University of Wyoming – Wyoming Institute for Disabilities

Wyoming Accessible Educational Materials Clearinghouse

Needs Assessment Summary

December 2020

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# Background

The Wyoming Institute for Disabilities (WIND) is an academic unit housed in the College of Health Sciences on the University of Wyoming main campus. As one of 67 University Centers for Excellence in Developmental Disabilities (UCEDD) in the U.S., WIND is a community facing organization that serves people with disabilities through education, training, community service, and early intervention. The core mission of WIND is to ensure full community inclusion, community membership, independence, productivity and social participation of people with disabilities. This is accomplished through key partnerships and leverage funding with state, regional and national organizations to support a variety of programs to include the Wyoming Assistive Technology Resources and the Wyoming Accessible Educational Materials Clearinghouse.

The ***Wyoming Assistive Technology Resources (WATR)*** is Wyoming’s state Assistive Technology Act Program. Funded through the Assistive Technology Act of 1998, as amended in 2004, WATR assists all Wyoming residents with their assistive technology needs. Assistive Technology is defined as:

“Assistive technology (AT) is any item, piece of equipment, software program, or product system that is used to increase, maintain, or improve the functional capabilities of persons with disabilities” (ATIA, 2020).

 The interdisciplinary team within the WATR program includes an occupational therapist and a speech language pathologist, as well as two program specialists, one with significant experience with accessible educational materials. With this expertise, WATR is well equipped to support the assistive technology needs for individuals across the lifespan, including seating, positioning, and mobility, communication disorders and augmentative alternative communication (AAC) devices, sensory impairments, physical impairments, and learning difficulties, among others. WATR services are available to any Wyoming resident, free of charge, and with no documentation requirement. WATR services include:

* Information and Assistance
* Technical Assistance
* Device Loans
* Device Demonstrations
* Device Trainings
* Reutilization
* Financial Assistance- A partnership with First Interstate Bank and Wyoming Independent Living to offer a low interest, extended payback period financial loan for AT

The ***Wyoming Accessible Educational Materials Clearinghouse (Wyoming AEM Clearinghouse)*** was established in 2005 to provide resources and access to accessible educational materials (AEM) to students with print disabilities throughout Wyoming. A print disability may be a visual impairment or blindness, a specific learning disability, or a physical impairment which limits the student’s use of standard printed materials. By definition, AEM are:

“Accessible educational materials, or AEM, are print- and technology-based educational materials, including printed and electronic textbooks and related core materials that are designed or enhanced in a way that makes them usable across the widest range of learner variability, regardless of format (e.g. print, digital, graphic, audio, video) (CAST, 2020).

In collaboration with WIND and WATR, and supported through funds from the Wyoming Department of Education (WDE), Department of Vision Outreach Services, the Wyoming AEM Clearinghouse ensures the completion of these core activities:

* Providing access to the National Instructional Materials Access Center (NIMAC) resource to Wyoming school districts. The NIMAC is an online repository of source files from publishers, which are ready to be converted into accessible alternate formats as necessary for students with documented print disabilities.
* Conducting extensive training and technical assistance to educators, students and families on best practices to support the use of accessible educational materials.
* Maintaining a website with updated information on the NIMAC, AEM resources, and demonstrations and tutorials of AEM resources and assistive technology devices.
* Offering financial assistance through a partnership with First Interstate Bank and Wyoming Independent Living to offer a low interest, extended payback period financial loan.
* Developing and delivering in-person training, educational webinars, and conference presentations.
* Maintaining a free lending library of assistive technology devices? for students with print disabilities.
* Offering temporary Learning Ally accounts to qualifying students.
* Attending conferences or community events for professional development to increase awareness of available resources.

Additional activities include:

* Offering demonstrations and tutorials of AEM resources and assistive technology devices
* Hosting trainings, which may be in-person, webinars, or conference presentations
* Maintaining a free lending library of assistive technology for students with print disabilities
* Offering temporary Learning Ally accounts to qualifying students
* Attending conferences or community events for professional development to increase awareness of available resources

# Needs Assessment

The 2019-2020 contract outlined the necessity for a needs assessment to determine how Wyoming school districts are utilizing AEM and the Wyoming AEM Clearinghouse. Outcomes from this needs assessment will help to identify how the Wyoming AEM Clearinghouse and WDE can improve services and supports offered to students with print disabilities. This needs assessment aims to find out which districts are using AEM, how materials are obtained, what challenges or barriers districts face in obtaining and using AEM, what platforms or tools are already being utilized, as well as identify any gaps in services offered. The goal was to reach at least 75% (36/48) of Wyoming school districts, through surveys, interviews, focus groups, or other means. This goal was met and exceeded by reaching 81% (39/48 of Wyoming school districts.

## Needs Assessment Methods

This needs assessment was conducted in several stages. First, we created a survey addressing many aspects of accessible educational materials This survey was intended to gauge respondents’ knowledge of AEM and the Wyoming AEM Clearinghouse. Topics in the survey included: familiarity with AEM and the Wyoming AEM Clearinghouse, process for assessing need and obtaining AEM, staff and student training, challenges in obtaining or using AEM, and knowledge and use of assistive technology tools and software. The survey contained approximately 50 questions (exact number of questions depended on a respondent’s specific role). We also offered the chance to win one of four $25 Amazon gift cards in a drawing upon completion of the survey as an incentive to submit a response.

The second part of the needs assessment survey consisted of follow-up interviews with respondents to learn more about their responses. Questions for individual respondents were generated based on information given in their survey. Often, questions asked of respondents pertained to procedure, knowledge level, implementation of the principles of Universal Design for Learning, acquisition of AEM in a foreign language, challenges, and student technology use.

The survey was initially sent out via email on May 11, 2020 to 347 special education directors and principals in all 48 districts throughout Wyoming. An additional three reminders to complete the survey were sent within two weeks of the initial distribution date. Those recipients were asked to send the survey to other individuals in their community who would be able to articulate the AEM needs/experience in their district. It was suggested that they include general and special education teachers, counselors, and other members of assistive technology teams. School closures due to COVID-19 and summer break yielded few responses in June, July, and August 2020. The survey was relaunched on August 28, 2020 with an email request from the Special Education Programs Division Director to special education directors. The survey closed on October 2, 2020.

At the close of the survey on October 2, 2020, we had a total of 80 survey responses from 39 Wyoming school districts. Of those, 24 responses were incomplete, and 56 were complete. Five participants submitted a second response. We conducted 31 interviews out of the 49 respondents. We were unable to reach 18 participants, despite repeated attempts to contact each. One interview was conducted with no survey received. Survey responses came from 25 special education directors, one special education coordinator, 16 principals, 14 special educators, one general educator, one paraeducator, one assistive technologist, two counselors, and one occupational therapist.

In addition to the survey and follow-up interviews, this needs assessment report also includes information gathered through personal experience, third party observations, informal conversations and anecdotes.

# Summary of Findings

The following outlines key findings from the needs assessment. A more in-depth analysis begins on page 12.

