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Oklahoma State Department of Education

Special Education Services

Technical Assistance Document

Oklahoma Procedures for Providing

Accessible Educational Materials

(AEM)

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What Are Accessible Educational Materials?

Some students have difficulty reading and accessing learning materials such as textbooks and supplementary materials. To be successful in school, these students need learning materials in specialized formats called Accessible Educational Materials (AEM).

A student with a visual impairment, for example, may not be able to read a standard print textbook and would likely require larger print or braille to read independently. A student with a physical disability, who is unable to hold and turn the pages of a standard printed textbook, may benefit from having an audio or digital version. A student with a reading disability may better comprehend information that is displayed on a computer or a tablet while the text is read aloud by a computer voice.

This guide was created to explain:

- The process for making decisions about AEM;

- Why a student may need AEM;

- What types of specialized formats are available;

- How AEM are acquired;

- What supports are necessary to effectively utilize AEM; and

- What can be done to promote the use of AEM for students.

Why Provide AEM?

AEM can help students with disabilities access the same content as their peers and be successful in school. Because of provisions in IDEA, specialized formats are more readily available to students who cannot read or use a standard textbook.

Reading this document, learning more information and sharing it with others are important steps to ensuring that students with disabilities have access to accessible materials needed for their school participation and achievement.

A Change in Terminology: AIM is now AEM

In 2014, the terminology related to providing specialized formats to students was changed from Accessible Instructional Materials (AIM) to Accessible Educational Materials (AEM) to convey a more inclusive meaning beyond standard print, such as digital materials. Some organizations and products continue to use the original term.

With this knowledge, school districts, educators, and families can ensure that students with disabilities have access to the materials they need to participate in class and achieve academically.

Accessible Educational Materials and the Law

Authors and Publishers are entitled under U.S. Copyright Law to reproduce their materials or to authorize others to reproduce the works. Copyright holders also have a legal right to prevent others from reproducing their works without permission. This right is limited by the **1931 Act to Provide Books to the Adult Blind** (2 U.S.C. 135 a), and the **Chafee Amendment**, described below.

Print disability is defined within U.S. copyright law under the provisions of the **1931 Act to Provide Books to the Adult Blind**, as Amended.

Under this Act, individuals with a print disability are those who have been certified by a competent authority to be unable to read or use standard print materials because of:

- Blindness
- Visual impairment
- Physical limitations, or
- Reading disabilities (such as dyslexia) resulting from an organic dysfunction

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What Are Print Instructional Materials?
"Print instructional materials" include textbooks and related core materials that are written and published primarily for use in elementary and secondary school instruction and are required by a state or local education agency (LEA) for use by students in a classroom. Such materials often include workbooks and other supplemental materials packaged with the textbook by the publisher.

The Chafee Amendment allows reproduction and distribution of educational materials in specialized formats such as braille, large print, audio and digital exclusively for use by individuals with print disability.

17 U.S. Code § 121 - Limitations on exclusive rights: Reproduction for blind or other people with disabilities

(a) Notwithstanding the provisions of section 106, it is not an infringement of copyright for an authorized entity to reproduce or to distribute copies or phonorecords of a previously published, nondramatic literary work if such copies or phonorecords are reproduced or distributed in specialized formats exclusively for use by blind or other persons with disabilities.

IDEA 2004
The Individuals with Disabilities Education Act (IDEA), as reauthorized in 2004, requires that elementary and secondary school students with disabilities who need print instructional materials in an accessible format receive them in a timely manner. This means that school districts must take reasonable steps to provide accessible educational materials (AEM) to eligible students with disabilities without delay, typically at the same time as

other students receive educational materials. Each state has the responsibility to define "in a timely manner." Oklahoma has defined it as "at the same time as other students or to the greatest extent possible."

34 CFR §300.5 Assistive Technology Device
"Assistive technology device means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability. The term does not include a medical device that is surgically implanted, or the replacement of such device."

34 CFR §300. 24(a)(2) Development, Review, and Revision of IEP (2) Consideration of Special Factors.
"The IEP Team shall — (v) Consider whether the child needs assistive technology devices and services."

ADA and Section 504

Two other federal laws relate to provision of AEM/ AT by addressing the obligation of all public schools to meet the communication needs of students with disabilities: Title II of the Americans with Disabilities Act of 1990 (Title II), and Section 504 of the Rehabilitation Act of 1973 (Section 504).

Title II is a civil rights law that prohibits discrimination against individuals with disabilities in areas of employment, public services, public accommodations, transportation, and communication. Title II requires schools to ensure that students with disabilities receive communication that is as effective as communication with others through the provision of auxiliary aids and services. In many cases, but not all, an IEP will meet the requirements of Title II.

Under Title II, "communication" includes all kinds of information exchange – reading, writing, listening and speaking. Effective communication can require a technology support instead of a human support if the technology support allows a student to perform tasks independently, thus achieving "effective communication" as is required by Title II.
Note: "Effective communication" required by Title II can be a higher standard and require additional assistive technology even when a student's need for a free and appropriate public education (FAPE) under the IDEA and Section 504 has been met.

Section 504 prohibits discrimination against individuals with disabilities and requires schools to provide equal access to their programs and services. Section 504 requires that school districts provide a free appropriate public education (FAPE) to qualified students who have a physical or mental impairment that substantially limits one or more major life activities, regardless of the nature or severity of the disability. AT is referred to under Section 504 within "special education and related aids and services." A student is not required to be eligible for special education services to be protected under Section 504.

Section 508 and Oklahoma's Electronic and Information Technology Accessibility Act

Section 508 of the Rehabilitation Act requires federal agencies to procure, develop, and maintain accessible information technology to ensure effective and usable information technology and digital materials for all individuals, including those with disabilities. Oklahoma adopted the federal 508 standards and passed **Electronic and Information Technology Accessibility** legislation, which went into effect in 2005, mandating compliance by all state agencies, higher education, and CareerTech Centers. Acquiring educational materials that have been approved for purchase by the Oklahoma Textbook Adoption Committee will help to ensure that all students receive the materials they require.

Who is responsible for providing Assistive Technology (AT)?

Assistive technology (AT) is technology used by individuals with disabilities in order to perform functions that might otherwise be difficult or impossible. **The federal regulations for implementation of IDEA define AT devices and services and require Individualized Education Program (IEP) teams to consider the assistive technology needs of students during the development, review, and revision of an IEP.**

IDEA also requires schools to **provide** AT if it is needed for a student to receive a free appropriate public education (FAPE). The emphasis on FAPE is that the student is able to function well enough to make reasonable educational progress. FAPE can include a variety of services such as special education, related services, supplementary aids and services, program modifications or support for school personnel. **AT, just like all other components of FAPE, must be provided at no cost to parents.** Local Education Agencies (LEAs) must provide or pay for any AT necessary to ensure FAPE, either directly or through contract or other arrangements. The schools may not unnecessarily delay the provision of AT devices and services due to funding issues if a child requires the devices and services to benefit from the IEP.

