



Center on Technology and Disability

www.CTDinstitute.org

Accessible Instructional Materials (AIM): A Technical Guide For Families and Advocates

Re-published with permission from

PACER Center

2011

PACER CENTER 
CHAMPIONS FOR CHILDREN WITH DISABILITIES™

Accessible Instructional Materials (AIM)

A Technical Guide for Families and Advocates



**PACER Center and the National Center on Accessible
Instructional Materials at CAST**



©2011, PACER Center and the National Center on Accessible Instructional Materials at CAST

The AIM and NIMAS Centers are supported by the U.S. Department of Education, Office of Special Education Programs (OSEP). This document was produced under U.S. Department of Education, Office of Special Education Programs Grant No. H327T090001. Michael Slade served as the project officer. The views expressed herein do not necessarily represent the positions or policies of the Department of Education. No official endorsement by the U.S. Department of Education of any product, commodity, service or enterprise mentioned in this publication is intended or should be inferred. This product is public domain. Authorization to reproduce it in whole or in part is granted.

While permission to reprint this publication is not necessary, the citation should be: Accessible Instructional Materials: A Technical Guide for Families and Advocates (2011), The National Center on Accessible Instructional Materials at CAST and PACER Center.

PACER Center
8161 Normandale Blvd.
Minneapolis, MN 55437
Phone: 952.838.9000
pacer.org

National Center on Accessible Instructional Materials at CAST
40 Harvard Mills Square, Suite 3
Wakefield, MA 01880-3233
Phone: 781.245.2212
aim.cast.org

Table of Contents

Background	2
How are decisions made about accessible instructional materials?	3
Does the student need accessible instructional materials?	4
What specialized formats are available, and how are they selected? ...	5
How are accessible instructional materials acquired?.....	6
What supports are needed to effectively use accessible instructional materials?	9
What can families and advocates do to promote the use of accessible instructional materials?	11
Are there additional resources about accessible instructional materials?	11
References.....	12
About PACER Center	13
About the National Center on Accessible Instructional Materials.....	13

Background

Some students with disabilities have difficulty reading and accessing standard print learning materials, such as textbooks and supplementary materials. 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 textbook, may benefit from having an audio or digital version of the textbook. A student with a reading disability may better comprehend information that is displayed on a computer screen while the text is read out loud by a computer voice.

To be successful in school, these students and others like them need learning materials in specialized formats. When the Individuals with Disabilities Education Act (IDEA) was reauthorized in 2004, it included a requirement 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 instructional materials (AIM) to eligible students with disabilities without delay, typically at the same time as other students receive instructional materials.

This booklet was created to help families and advocates learn:

- the process for making decisions about AIM;
- why a student may need AIM;
- what types of specialized formats are available;
- how AIM are acquired;
- what supports are necessary to effectively utilize them; and
- what can be done to promote the use of AIM for students.

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

“Print instructional materials” include printed textbooks and related printed 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 for use by students in a classroom. Such materials often include workbooks and other supplemental materials packaged with the textbook by the publisher.

How are decisions made about accessible instructional materials?

There are four decision-making steps members of an Individualized Education Program (IEP) team should take to ensure that students receive specialized formats if they are needed for educational participation and achievement. The IEP team should:

1. Establish need for instructional materials in specialized formats.
2. Select which type of specialized format(s) are needed by the student.
3. Determine how to acquire needed formats in a timely manner.
4. Consider what supports are needed for effective use of the specialized formats by the student.

Accessible Instructional Materials and the Law

States must adopt the National Instructional Materials Accessibility Standard (NIMAS).

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 format are designed to be easily converted into specialized formats, including braille, large print, audio, and digital text.

States must ensure that students with disabilities who need AIM receive them “in a timely manner.” Each state has the responsibility to define “in a timely manner.” Most have defined it as “the same time as other students,” but many have also included wording such as the local education agency or school district must “take all reasonable steps” to ensure that the AIM are provided at the same time as other students receive their print instructional materials.

States may choose to coordinate with the National Instructional Materials Access Center (NIMAC) as a means to provide specialized formats to qualifying students in a timely manner. IDEA mandated the establishment of the NIMAC. The NIMAC is a national repository for publisher source files of textbooks and related core printed materials that are created according to the NIMAS technical specification. All states have currently chosen to coordinate with 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, or provide assurances that they have already done so, for each specific title purchased. By doing this, the education agencies obligate publishers to submit source materials to the NIMAC, ensuring that all students with print disabilities receive appropriate accessible versions of instructional materials in a timely manner.

Learn more about a specific state’s policies about AIM: aim.cast.org/learn/policy/state.

Does the student **need** accessible instructional materials?

As mentioned earlier, students with a variety of disabilities may need AIM. Students who can understand the textbook content but are unable to read or use standard print materials can 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. First, the IEP team should consider whether the student can read and use the standard print-based materials used by the other students.