**Need for Accessible Educational Materials**

Based on student enrollment in each district for the 2019-2020 school year, on average students with print disabilities make up 5%. School districts with the highest prevalence of students with print disabilities include: Fremont County School District #21 (9%), Niobrara County School District #1 (8%), Big Horn County School District #1 (7.6%), Fremont County School District #25 (7.6%), and Fremont County School District #38 (7.6%). Students with learning disabilities make up the vast majority, followed by physical impairments and visual impairments or blindness. This data was taken from the WDE Report Viewer on the WDE website.

## Representation

After five months of collecting data through surveys and interviews, the Wyoming AEM Clearinghouse was able to reach 39/48 school districts in Wyoming. We were not able to collect data from the following districts, despite repeated attempts: Big Horn #3, Crook #1, Hot Springs #1, Sublette #9, Teton #1, Uinta #1, Uinta #4, Uinta #6, and Weston #1. Of 62 respondents, 50% indicated that they are familiar with accessible educational materials in general, and 27.4% indicated that they are familiar with the Wyoming AEM Clearinghouse. Given these numbers, it appears that the Wyoming AEM Clearinghouse could benefit from additional marketing to make Wyoming school districts aware that this free resource is available.

## Provision of Accessible Educational Materials

 We found that 82.3% of respondents said their district does provide some form of AEM to students. Most commonly, audio and digital materials are used. Braille is rarely used, although interview responses indicated that additional braille resources, such as information on braille literacy and teaching braille remotely, would be helpful to those who do use or teach braille. We also asked how challenging each type of print disability is to accommodate, based on the respondent’s own experience. Generally, respondents felt learning disabilities were easiest to accommodate, while blindness was most difficult. Regarding funding, most respondents indicated that this is not an issue, but it is worth noting that not every respondent is aware of the state funding structure for special education services, including AEM.

Currently, there is no single process for obtaining AEM across the state. Many schools go through their school or district special education department, and others are left to find their own resources. Many staff find or produce their own materials, despite having little time to do so. Survey respondents and interviewees will often scour the internet to locate accessible materials or assistive technology, then will teach themselves to use the item or find YouTube tutorials. This again supports the claim that districts need additional resources on how to find, obtain, and use alternate format materials and/or assistive technology.

The most common challenges districts face is knowing what resources are available and where to find them. Other challenges include: assessing a student’s need for AEM, persuading a reluctant staff member, parent or student to use AEM, and producing or obtaining materials in a timely manner. Finding accessible curricula for subjects like math, science, and social studies has also proven difficult for several districts. Several special education directors indicated they would like to find and implement the “best” tool to help students- one that is backed by research yet cost effective.

## Assistive Technology Teams

Although of varying sizes and interdisciplinary representation the following districts reported having Assistive Technology (AT) Teams: Big Horn County School District #2, Converse County School District #1, Fremont County School District #14, Fremont County School District #25, Laramie County School District #1, Lincoln County School District #2, Platte County School District #1, and Sweetwater County School District #1. For these districts with AT Teams, teams play a large role in identifying student need for AEM or AT, assessing for the most appropriate materials or technology, implementing the chosen materials or technology, and training staff and students on their use. Connecting with AT Teams on a regular basis might create an opportunity for the Wyoming AEM Clearinghouse to take a “train the trainer” approach, in which teams learn about resources available and pass this information on to those they work with. Additionally, we could work with districts to create AT Teams, as well as to standardize a process for obtaining AEM.

## Universal Design for Learning (UDL)

Universal Design for Learning (UDL) is “a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn (UDL, 2020).” When asked about their familiarity with the principles of Universal Design for Learning (UDL), slightly over half of respondents said they were familiar with these principles, and of those, 71% indicated that the principles are sometimes implemented in their district, typically through built-in accessibility features or third party learning programs (such as Kurzweil or Read and Write for Google) on all student devices. We found through interviews that in some cases, respondents who replied “yes” to being familiar with UDL were confused or misrepresented their knowledge. Developing an education series for school district staff on the principles of UDL and best practices to support implementation will be critical, as implementation would allow all students to access educational materials in a format most appropriate to their learning style. Implementing UDL principles in schools statewide would complement AEM efforts and could ultimately reduce the time and effort spent on creating or remediating materials to be accessible.

## Infrastructure for Provision of AEM/AT

We learned of other challenges that may not be a problem for most districts, but to those they affect, these are important issues. For example, Albany County School District #1 experiences a high rate of staff turnover. Since the University of Wyoming stopped offering degree in special education, it has been difficult for this district to hire and retain special education teachers. Fremont County School District #6 has recently had several teachers retire, and with that has lost many years of experience and problem-solving skills related to accommodating students with disabilities. Building a new knowledge base among teachers will take a significant amount of time and training.

Most school districts have reliable internet access, though representatives of Sweetwater County School District #1 and Fremont County School District #14 described incidences of difficulty accessing internet at times. With the onset of COVID-19, nearly every district in Wyoming reported that they now offer one to one devices to their students. This means every student has access to a device they can use at school or at home. These devices are typically Chromebooks or iPads, where iPads are often used for younger students.

We asked participants to identify their use and knowledge level of various programs and software in order to determine which are used often, and where additional training opportunities lie. 46.2% of respondents said they do use Bookshare, while only 16.1% of respondents felt they had advanced knowledge or expertise with this program. 26.9% of respondents use Learning Ally, and 13.2% have advanced knowledge or expertise in this area. Over half of respondents use Read and Write for Google, while only one respondent said they use EquatiO. Co:Writer is used by just under half of respondents. Snap and Read and Dragon are both used by under 30% of respondents. Several districts use browser extensions, and many districts have C-Pen Reader Pens for their students. Respondents with advanced knowledge or expertise of the built-in accessibility features on Mac, Windows, Chromebook, iOS and Android devices ranged from 13.7% (Android) to 24.6% (Chromebook). Based on these results, there are a considerable number of assistive technology and educational programs that school districts are unaware of, not using, or not proficient in. Additional training could be provided to make districts aware of these resources, or to train or refresh district staff on the use of programs they already have in place.

# Recommendations

The recommendations here are framed using the National Center on Accessible Educational Materials Quality Indicators, which “describe the essential elements of a high-quality procurement system, including compliance, guidelines, professional development, data procedures, and resources (CAST, 2020).” The seven quality indicators are:

1. A coordinated system for provision of accessible materials and technologies
2. Acquisition and provision in a timely manner
3. Written guidelines
4. Comprehensive learning opportunities and technical assistance
5. A systematic data collection process
6. Use of data to guide changes
7. Allocation of resources

In Wyoming, each school district goes about their business independently. Processes for obtaining AEM are different throughout the state, which makes it difficult to organize the provision of AEM. In consideration of ***Quality Indicator 1***, it would be beneficial for Wyoming to have a standardized procedure for requesting, acquiring, and distributing accessible materials. Having a written procedure that all districts follow would align with ***Quality Indicators 2 and 3***.

