomed to supporting students with disabilities in live classroom settings. By strange circumstance, a monthly live staff meeting was held on Thursday, March 12, 2020, and nearly all ATS staff were in attendance. There were questions and concerns about possible school closures. The school district fully closed the next day and did not fully reopen until late summer of 2021.

Personal Statement

Three people are acting as this voice from the field in this document. Jeff Sisk is the Manager of Assistive Technology Services. Jennifer Carr is an Assistive Technology Educational Specialist and Meaghan Tracy is an Assistive Technology Integration Specialist. The three of us have had experience as Assistive Technology Coaches in Fairfax County Public Schools and have diverse backgrounds as teachers and itinerants. Since more than one person is contributing, we will use a first person, plural perspective for our collective voice. Our aim is that this voice is not necessarily that of Jeff, Jennifer, and Meaghan alone, but all the Assistive Technology Services staff who continue to support students in FCPS in virtual, concurrent and evolving live settings.

Target Audience & Relevance

We will provide an account of administrative approaches to delivering AT within FCPS as changes occur within the 2020–2021 school year and continue as we move into following phases. This perspective will examine the assistive technology program as a whole and will recount decision making processes as they occurred over time. It is our hope that anyone who hears our story will be able to use our experience to enhance their own practices.

ADAPTING TO STUDENT ASSISTIVE TECHNOLOGY WITH ABRUPT, LONG TERM SCHOOL CLOSURES

The last time all Assistive Technology Services staff were in the same room together, we were already planning, guiding, and implementing change in our daily practices. Both internal and external influences were driving transformation within our field. Of those influences, two stood out: the internal "FCPSOn" initiative and the continuing advancement of traditional assistive technologies becoming more readily available to more groups of students. Our live meeting on Thursday March 12, 2020 included continued conversation around these topics. When schools closed the following day, those long-term trends did not simply vanish, but wound up becoming a part of our strategy to adjust to the immediate and drastically different student learning environment.

Assistive Technology and the FCPSOn Initiative

Assistive Technology Services was excited for the FCPSOn initiative when it began in the early 2010s. It started when Fairfax County received Virginia state grant funding for 1:1 computing for select groups of high school students. This trial group eventually expanded to include multiple grade levels across all high schools in FCPS and moved into middle school grades over several years. FCPS general instructional services drove the initiative, and it is not simply described as a 1:1 computing environment, but "...a transformation of learning for students and educators. At its core, it provides students with equitable access to meaningful learning experiences and technology to support their learning" (Fairfax County Public Schools, 2021). The FCPSOn initiative isn't described simply as students having their own computers, but an instructional transformation capable of improved learning for diverse groups of students. ATS could not have agreed more.

Inclusive Technology in the FCPSOn Initiative

An example of specific change in instructional practice due to the FCPSOn initiative is found in the use of inclusive technology tools to the benefit of all learners. Inclusive technology implementation builds on Universal Design practices where students can self-select appropriate tools that customize their personal learning experience. Prior to the FCPSOn rollout, individual students may or may not have had immediate access to a computer. As every student in FCPS received a computer in the fall of 2020, all students, teachers, and families had consistent access to a broad set of technology accommodations. Voice typing, word prediction, text-to-speech, electronic graphic organizers and notetaking tools were a few examples of what was readily available to all in the district. ATS was thrilled to have a wide variety of technology tools for students in a single computing device and took an active role promoting the FCPSOn initiative. This also further supported emerging technology trends that were growing within the field of assistive technology itself.

While students continued to receive more and more access to computing devices, technology vendors also provided expanded access to software tools that may have once been considered more unique as assistive technologies. An example of this is word prediction technology, also known as predictive typing. It was not too many years ago when word prediction was specifically installed as a unique add-on to a

computing device, requiring a separate purchase and continued customization and integration into other software tools. Now, predictive typing can be found automatically built into many devices, such as text-typing on a mobile phone. As an alternative to word prediction and/or predictive typing, other writing tools, such as voice typing, became a cost-free and easily accessible tool for many students to use. Access to tools such as this is an example of assistive technology acting as "inclusive technology," utilizing Universal Design for Learning concepts to allow students more customized access to diverse technology tools. In the larger picture, more students than ever had access to technology devices and tools to support their learning in varied classroom environments. These trends cast a framework to the adjustments we were soon to make with school closures after Friday, March 13, 2020.