For more information about including assistive technology in the IEP, see the Technical Assistance Document Assistive Technology for Children and Youth with Disabilities IDEA Part B, and the Special Education Process Guide.

NIMAS and NIMAC

The **National Instructional Materials Accessibility Standard (NIMAS)** is a standard file format established by IDEA that was created to make it easier for students with disabilities to access learning materials in the formats they need as quickly as possible. Electronic files of books created using the NIMAS are designed to be easily converted into specialized formats including braille, large print, audio, and digital text.

IDEA also mandated the establishment of the **National Instructional Materials Access Center (NIMAC)**, a repository for publisher source files of textbooks and related core printed materials that are created according to the NIMAS technical specification. Oklahoma coordinates with the NIMAC as a means to provide specialized formats to qualifying students in a timely manner.

Who is Qualified to Receive NIMAS Textbooks?

Under the Chafee Amendment, individuals certified by a competent authority as having a print disability are entitled to receive AEM from a variety of sources. However, access to materials created from NIMAS files is limited to individuals certified as having a print disability who are on an Individualized Education Program (IEP), meaning the student has undergone an evaluation and is, or will be, receiving special education services under IDEA.

How do you get NIMAS files?

The files that publishers submit to the NIMAC are not ready for student use, but must be converted by authorized Accessible Media Producers (AMPs) into specialized formats of braille, large print, audio and digital. In addition to NIMAS source files, AMPs may produce materials submitted by a variety of other sources, such as individuals, schools, and publishers.

Local Educational Agencies (LEAs) are responsible for obtaining textbooks and other educational materials from AMPs. Bookshare, Learning Ally, and Liberty Braille are examples of AMPs that regularly convert NIMAS files into accessible formats for use by Oklahoma public school students who have print disability.

Additional entities designated by the state of Oklahoma as Authorized Users of the NIMAC include ABLE Tech, the AIM Center at the Oklahoma Library for the Blind and Physically Handicapped, and the Oklahoma School for the Blind.

How can we ensure that educational materials are available through the NIMAC?

Purchase orders made by state and local education agencies should include language that requires publishers to submit NIMAS-conformant files to the NIMAC for each specific title purchased, or provide assurances that they have already done so. Contract language should also ask publishers to use the MathML3 Structure Guidelines recommended by the NIMAC. MathML3 structure increases the accessibility of math and science textbooks. Contracts for purchase of digital instructional materials should also include the requirement that the materials be accessible to individuals with print disability.

By including specific language in purchase contracts, education agencies obligate publishers to submit source files to the NIMAC, helping to ensure that students with print disabilities who are on IEPs receive appropriate accessible versions of educational materials in a timely manner.

For more information about MathML3 and NIMAS formats visit www.aem.cast.org. Sample contract language is included on the next page.

Recommended contract or purchase order language for print materials (textbooks and related core instructional materials):

By agreeing to deliver the materials marked with "NIMAS" on this contract or purchase order, the publisher agrees to prepare and submit, on or before   /   /
 a NIMAS file set to the NIMAC that complies with the terms and procedures set forth by the NIMAC. The publisher also agrees to mark up materials eligible for NIMAS submission that contain mathematical and scientific instructional content by using the MathML3 (refer to latest applicable version) module of the DAISY/NIMAS Structure Guidelines as posted and maintained at the DAISY Consortium web site (http://www.daisy.org/z3986/structure/SG-DAISY3/index.html). Should the vendor be a distributor of the materials and not the publisher, the distributor agrees to immediately notify the publisher of its obligation to submit NIMAS filesets of the purchased materials to the NIMAC. The files will be used for the production of specialized formats as permitted under the law for students with print disabilities. For additional information about NIMAS: http://goo.gl/xHnDx9. For additional information about the NIMAC: http://nimac.us.

Contract or purchase order language for digital instructional materials (commercial & open education resources):

Vendor represents that the digital instructional materials delivered under this contract or purchase order conform to, at a minimum, the standards for accessibility as set forth in Section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794d), and its implementing regulations (36 C.F.R.§ 1194), or Web Content Accessibility Guidelines (WCAG) 2.0 (minimum of Level AA conformance). Should any portion of the materials not conform to the aforementioned standards of accessibility, vendor agrees to provide a written explanation of the reason for non-conformance. Submission of a complete Voluntary Product Accessibility Template (VPAT) will satisfy the requirement to provide a written explanation. Vendor further agrees to provide alternative means for access to the instructional materials during the period of non-conformance to students who may qualify in accordance with the Act entitled "An Act to provide books for the adult blind" approved March 3, 1931 (2 U.S.C. 135a).

Decision Process
for Accessible Educational Materials (AEM)

There are five steps members of an Individualized Education Program (IEP) team should take to ensure that a student receives specialized formats that are needed for educational participation and achievement. The IEP team should:

1. Establish student need for AEM.
2. Determine specialized format(s) needed by the student.
3. Acquire AEM in a timely manner.
4. Consider and provide supports needed for effective use of AEM.
5. Document need for, and plans relating to, specialized format(s), assistive technology, training and support in student's IEP.

#1 | Establishing Student Need for AEM

Students with a variety of disabilities may need AEM. Students who could otherwise understand the content but are unable to read or use standard materials may need to access that content through specialized formats, which include braille, large print, audio, and digital text.

An IEP team should consider a variety of factors when determining whether a student needs materials in a specialized format. When thinking about a student's possible need for specialized formats, the IEP team might consider, along with other factors, the student's sensory, physical, and cognitive capability; reading level (decoding, word recognition, comprehension, and fluency skills); grades; classroom performance; and levels of academic proficiency in all subject areas.

Specific Questions the Team Might Ask Include:
- Can the student see the material well enough to read the information on a level comparable to other classmates?
- Can the student physically manipulate the material without a lot of effort?
- Does the student have the necessary stamina to read standard materials for extended periods of time?
- Does the student have the decoding, fluency, and processing skills needed to gain information from grade-level printed materials?

Answering "no" to any of these questions might indicate that a student needs instructional materials in a specialized format. If there are cognitive concerns as well, the student may need modified or alternative materials.

#2 | Determining Specialized Format(s) Needed

If the IEP team determines that a student needs AEM, the next step is to select the appropriate specialized format(s): braille, large print, audio, or digital text. In making the decision, the team should consider which format will best enable this particular student to:

- access information contained in the standard materials
- work as independently as possible
- develop literacy skills, and
- participate in educational activities.