Additionally, there is no centralized platform or method for communicating directly with school district staff. Ensuring that necessary or relevant information reaches all education staff statewide is near impossible. The Wyoming AEM Clearinghouse offers trainings, webinars and resources to districts, and this information is readily available on the Wyoming AEM Clearinghouse website. However, as the numbers show, many educators are not aware of this. Currently, we try to communicate directly with special education departments through the special education director of each district. Special education directors come and go, and maintaining and updated email listserv is challenging. Many emails go unread or do not get passed on to district staff. Similarly, WATR sends out the DispATch, a monthly e-newsletter with information on upcoming trainings and events. This is a voluntary subscription. Some interviewees mentioned they do receive this newsletter, but again, it often goes unread. A centralized platform would allow information to be shared quickly and directly, and could take many forms, such as a mandatory email listserv, a learning management system like Canvas, or another modality. The Wyoming AEM Clearinghouse could post upcoming trainings and new resources as they come available, or special education directors could correspond amongst themselves for support. This would also be a more efficient method to reach districts for future research and data collection, in alignment with ***Quality Indicator 5***.

The Maryland AEM program has a noteworthy approach to training on the use of AEM. One of their state leaders in assistive technology helped to create a course titled “Making Everyday Curriculum Materials Accessible for ALL Learners,” which is available on the National Center for Accessible Educational Materials website. This course has five modules, including topics on introduction to AEM, accessible documents, locating or creating captioned videos, locating specialized formats, and selecting accessible digital materials. One county offers this training on a voluntary basis for credit through their learning management system. Another county created a three-hour, condensed form of this course that is required for all educators, administration, and related service providers. After launching the required training, fewer questions regarding the provision of AEM came in, reflecting an increase in knowledge in this area. It might benefit Wyoming to take a similar approach, seeing as knowledge surrounding the provision of AEM is low. Requiring training on the provision of AEM would address the need to increase knowledge for all educators, especially general educators, and may help reduce reluctance to provide AEM.

In accordance with ***Quality Indicator 4***, the Wyoming AEM Clearinghouse offers demonstrations, trainings, webinars, and other ongoing learning opportunities in various formats and to all experience levels. We can develop more trainings based on need determined through this study. Topics could include various aspects of the provision of AEM, as well as specific AEM software programs or AT devices. As schools transition to a more digital classroom, placing AEM within a UDL framework may also be valuable. Additional trainings would help build capacities in schools to better support their students with print disabilities.

The Oklahoma Assistive Technology Act program, AbleTech, administers Oklahoma’s AEM program. They offer a three-part training series for AT support teams, educators, administration, and related service providers, with information related to AT consideration, device trials, and implementation. Each module includes hands on learning experiences, with opportunities to apply theory to practice, and create make and take projects. This is an informative, engaging way to provide information, and could easily be adapted for AEM.

The AT&AEM program in Ohio manages a project for professional development and technical assistance related to braille literacy. The Braille Excellence for Students and Teachers (BEST) project is a statewide grant focusing on braille instruction, materials, and technology. The BEST grant partners with many state and national blind and low vision organizations in order to offer high quality trainings, webinars, and resources for educators. Training topics include STEM, reading, and writing in braille, as well as creating accessible documents. This seems like a great way to focus on the needs of braille users, and its possible a similar project could be implemented in Wyoming.

In keeping with ***Quality Indicators 5*** ***and 6***, it will be important to continue to gather data from school districts. This needs assessment will help guide changes in the provision of AEM in Wyoming and is a great starting point to measure growth.

Based on the data presented in this report, it is clear that some districts have a higher need for support in providing AEM to their students. It will be critical to focus on those districts with high incidences of students with print disabilities, districts with limited funding, and districts with limited knowledge and skill sets to ensure that resources are allocated adequately, in accordance with ***Quality Indicator 7.***

# Detailed Findings

## Potential Need for AEM

The following table shows the total number of students enrolled in each district in the 2019-2020 school year. The table also shows the number of students with a learning disability, an orthopedic disability, a visual impairment or blindness, and the total percent of students with print disabilities in each district. This table provides context regarding enrollment in each school district, as well as the potential number of students who could benefit from AEM. However, these numbers only represent those students already identified as having a disability. There are likely many additional students who could benefit from using accessible materials. This data was collected from the WDE Report Viewer for Special Education Count by District on the WDE website (WDE, 2020).

| **Wyoming School District Enrollment by District and Type of Print Disability** |
| --- |
| District  | Total # of Students  | # of students with Learning Disability | # of students with Orthopedic Disability | # of students with Visual Impairment or Blindness | Total # of students with print disabilities  | Total % of students with print disabilities in district  |
| Albany 1 | 4014 | 123 | 1 | 1 | 125 | 3.10% |
| Big Horn 1 | 1070 | 80 | 1 | 0 | 81 | 7.60% |
| Big Horn 2 | 718 | 26 | 0 | 0 | 26 | 3.60% |
| Big Horn 3 | 444 | 28 | 0 | 0 | 28 | 6.30% |
| Big Horn 4 | 254 | 10 | 0 | 0 | 10 | 3.90% |
| Campbell 1 | 8830 | 291 | 9 | 8 | 308 | 3.50% |
| Carbon 1 | 1755 | 61 | 1 | 0 | 62 | 3.50% |
| Carbon 2 | 575 | 31 | 0 | 1 | 32 | 5.60% |
| Converse 1 | 1782 | 72 | 2 | 0 | 74 | 4.20% |
| Converse 2 | 636 | 34 | 0 | 0 | 34 | 5.30% |
| Crook 1 | 1201 | 70 | 2 | 0 | 72 | 6.0% |
| Fremont 1 | 1842 | 78 | 1 | 0 | 79 | 4.30% |
| Fremont 2 | 150 | 7 | 1 | 1 | 9 | 6.0% |
| Fremont 6 | 382 | 13 | 0 | 0 | 13 | 3.40% |
| Fremont 14 | 646 | 39 | 1 | 0 | 40 | 6.20% |
| Fremont 21 | 457 | 40 | 0 | 1 | 41 | 9.00% |
| Fremont 24 | 377 | 18 | 0 | 0 | 18 | 4.80% |
| Fremont 25 | 2457 | 185 | 1 | 1 | 187 | 7.60% |
| Fremont 38 | 407 | 27 | 4 | 0 | 31 | 7.60% |
| Goshen 1 | 1660 | 65 | 0 | 0 | 65 | 3.90% |
| Hot Springs 1 | 659 | 18 | 0 | 0 | 18 | 2.70% |
| Johnson 1 | 1269 | 57 | 1 | 0 | 58 | 4.60% |
| Laramie 1 | 14261 | 550 | 11 | 6 | 567 | 4.00% |
| Laramie 2  | 1059 | 60 | 0 | 0 | 60 | 5.70% |
| Lincoln 1  | 626 | 32 | 0 | 0 | 32 | 5.10% |
| Lincoln 2 | 2984 | 129 | 2 | 0 | 131 | 4.40% |
| Natrona 1 | 13330 | 879 | 5 | 9 | 893 | 6.70% |
| Niobrara 1 | 790 | 61 | 2 | 0 | 63 | 8.00% |
| Park 1 | 1821 | 108 | 0 | 1 | 109 | 6.00% |
| Park 6 | 2034 | 92 | 2 | 0 | 94 | 4.60% |
| Park 16 | 98 | 5 | 0 | 0 | 5 | 5.10% |
| Platte 1  | 997 | 31 | 1 | 1 | 33 | 3.30% |
| Platte 2 | 247 | 8 | 0 | 0 | 8 | 3.20% |
| Sheridan 1 | 1093 | 38 | 1 | 1 | 40 | 3.70% |
| Sheridan 2 | 3579 | 55 | 2 | 2 | 59 | 1.60% |
| Sheridan 3 | 89 | 6 | 0 | 0 | 6 | 6.70% |
| Sublette 1 | 1120 | 56 | 0 | 1 | 57 | 5.10% |
| Sublette 9 | 520 | 21 | 5 | 0 | 26 | 5.00% |
| Sweetwater 1 | 5479 | 330 | 0 | 5 | 335 | 6.10% |
| Sweetwater 2 | 2544 | 157 | 2 | 0 | 159 | 6.30% |
| Teton 1  | 2869 | 76 | 1 | 3 | 80 | 2.80% |
| Uinta 1  | 2764 | 123 | 0 | 1 | 124 | 4.50% |
| Uinta 4 | 825 | 20 | o | 0 | 20 | 2.40% |
| Uinta 6 | 720 | 42 | 0 | 0 | 42 | 5.80% |
| Washakie 1 | 1244 | 64 | 3 | 0 | 67 | 5.40% |
| Washakie 2 | 109 | 3 | 1 | 0 | 4 | 3.70% |
| Weston 1 | 810 | 49 | 0 | 0 | 49 | 6.00% |
| Weston 7 | 235 | 11 | 0 | 0 | 11 | 4.70% |
| **TOTAL** | **93832** | **4379** | **63** | **43** | **4485** | **AVG: 5.0%** |