The Growth in Technology Access with School Closures

A new and unexpected instructional landscape immediately emerged when students were no longer able to physically enter classrooms. FCPS administration immediately began planning for long-term building closures and virtual student instruction. The FCPSOn initiative went from a multiyear project to rapid purchasing and deployment of computers for students accessing virtual instruction. Teleconferencing and modes of virtual instruction were explored as they were being delivered to students in their homes. With physical classrooms closed, FCPS schools had to determine how IEP goals would continue to be met in virtual environments. "Temporary Learning Plans" were created by Individualized Education Plan (IEP) teams to adjust prior student IEP goals so that they might be met by students in virtual settings. Temporary learning plans provided a short-term solution for adapting IEP goals for the spring of 2020 with sudden school closures until IEPs could be adjusted for the 2020–2021 school year. AT staff collaborated with IEP teams to ensure that required AT accommodations were considered. Many adjustments needed to be made quickly in FCPS at this time, and the demand for rapid change provided context to the planning and decision-making processes surrounding student assistive technology placements.

What Role Did AT Teams Play in Supporting Students and Families During Periods of Remote Instruction and Engaging in Needs Assessment? 2019-2020 School Year Adjustments

Assistive Technology Services quickly recognized the need to maximize communication to families participating in virtual instruction during school closures. With the sudden change in the landscape, we did not want to change our operational best practices for implementing assistive technology accommodations simply because the instructional setting was different. In April 2020, all students were in position to receive their own computing devices issued through their school. This presented a great opportunity to further convey our ongoing promotion of inclusive technology tools and strategies available to individuals. We had been providing live, school-based training on this subject throughout the 19–20 school year. We then needed to better promote our message to the public.

Inclusive technology training was a training focus for individual Assistive Technology coaches in the fall of 2019. Most had met with special education departments during staff meetings and spoke to the topic. AT coaches also provided training to schools through our ATS Teacher Outreach Program Support

(TOPS) program. The TOPS program identified outstanding classroom teachers who provided leadership in implementing assistive technology accommodations to students. Schools were receiving live, centrally based training on varied AT topics in live settings prior to March 12, 2020 from respective AT coaches. TOPS training topics were decided based on trending assistive technology tools and strategies, and participating classroom teachers assumed a lead role in further training and classroom integration. We had constructed a strong resource base of training materials and strategies for using inclusive technology tools in live settings. Assistive Technology Services did not want to lose the benefits that live training or the TOPS program provided to schools. One of our first ideas regarding AT outreach to families in virtual learning environments was to provide these same resources to them as openly as possible. It was decided that the best vehicle to do so was a traditional one, our public website.

Assistive Technology Services staff held their first virtual staff meeting in April of 2020. There were obvious concerns as to how our work for supporting students would continue to function over an uncertain range of time. When we first asked AT coaches to expand training resources to be presented publicly in asynchronous, virtual settings, there was a positive reaction overall. This built on work started prior to closures and fell in line with emerging technology trends. Assistive Technology Services had used its public website to feature some of its inclusive technology tools and strategies. School closures required this communication environment to be expanded. ATS staff worked to further develop electronic resource items, such as video, through desktop screen capture, downloadable document files, and links to external resources that technology developers had to offer. New public-facing webpages were created and more detail was added to less descriptive ones. Focus was provided on common areas of student need, such as executive functioning, technology tools to support students with reading difficulties, technology tools to support writing, augmentative communication strategies, and technology supports for low-incidence curriculum. A few months past initial school closures, we greatly expanded our electronic resource base and communicated to families that there was a plethora of AT materials that were available to them. Others outside of our district could also view FCPS AT strategies and resources and we quickly received positive feedback from diverse groups. The public communication message constructed by ATS staff was able to help meet the needs of many families supporting assistive technology placements in home settings. The continuation of our publication of these types of resources was provided through the duration of pandemic closures and will continue to be a valued resource when buildings fully reopen (see Figure 1).