The student's preferences, language, vision, memory, listening skills, tactile skills, and English proficiency should also be considered.

Braille is a tactile system of reading and writing made of raised dot patterns for letters, numbers, and punctuation marks. This format is used almost exclusively by people with visual impairments or blindness. Braille format refers to embossed braille, which is a permanent printed document. Refreshable braille displays use a type of digital text format.

Large print is generally defined as 18 point or larger font size. A document produced in large print format usually has more white space and may not look like the original document, but it contains the same information. Large print may be printed on pages that are the same size as a standard textbook page or on pages of a larger size.

Audio formats present content as sound with no visual component. Audio formats can include recorded human voice or synthesized electronic speech.

Digital text provides electronic content that is delivered on a computer or another device. Electronic content may be changed in many ways (e.g., size, contrast, read aloud) to accommodate the needs and preferences of a student. How content is presented to a user depends upon the technology

being used and student needs. Refreshable braille displays work with the digital format called Braille Ready Format (.brf).

Students may require more than one format depending on their needs, the instructional material, and the environments in which they will access the text. For example, a student may use a large print book for math, a digital textbook for history, a digital format of the language arts textbook at school, and audio format of assigned novels.

Note: Schools may contact the Oklahoma School for the Blind Outreach Department to request a Learning Media Assessment to help determine the appropriate format for students with visual impairment. A student may need a trial period with different formats to determine which are most effective and preferred in different environments for various reading tasks. Oklahoma ABLE Tech provides free short-term assistive technology loans to help students and teachers determine the right fit.

Consideration and Assessment Tools

Does the student need AEM, and if so, which specialized format(s) and technology are required? Interactive tools can be used by teams to help with decisions about accessible educational materials.

AEM Navigator

The AEM Navigator from the National Center on Accessible Educational Materials is an interactive tool that facilitates the process of decision-making about AEM for an individual student. The AEM Navigator includes guiding questions and useful resources related to determination of need, selection of format(s), acquisition of formats, and selection of supports for use. Decisions and supporting information are saved to a Student Summary that can be edited, saved, and printed. The AEM Navigator also includes an optional, running to-do list for recording team member responsibilities. http://goo.gl/3otz9j.

AIM Explorer

The AIM Explorer is a free downloadable simulation tool that combines grade-leveled digital text with access features common to most text readers and supported reading software. This tool is designed for readers with low vision, physical challenges, and learning and attentional difficulties who may benefit from enlarged, spoken, highlighted, or re-formatted text. The AIM Explorer assumes the user has vision and does not address Braille use.

Settings for magnification, colors of text and background, synthesized speech, highlighting, and layout options can be manipulated to help educators, families, and struggling readers decide ways in which these supports can be configured to help with access to

and understanding of text. The AIM Explorer collects information and prepares a summary that can be printed or saved to a local computer. http://goo.gl/UJt3KU.

Protocol for Accommodations in Reading (PAR)

The Protocol for Accommodations in Reading (PAR) is an assessment developed by Dr. Denise DeCoste and Linda Bastiani Wilson in collaboration with Don Johnston, Inc. to assist educators in determining the optimal reading accommodation for students who need materials read aloud. The PAR helps determine whether a particular student needs materials read aloud, and if so, whether recorded human voice or synthetic speech is best. The PAR includes narrative and expository reading passages and scoring forms. The assessment has three parts: silent reading, human read-aloud, and synthesized speech read-aloud.

The Oklahoma State Department of Education requires that students be assessed using the PAR prior to receiving a read-aloud accommodation on state tests. Don Johnston, Inc. offers the PAR free of charge in print form or as an online, fee-based service. Both print and online versions of the PAR can be accessed at: http://donjohnston.com/par/#.

The online version includes recorded human voices and synthesized speech. To administer the synthesized speech portion using the print version, schools can use the built-in text-to-speech feature of their computer's operating system, or a free online text-to-speech generator such as **Read & Write for Google Chrome™:** https://goo.gl/zlYAD2 or **Natural Reader**, http://www.naturalreaders.com/.

#3 | Acquiring AEM in a Timely Manner

After establishing that a student needs accessible educational materials (AEM) and selecting which formats are needed for which materials, the decision-making team must determine how and where to acquire the materials. Local Education Agencies (LEAs) can obtain AEM from the following:

- Accessible media producers (AMPs)
- Publishers
- Other sources
- Locally created

AMPs

Accessible Media Producers (AMPs) create specialized formats of instructional materials from files received from the NIMAC, as well as from materials submitted by publishers or education agencies. Bookshare, Learning Ally, and Liberty Braille are examples of AMPs that can provide accessible materials for use by Oklahoma public school students who have print disability.

Note: The legality of an AMP to convert copyrighted materials for individuals with print disability is based on the Chaffee Amendment. (See more on Chafee Amendment on page 2 of this document.) Copyright-free materials may be accessed or reproduced without regard to disability status.

Tip for Educators: You may acquire AEM on behalf of your students through AMPs such as Bookshare, Learning Ally, and Liberty Braille. Contact the AMP directly for assistance. (See contact information for Oklahoma AEM Service Providers above right.)

Tip for Parents: If you believe your child needs AEM, you should request that your local education agency (LEA) assess your child's need for a specialized format and consider assistive technology and other supports required.

Oklahoma AEM Service Providers

The following entities are authorized to provide AEM and Assistive Technology services to Oklahoma public school students:

- Oklahoma ABLE Tech – 800.257.1705
  www.okabletech.okstate.edu
- The AIM Center at the Oklahoma Library for the Blind and Physically Handicapped –
  800-523-0288
  http://olbph.org/dir/AIM
- Bookshare – 650-352-0198
  www.bookshare.org
- Learning Ally – 800-221-4792
  www.learningally.org
- Liberty Braille – 800-920-3369
  www.libertybraille.com
- Oklahoma School for the Blind – 877-229-7136
  www.osb.k12.ok.us

Specialized Formats vs. Alternative Materials

- Specialized formats include the same content as a printed textbook or other instructional material but change the way the content is presented to the student. No information is added or removed.
- Alternative materials address the same educational goals as the standard document, but the content is modified (usually made less complex) so that the student can better understand it. Some students may need alternative materials with modified content in specialized formats in order to access them.

Publishers

Upon request by a state or local education agency (LEA), a publisher may be willing to provide a digital file or grant permission to copy and scan materials, with the understanding that use of materials created from the file will be limited to students with print disability. Some publishers provide digital versions of instructional materials that can be purchased along with, or instead of, printed books. This can be very useful if the digital version contains the same information as the printed book rather than supplementary material.

Q & A: Why aren't more instructional materials available for purchase in accessible formats?

Some publishers have said that few educational agencies are asking for accessible materials for purchase, but that may be because people do not know they exist. To increase the availability of AEM for purchase, school staff and parents are encouraged to contact publishers to ask for accessible versions of textbooks that can be purchased.

Other Sources

Local Education Agencies (LEAs) may acquire materials from a variety of other sources. The American Printing House (APH) maintains a database to assist in locating accessible formats of books. The Louis Database louis.aph.org contains information on hundreds of thousands of titles available in specialized formats including braille, large print, audio, and digital text.

Below are several commonly used sources of books in various formats. Files from these sources may not be accessible to all users. Some include features such as recorded human voices, synthesized speech, and navigation. The local education agency (LEA) is responsible for verifying accessibility of materials provided to students.

- Amazon Kindle: e-books for purchase
  http://goo.gl/FbXA6w

- Audible: audiobooks for purchase: www.audible.com

- Audio Editions: audiobooks for purchase
  www.audioeditions.com

- AbeBooks.com: online marketplace for books for purchase in various formats including large print
  www.abebooks.com

- Barnes and Noble Nook Books: books for purchase in various formats including e-books and large print
  www.barnesandnoble.com

- Blackstone Library: audiobooks for purchase
  www.blackstonelibrary.com

- LibriVox: free public domain audiobooks
  www.librivox.org

- National Library Service for the Blind and Physically Handicapped: Braille and Audio Reading Download (BARD) www.loc.gov/nls

- Open eBooks: free access to e-books for students in special education and in Title I schools
  www.openebooks.net

- OverDrive: free access to e-books and audiobooks through public libraries www.overdrive.com

- Project Gutenberg: free e-books www.gutenberg.org

Q & A: What if a student doesn't have a qualifying print disability?

AEM can be acquired from a variety of sources; however, not all students are eligible to receive materials from each of the sources. For example, materials from Bookshare and Learning Ally are only available to individuals certified as having a print disability. However, if an IEP team has determined that a student needs accessible educational materials in order to receive a free appropriate public education (FAPE), the school must provide specialized formats.

In such cases, the LEA could:

- contact the publisher to request accessible materials,

- use assistive technology to render the materials accessible, i.e. scan the materials and provide synthesized speech,

- use Open Educational Materials (OER), or

- use copyright-free (public domain) materials.

For example, this may apply in situations where a student with an autism spectrum disorder or who is an English Language Learner (ELL) has been determined to need text read aloud.

Locally Created

Although specialized formats are increasingly available through accessible media producers and commercial sources, the "do-it-yourself" method of creating digital text on a computer, or scanning material and converting to digital text with optical character recognition (OCR) software remains a way to meet the needs of some students for certain materials. For example, teacher-made materials will almost always need to be created in this manner. When an accessible version of a published, copyrighted material is created in this way, copyright law must still be respected. The safest approach is to ask permission from the publisher.

What Makes Digital Text Accessible?

Book reading software and apps offer many features to improve comprehension. Digital text, when delivered on a computer or other device, offers many accessibility features which can be manipulated to control how text is presented to a student. Text-to-speech software programs can provide text and audio simultaneously and may also have built-in supports than can increase learning and literacy for some students. Synthesized speech and highlighting may help to improve focus and reading comprehension. Highlight colors, text, and background colors can be customized to suit individual preferences.

Following are features of digital text which may be manipulated depending on the technology used:

- font size/type/color
- background color
- highlighting
- text-to-speech/synthesized speech
- voice speed
- navigation

Note: The fact that text is electronic does not necessarily mean that it is accessible. For example, electronic text that cannot be highlighted, read aloud with synthesized speech, or converted to electronic braille would be inaccessible to some students.

#4 | Providing Supports Needed for AEM

The IEP team should determine whether any of the following supports are needed for a student to effectively use the selected AEM:

- Technology
- Training
- Instructional strategies
- Support services
- Accommodations or modifications

Technology

After selecting the specialized formats and determining how to acquire them, the team should decide what types of technology or tools are needed for a student to use the accessible materials. Information about the specific formats and features needed by the student, along with how and where the student will use the accessible materials, can be helpful when choosing among the various technology tools that might be used to deliver the specialized formats.

Oklahoma's AEM service providers help schools, students, parents, and guardians determine which device(s) and/or software will be most effective with the specialized format used by a student. As Oklahoma's Assistive Technology Act Program, ABLE Tech offers device loans for up to six weeks for trial purposes. After the trial is complete, it is the responsibility of the local education agency (LEA) to acquire equipment listed in a student's IEP. The AIM Center and Liberty Braille offer school-term loans of select assistive technology devices. Bookshare and Learning Ally also offer free software for use with specialized formats.

Training

The amount of training required for the student to use AEM will vary according to the complexity of the technology or tool selected to access the specialized formats. For example, use of a large print book would not require much training. However, if a student is using text-to-speech software or a refreshable braille display to access digital text, he or she may need to learn more advanced skills. Teachers, other school staff, and families may also need training in order to support the child at school and at home.

Students may also need additional types of training, such as to learn when to use a particular format or tool for a specific learning task or how to ask for needed supports when they are not readily available.

Q & A: What can a parent do if the school is not providing a child what the parent thinks is needed?

- Arrange to meet with the IEP or 504 team or the school's Title II or 504 Coordinator.

- Consider using the school district's published disability grievance procedures.

- Under the IDEA, a parent challenging the provision of FAPE may request mediation, file a complaint with the state educational agency, or request an impartial administrative hearing by filing a due process complaint. For more information go to: http://sde.ok.gov/sde/dispute-resolution-0

- Under Title II, a parent may choose to file a lawsuit in court. Parents of an IDEA-eligible student generally must exhaust the administrative hearing procedures of the IDEA, which means obtaining a final decision under the IDEA's impartial due process hearing procedures, before filing a lawsuit seeking a remedy that is also available under the IDEA.

- The U.S. Department of Education Office of Civil Rights (OCR) and the Department of Justice (DOJ) Civil Rights Division both investigate complaints of disability discrimination at schools.

To learn how to file a complaint with OCR, call 800-421-3481 (TDD: 800-877-8339), email ocr@ed.gov, or go to http://www2.ed.gov/about/offices/list/ocr/complaintintro.html.

To learn how to file a complaint with DOJ, call 800-514-0301 (TTY: 800-514-0383), email ADA.complaint@usdoj.gov, or go to http://www.ada.gov/fact_on_complaint.htm.

Instructional Strategies

Educators may need to use various instructional strategies to support students using specialized formats and supporting technologies. When a student first begins using these tools, instruction should include multiple opportunities for the student to understand the purpose, benefits, and outcomes of using the tools. It is helpful to start by providing opportunities for the student to use the tools to successfully complete familiar learning tasks (possibly in a single environment). Gradually building on early successes and slowly introducing the complexity of the tools will enable the student to master them and work as independently as possible on learning goals in a variety of environments. Educators and families will need to work together to support the student's use of accessible materials and to monitor the change in the student's participation and achievement.

Support Services

A student's IEP should describe any support services needed for effective use of various specialized formats and who is responsible for providing them. Different support services may be needed for different formats. For example, a student using braille may require specialized instructions from a qualified teacher of the visually impaired, and a student with a physical disability may need the support of an occupational therapist or physical therapist. Additional supports such as case management, classroom organization and arrangement, equipment management and maintenance and file acquisition may also be needed.

Audio-Supported Reading

Audio-supported reading (ASR) is a technology-based approach for accessing and working with text presented in either braille or enlarged (magnified) print. This approach allows a user to listen to a spoken version of text while looking at screen-displayed print or touching braille. In ASR, both the rate of information pick up and the portion

of attention paid to braille or print—in combination with speech—can be controlled by the user. With sufficient practice, both braille readers and magnified print readers can greatly increase the rate at which they move through text using ASR. More information about ASR is available at aem.cast.org.

Accommodations and Modifications

The use of AEM may require accommodations or modifications to a student's education program. For example, a student may need preferential seating or additional time to complete tasks due to the time required to use a specialized format. A student may need frequent breaks to avoid fatigue. A student may need to provide responses orally rather than in writing, or he or she may be allowed to submit fewer responses. The team should consider which accommodations or modifications will be necessary when writing the IEP.

#5 | Documenting AEM and AT in the IEP

There are several sections of the Individualized Education Program where it is appropriate to include information about the need for specialized formats and associated assistive technology and services, including Special Education, Related Services, and Supplementary Aids and Services. For more information about including assistive technology in the IEP, see the Technical Assistance Document Assistive Technology for Children and Youth with Disabilities IDEA Part B, and the Special Education Process Guide.

AEM for Various Students: Some Examples

The following examples are presented to illustrate how an LEA could provide AEM for various students.

Student 1 |

A ninth-grade student who is blind is determined to need embossed braille for Algebra I; braille ready format (.brf) for Oklahoma History, Physical Science, and French; and audio for English Literature.

The teacher of the visually impaired (TVI) contacts Liberty Braille to request the student's Algebra I textbook in embossed braille. Liberty Braille sends the textbook to the school for the student to use and return upon completion of the Algebra I course.

The TVI contacts ABLE Tech for help determining which AEM providers can supply the student's educational materials in the audio and braille ready formats and for assistance in determining what assistive technology will be necessary. The school borrows a refreshable braille display and an audiobook player from ABLE Tech for assessment purposes.

ABLE Tech assists the school in obtaining organizational memberships in Bookshare (free to school) and Learning Ally (scaled-fee), and downloading the student's materials in the desired formats.

Following the successful trial loan, the school borrows a refreshable braille display and an audiobook player from the AIM Center at the Oklahoma Library for the Blind and Physically Handicapped for the student to use for the remainder of the school year.

Student 2 |

A second-grade student with a reading disability is determined to need her materials for reading, science, and social studies in a digital format to be read on a portable device with a text-to-speech feature. The school has an organization membership with Bookshare and the teacher is registered as a sponsor.

The teacher documents the student's print disability and registers her as a member under the school's organizational Bookshare account for access to digital text. The teacher then finds the student's textbooks and other required reading materials in the Bookshare library and assists the student in accessing the materials using the Bookshare Web Reader on a school-supplied laptop.

Examples (continued)

Student 3 |

A teacher of the visually impaired (TVI) is seeking to determine if a sixth-grade student who currently receives large print textbooks from Liberty Braille would benefit from the use of an iPad with digital text for some of her educational materials.

The TVI contacts ABLE Tech to borrow an iPad for a trial loan. ABLE Tech sends an iPad with an accessible book reading app to the school for assessment purposes, and offers technical assistance to help the school obtain an organizational membership in Bookshare and download the student's books.

After determining that the iPad with the accessible book reading app is a good solution for the student, the TVI borrows an iPad from Liberty Braille for the student to use for the remainder of the school-term. The TVI also assists the student's family in obtaining an individual membership in Bookshare so that the student can access additional reading materials throughout the year.
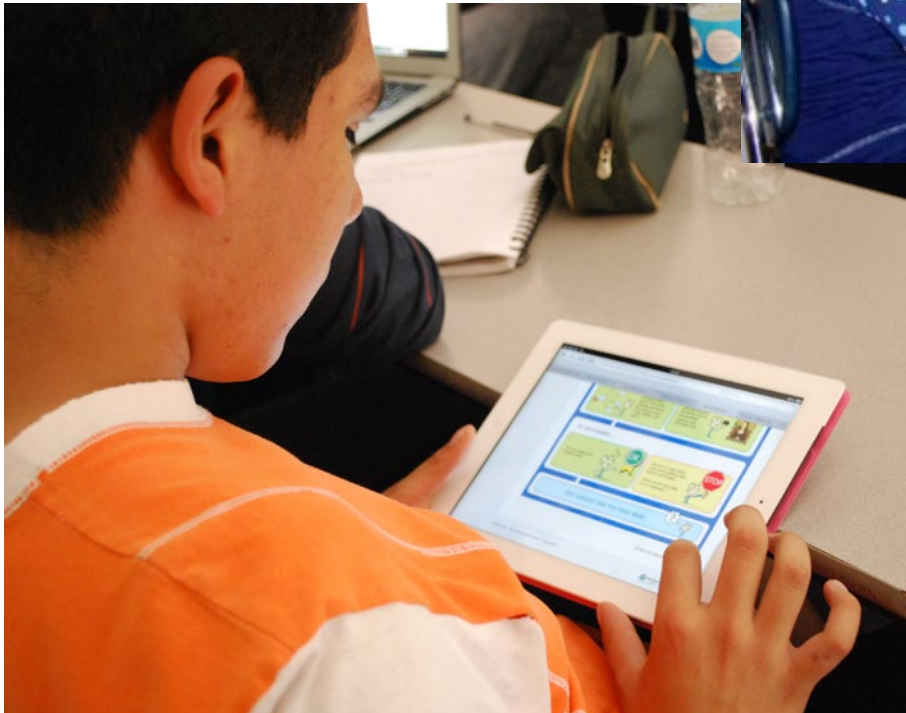
Student 4 |

The IEP team has determined that an eleventh-grade student who is reading below grade-level and whose primary language is Spanish needs educational materials in digital format to be read with text-to-speech.