According to this data, the average percent of students with print disabilities in each district is 5%. Students with learning disabilities make up the largest portion of print disabilities, with orthopedic disabilities (physical impairments) and visual impairments or blindness at a significantly lower rate. School districts with the highest prevalence of students with print disabilities include: Fremont County School District #21 (9%), Niobrara County School District #1 (8%), Big Horn County School District #1 (7.6%), Fremont County School District #25 (7.6%), and Fremont County School District #38 (7.6%). Districts with the lowest prevalence of students with print disabilities include Sheridan County School District #2 (1.6%), Uinta County School District #4 (2.4%), Hot Springs County School District #1 (2,7%), and Teton County School District #1 (2.8%).

## Awareness of the Wyoming AEM Clearinghouse Program

 We have used data from WATR’s Information and Assistance logs over the past five years to determine which districts have contacted either the WATR or the Wyoming AEM Clearinghouse program for resources or services. Since the Wyoming AEM Clearinghouse works in tandem with WATR, and both operate under WIND, school district staff, individuals, families, etc. have access to all the programs and services WIND provides.

The following five images represent contact from any school district in a given county for the fiscal year specified (WATR’s fiscal year runs from October 1-September 30). Shaded counties are those we DID have contact with that year. These maps show a geographical representation of who has contacted WATR or the Wyoming AEM Clearinghouse for services over the past five years. With this information, we can identify specific regions where contact is consistently lacking.



In 2015, no contact was made with: Campbell, Crook, Goshen, Hot Springs, Johnson, Lincoln, Park, Platte, Sheridan, Sublette, Teton, Washakie, Weston



In 2016, no contact was made with: Converse, Johnson, Niobrara, Sublette, Washakie



In 2017, no contact was made with: Converse, Niobrara, Washakie, Weston



In 2018, no contact was made with: Big Horn, Crook, Hot Springs, Niobrara, Washakie, Weston



In 2019, no contact was made with: Crook, Hot Springs, Weston

Based on WATR’s records from 2015-2019, the following counties had no contact with WATR or the Wyoming AEM Clearinghouse at least once in the five years: Campbell, Converse, Crook, Goshen, Hot Springs, Johnson, Lincoln, Niobrara, Park, Platte, Sheridan, Sublette, Teton, Washakie, Weston. The following table represents the number of times in five years that each county had no contact.

| **Number of Times Each Wyoming County had No Contact with WATR or the Wyoming AEM Clearinghouse in Five Years**  |
| --- |
| **County** | **Number of times with no contact/five years** |
| Campbell | 1/5 |
| Converse | 2/5 |
| Crook | 3/5 |
| Goshen | 1/5 |
| Hot Springs  | 3/5 |
| Johnson | 2/5 |
| Lincoln | 1/5 |
| Niobrara  | 3/5 |
| Park  | 1/5 |
| Platte | 1/5 |
| Sheridan | 1/5 |
| Sublette  | 2/5 |
| Teton | 1/5 |
| Washakie | 4/5 |
| Weston | 4/5 |

Out of five years, no county has had zero contact with WATR or the Wyoming AEM Clearinghouse. However, two counties, Washakie and Weston, had no contact four out of five years. Three counties: Crook, Hot Springs, and Niobrara, had no contact three out of five years.

The table below shows a breakdown of each Wyoming school district’s contacts with WATR or the Wyoming AEM Clearinghouse from 2015-2019.