In addition to a broad outreach of inclusive technology tools available to all students, especially now that they all were in possession of computing devices, ATS worked to ensure that students who required specific assistive technology tools continued to have access to them in virtual settings. Many of the evaluations for using these assistive tools were initially determined by IEP teams in live classroom environments. That live landscape of instruction had obviously changed. Fairfax County Public Schools did not implement full IEPs for the 2020 school year from March to June. Instead, IEP teams constructed "temporary learning plans" that could focus on select student goals that would complete the instructional year in virtual environments. AT resource staff were active participants in those teams and ensured that students had access to specific AT tools needed as instructional accommodations. We adjusted our logistical delivery of these tools so that they could reach students safely. ATS staff became proficient in

delivering individualized virtual support and teleconferencing, which provided valuable practice for the continued school closures of the 2020–2021 school year.

Figure 1: Screenshot Example of Inclusive Technology Resources That Are Easily Accessible
Through the Assistive Technology Services FCPS Public Website



2020-2021 School Year Adjustments

School climate and environments had drastically changed with initial school closures. Crash courses and immediate practice in teleconferencing allowed technology tools to become the regular mode of communication with FCPS staff as all continued to teach from home. If you had mentioned "synchronous" and "asynchronous" modes of virtual instruction prior to September 2020, very few people would have known what you were referring to. By the start of the 2020–2021 school year, those words were a part of regular conversation along with other familiar terms such as "unprecedented," "pivot," "PPE," "social distancing," and "new normal." Students continued to virtually learn at home, but the shock of immediate closures had subsided to a degree. Assistive Technology Services had to continue to adapt its practices to the changing climate.

How Did Students Receive New Assistive Technology Devices During the Pandemic?

All FCPS students received a Dell Windows-platform laptop computer by April of 2020. Most of the Dell laptops were the same model, and if they happened to be a different model, all received an identical Windows operating system and software "image" so the application tools loaded on the devices were uniform. This provided a vehicle for Assistive Technology coaches to connect with students virtually, where they could, in many cases, provide specific accommodations. Cloud based AT tools, such as Texthelp's Read&Write, allowed students the opportunities to explore AT while attending virtual sessions

with their Assistive Technology Coaches. In many instances, AT itinerants were able to join virtual classrooms and work with both students and teachers on how to use specific tools. Collaboration between school IT staff and AT coaches also proved to be beneficial in cases where assistance was needed installing software on remote computers. In addition, a huge emphasis was placed on exploring inclusive technologies that were readily available on all student computers.

Providing needed software and cloud-based tools proved to be a workable challenge. However, many of our students needed additional AT equipment and devices to be placed in the home as part of their accommodations. This was a bit more cumbersome. Again, collaboration with school staff was critical as AT coaches worked to pick up equipment from school buildings and deliver it to students and families. AT Resources teachers needed to contact schools and follow their community guidelines for contact protocols. They then needed to reach out to families to set up meetings for delivery. Following guidance provided by our district to maintain safety, equipment was successfully allocated to the students who needed it in their homes.

As virtual learning continued, many new tools were identified as being essential for our special education students as they worked remotely. ATS worked closely with the Department of Information Technology to expedite technology assessments so that these tools could be added to the FCPS Digital Ecosystem. This ecosystem defines the accepted technology tools that can be used in FCPS. With the change to virtual learning, many new technologies surfaced to support distance learning; however, FCPS has a lengthy process for approving new technology. ATS worked closely with both the Department of Information Technology and Instructional Services to navigate through this process and expedite approval of tools that were appropriate and essential.

How Did Schools Ensure That All Digital Curricula Were Accessible for Students with Disabilities?