IDEA 2004 requires that schools provide accessible instructional materials to students who need them. However, since this student does not have a qualifying print disability, she is not eligible to receive materials from Bookshare. Therefore, the school requests a digital copy from the publisher or permission to copy and scan the student's materials into electronic text.

The teacher also contacts ABLE Tech for assistance in considering assistive technology to convert the student's educational materials to synthesized speech. The teacher decides to borrow a scan and read system and an iPad with an accessible book-reading app for a free six-week trial to assess with the student.

During the trial, the IEP team determines that the scan and read system works better for the student than the iPad with accessible book reading app, and that the school will purchase the device for use in the classroom. The IEP team plans to monitor the student's progress using the scan and read device at school, and if necessary will consider allowing the student to use the device at home.

Provision of AEM Workflow

1. Consider need for AEM. (Resource: AEM Navigator.)
2. If need exists, document print disability category and obtain necessary certification.
3. Determine specialized format(s) needed. (Resources: AIM Explorer, PAR.)
4. Consider assistive technology (AT) device(s) and software necessary for using specialized format. (Resource: ABLE Tech Device Demonstration and Short-Term Loan Program.)
5. Document need for specialized format and related AT in IEP. Determine who will be responsible for maintaining AT device(s) including installing software updates, and replacing or recharging batteries.
6. Contact Accessible Media Producer (AMP) to request materials in specialized format on behalf of student. For braille or large print, contact Liberty Braille. For audio or digital, obtain organizational membership with Bookshare or Learning Ally, register student, and download or assign textbooks and other educational materials on student's behalf. (Contact ABLE Tech for assistance.)
7. Contact publisher(s) if necessary to request accessible materials or permission to copy materials on behalf of students not qualified to receive materials from an AMP, or for materials that are not available from an AMP.
8. Assist parent/guardian in obtaining individual membership for student in Bookshare or Learning Ally for access to additional reading materials. (Contact ABLE Tech for assistance.)
9. Train student, teachers, support staff, and parent/guardian in procedures for acquiring and reading AEM, and proper use and maintenance of AT.
10. Monitor student progress, consider if specialized format and AT are adequate, and consider other specialized formats or AT as needed. Document progress in IEP.

Best Practices for Provision of AEM and Related AT

Below Minimum Not Meeting IDEA Requirements	Minimum Meeting IDEA Requirements	Best Practice Exceeding IDEA Requirements
LEA **does not consider** AEM/AT for every student on IEP.	LEA **considers** AEM/AT for every student on IEP.	LEA **considers** AEM/AT for every student on IEP.
LEA **does not provide** AEM/AT for every student who needs it.	LEA **provides** AEM/AT for every student who needs it.	LEA **provides** AEM/AT for every student who needs it.
		LEA **assists** families of qualified students in obtaining individual memberships in organizations which provide accessible books so that the student can self-select additional reading materials.

Case Law Related to AEM

The following cases are provided as examples of litigation related to the provisions of AEM and related AT.

Case 1 |

Student: A high school junior with a learning disability was able to perform at a high level when permitted to listen, rather than read, school materials. The student received accommodations on a 504 plan *(Editor note: stand-alone text-to-speech software is readily available to schools for use with digital text. Additionally, schools can obtain instructional materials which include a text-to-speech feature for qualified students from Bookshare and Learning Ally.)*

School's Participation: Materials for some classes were made accessible to the student using text-to-speech programs that read material out loud. With higher-level math and chemistry classes, more advanced software is needed to scan and read the equations and symbols. The school agreed to scan math materials to use with the text-to-voice software, but made the student responsible for scanning and translating chemistry and some history materials.

Problem: The school was considered in violation of the ADA, Section 504 of the Rehabilitation Act of 1973 for denying nondiscriminatory access to education.

Results: The student was awarded a temporary restraining order that required the school district to provide scanned, accessible materials for chemistry using an advanced text-to-voice program.

L.G. Port Townsend School Dist. No. 50, 112 LRP 46490 (WD Washington 2009)

Case 2 |

Student: An eighth grader with learning disabilities on an IEP needed Kurzweil and What You Need Now (WYNN) literacy software and audiobooks to provide him access to education. *(Editor note: Kurzweil and WYNN literacy software products include many features such as text-to-speech, customizable reading speed, dictionary, talking spell checker, word prediction, graphic organizer, highlighters, and voice input.)*

School's Participation: The school included information about the student needing assistive technology in the IEP.

Problem: The school did not provide the assistive technology that was determined as needed for the student to access his education.

Results: The school was considered in violation of IDEA for not providing a FAPE.

Miller v. Board Of Education of the Albuquerque Public Schools, 565 F.3d 1232, (10th Cir. 2009)

Case 3 |

Student: A ninth grader with autism, a speech-language impairment, and former diagnosis of intellectual disability on an IEP transitioned from a middle school building to a high school building within the same school district. The student previously used an iPad to achieve educational goals.

School's Participation: The school indicated in the student's IEP the need for an iPad to achieve educational goals. The school provided the student with an iPad for educational purposes in middle school. When the transfer of the iPad did not occur in a timely manner from the middle school, the student was provided a Kindle Fire to use at the high school. *(Editor note: iPads include many accessibility features, including voice input, text-to-speech, screen magnification, closed captions, switch control, and guided access. Additionally, many software applications are designed to assist and/or teach individuals with disabilities, including apps for speech, organization, note-taking, and sound recording. At the time of this case, the Kindle Fire did not include such accessibility features.)*

Problem: Technical difficulties, including licensing issues, delayed the transfer of the iPad to the student at the high school until March of the ninth grade year. Once the student received the iPad, the support teacher and one-on-one aide were not trained in using the iPad as assistive technology to support the student.

Results: The school was considered in violation of IDEA for not providing a FAPE. The district was ordered to contract with a private speech pathologist and/or an expert in iPad educational application technology to research, acquire, and teach the student, parent, teachers, and aide how to use appropriate educational applications to assist the student in a variety of ways and how these applications can be useful in supporting the IEP goals.

School District of Philadelphia, 114 LRP 37532 (Pennsylvania SEA 2014)

In Closing: Steps to Promote AEM

Teachers, school officials, parents, and advocates can help facilitate the use of specialized formats by:

- sharing information about AEM and available supports;

- using a decision-making process during the development of the IEP to determine if students need AEM;

- learning about the process for obtaining materials from the NIMAC, accessible media producers and other sources;

- communicating with IEP teams and school administrators about accessible materials that are often available to eligible students free of charge; and

- collaborating with local and state education agencies to urge publishers to offer accessible versions of textbooks for purchase.

Universal Design for Learning (UDL) refers to principles for curriculum development that give all individuals equal opportunities to learn. According to the National Center on Universal Design for Learning, UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone--not a single, one-size-fits-all solution, but rather flexible approaches that can be customized and adjusted for individual needs. Find out more about UDL at: http://www.udlcenter.org/.