| **WATR and Wyoming AEM Clearinghouse I&A Contacts by School District 2015-2019** |
| --- |
| School District | Total Contacts 2015 WATR +AEM | AEM only 2015 | Total Contacts 2016 WATR+AEM | AEM only 2016 | Total Contacts 2017 WATR +AEM | AEM only 2017 | Total Contacts 2018 WATR +AEM  | AEM only 2018 | Total Contacts 2019 WATR +AEM | AEM only 2019 | WATR +AEM Totals |
| Albany #1 | 16 | 3 | 22 | N/A | 17 | N/A | 52 | N/A | 25 | N/A | 135 |
| Big Horn #1 | 3 | 0 | 5 | N/A | 2 | N/A | 0 | N/A | 0 | N/A | 10 |
| Big Horn #2 | 2 | 1 | 0 | N/A | 3 | N/A | 0 | N/A | 0 | N/A | 6 |
| Big Horn #3 | 3 | 0 | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 3 |
| Big Horn #4 | 0 | 0 | 2 | N/A | 0 | N/A | 0 | N/A | 2 | N/A | 4 |
| Campbell #1 | 5 | 0 | 2 | N/A | 2 | N/A | 10 | N/A | 4 | N/A | 23 |
| Carbon #1 | 2 | 1 | 4 | N/A | 3 | N/A | 6 | N/A | 2 | N/A | 18 |
| Carbon #2 | 7 | 3 | 3 | N/A | 0 | N/A | 3 | N/A | 2 | N/A | 18 |
| Converse #1 | 6 | 1 | 0 | N/A | 0 | N/A | 3 | N/A | 1 | N/A | 11 |
| Converse #2 | 1 | 0 | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 1 |
| Crook #1 | 4 | 0 | 3 | N/A | 1 | N/A | 0 | N/A | 0 | N/A | 8 |
| Fremont #1 | 8 | 1 | 4 | N/A | 2 | N/A | 6 | N/A | 11 | N/A | 32 |
| Fremont #2 | 1 | 0 | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 1 |
| Fremont #6 | 0 | 0 | 0 | N/A | 1 | N/A | 0 | N/A | 0 | N/A | 1 |
| Fremont #14 | 0 | 0 | 0 | N/A | 0 | N/A | 1 | N/A | 6 | N/A | 7 |
| Fremont #21 | 0 | 0 | 3 | N/A | 5 | N/A | 8 | N/A | 0 | N/A | 16 |
| Fremont #24 | 1 | 0 | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 1 |
| Fremont #25 | 8 | 1 | 0 | N/A | 5 | N/A | 1 | N/A | 1 | N/A | 16 |
| Fremont #38 | 0 | 0 | 1 | N/A | 1 | N/A | 0 | N/A | 4 | N/A | 6 |
| Goshen #1 | 1 | 0 | 2 | N/A | 5 | N/A | 1 | N/A | 1 | N/A | 10 |
| Hot Springs #1 | 0 | 0 | 3 | N/A | 1 | N/A | 0 | N/A | 0 | N/A | 4 |
| Johnson #1 | 5 | 0 | 0 | N/A | 1 | N/A | 6 | N/A | 4 | N/A | 16 |
| Laramie #1 | 6 | 1 | 3 | N/A | 3 | N/A | 8 | N/A | 5 | N/A | 26 |
| Laramie #2 | 4 | 0 | 4 | N/A | 3 | N/A | 3 | N/A | 2 | N/A | 16 |
| Lincoln #1 | 0 | 0 | 1 | N/A | 2 | N/A | 7 | N/A | 5 | N/A | 15 |
| Lincoln #2 | 1 | 0 | 5 | N/A | 0 | N/A | 1 | N/A | 3 | N/A | 10 |
| Natrona #1 | 25 | 12 | 1 | N/A | 1 | N/A | 2 | N/A | 5 | N/A | 46 |
| Niobrara #1 | 4 | 1 | 0 | N/A | 0 | N/A | 0 | N/A | 7 | N/A | 12 |
| Park #1 | 0 | 0 | 2 | N/A | 3 | N/A | 2 | N/A | 0 | N/A | 7 |
| Park #6 | 3 | 0 | 7 | N/A | 3 | N/A | 5 | N/A | 1 | N/A | 18 |
| Park #16 | 1 | 0 | 1 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 2 |
| Platte #1 | 22 | 0 | 3 | N/A | 0 | N/A | 3 | N/A | 3 | N/A | 31 |
| Sheridan #1 | 0 | 0 | 5 | N/A | 1 | N/A | 0 | N/A | 2 | N/A | 8 |
| Sheridan #2 | 1 | 0 | 2 | N/A | 0 | N/A | 0 | N/A | 1 | N/A | 4 |
| Sheridan #3 | 1 | 0 | 0 | N/A | 1 | N/A | 0 | N/A | 3 | N/A | 5 |
| Sublette #1 | 3 | 0 | 3 | N/A | 0 | N/A | 1 | N/A | 0 | N/A | 7 |
| Sublette #9 | 0 | 0 | 1 | N/A | 1 | N/A | 0 | N/A | 1 | N/A | 3 |
| Sweetwater #1 | 31 | 7 | 4 | N/A | 3 | N/A | 9 | N/A | 0 | N/A | 54 |
| Sweetwater #2 | 0 | 0 | 0 | N/A | 1 | N/A | 0 | N/A | 1 | N/A | 2 |
| Teton #1 | 12 | 0 | 9 | N/A | 2 | N/A | 5 | N/A | 1 | N/A | 29 |
| Uinta #1 | 2 | 2 | 3 | N/A | 2 | N/A | 5 | N/A | 5 | N/A | 19 |
| Uinta #4 | 0 | 0 | 0 | N/A | 1 | N/A | 1 | N/A | 3 | N/A | 5 |
| Uinta #6 | 0 | 0 | 0 | N/A | 0 | N/A | 1 | N/A | 1 | N/A | 2 |
| Washakie #1 | 1 | 0 | 0 | N/A | 2 | N/A | 0 | N/A | 0 | N/A | 3 |
| Washakie #2 | 0 | 0 | 0 | N/A | 0 | N/A | 0 | N/A | 5 | N/A | 5 |
| Weston #1 | 0 | 0 | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 |
| Weston #7 | 1 | 0 | 1 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 2 |

To further simplify this data, the table below shows the number of contacts made by each school district over the five years. With this information we can see which school districts are consistently using WATR or the Wyoming AEM Clearinghouse services and which are not.

| **Breakdown of Number of Contacts per School District 2015-2019** |
| --- |
| **Number of contacts** | **School Districts** |
| 0 | Weston #1 |
| 1-5 | Big Horn #3 Sheridan #2Big Horn #4 Sheridan #3Converse #2 Sublette #9Fremont #2 Sweetwater #2Fremont #6 Uinta #4Fremont #24 Uinta #6Hot Springs #1 Washakie #1Park #16 Washakie #2 Weston #7 |
| 6-10 | Big Horn #1Big Horn #2Crook #1Fremont #14Fremont #38Goshen #1Lincoln #2Park #1Sheridan #1Sublette #1 |
| 11-20 | Carbon #1Carbon #2Converse #1Fremont #21Fremont #25Johnson #1Laramie #2Lincoln #1Niobrara #1Park #6Uinta #1 |
| 21-30 | Campbell #1Laramie #1Teton #1 |
| 31-40 | Fremont #1Platte #1 |
| 41-50 | Natrona #1 |
| 50+ | Albany #1Sweetwater #1 |

This data shows that some districts (Albany County School District #1 and Sweetwater County School District #1) are aware of the resources that WIND, WATR, and the Wyoming AEM Clearinghouse can provide, and make frequent use of these services. The majority of school districts do not frequently contact us for resources, and Weston County School District #1 has never utilized our services. It is unclear as to why these districts do not seek services from WATR or the Wyoming AEM Clearinghouse. Some possible reasons could be: they are unaware of these resources, they do not have students that need these resources, they manage their students’ needs another way, etc. This could be an area for targeted outreach in the future to gain a better understanding of how these school districts are meeting their students’ needs.

When asked about their familiarity with accessible educational materials in general, 50% of respondents to this question said they were familiar with AEM, 46.8% were somewhat familiar with AEM, and 3.2% were not familiar with AEM.

Comparatively, when asked about their knowledge of the Wyoming AEM Clearinghouse and its services, 27.4% of respondents to this question said they were familiar with the program, 33.9% were somewhat familiar, 37.1% were not familiar, and 1.6% was unsure. Those who replied that they were familiar with the Wyoming AEM Clearinghouse were then asked to identify what services they have used, including information and assistance, device loans/trials, device demonstrations, training, other, or if they have never contacted the Wyoming AEM Clearinghouse. Most of those who are aware of the Wyoming AEM Clearinghouse’s services have done device loans or trials, many have reached out for information and assistance, and some have used the Wyoming AEM Clearinghouse for training.

13/62 respondents said that they do have an Assistive Technology (AT) team in their school or district. These districts include: Big Horn County School District #2, Converse County School District #1, Fremont County School District #14, Fremont County School District #25, Laramie County School District #1, Lincoln County School District #2, Platte County School District #1, and Sweetwater County School District #1. Most teams include school or community occupational therapists, speech language pathologists, physical therapist, school psychologist, and special education teacher. Some teams also include general education teachers, case managers, principal, or school nurse.