Assistive Technology Service ensured that assistive technology students are evaluated and implemented by students with special needs who require them. The office also continued to provide broader support to schools and central office groups to ensure that curriculum materials were accessible. As instruction was modified to be delivered in virtual classrooms, FCPS recognized that this change could be difficult for families, and worked to provide equitable access for all. Paper instructional packets were mailed to all families of students with special needs when schools closed in March 2020, and the mailings continued until the end of the 2020 school year. These packets were meant to provide instructional materials for use at home for the remainder of the 2019–2020 school year and could support a student's temporary learning plan. Assistive technology recommendations and strategies were included with the print materials, and could include items such as color-coded visuals, communication boards, and low-tech differentiation. Digital instructional materials were also posted for families through the district's electronic learning management system (see Figure 2). Assistive Technology Services not only added to these digital resources but provided direction for making these materials accessible to diverse users. We paid additional attention to copyright of visuals symbols and other items used with both print and digital resources and regularly communicated with technology vendors to clarify fair use.

Augmentative and
Alternative
Communication (AAC) Supplemental Materials
and Implementation
Resources

View the table of contents below:

Assistive Technology Resources +

Core Vocabulary Word Books and Video Tutorial +

Early Literacy Skills Builder (ELSB) Supplemental Materials for Words for Life and Unity Language Systems

Early Literacy Skills Builder (ELSB) Flashcards - Words for Life
Early Literacy Skills Builder (ELSB) Flashcards - Unity

Figure 2: Screenshot Example of AAC Resources Easily Accessible to FCPS Faculty Used for Virtual Instruction in 2020

Working to provide these print materials better prepared us for the 2020–2021 school year, and we began to better interpret how instruction might look in virtual environments. Internally, we partnered with our instructional services and information technology counterparts to prepare for the fall. As virtualized training and resource materials were developed for the upcoming school year, ATS staff voiced the need for accessible virtual instruction. We prioritized accessibility tools and features and assisted with promoting accessibility features in a broad range of technology tools. We participated in teacher training prior to the start of the school year, advocating for fully accessible instruction based on Universal Design principles. As some students returned to their classrooms to begin concurrent instruction in January 2021, ATS staff continued to participate in conversations supporting accessibility in the use of technology tools in live and virtual settings.

How Were AT Evaluations Conducted for Students or Employees When Working Remotely?

Assistive Technology Services has used several tools and protocols to assess the need for Assistive Technology as a required accommodation for students with Individualized Education Plans or 504 Plans. We use portions of the DeCoste Writing Profile (Don Johnston, 2021), uPAR (Protocol for Accommodations in Reading; Don Johnston, 2021), an iOS app called AAC Evaluation Genie (Hump Software, 2021), a version of Wisconsin Technology Initiative (WATI) and Student Information Guide Process forms (WATI, 2021) that were modified to fit our needs. In addition to various inventories, we partnered with staff, students, and families to provide us information and feedback as we tried possible AT to find the best accommodation to meet each student's needs. Our assessment process has been an evolution over the years based on best practices and our own trial and error. Early in the spring of 2020

a committee of AT staff was created to review our report process and procedures. Little did we know that with distance learning due to COVID-19, we would be doing more than just fine-tuning our current report process.

We began this process of virtualizing and streamlining our evaluation and report writing in the summer of 2020. The pandemic required that we be prepared for different possibilities. We had to have the option of virtual assessments in our toolkit for the upcoming year. Modeled after the WATI, we considered seven different areas of assessment which include: communication, reading, written expression, executive functioning, computer access, foundational skills, and math. This work was a heavy lift, and we welcomed all staff members to voice their opinions and expertise. FCPS AT coaches are a knowledgeable, creative and hard-working group that tackle any challenge that comes their way.