PALM stands for Purchase Accessible Learning Materials, and the PALM Initiative's goal is to increase the likelihood that materials purchased for use in the classroom are designed to be usable by all students from the start. Following the guidelines of the PALM Initiative is one way to promote accessible educational materials. Find out more at: http://aem.cast.org/navigating/palm.html#.Vzy8lFcaJkh.

Additional AEM Resources

- National Center on Accessible Educational Materials: www.aem.cast.org/

- National Instructional Materials Access Center: www.nimac.us

- U.S. Department of Education, IDEA Part B: http://idea.ed.gov/explore/home

- Accessible Instructional Materials Technical Guide for Families and Advocates, National Center on Accessible Instructional Materials at CAST: www.pacer.org/publications/stc.asp

Addendum: Guide for Providing Assistive Technology for Students with Visual Impairment

Introduction

According to the 2015 Disability Statistics Annual Report, fewer than 2% of Oklahoma children have a vision disability. While children with visual impairments represent a small proportion of the population of students served, their needs can be quite challenging. This addendum was developed to provide educators with an understanding of some differences among children with visual impairment, as well as tools and resources available to help them to learn and thrive. *This document is not meant to be comprehensive, or to duplicate existing training materials and documents.*

Visual Impairment Defined

Under the Individuals with Disabilities Education Act (IDEA), visual impairment including blindness means an impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness. [§300.8(c)(13)] (idea.ed.gov)

Types

The terms partially sighted, low vision, legally blind, and totally blind are used in the educational context to describe students with visual impairments. They are defined as follows:

- "Partially Sighted" indicates some type of visual problem has resulted in a need for special education

- "Low Vision" generally refers to a severe visual impairment, not necessarily limited to distance vision. Low vision applies to individuals who are unable to read newspaper print at a normal viewing distance, even with the aid of eyeglasses or contact lenses

- "Legally Blind" indicates that a person has less than 20/200 vision in the better eye or a very limited field of vision (20 degrees at its widest point) and

- "Totally Blind" typically means that the individual has no light perception

Possible Causes

There are multiple diseases and conditions which may lead to vision loss or blindness. These abnormalities may impact functional vision, and by extension, education of the student, in a variety of ways. The effect of visual problems on a child's development depends on the severity, type of loss, age at which the condition appears, and overall functioning level of the child. Many children who have multiple disabilities may also have visual impairments resulting in motor, cognitive, and/or social developmental delays.

The following selected terms include only a few of the many visual disorders found in children:

- Cataracts (clouding of the lens impacting visual clarity)

- Cortical Visual Impairment (visual dysfunction caused by damage or injury to the brain)

- Glaucoma (damage to the optic nerve, usually caused by fluid build-up and increased pressure inside the eye resulting in peripheral vision loss, and difficulty seeing in dim light)

- Infections, malformations, optic nerve defects, and trauma to the eye (various causes and results)

- Retinoblastoma (cancer that begins in the retina and may result in loss of the eye)

Additional information about the types of Visual Impairment is available from the following sources:

American Academy™ of Ophthalmology

Freedom Scientific

NewView Oklahoma

Cortical Visual Impairment: an Approach to Assessment and Intervention by Christine Roman-Lantzy

Educational Implications

There is not a "one-size-fits-all" solution to working with students who have visual impairment; educators must take the student's individual needs into account when designing the education program. For instance, Albinism is a condition characterized by lack of pigment in the hair, skin, and eyes. The functional impacts on vision may include low vision, nystagmus (involuntary, rapid and repetitive eye movement), and photophobia (extreme light sensitivity). A student with photophobia must take care to limit exposure to bright light. In contrast, students with other eye

conditions, such as retinitis pigmentosa, may benefit from increased lighting to be able to perceive printed materials and objects in their environment.

Children with visual impairments should be assessed as soon as possible following identification to benefit from early intervention programs, when applicable. Technology in the form of computers, braille equipment, and low-vision optical and video aids enable most children with visual impairments to participate in regular class activities. IDEA also requires that schools provide accessible educational materials (AEM) to all students who need them-- this can include braille, large print, audiobooks, and accessible digital materials. For more information return to the Table of Contents of this document.

Determining Optimal Mode of Learning

The way a student learns, and the accommodations needed, vary from student to student. Tools such as a Functional Vision Assessment and a Learning or Reading Media Assessment can help in determining the optimal mode of delivery for textbooks and other curricular materials, possible accommodations, and assistive technology.

The following assessments should be conducted by a qualified professional such as a Teacher of the Visually Impaired (TVI). The Oklahoma School for the Blind provides outreach services including conducting assessments and a limited number of site visits for consultation.

Examples of Assessment Tools
The National Reading Media Assessment (NRMA) is a research-based tool developed by the Professional Development and Research Institute on Blindness to determine the most appropriate reading medium/media for students who are blind/visually impaired considering current and future needs.

- The "Paths to Literacy Learning Media Assessment" offers a framework for selecting appropriate literacy media for a student who is visually impaired. "Paths to Literacy" recommends that a Functional Vision Assessment (FVA) should be done first, in order to determine what the student is able to see and how he or she is using his or her vision.

- The Functional Vision Learning Media Assessment (FVLMA) is an American Printing House (APH) assessment tool developed to help practitioners gather, store, track, and analyze information regarding students' functional vision and appropriate learning media.

If assessment results indicate that the student will benefit from the use of braille, the IEP Team should also consider the braille code(s) a student will learn such as Unified English Braille (UEB), UEB plus NEMETH Code, and/ or Music Code. **Note:** Oklahoma public schools are transitioning from English Braille American Edition (EBAE) to UEB. Read the Oklahoma UEB Transition Plan PDF or Word version. Find information about online UEB transition courses.

Assistive Technology
Assistive Technology (AT) includes devices and services that help a person accomplish a task that might otherwise be difficult or impossible to do without it. Many types of AT are available to help students who have visual impairment. AT for vision ranges from low-tech to high-tech and from free to high-cost. Many times a person will need multiple devices depending on the tasks they wish to accomplish, the locations or environments, and the degree of vision loss/amount of usable vision.

During consideration and selection of AT devices for vision needs, educators should consider whether the individual could comprehend materials or access the environment better if materials were enlarged or visually enhanced, auditory feedback were provided, or braille and/or tactile feedback were provided. The findings should guide educators in determining which types of devices to try with a student.