- If the answer is “yes,” specialized formats would not be needed at this time and the team should continue with the development of the IEP.
- If the answer is “no,” the team should then determine if the student needs exactly the same content in one or more specialized formats or if the student needs modified content or alternative materials.

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.

Some 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 strenuous 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 may indicate that a student needs the instructional materials in specialized formats. If there are cognitive concerns as well, the student may need modified or alternative materials.

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 print document, but the content is modified (usually made less complex) so that the student can better understand it. Some students may need alternative materials in specialized formats in order to access them.

What specialized formats are available, and how are they *selected*?

If the IEP team determines that a student needs AIM, the next step is to select which specialized format would be most appropriate. The four types of specialized formats are braille, large print, audio, and digital text:

- **Braille** is a tactile system of reading and writing made up of raised dot patterns for letters, numbers, and punctuation marks. This format is used almost exclusively by people with visual impairments. Braille may be either embossed (a permanent printed document) or refreshable (electronically generated and accessed via a braille display device).
- **Large print** is generally defined as print that is larger than the print sizes commonly used by the general population (8 to 12 points in size). One guideline used defines large print as 18 point or larger. 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 speech to which a student listens. Audio formats include recorded human voice or synthesized electronic speech.
- **Digital text** provides electronic content that is delivered on a computer or another device. Electronic content can 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.

Students may require different formats depending on their needs, the instructional material, and the environments in which it will be used. For example, a student may use a digital format at school and an audio format at home, or a large print book for math and digital text for history. The IEP team will select the formats that are needed for each print instructional material that must be made available in an accessible form. In making the decision, the team should consider which format will best enable the student to:

- access information contained in the printed 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.

A student will typically need a trial period with different formats to determine which are most effective and preferred in different environments for various reading tasks.

How are accessible instructional materials **acquired**?

AIM can be acquired from a variety of sources. However, not all students are eligible to receive materials from each of the sources. U.S. copyright laws require individuals to have a certified “print disability” in order to receive specialized formats of copyrighted materials from some sources. However, if an IEP team has determined that a student needs accessible instructional materials in order to receive a free appropriate public education (FAPE), the specialized formats must be provided even if the student does not have a print disability as defined by copyright statute.

AIM can be acquired from five common sources:

- The National Instructional Materials Access Center (NIMAC)
- Accessible Media Producers (AMPs)
- Publishers
- Other Sources
- Locally Created

Following is a summary of each source, the type of materials they provide, and a description of who is eligible to receive materials from them.

The National Instructional Materials Access Center (NIMAC)

The National Instructional Materials Access Center (NIMAC) is the national library of files developed according to the National Instructional Materials Accessibility Standard (NIMAS – see the Accessible Instructional Materials and the Law box on page 3 for more information). To receive specialized formats created with NIMAS source files from the NIMAC, a student must:

What is a print disability?

“Print disability” is used by U.S. copyright law to determine who is eligible to receive specialized formats of print materials 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 resulting from an organic dysfunction.

It should be noted that the copyright statute is interpreted differently by different groups. While this may be somewhat confusing, it is important to understand that all interpretations refer back to the same statute, the 1931 Act to Provide Books to the Adult Blind, as Amended.

Who is a competent authority?

A “competent authority” must certify students as having a print disability. For students who are blind, have a visual impairment, or have physical limitations, the competent authority can be a school official such as a social worker, special educator, school psychologist, or a medical professional. Students with reading disabilities resulting from an organic dysfunction must be certified as having a print disability by a medical doctor.

-
-
- have an IEP. This means the child has undergone an evaluation and is or will be receiving special education services under IDEA. And,
 - be certified by a competent authority as having a “print disability” as defined by copyright statute.

Students eligible for materials created from NIMAS files from the NIMAC will not receive them directly. Instead, authorized users designated by states and registered with the NIMAC access these files for the creation of student-ready materials in braille, large print, audio, or digital text formats. Procedures for acquiring NIMAS files differ from state to state. Questions about the process for a particular state can be directed to the state’s primary NIMAS contact: nimas.cast.org/about/resources/nimas_nimac_contacts.

Accessible Media Producers (AMPs)

Accessible Media Producers (AMPs) are organizations that produce accessible materials in specialized formats such as braille, large print, audio, or digital text. To receive materials from an AMPs’ general collection, students must have a qualifying print disability. To receive materials from the special collection created from files from the NIMAC, the student must also be served under IDEA (have an IEP). Following is a list of commonly accessed AMPs:

American Printing House for the Blind (APH) (aph.org)

American Printing House for the Blind (APH) creates and provides materials in braille, large print, and electronic formats for individuals who are blind or have visual impairments.