One area of particular focus was augmentative communication. We needed to be able to assess students who struggle with verbal communication, without being in the same physical room with them. We knew there would be collaboration with school staff and families, but before we could even get to that point, we needed to see how a student might access a suggested communication device. Google Workspace for Education was the primary mode of information sharing and instruction used in our schools. We leveraged the same method used in the AAC Evaluation Genie of having a student identify an icon of varying field size and varying visual complexity but using Google Slides as the tool. The AT coach and classroom teacher worked with the family and shared the Google Slides. A family member would provide feedback as to whether the student was able to accurately locate and touch the requested icon. If there is one constant in virtual assessments, it is that everything takes extra time and planning. Families are and have been welcome and valuable partners in the evaluation process for years, but this required an extra level of family involvement.

Once a tool had been selected, the AT coach collaborated with the school and family to deliver it to the student. The technology delivery may be virtual, such as screen sharing through a teleconferencing platform while a family and/or student installs a Chrome extension. A technology tool may also have to physically be placed in a student's hands, such as in the case of providing a communication device. Schools had been the distribution point for getting computing devices into student hands. To keep the approach consistent, we worked with schools to get the necessary devices to students.

An integral portion of supporting school staff and families has been training opportunities. This was even more important during the pandemic. Face to face training was obviously not an option. We harnessed our ATS internet site to offer resources that could support many student needs, such as Tech Tools to Support All Learners, Executive Function tools, and AAC videos and resources. We realized that there is something about live training that was missing from web-only resources. Teachers, families, and our staff all missed live interaction. To fill that need, we offered hour-long live training sessions. We invited staff to professional development that focused on supports they could implement in the classroom setting, whether in person or distance. For staff and families of students with communication challenges, we offered an hour-long introduction training on our most widely used communication devices and apps. Breakout rooms were an important component; they allowed school teams, families, and AT Coaches to

meet to discuss student needs in smaller settings. In a live setting, our AAC training had typically been three hours long. It was a wonderful opportunity to dive into AAC. However, three hours is too long for most in an online format, so we shortened it, kept the most important parts, and worked individually with schools and families as needs arose. With equity being at the center of what we do, we discovered this new training approach offered equitable access to training. Travel to specific locations was not required, nor was it necessary for families or staff to secure transportation.

There were instances when meeting with a student was necessary. Many times, it was an assessment of a very young student, one with multiple disabilities, or a student who was unable to work through a virtual assessment. We coordinated with families to bring the student to one of our centers. For the safety of everyone, we opted to work in our center, where we could more carefully control the physical environment, rather than relying on a school location. We had PPE, trial devices, and the ability to clean and house the AT when the appointment was over. If families were unable to go to one of our sites, we would offer to meet them at the base school. We collaborated with school administrators and staff to secure a room and follow all health and safety guidelines while meeting with the student.

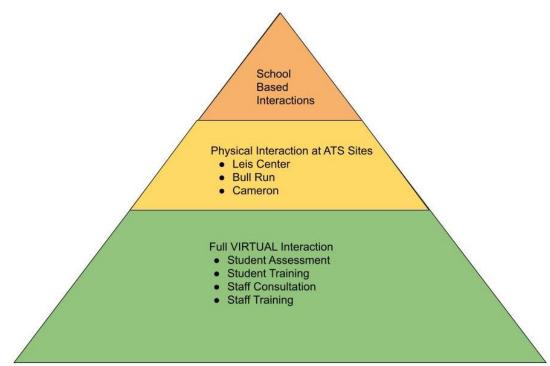


Figure 3: Tiered Model Illustrating the Types of Interactions Required During the Pandemic

Since the onset of COVID-19, safety has been at the core of all that we do. Safety for families, school staff, and our AT staff. We took a tiered approach. Figure 3 illustrates a graphic that we used to guide the different interactions. We tried to accomplish as much as we could virtually; that was our preferred option. The shift was a big change for a group of people who thrive on collaborating and meeting in an in-person setting. We would continue up the pyramid as the situation required.

What Barriers and Supports Emerged as More Responsibility Was Thrust Upon Caregivers and Users?

Once staff and students all had access to a computing device, it still did not mean that they had an immediate understanding of how it might work in a virtual instructional environment. Many had never participated in computer teleconferencing. FCPS did not have a past expectation that this would be a primary instructional practice. Access to teleconferencing tools was not immediate, and it took several weeks until the FCPS platform was ready for widespread use. Once it was ready, there was an immediate expectation for proficiency. As FCPS staff were delivering synchronous instruction, there was additional reliance on them to support teleconferencing, as caregivers and students were even less familiar with the virtual platform. Supporting the platform required additional expertise. Assistive Technology Services also had to rapidly adjust to the new virtual environment and modify virtual technology accommodations that might look different in live classrooms. Experience and time are an asset with change, but that was not an initial luxury for teachers, students, and staff at the onset of the pandemic.

Unexpected external factors also presented barriers to caregivers and students participating in virtual learning, which also impacted assistive technology placements. Face to face interactions continued to change throughout the pandemic in unexpected ways. When schools were first closed in March 2020, extreme caution was exhibited in handling any types of materials, and deep-cleaning of physical surfaces was required. Minimal interactions took place at building locations. With slower handling of equipment, and slower, methodical deliveries, technology tools were slowed in getting into the homes of students. And of course, that depended on whether or not technology tools were even available. With increased widespread online ordering of supplies and materials globally, patterns in the supply chain had changed to the point where backorders were common. The difficulties experienced in purchasing toilet paper in March 2020 were not limited to just paper products. All sorts of items, including assistive devices and peripherals, became more difficult to obtain, which slowed delivery of tools into the students' hands.

OUTCOMES AND BENEFITS

There are several outcomes to the abrupt change in school settings that will be lasting once schools reopen in live settings again. In most cases, consequences of closures may be considered more of an extension of procedures and practices already in place. We had previously described our experience in opening Assistive Technology Services' support and training resources through our public website and social media. Feedback from families, schools, and students continues to remain positive and ATS will prioritize communication through this avenue. A family's role in supporting assistive technology placements will continue in any future setting. ATS communication within publicly accessed platforms will continue to grow and become more substantive and impactful.

Another instance of lasting change is consideration for device cleaning as they are exchanged and transported to students. It is not that devices were not cleaned prior to the pandemic. Detailed protocols for preventing COVID-19 exposure pushed our group to consider a more intricate approach to cleaning practices and products used with technology devices. Further details were explored for transport of the

devices themselves and the hands that handled them along the way. The physical delivery aspects of our job were reviewed in significant detail. Since ATS staff might not have been the only handlers of our student technology tools, we partnered with other central technology staff as well as school staff to maintain the safest contact protocols. The current priority is to prevent any spread of COVID-19. The continued outcome will be that we can also prevent the spread of other bacteria and viruses in the future with more detailed standardized cleaning protocols.

A more detailed examination of our student interactions also occurred. When ATS was forced to minimize direct student contact, we reviewed our assessment procedures, the types of technology tools we were using, and how training took place for students and staff. This, again, is reflected in our contact pyramid illustration provided in our description of assessing students remotely. Before we could change any details of our procedures, we had to account for live interaction that might have been taken for granted. We had to identify critical components of our operating procedures and eliminate those that included risk. An analogy of rearranging procedures and protocols may be that of serving food in the manner of Chipotle. If you have ever dined there, you may have ordered a burrito, tacos, a burrito bowl, or a salad. The food components of all those items are built by the request of a customer as he or she may choose, and the same ingredients are used to make either a burrito, tacos, a burrito bowl, or salad with varied procedures. ATS identified critical components of its daily job procedures and rearranged daily protocols to ensure the safest and most efficient practices to assess students, place appropriate technology tools, and provide training. A better understanding of our own standard operating procedures will continue to benefit our regular practice as schools reopen.

As the 2020–2021 school year began, assistive technology student assessment and training occurred with students attending classes in their own homes. Itinerant AT coaches collaborated with classroom teachers to perform these tasks. With many parents and other family members also available in the same home environments, we found they were in a better physical location to witness AT assessment and training. Some displayed a strong degree of interest and were invited to participate. Others were curious and would simply witness the experience. An unintended and positive result of this interaction is the immediate communication of assistive technology tools and strategies used by students. Instant communication with AT Coaches in virtual classroom environments may initially be lost when students return to live settings and family members will no longer be in the room with their child while attending live classes. A long-term, positive change will emerge from virtual classroom interactions during school closures. School staff, students and families will retain a greater proficiency with computer teleconferencing and this can be a continued, convenient channel to directly communicate with ATS staff.

Expanded use of computer teleconferencing tools also led to unexpected internal collaboration and outreach between ATS and school staff. In analyzing and reviewing daily procedures after the 2020–2021 school year began, we came to realize that AT coaches were providing overlapping training at individual school locations. As an example of this, AT coach "A" might hold a Read&Write training for a few teachers at one elementary school early in the week, while AT Coach "B" might also have held a Read&Write training a few days later at a different elementary school. The training was provided through the same teleconferencing medium over the same topic. Why not consolidate our efforts to centralize

training? This would allow AT coaches to focus on training areas of expertise, allow diverse groups of teachers to attend and collaborate during training sessions, and also document the training for purposes of attendee license recertification. Prior to school closures, both AT coaches and staff attending training through a teleconference platform might have been apprehensive and reluctant to do so. The lack of expertise with teleconferencing created concerns from the trainers that they might not be able to effectively deliver their message. Conversely, attendees unfamiliar with teleconferencing could have reduced their ability to focus on the training topic. This disappeared with the blitz of virtual training required by school closures and overall comfort with using electronic communication platforms. Familiarity with a virtual training environment will continue as the crash course in using teleconferencing tools not only happened with school professionals but with student teachers and others entering the field.

A final outcome unique to Fairfax County Public Schools is that the FCPSOn initiative went from a gradual, yearly rollout, to happening over several months in 2020. Computers landed in every student's household by late April 2020. As the initiative promised, the focus was on instructional change rather than simply establishing a 1:1 computer ratio. Assistive Technology Services had been an active voice within the FCPSOn rollout prior to the pandemic and are continuing with it through the 2020–2021 school year. With students having a computing device in hand, they have access to more and more inclusive technology tools for customized learning. We will continue to promote the use of these tools within the context of Universal Design for Learning and increase awareness for students with diverse learning needs.

CONCLUSION

When Assistive Technology Services adapted to the March 2020 school closures, it was our intention to continue with long term district change regarding classroom technology integration. Student participation in virtual learning environments increased proficiency with technology tools for all staff and students. Assistive Technology teachers had always worked for improved implementation of technology accommodations and were excited for the rollout of the FCPSOn initiative in both live and virtual classroom settings. Technology vendors were also expanding more accessibility tools within their products. A more inclusive and diverse instructional landscape was being built prior to school closures and is continuing to grow. Assistive Technology Services immediately responded to the environmental changes of March 2020 by deeply examining its logistical and standard operating procedures. We made initial adjustments to ensure that we promoted safe interactions with schools and students. The progress of our change was strategized so that lasting improvements would extend into live classroom settings as school began to reopen in January 2021. In this way, the "new normal" of the 2020 COVID-19 pandemic did not have to be a different normal, but possibly an accelerated "normal" of gradual change already occurring. Assistive Technology Services is always excited for any change that will positively impact student success.

DECLARATIONS

This content is solely the responsibility of the author(s) and does not necessarily represent the official views of ATIA. No financial disclosures and no non-financial disclosures were reported by the author(s) of this paper.

LEARN MORE ABOUT FAIRFAX COUNTY AND ITS AT SERVICES

Fairfax County Public Schools Assistive Technology Services https://www.fcps.edu/academics/academic-overview/special-education-instruction/assistive-technology-services-ats

Fairfax County Public Schools Assistive Technology Services Technology Tools for All Learners https://www.fcps.edu/academics/academic-overview/special-education-instruction/assistive-technology-services-ats-6

Fairfax County Public Schools FCPSOn https://www.fcps.edu/resources/technology/fcpson

Fairfax County Public Schools General Information https://www.fcps.edu/about-fcps

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