Examples of AT Devices for Vision

- Adapted learning aids: calculators, games, and recreational/sporting equipment (adaptations may include enlarged display, high contrast colors, auditory feedback, haptic feedback, and tactile feedback)

- Audiobook readers

- Braille displays and notetakers

- Braille and tactile graphics embossers, 3D printers

- Magnification tools: optical magnifiers, electronic video magnifiers, and screen magnification software

- Screen readers and text readers

In addition to AT devices are the services needed to help a person select, acquire, and use the AT. Oklahoma ABLE Tech offers an AT Device Demonstration and Loan Program to assist with selection of devices. For links to information about specific products available for trial, see ABLE Tech AT Discovery Vision web page.

ABLE Tech provides Assistive Technology Support Team Training to schools through a contract with the Oklahoma State Department of Education. ABLE Tech training materials and opportunities assist schools in helping consider and assess students' AT needs as well as help educators with implementing the AT into the students' curriculum. An additional resource for assessment information is the textbook Assistive Technology for Students Who are Blind or Visually Impaired | A Guide to Assessment by Ike Presley and Frances Mary D'Andrea published by AFB Press.

Training in Use of Assistive Technology

Training is an AT service that must be provided to students to enable them to successfully use assistive technology to meet their educational goals. TVIs and other educators may also require professional development in preparation to assist students. With the wide variety of devices and frequent technological advances, it is difficult for any one person to be an expert on all devices. Oftentimes, it is necessary for schools to obtain the training from multiple sources depending on the need.

Below are a few training sources to consider:

ABLE Tech

American Foundation for the Blind (AFB)

Assistive Technology Industry Association (ATIA)

Association for Education and Rehabilitation of the Blind and Visually Impaired (AERVBI)

Freedom Scientific

NanoPac

National Federation of the Blind (NFB)

NewView Oklahoma

Oklahoma Department of Rehabilitative Services -Visual Services

Oklahoma School for the Blind

Funding for Assistive Technology

Under IDEA, Local Education Agencies (LEAs) must provide AT devices and services to students at no cost to families; however, federal and state governmental agencies provide funding for select devices for use by and with students with visual impairments, so that schools do not have to bear the entire cost. The AIM Center at the Oklahoma Library for the Blind and Physically Handicapped provides specialized educational materials and equipment for students who qualify for the Federal Quota Program administered by the American Printing House for the Blind. Liberty Braille provides textbooks and other curricular materials in large print and braille, in addition to select devices, free of charge to students through a contract with the Oklahoma State Department of Education. Find additional funding information in the online guide OK Funding for Assistive Technology.

For more information on the provision of AT, including documenting AT in the Individualized Education Program (IEP), please see the Technical Assistance Document: Assistive Technology for Children and Youth with Disabilities - IDEA Part B.

Teaching Tips/Instructional Strategies

Students with visual impairment need to learn the same information which students without disabilities learn and be held to the same high standards; however, in addition to learning core subjects such as math, English/language arts, history, and science, students with visual impairment may also need to learn specialized skills such as:

- Braille literacy (reading and writing in braille using a variety of tools)

- Auditory literacy (reading with audiobooks)

- Strategies and techniques for using various AT devices such as braille equipment, screen reading software, magnification tools, etc.

- Activities of Daily Living i.e. "blindness skills" such as cane travel, self-care, cooking, dressing, etc.…

Many of these skills must be taught explicitly, as students with visual impairment are frequently unable to learn through visual observation. Whatever the degree of impairment, students who are visually impaired should be expected to participate fully in classroom activities. Although they may confront limitations, with proper planning and adaptive equipment, their participation can be maximized.

Following are tips for maximizing participation.

The Classroom

- Select optimal seating position based on student's lighting needs

- Allow space for seeing eye/guide dog if applicable

- Assist student in using and storing adaptive equipment

- Keep aisles clear and drawers and cabinets closed

The Teacher

- Face the class while speaking

- Permit lectures to be recorded

- Provide classroom materials in accessible format(s) used by student

- Be flexible with assignment deadlines

- Consider alternative assignments (Based on IEP Team Decisions)

- Consider alternative measures of assessing achievements (see note below)

- Be specific with directions

- Provide "hands-on" learning experiences

- Use appropriate scale when possible

- Ask the student if they have any suggestions

- Keep communications open

The Rest of the Class

- Instruct others to yield the right of way

- Instruct students to help when asked

- Instruct students to ask if help is needed

- Instruct students not to harass seeing eye/guide dog

For information regarding accommodations, see the following:

Oklahoma Special Education Services Oklahoma Accommodations Guide.

Oklahoma School Testing Program (OSTP) Accommodations for Students with an Individualized Education Program (IEP) or Section 504 Plan

Oklahoma State Department of Education Overview: Non-Standard Accommodations

Instructional Settings and Staffing Considerations

Instruction may be provided to students with visual impairments in a variety of settings, including the general education classroom, pull-out for individualized instruction, resource room, self-contained special education classroom, or in a residential program such as the Oklahoma School for the Blind.

Schools may provide educational and related services to students with visual impairment either by directly employing these professionals or by contracting with itinerate service providers. Service and staffing time must be considered on an individual basis by the IEP Team. The responsibility for providing such services rests with the Local Education Agency (LEA); however, the Oklahoma

School for the Blind may provide a limited number of site visits to schools as a support measure.

A Teacher of the Visually Impaired (TVI) is the primary educator who provides specialized instruction to students with visual impairment. The TVI provides lessons in the use of braille and tactile graphics, strategies and use of assistive technology, and many other skills. Pre-certification training for Teachers of the Visually Impaired may be offered by Northeastern State University pending minimum course enrollment requirements are met. Educators wishing to enroll in out-of-state training programs can find reviews from the Association for Education and Rehabilitation of the Blind and Visually Impaired.

Educators may request to update their Oklahoma Teaching Certificate after receiving a passing score on the Oklahoma Subject Area Test (OSAT) for Blind/Visual Impairment (028) provided by the Certification Examinations for Oklahoma Educators (CEOE™).

Services may also be provided by a Braille Transcriptionist or Transcriber, who may prepare worksheets, tactile graphics, and other necessary instructional materials for students to use. Additional professionals which may be involved include Orientation and Mobility Specialists (OMS) and Paraprofessionals.

Students with visual impairment may have co-existing disabilities which require additional services such as speech, occupational, or physical therapy. Deaf-blindness is a category of disability which includes students who have sensory losses in both vision and hearing. For assistance in serving students with deaf-blindness, please contact the Oklahoma Deaf-Blind Technical Assistance Project.

Conclusion

Education of students with visual impairment can be challenging, but the impact on the future employment and personal success for students can be enormous. The information and resources included in this addendum are provided to help. For additional information contact ABLE Tech or the Oklahoma State Department of Education Special Education Services.

Background information for this document was excerpted from the Oklahoma State Department of Education Visual Impairment Fact Sheet. *Other sources and links are included within the document.*