Bookshare (bookshare.org)

Bookshare creates and provides files that can be used by students who need materials in digital text or braille formats. It also provides software that can be used to read those files.

Recording for the Blind and Dyslexic (RFB&D) (rfd.org)

RFB&D creates and provides audio books with human narration or synthetic electronic speech. Specially adapted players or software may be required to play the audio books, some of which can be acquired directly from RFB&D.

Publishers

Publishers can provide accessible materials in several ways.

Upon request by a state or local education agency, a publisher may be willing to provide a digital file or grant permission to copy or scan materials that are not available from another source. When publishers provide these files, it is usually with the understanding that use of materials created from the file will be limited to students certified as having a print disability. This is especially helpful when the material is no longer sold and has no NIMAS source file. These materials are called “legacy materials.”

Some publishers also provide digital versions of instructional materials that can be purchased along with or instead of the printed books. This can be very useful if the digital version contains the same information as the printed book rather than supplementary material. Just because a material is in a digital format, however, does not necessarily mean that the material is accessible to all students (for example, perhaps the text cannot be read aloud, highlighted, or otherwise changed).

One of the most promising developments is that publishers are beginning to provide some accessible versions of instructional materials for purchase, typically in digital formats that can be read by a variety of digital readers. An excellent example of a digital textbook that is fully compatible with assistive technologies can be seen in the HTML Books available from Pearson Publishing (pearsonschool.com/htmlbooks).

Why aren't more instructional materials available for purchase in accessible formats?

Some publishers have said that few education agencies are asking for accessible materials for purchase, but that may be because people do not know they exist. To encourage and increase the availability of AIM for purchase, parents and school staff are encouraged to contact publishers to ask for accessible versions of textbooks that can be purchased. This is extremely important because a purchased book in any format can be used by any student, rather than only by students who meet certain qualifications. In addition, if the accessible material is coming directly from the publisher of the printed material, it is likely that both formats will be delivered at the same time.

Other Sources

There are numerous free and commercial sources for accessible materials. Although these sources do not typically include textbooks, they may be good sources of supplementary materials, some of which may be required school reading. Items with expired copyrights and in the public domain are typically available free-of-charge.

Electronic Book Sources

The following is a selection of sources that provide electronic or audio books; some texts are available for free and other books must be purchased.

- Audible.com: audible.com
- Audio Editions: audioeditions.com/
- Blackstone Audiobooks: blackstoneaudio.com/
- LibriVox: www.librivox.org
- Net Library: netlibrary.org
- Online bookstores: amazon.com, barnesandnoble.com, and others
- OverDrive: overdrive.com/
- Project Gutenberg: gutenberg.org

“Open source” instructional materials

Open source materials can be acquired, customized, and used with any student free of charge (or for a very small fee), depending upon the source. The IEP team will need to verify that an open source material is accessible. Organizations such as the CK-12 Foundation (about.ck12.org) would have additional information on this source.

National Library Service for the Blind and Physically Handicapped (NLS) (loc.gov/nls)

This network of libraries across the nation lends audio, braille, and large print books and materials to persons with a qualifying print disability.

Locally Created

Although specialized formats are increasingly available through accessible media producers and commercial sources, the “do-it-yourself” method of creating materials—often by scanning the material or by creating it on a computer and saving it as digital text—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 supports are needed to effectively *use* accessible instructional materials?

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

- technology,
- training,
- instructional strategies,
- support services, and
- accommodations or modifications.

Following is a broad summary of supports that may be needed for a student to effectively use AIM. Further information can be found in the Use section of the AIM Navigator: aim.cast.org/navigator.

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. The information already identified by the team about the specific formats, the 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.

Training

The amount of training required for the student to use AIM 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 screen reader 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 home and school.

Students may also need additional types of training, such as 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.

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 instruction from a qualified teacher of the visually impaired, and a student with a physical disability may need the support of an occupational or physical therapist. Additional supports such as case management, classroom organization and arrangement, equipment management and maintenance, and file acquisition may also be needed.

Accommodations & Modifications

The use of AIM may require accommodations or modifications to a student's educational 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. Some students may need to provide responses orally rather than in writing. The team should consider which accommodations or modifications will be necessary when writing the IEP.

What can families and advocates do to promote the use of accessible instructional materials?

The requirement for providing AIM to students is a relatively new provision in IDEA. Parent advocates can help schools and districts facilitate the use of specialized formats by:

- sharing information about AIM and available supports;
- using a decision-making process during the development of the IEP to determine if students need AIM;
- 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.

AIM can help students with disabilities access the same content as their peers and be successful in school. Because of new provisions in IDEA, specialized formats are more readily available to students who cannot read or use a standard textbook. It is important that parents take part in the decision-making process to:

1. establish need for instructional materials in specialized formats;
2. select which type of specialized format(s) are needed by the student;
3. determine how to acquire needed formats in a timely manner; and
4. consider what supports are needed for effective use of the specialized formats by the student.