## Use and Acquisition of Accessible Educational Materials

 This section will discuss respondents’ use of AEM, including types of AEM used, which students are served, how AEM is obtained, and the respondent’s perception of their team’s ability to implement AEM.

According to survey respondents, 51 out of 62 said their district does provide AEM to students. six respondents believe their district sometimes provides AEM, four respondents said their district does not provide AEM, and one respondent was unsure. Audio and digital materials are most consistently used in districts, while large print materials are occasionally used, and braille is rarely used.

 When asked who typically identifies that a student may benefit from AEM, answers vary widely. Responses include special education teacher (56), other school staff, such as nurse or psychologist (45), general education teacher (34), parent or family of student (32), student (22), IEP, 504, or SPED team (5), related service providers, including Teacher of the Visually Impaired, Teacher of the Deaf, Speech Language Pathologist, Occupational Therapist (4), AT Team or assistive technologist (2), principal (2), district special education director (1), district personnel (1),or WDE (1).

A student’s need for AEM is primarily determined based on the student’s IEP. Assessments and evaluations may be used in conjunction with or independent of an IEP. These may be learning assessments, reading evaluation, vision screenings, etc. and may be conducted by AT Teams, school psychologists, or other school staff. Some schools use a Multi-Tiered System of Supports (MTSS) or Building Intervention Team (BIT) to evaluate students.

Generally, respondents indicated that primary responsibility for obtaining AEM for a student falls to the special education teacher (47) or the special education director (39). Respondents also said responsibility falls to the principal (15), AT Team (13), general education teacher (10), AEM or AT coordinator at school (7), related service providers, including Teacher of the Visually Impaired, Speech Language Pathologist, Occupational Therapist (5), student (3), case manager (2), MTSS team (1), IEP team (1), and assistive technologist (1). Interviews also revealed that school, district, and county librarians play a role in finding and obtaining AEM, especially in Laramie County School Districts #1 and #2, Platte County School District #1, and Johnson County School District #1.

There is no single process across Wyoming regarding how districts go about getting their materials. Many districts do not have a process, or survey respondents are unaware of one. Generally, it seems that many districts go through an evaluation process to determine a student’s need, then pursue various avenues to acquire the necessary materials. Assessments or evaluations are typically completed by the IEP team, though may also be informed by a case manager, special education teacher, AT team, parent, or a specialist such as a teacher of the visually impaired. Often the teacher or team will consult with the special education director to determine and order appropriate materials. Some districts may implement a trial period of AEM or assistive technology, utilizing WATR’s lending library or materials they already have on hand. Some schools use their BIT or MTSS process. Less often, staff may just order what they need, when they need it, though often the request must provide justification and go through the special education director, office of special services, or special education department.

Similarly, there is a wide variety of resources districts utilize to obtain AEM. Out of 57 respondents, 35.1% said they do use the Wyoming AEM Clearinghouse for materials. 19.3% said they do not, and 45.6% were unsure. More often, staff produce their own materials (59.6%) or use other sources to find and obtain materials (61.4%).

Participants were asked to elaborate on how materials are produced in house. Some staff make simple adjustments, such as enlarging materials on the copier, enabling accessibility features on a student’s device, or using a braille embosser to produce short materials. Some staff go to greater lengths to reproduce materials. For example, one respondent described copying images from a book, cutting them out, pasting the images on black paper, then rebinding the book for a student with cortical visual impairment. Others reported creating their own materials from scratch, rather than searching for an accessible version of whatever is needed. Some staff use Boardmaker to create online materials. Typically, it is the special education teacher or team, OT, SLP, or TVI producing materials. Time requirement to produce materials varies depending on the need. Simple copy jobs are quick and can be done at the same time as other materials. Reproducing materials or creating new materials may take longer. Several respondents mentioned this could take weeks or months to complete, as there is little or no time built into their schedule for these projects.

Those that find and obtain AEM from another source primarily conduct their own internet search to locate and purchase materials. Respondents reported using publishers, AT companies, eBay, YouTube, and Bookshare, along with other unnamed sources, to obtain materials. If a purchase is required, it often goes through the special education department at the school or the district level for approval. However, according to respondents, this approval process can be time consuming, and students may have to wait a significant amount of time before receiving materials. For this reason, some respondents mentioned that they have purchased materials with their own money in order to expedite the process. Some staff may work with a related service provider or AT team for suggestions on materials and/or production or procurement of materials. Several interview participants said they may seek resources from other schools or districts, their county library, or other community programs. Funding typically comes from the special education department or grants, such as the VI-B grant.

In order to gauge how well educators and staff across Wyoming carry out tasks related to assessment, acquisition, and implementation of AEM for students, we asked participants to rank their team’s overall abilities to do the following. Participants were asked to use a scale of “Excellent,” Very Good,” “Good,” “Fair,” and “Poor.”

### Identify and prioritize critical barriers to learning for a specific student.

Overall, most (25/60) respondents felt their team was “very good” at this. and two respondents, from Big Horn County School District #4 and Goshen County School District #1 felt their performance was “poor.”

### Collaboratively problem solve as a team.

The majority (25/60) of respondents felt they were “very good” at this task. Two respondents, from Converse County School District #2 and Niobrara County School District #1, felt their team was “poor” at this.

### Identify a clear diagnostic question that can be answered during an AT trial period.

For this statement, an equal number of participants (18/60) responded “very good” and “good.” Three respondents, from Big Horn County School District #4, Converse County School District #2, and Laramie County School District #2 felt their team was “poor” in this area.

### Identify available technology tools and how they can support student needs.

23 out of 60 respondents felt their team was “good” in this area. Two participants, from Big Horn County School District #4 and Sheridan County School District #3, felt their team was “poor.“

Match potential AT tools to the identified student needs.

The majority (27/60) of respondents felt their team was “good” at this. Two participants, from Big Horn County School District #4 and Sheridan County School District #3, responded “poor.”

### Develop a plan to use technology strategies to answer your diagnostic question.

Most respondents (22/60) felt “good” about this task, while four respondents, from Big Horn County School District #4, Converse County School District #2, Goshen County School District #1, and Sheridan County School District #3, felt their team was “poor” at this task.

### Ensure that staff and students involved can use the features of the tool(s) and know how they can support student needs.

This statement yielded a majority (25/60) “good” responses, and three “poor” responses from Fremont County School District #21, Laramie County School District #2, and Sheridan County School District #3.

### Use a team process to monitor the trial and make adjustments as needed.

The majority for this statement felt their team was “good” at the task, while four respondents, from Fremont County School District #21, Goshen County School District #1, Niobrara County School District #1, and Sheridan County School District #3, felt their team was “poor” at the task.

According to survey and interview responses, staff trainings on the use of AEM are most often conducted districtwide, either by internal staff, such as service providers, special education staff, or the AT Team, or external professionals. Professional development days and webinars are also used. Many respondents reported that they are self-trained, by learning as they go, troubleshooting, or basing knowledge on previous experience. Respondents from Big Horn County School District #4, Fremont County School District #14, Fremont County School District #38, Niobrara County School District #1, and Park County School District #6 indicated that no training is provided. Interview responses revealed that YouTube is a popular platform for many respondents.

## AEM Considerations

In this section, survey participants were asked to identify where and how AEM is considered withing their school and district. This goes beyond the acquisition and use of AEM, and explores abilities and perceptions of providing AEM.

Survey participants were asked if accessibility was a consideration when purchasing textbooks or other educational materials. Of 54 respondents to this question, 53.4% said “yes,” 22.2% said “sometimes,” 3.7% said “no,” and 20.4% did not know. In a similar question, participants were asked if AEM was considered during the IEP process. Of 54 respondents, 72.2% said “yes,” 20.4 said “sometimes,” 0% said “no,” and 7.4% did not know. Overall, the majority of respondents do consider AEM when purchasing textbooks and conducting IEP meetings, however these numbers should be increased. According to IDEA, AT must be considered as one of five “special factors” during IEP meetings. AEM is a category of AT, and therefore should also be considered for every student receiving accommodations (Center…, 2017).

Regarding the ability to create simple accessible documents, 90.7 percent of 54 respondents said the copiers at their school have the ability to scan and email digital documents. 1.9% said they do not have this ability at their school, and 7.4% were unsure. Another question asked whether or not students have access to reliable internet at school. Of 54 respondents, 88.9% said yes, 9.8% said sometimes, 0% said no, and 1.9% did not know.

Survey respondents were also asked about the availability of e-books or digital books in their school library. 63% of respondents indicated “yes,” e-books are available. 14.8% of respondents said “no,” e-books are not available. 22.2% of respondents did not know if digital or e-books are available in their school library.

In order to identify if a student population is being left out, such as English Language Learners (ELL) or students taking a foreign language class, we asked if respondents had ever needed accessible educational materials in another language. A majority (68.5%) of respondents said they have never needed AEM in a language other than English. 27.8% of respondents indicated that they have needed alternate format materials in another language, and identified Spanish, Chinese, and Russian. Upon further investigation, when interviewed, participants acknowledged that they needed standard curriculum materials for their ELL students. While finding these materials was rather difficult, none of the participants reported needing materials produced in an accessible format.

Universal Design for Learning is a pedagogical strategy intended to make learning accessible for every student, regardless of any learning differences. We asked respondents about their familiarity with, and implementation of, UDL. 57.4% of 54 respondents were familiar with the principles of UDL, while 27.8% were not familiar and 14.8% were unsure. The 31 participants who responded that they were familiar were then asked if the principles of UDL are implemented in their school or district. 9.7% replied “yes,” 71% replied “sometimes,” 12.9% replied “no,” and 6.5% were unsure. In interviews, we asked those who responded “yes” or “sometimes” to elaborate on how these principles are implemented. After a brief discussion of UDL, some respondents changed their answers or admitted they misunderstood the question. Most respondents, however, reported utilizing built-in accessibility features on student devices, or having a district-wide subscription to a computer program like Read and Write for Google or Kurzweil that all students can access.

Due to the different demands of learners in each school subject, some subjects may be easier or more difficult to accommodate than others. To see if all subjects are equally accommodated, we asked participants to rate the difficulty of accommodating each subject typically found in schools for students with print disabilities. The scale used was “not at all challenging,” “slightly challenging,” “moderately challenging,” “challenging,” and “very challenging.” Based on majority, reading is “slightly challenging,” writing is “slightly challenging,” math is “moderately challenging,” science is “slightly challenging,” social studies is “slightly challenging,” art is “slightly challenging,” music is “slightly challenging,” and foreign language is “challenging.”

In interviews, we asked respondents why math, science, and social studies seem especially difficult to make accessible. The main response we received is that these curricula rarely include accessible elements or material, whereas many reading curricula offer digital or audio versions of materials. The computer programs used for math typically do not include accessibility features, or work with built-in or external accessibility programs. Additionally, visual components such as charts, graphs, and diagrams necessary for understanding in math or science topics can be difficult to make or find accessible alternatives. Representatives from Campbell County School District #1, Fremont County School District #6, Fremont County School District #24, Sheridan County School District #2, and Washakie County School District #2 specifically mentioned concerns related to inaccessible math programs.

Survey respondents were asked to identify how difficult each type of print disability is to accommodate, based on their knowledge of, and access to, available resources. Typically, visual impairments and blindness are recognized as a single category of print disability. However, for the purposes of this study, we detached “visual impairment” and “blindness” into separate categories, as they may require different forms of accommodation. Generally, respondents found visual impairments somewhat difficult to accommodate, blindness difficult to accommodate, physical impairments somewhat difficult to accommodate, and learning disabilities not difficult to accommodate.

## Challenges

This section discusses issues and challenges related to obtaining AEM for students with print disabilities. Participants were asked their thoughts on perceived challenges, as well as identified other challenges. Many participants expanded on their thoughts or disclosed other issues in interviews.

### Funding

Even though all districts have funding available, survey results indicate that this is not widely known information among special education directors, teachers, and other school staff. When asked if their district has funding available, only 66.7% of respondents said “yes,” while 5.6% said “no” and 27.8% did not know. Participants were then asked if funding was a challenge in obtaining AEM. To this question, 24.1% said “yes,” 59.3% said “no,” and 16.7% did not know.

Although the majority of respondents do know that funding is available, and indicate that funding is not a challenge, some do have concerns surrounding funding. For example, an interview with a Converse County School District #1 representative revealed a significant increase in students with disabilities in that district, with no respective increase in funding. This individual and their team must choose between hiring additional paraeducators to support high needs students, or hiring one fully certified teacher. A representative from Laramie County School District #2 said that special education is “significantly expensive,” while a representative from Big Horn School District #4 expressed concern about how small school districts would fair with pending budget cuts due to COVID-19. The individual stated “this district has always had some significant budgetary issues. I think there’s going to become a huge equity issue between the smaller districts, which is over half the districts in the state, and larger districts.”

### Assessing Need

Determining if a student could benefit from AEM, and then assessing which AEM would be most appropriate, is an important step in providing AEM. Out of 54 respondents, 33.3% felt that assessing a student’s need for AEM is a challenge. 51.9% felt that assessing need is not a challenge, and 14.8% were unsure if this is a challenge.

### Knowledge of Available Resources

Knowing what resources are available and where to find them is crucial in finding and obtaining AEM in a timely manner. These could be alternate format materials, assistive technology to help a student access standard printed material, or resources such as the Wyoming AEM Clearinghouse to provide information and assistance. 55.6% of respondents felt that knowing what resources are available is a challenge, while 27.8% said this is not a challenge, 16.7% were unsure.

### Reluctance to Use AEM

Participants were asked if they have faced any resistance in using AEM from school staff, parents, or students. 31.5% of respondents said this is a challenge, while 55.6% said this is not a challenge. 13% were unsure. When asked to elaborate on this response in interviews, answers across respondents were much the same. Many reported that older staff tend to be set in their ways, and so are reluctant to introduce new technology, materials, or teaching strategies into their practice. This is a combination of “the way we have always done it” and one principal’s theory that we start learning how to “do” education from age six, and so that’s how we continue doing it. Respondents from Converse County School District #1 and Niobrara County School District #1 expressed frustration that administration and some general education teachers lack willingness to learn how to support students with disabilities. One individual explained that they felt general education teachers do not take the time to read and understand IEPs. Another individual feels that state education administration is not supportive of student and teacher needs, and that teachers are left to find their own resources. Most participants stated that parents are reluctant to accept their child as different, and for that reason may deny any intervention strategies. Similarly, students themselves generally do not want to be singled out, and therefore are resistant to using AEM or assistive technology that makes them appear different from their peers.

### Attaining Materials in a Timely Manner

Getting alternate materials “in a timely manner” is a key element of providing AEM to students who need it. Depending on the sources used to find materials, it can take several days, weeks, or months to find, produce, or receive necessary materials. 35.2% of respondents felt that getting AEM in a timely manner is a challenge. 48.1% said this is not a challenge, and 16.7% were unsure.

### Process is Too Long/Difficult

Again, depending on the source of the materials, it can be difficult to acquire materials in a straightforward fashion. Sometimes documentation requirements, material request forms, or material production can be daunting. 27.8% of survey respondents reported that this is a challenge, while 57.4% said this is not a challenge, and 14.8% were unsure.

### Staff Turnover

As staff come and go, it can be difficult to maintain any institutional memory or a consistent process. Respondents were asked if they face a high rate of staff turnover in their district. 20.4% said this is a challenge, and 66.7% said this is not a challenge. 13% were unsure. A representative from Fremont County School district #6 said they have a number of veteran staff retiring, and that knowledge base goes with them. It has been a challenge training new staff, as training is conducted on an “as needed” basis depending on student needs. An individual with Albany County School District reported that it has been very difficult to find and retain special education teachers since the University of Wyoming cut the bachelor’s degree in Special Education years ago. Being in a college town, staff may work for a few years while they or a relative attend the university, then move away once graduated.

### Other Challenges

One respondent indicated that Assistive Technology (AT) Assessments can be difficult to schedule in a timely manner, and this may result in delayed services for the student. On a similar note, another district felt that an evaluation from WATR years ago did not meet their expectations, and has not since contacted the organization for services. Other districts reported that forming an AT team and using a consistent process district-wide has been a challenge. We also spoke with a couple of special education directors who admitted they had little experience with special education. They are unaware of many resources and available tools, and this is a major challenge for them. This theme prevailed in terms of staff and teachers as well. Related to staff turnover, bringing in new staff presents difficulties with training. Older staff have years of experience built up, and know how to handle many unique situations. However, younger or new teachers do not have this experience and the district may not have the resources to train them.

We asked participants what would happen in the event a student needed alternate format materials, but they could not be obtained. Eight out of 34 participants responded that this has never happened. Three were unsure what would happen, and only one replied that the student would go without. The vast majority of responses to this question showed persistence and ingenuity. Most respondents would adjust existing materials to the best of their ability and keep looking for appropriate materials. Many would seek out community resources or borrow from WIND or WATR. Several respondents would produce their own materials, and some would even purchase necessary materials out of pocket.

## Technology

This section addresses aspects of both educational technology and assistive technology. It discusses how students access devices, which devices are used, which assistive technology is used, and the survey respondents’ awareness of technology available to help students with print disabilities. We included these questions in order to gain an understanding of which technologies districts are familiar with and using, and to identify where additional training may be beneficial.

Nearly every district we reached through this survey reported that students have one to one devices. These devices are typically Chromebooks or iPads. Students are generally permitted to take these devices home, pending proper use and care. COVID-19 expedited the one to one process for many districts. When at school, students also have access to devices through permanent classroom computer stations, school computer labs, or shared computer carts.

We asked participants to identify their use and knowledge level of various programs and software in order to determine which are used often, and where additional training opportunities lie. 46.2% of respondents said they do use Bookshare, while only 16.1% of respondents felt they had advanced knowledge or expertise with this program. For Learning Ally, 26.9% do use it, and 13.2% have advanced knowledge or expertise in this area. 51.9% of respondents use Read and Write for Google by TextHelp, while only one respondent said they use Texthelp’s math counterpart, EquatiO. Co:Writer is used by 48.1% of respondents, Snap and Read is used by 30.8%, and Dragon is used by 26.9% of respondents. Respondents with advanced knowledge or expertise of the built-in accessibility features on Mac, Windows, Chromebook, iOS and Android devices ranged from 13.7% (Android) to 24.6% (Chromebook). Several districts have and use C-Pen Reader Pens as well. Please see the bar chart below for a comprehensive look at how respondents generally feel about their knowledge of each technology listed.

**Additional Comments**

One representative from Converse County School District #1 praised their district motor team, and the fact that their staff was very adaptable and creative in finding solutions.

At least two respondents told us in interviews that they are cautious when choosing accommodations for their students. Their belief is that the rest of the world will not be adapted to the student’s needs, so the student should learn to adapt to what they are given to the best of their ability. For example, an occupational therapist encourages students to use a standard keyboard rather than an adapted keyboard, as these are most common in public places. Similarly, another participant encourages students to listen to synthetic voices over human readers wherever possible, because synthetic voices are more integrated into assistive technologies found in daily life, as well as easier to find and use with accessible materials.

At least three interviewees indicated that they need resources right now more than trainings. Specifically, additional resources on Dyslexia, Central Auditory Processing Disorder (CAPD), teaching braille, and a database of where to find local materials ranging from assistive technology, to AEM, to durable medical equipment, would be beneficial.

Representatives from Albany County School District #1, Niobrara County School District #1, and Converse County School District #2 expressed interest in strengthening the role parents, families, or caregivers play in their student’s accommodations.

At least two respondents remembered when WATR would travel often to demonstrate devices or provide trainings or workshops, and mentioned this was very convenient for them and their staff, and they had learned a lot.

A common misconception seems to be that districts do not have any students with print disabilities that require AEM. This sentiment typically comes from smaller districts. Upon discussing AEM further, some respondents started to think about students in their district that do or would benefit from AEM. Many respondents thought only of visual impairments at first, and later realized the full implication of AEM.

We had several respondents from the Virtual Academy. The Virtual Academy is an online learning alternative to brick and mortar schools. Any student in the state may enroll, however these students are considered Niobrara County School District #1 students. The Virtual Academy operates under a company called K12, which provides all curriculum materials, training, and support to its staff. According to respondents, online learning allows students to use a variety of built-in accessibility features as well as other programs. K12 provides training, but there is not much related specifically to teaching students with disabilities- most training centers on how to teach in a virtual environment. One respondent indicated the Virtual Academy has a high number of students with disabilities, and believes this to be the result of a student or parent having a falling out with their current district, or are otherwise unhappy with the services the student is (or is not) receiving. They further hypothesize that virtual school is the best alternative, because the student can stay home, but the parent or guardian does not have to homeschool. This participant also mentioned the difficulty of observing students using their assistive technology, as well as assessing their physical environment. While several respondents voiced appreciation that the special education director is very good about passing on important information and training opportunities, they also felt a lack of support from other administration. It is unclear if this refers to the school district, or K12 administration.

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