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

Are there additional resources about accessible instructional materials?

Accessible Instructional Materials (AIM): Basics for Families: aim.cast.org/learn/aim4families or pacer.org

National Center on Accessible Instructional Materials: aim.cast.org/

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

NIMAS Information from the U.S. Department of Education:
idea.ed.gov/explore/view/p/%2Croot%2Cdynamic%2CTopicalArea%2C10%2C

References

- Center for Applied Special Technology (CAST) and LD Online. (2007). Accessible textbooks: A guide for parents of children with learning disabilities. Retrieved from <http://www.ldonline.org/article/16308>.
- National Center on Accessible Instructional Materials at CAST. (n.d.). Accessible instructional materials and the IEP. Retrieved from http://aim.cast.org/learn/policy/local/accessible_iep.
- National Center on Accessible Instructional Materials at CAST. (2010). The AIM navigator. Retrieved from http://aim.cast.org/experience/decision-making_tools/aim_navigator.
- National Library Service. (n.d.). NLS factsheets: Copyright Law Amendment (1996). Retrieved from <http://www.loc.gov/nls/reference/factsheets/copyright.html>.
- Office of Special Education and Rehabilitative Services (OSERS), U.S. Department of Education. (2006). Topic brief: National Instructional Materials Accessibility Standards (NIMAS). Retrieved from <http://idea.ed.gov/explore/view/p/%2Croot%2Cdynamic%2CTopicalBrief%2C12%2C>.
- Office of Special Education and Rehabilitative Services (OSERS), U.S. Department of Education. (2010). Questions and answers on the National Instructional Materials Accessibility Standards (NIMAS). Retrieved from <http://idea.ed.gov/explore/view/p/,root,dynamic,QaCorner,5,>
- Stahl, S., Zabala, J., Hitchcock, C., & Hendricks, V. (2010). Accessible textbooks in the K–12 Classroom II: Selecting specialized formats. Retrieved from http://aim.cast.org/learn/practice/use/accessible_textbooks_II.
- Zabala, J. (August 10, 2010). Accessible instructional materials: The basics [webinar]. Retrieved from <http://aim.cast.org/experience/training/presentations>.
- Zabala, J. & Carl, D. (2010). What educators and families need to know about accessible instructional materials. Part one: Introduction and legal context. Retrieved from <http://aim.cast.org/sites/aim.cast.org/files/ClosingtheGap1.pdf>.
- Zabala, J. & Carl, D. (2010). What educators and families need to know about accessible instructional materials. Part three: Just in time: AIM support at your fingertips!. Retrieved from <http://aim.cast.org/sites/aim.cast.org/files/ClosingtheGap3.pdf>.
- Zabala, J. & Carl, D. (2010). What educators and families need to know about accessible instructional materials. Part two: Navigating the decision-making process. Retrieved from <http://aim.cast.org/sites/aim.cast.org/files/ClosingtheGap2.pdf>.

About PACER Center | PACER.org

The mission of PACER Center (Parent Advocacy Coalition for Educational Rights) is to expand opportunities and enhance the quality of life of children and young adults with disabilities and their families, based on the concept of parents helping parents.

Founded in 1977, PACER Center was created by parents of children and youth with disabilities to help other parents and families facing similar challenges. Today, PACER Center expands opportunities and enhances the quality of life of children and young adults with disabilities and their families. PACER is staffed primarily by parents of children with disabilities and works in coalition with disability organizations.

With assistance to individual families, workshops, materials for parents and professionals, and leadership in securing a free and appropriate public education for all children, PACER's work affects and encourages families in Minnesota and across the nation.

About the National Center on Accessible Instructional Materials at CAST | aim.cast.org

The AIM Center serves as a resource to stakeholders including state and district-level educators, parents, publishers, conversion houses, accessible media producers, and others interested in learning more about and implementing AIM and NIMAS.

- Knowledge Development: Developing and sustaining a readily available base of information and tools to build the capacity of stakeholders to effectively use the NIMAS and other sources of AIM.
- Technical Assistance and Dissemination: Providing stakeholders with expert technical assistance and customized "just-in-time" consultation on major issues relevant to the timely provision of AIM. An extensive menu of technical assistance resources is available on the aim.cast.org website:
 - Teaching and Training Resources
 - Decision-Making Tools and Resources
 - Technologies for AIM and NIMAS
 - AIM Across the Curriculum
- Leadership and Coordination Activities: Collaborating with OSEP, AIM related OSEP funded projects, technical assistance and dissemination center networks, family centers, and post-secondary AIM providers to build capacity for and raise awareness about the timely provision and use of AIM to improve outcomes for students with print-related disabilities.

Contact your local Parent Center:

