

AEM Quality Indicators with Critical Components for K–12

SEAs and LEAs

V.3.0

By National AEM Center at CAST

Published: 2020

The contents of this document were developed under a cooperative agreement with the US Department of Education, #H327Z190004. However, those contents do not necessarily represent the policy of the US Department of Education and you should not assume endorsement by the Federal Government. Project Officer, Rebecca Sheffield, Ph.D.



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National Center on Accessible Educational Materials (2020). *AEM Quality Indicators with Critical Components for K–12*. Wakefield, MA: National Center on Accessible Educational Materials.

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Preface

The purpose of the National AEM Center’s Quality Indicators with Critical Components for K–12 is to assist State and local education agencies with planning, implementing, and evaluating dynamic, coordinated systems for providing accessible materials and technologies for all students who need them. The ultimate goal of an AEM provision system is that accessibility becomes an essential criterion in the procurement and creation of high-quality educational materials and technologies. To that end, the Quality Indicators with Critical Components are a means to provide States and local school districts with consistent objectives, and to promote discussion around multiple methods to achieve those objectives.

The Quality Indicators are brief statements that point to exemplifying conditions and services for creating and sustaining a statewide, high-quality AEM provision system. States and local school districts will find the Quality Indicators useful for implementing statutory requirements that mandate equitable access to learning opportunities for students with disabilities, including equal access to printed materials, digital materials, and technologies. Beyond meeting legal obligations, users of the Quality Indicators will benefit from collaboration among cross-sector agency leaders and diverse stakeholder groups. Ideally, new partnerships will lead to systemic improvements in the provision and use of high-quality materials and technologies for all learners.

Quality Indicator 1: A Coordinated System

Statement: The State has a coordinated system for the provision of high-quality accessible materials and technologies, and school districts use this system for the benefit of all students who need them.

Intent: Access for students with disabilities is built into the design of high-quality curriculum and assessments, including those that use print material, digital material, and technology. A coordinated system for the provision of such accessible materials and technologies is created and sustained by a State level cross-sector leadership team in collaboration with districts and families.

Critical Components for Quality Indicator 1

To effectively address Quality Indicator 1, the following components should be present:

1.1. Strategic collaborations for creating and sustaining a coordinated system for providing accessible materials and technologies

- Strategic collaborations can be achieved by a State led cross-sector leadership team with members from relevant State and local agencies, departments, and programs. Examples include:
 - [State director and coordinators of special education](#), including [Section 619 Coordinator](#)
 - [Office of Special Education Programs \(OSEP\) State Lead, IDEA Part B](#)
 - [State educational technology/digital learning personnel](#)
 - State instructional materials review personnel (States with review processes are listed on the [K12 Instructional Materials Review Dashboard](#))
 - [State Assistive Technology \(AT\) Program](#)
 - State Instructional Materials Center (IMC)
 - [Educational service agencies](#) or regional/community service centers
 - [State AEM Contact](#)
 - [NIMAC State Coordinator](#)
 - State services for blind and visually impaired children
 - State services for deaf and hard-of-hearing children
 - Representation from local special education administrators
 - Representation from local general and special education teachers and related services personnel (e.g., OT, PT, SLP)
 - Representation from local educational technology and assistive technology (AT) personnel

- Transition coordinators
- Students with disabilities
- Families of students who need accessible materials and technologies, such as through [Parent Training & Information Centers/Community Parent Resource Centers \(PTIs/CPRCs\)](#)

1.2. A means for ensuring that digital materials and technologies purchased or created for use by all career seekers are accessible

- All digital materials and technologies purchased from commercial, open, and free sources comply with [Section 508 of the Rehabilitation Act](#) and the current version of the [Web Content Accessibility Guidelines \(WCAG\) at level AA](#).
- Personnel who create digital materials (e.g., videos, web pages, and slide decks) use the [accessibility practices afforded by common software tools](#), such as web authoring software, Google Suite, Microsoft Office, iWork, and YouTube.

1.3. A means for ensuring that accessible formats of text-based materials (print instructional materials and certain digital instructional materials) are provided for students who need them, with appropriate copyright protection

- Some students with disabilities have difficulty using print and certain digital instructional materials because these formats present physical, sensory, or perceptual barriers for them. Under [criteria set by the National Library Service \(NLS\)](#), eligible students can receive accessible formats of materials under copyright (e.g., braille, large print, digital text, tactile graphics, or audio formats of a textbook). Additionally, the IDEA created the [NIMAC](#), which facilitates acquisition of accessible formats for eligible students who also receive special education services under IDEA. This combination of copyright and special education law results in sources of accessible materials based on eligibility:
 - Accessible formats sourced from files obtained through the NIMAC for students who meet the NLS definition of eligible person and are also served under IDEA
 - Accessible formats acquired from restricted libraries such as [Bookshare](#), [Louis Database](#), and [Learning Ally](#) for students who meet the eligibility requirements of the specific library
 - Accessible formats acquired directly from the publisher/manufacturer for an individual student who meets the NLS definition of eligible person
 - Accessible formats purchased from the publisher/manufacturer for students with and without disabilities

- Accessible formats curated from copyright-free sources, such as open online libraries, for any student

Quality Indicator 2: Provision in a Timely Manner

Statement: High-quality accessible materials and technologies needed for the full participation of students with disabilities are provided in a **timely manner**.

Intent: In general, “timely manner” means students who require accessible materials and technologies receive them at the same time that materials and technologies are distributed to all students. Attention is given to identify and address factors that could delay timely delivery.

Critical Components for Quality Indicator 2

To effectively address Quality Indicator 2, the following components should be present:

2.1. An agency/program definition of timely manner

- [IDEA requires that every State have a definition of timely manner](#). States and local districts coordinate to ensure that timely manner is met.

2.2. Strategic collaborations for timely delivery of accessible materials and technologies

- The cross-sector leadership team described in Critical Component 1.1 is designed to facilitate strategic collaborations for ensuring timely manner. Examples include:
 - State special education leadership personnel communicate the State's definition of timely manner to local districts.
 - Procurement personnel at the State and local level prioritize the purchase of digital materials and technologies that are accessible, and communicate with vendors to ensure understanding of accessibility requirements in the bidding process, contracts, and purchase orders
 - State education personnel collaborate with the [Assistive Technology \(AT\) Program](#) or other service to coordinate resources for training teachers on best practices for creating accessible digital materials used by all students.
 - Local districts coordinate with accessible media producers (AMPs), including [Bookshare](#) and the State Instructional Materials Center (IMC), to ensure timely delivery of accessible formats for students who need them.

2.3. Multiple means for timely delivery

- Examples of actions that can be taken at the State and local level to optimize timely delivery:
 - Procuring the most accessible and high-quality digital materials and technologies that are available for purchase
 - Including timelines for providing accessible formats of core curriculum materials when entering into purchasing agreements with publishers
 - Creating organizational accounts with AMPs, such as Bookshare and [Learning Ally](#)
 - Identifying and correcting delays in timely manner when they happen

Quality Indicator 3: Written Guidelines

Statement: The State develops and implements written guidelines on the provision and use of high-quality accessible materials and technologies and **disseminates these guidelines to all stakeholders**. School districts ensure the guidelines are implemented locally.

Intent: Guidelines, informed by federal, State, and local policy, document the roles and responsibilities for timely provision and use of high-quality accessible materials and technologies. Guidelines are communicated in multiple formats and broadly disseminated to ensure that all responsible parties can understand and apply them.

Critical Components for Quality Indicator 3

To effectively address Quality Indicator 3, the following components should be present:

3.1. Guidelines that specify laws and policies relevant to the provision and use of accessible materials and technologies, including assessment

- Relevant federal laws and policies that can be referenced in State and local guidelines
 - [IDEA](#) as related to the timely provision of accessible materials and technologies
 - [Every Student Succeeds Act \(ESSA\)](#) as related to Universal Design for Learning (UDL) and personalized instruction
 - [Section 504 of the Rehabilitation Act of 1973](#) as related to providing students with disabilities equal access to education with reasonable accommodations and modifications

- [Section 508 of the Rehabilitation Act of 1973](#) as related to federal technology accessibility standards in the procurement of digital materials and technologies
- Relevant State and local guidance and plans
 - [Guidance provided in the State IEP form](#) that includes considerations for Accessible Educational Materials (AEM)/Accessible Instructional Materials (AIM) and/or assistive technology (AT)
 - [State Performance Plan](#) as related to the role of accessible materials and technologies in supporting positive outcomes, such as in facilitating least restrictive environment; preparing students with disabilities for transition to postsecondary settings; and participation in State assessments
 - [State ESSA plan](#)
 - State and local education technology plans as related to creating and sustaining inclusive technology ecosystems that enforce accessibility across teaching, learning, assessment, and infrastructure

3.2. Guidelines for procuring accessible digital materials and technologies for all students

- Inclusion of [accessibility requirements in purchase agreements](#) with curriculum developers and vendors
- Best practices for [evaluating the accessibility of curricula and educational products](#)

3.3. Guidelines for decision-making processes for providing accessible formats of training materials for career seekers who need them

- Education teams, in collaboration with parents and caregivers, follow a series of actions:
 - [Consider a student’s need for accessible formats.](#)
 - [Select the accessible formats needed by the student](#), such as braille, large print, tactile graphics, audio, and digital text.
 - [Identify the sources of those accessible formats](#), including the State Instructional Materials (IMC), [Bookshare](#), [Louis Database](#), and [Learning Ally](#).
 - [Provide the supports needed to use the accessible formats](#), including AT and training for the student, family, and personnel.
 - Protect copyright when providing accessible formats of copyrighted print and digital instructional materials.

3.4. Guidelines that delineate roles and responsibilities at all levels

- Roles and responsibilities should be identified for all areas related to the timely provision and use of accessible materials and technologies. Examples include:
 - In the decision-making process of a student's need for accessible materials and technologies, the responsibilities of each team member, including parents and caregivers and outside service providers.
 - In the acquisition of accessible formats for students who need them, responsibilities of the personnel who will coordinate with accessible media producers such as the State IMC, Bookshare, Luis Database, and Learning Ally.
 - In the training of personnel, families, and students on the use of accessible materials and technologies, the responsibilities of qualified training providers. Guidelines for determining appropriate settings for trainings should also be provided.
 - In procurement of accessible materials and technologies at the State and local levels, responsibilities of the personnel assigned to evaluate materials and technologies for accessibility, communicate with publishers and vendors, and ensure that required accessibility language is included in purchase agreements.
- In addition to providing guidelines, an agency may consider including responsibilities related to the timely provision of accessible materials and technologies within job descriptions.

3.5. Guidelines that are made available in multiple formats and widely disseminated through varied means to reach all stakeholders

- Examples of formats for conveying guidelines:
 - Print
 - Large print
 - Accessible digital text
 - Closed-captioned and audio described video
 - Audio with transcript
 - Braille
- Examples of varied means for disseminating guidelines to personnel, families, and the community:
 - State and district websites
 - State and district education technology plans
 - Reference cards
 - Infographics
 - Pamphlets

- Handouts
- Email

Quality Indicator 4: Learning Opportunities and Technical Assistance

Statement: The State and school districts provide or arrange for **comprehensive learning opportunities and technical assistance (TA)** that address all areas of the provision and use of high-quality accessible materials and technologies.

Intent: Comprehensive learning opportunities and TA are ongoing, draw from multiple sources, and offered in different forms that benefit students and their families, personnel, and the community.

Critical Components for Quality Indicator 4

To effectively address Quality Indicator 4, the following components should be present:

4.1. Content that is targeted at the differentiated roles and responsibilities of all stakeholders

- In identifying content, the needs of all stakeholders are systematically addressed, including but not limited to:
 - Students with disabilities and their families who need to know the process for receiving accessible materials and how to use them with related assistive technology (AT) at school, home, and in the community
 - Curriculum coordinators who need to know how accessibility relates to the selection of high-quality curriculum, instruction, and assessment
 - General and special education teachers who need to collaborate on supporting students with disabilities in using accessible materials and technologies for full participation, independence, and progress in general education
 - Paraprofessionals who need to know how to provide direct support to students who use accessible materials with related AT
 - Related services personnel (e.g., OTs, PTs, SLPs) who need to know how to evaluate and monitor the use of accessible materials and AT by students who need them
 - Transition coordinators who need to ensure that students who use accessible materials and technologies experience continuity of services as they transition to new settings

- Educational technology/digital learning and AT personnel who need to collaborate on ensuring a robust technology infrastructure that supports interoperability with AT
- Procurement/purchasing decision makers who need to know how to communicate accessibility requirements to vendors, both orally and in written contracts and purchase agreements

4.2. Learning opportunities and TA that are designed and delivered using evidence-based practices

- Examples of evidence-based practices include those that
 - Are job-embedded for personnel.
 - Are learning-, home-, and community-embedded for students and their families.
 - Address learner variability, including the accessibility of the training and TA materials (e.g., using the [Universal Design for Learning](#) framework).
 - Build upon State and local initiatives for improving teaching and learning with technology in multiple settings (e.g., in-person, hybrid, or remote).
 - Engage families as essential partners, including ways that individualize supports for families of students who need accessible materials and technologies.
 - Are informed by data collection and use (see Quality Indicators 5 & 6).

4.3. Use of federally-, state-, and locally-funded sources of high-quality content, training, and TA

- Examples of agencies, programs, and centers that offer services related to accessible materials and technologies:
 - State and regional level services
 - [State AT Program](#)
 - Rehabilitation services
 - [Educational service agencies \(ESAs\)](#) or regional/community service centers
 - [Parent Training & Information Centers/Community Parent Resource Centers \(PTIs/CPRCs\)](#)
 - National services
 - [National Center on Accessible Educational Materials for Learning \(AEM Center\)](#)
 - [Center on Inclusive Technology & Education Systems \(CITES\)](#)
 - [Center on Online Learning and Students with Disabilities](#)
 - [Center on Technology and Disability](#)

- [The IRIS Center](#)
- [Bookshare](#)
- [National Instructional Materials Access Center \(NIMAC\)](#)
- [Center for Parent Information & Resources \(CPIR\)](#)

Quality Indicator 5: Data Collection

Statement: The State and school districts use a **secure, systematic data collection process** to monitor and evaluate the equitable, timely provision and use of high-quality accessible materials and technologies.

Intent: While protecting student privacy, data collection processes target all areas of the provision and use of accessible materials and technologies, including the risk of disproportionality in the disabilities and demographics of students being served. Any State quality assurance process that addresses the provision of services and supports for students with disabilities includes data collection activities related to the provision and use of accessible materials and technologies.

Critical Components for Quality Indicator 5

To effectively address Quality Indicator 5, the following components should be present:

5.1. Methods for collecting data on the procurement of accessible digital materials and learning technologies for use by all students

- Ongoing inventory of digital materials and learning technologies that comply with [Section 508 of the Rehabilitation Act](#) and the applicable version of the [Web Content Accessibility Guidelines \(WCAG\) at level AA](#)
- Ongoing inventory of digital materials and learning technologies that do not comply with Section 508 and the applicable version of the Web Content Accessibility Guidelines (WCAG) at level AA
- Ongoing record of communications with vendors regarding product accessibility

5.2. Methods for securely collecting data on the extent to which students who need them receive high-quality accessible formats of materials, including assessments, in a timely manner

- Tracking and recording the timely delivery of accessible materials for students with disabilities who need them
- Inspecting and recording the quality of accessible materials received by those students

5.3. Methods for securely collecting data on the extent to which students who need them effectively use accessible formats of materials

- Observing and recording the use of accessible formats of materials in all settings where they are needed (e.g., classroom, recreation, home, and community)
- Conversing with students who use accessible formats about the quality of their experiences
- Surveying families of students with disabilities who use accessible materials about the quality of their children’s experiences

5.4. Methods for securely collecting data on the proportion of students across disability and demographic categories that are receiving accessible formats of materials, and that an appropriate range of formats are being provided to those students

- Number of students who have [Accessible Educational Materials \(AEM\)/Accessible Instructional Materials \(AIM\) included in the IEP](#) or 504 Plan
- Disability categories of those students
- Demographic categories of those students
- Types (e.g., digital text, audio, large print, braille) and sources (e.g., [Bookshare](#), [Louis Database](#), [Learning Ally](#), State Instructional Materials Center) of accessible formats provided to those students

Quality Indicator 6: Data Use

Statement: The State and school districts have a plan for the **secure use of data to guide changes for continuous improvement** in all areas of the systemic provision and use of high-quality accessible materials and technologies.

Intent: While protecting student privacy, data are systematically analyzed to measure the effectiveness of all areas of the system and are used to inform actions needed to improve practice, program planning, and resource allocation.

Critical Components for Quality Indicator 6

To effectively address Quality Indicator 6, the following components should be present:

6.1. Analysis of procurement data (Critical Component 5.1) to monitor practices for ensuring digital material and technology accessibility in contracts, purchase agreements, and in communications with vendors

- Data are used to increase the proportion and range of market-available accessible digital materials and technologies procured by the State and school districts.

6.2. Analysis of timely manner and quality data (Critical Component 5.2) to monitor the efficiency with which high-quality accessible formats of materials are provided to students who need them

- Data are used to identify and correct delays in timely manner and/or technical issues with the quality of accessible formats provided to students.

6.3. Analysis of student use data (Critical Component 5.3) to monitor the effectiveness with which students who need accessible formats use the materials provided

- Data are used to identify and correct problems that students may experience when using accessible formats of materials, such as environmental issues or lack of training to use the related assistive technology.

6.4. Analysis of demographic and disability category data (Critical Component 5.4) to monitor the representation of students receiving accessible formats of materials, and the ranges of those formats.

- Data are used to prevent disproportionality of students identified as needing accessible formats of materials, and to ensure that an appropriate range of types and sources of accessible formats are being acquired.

6.5. A means for school districts to consider a student's need for accessible materials and technologies when analyzing IDEA Part B data

- Examples of considerations when analyzing IDEA Part B data include:
 - For data indicating that a student is not making expected progress in subject areas, a team considers whether the formats of curriculum materials or the design of educational technologies used for teaching, learning, and assessment are presenting functional barriers, such as physical, sensory, or perceptual.

- For data indicating that a student is experiencing suspension, expulsion, or risk of dropping out, a team considers whether functional barriers to materials and technologies are interfering with efforts to promote Positive Behavioral Interventions and Supports (PBIS).

6.6. A systematic approach that supports effective data analysis and use

- Parts of a systematic approach include:
 - Training for personnel conducting analyses to ensure accuracy and consistency
 - Alignment of analyses with purposes of the quantitative and qualitative data collected
 - Methods that protect the identity of students and their families
 - Timelines for implementation of data driven decisions
 - Identification of targeted audiences with whom aggregated summaries of the data analysis will be shared

6.7. A team consisting of State and local personnel with the combined expertise and authority to synthesize the data, make recommendations, and implement necessary changes For career training programs in post high school settings

- Examples of relevant personnel from both State and local agencies include:
 - Administrators who can convene the appropriate personnel and allocate necessary resources
 - General and special education teachers who can interpret the data on behalf of instructional staff
 - Related services personnel who can interpret the data on behalf of therapists
 - Data managers who can address the alignment and integration of the data with other data collected by the State and districts
 - Multicultural/multilingual personnel who can interpret the data from the perspective of the risks of disproportionality
 - Assistive technology (AT) personnel and educational technology/digital learning personnel who can interpret the data from the perspective of the need for a robust infrastructure for accessibility and the goal of an inclusive technology ecosystem

6.8. Dissemination of aggregated summaries of data analysis results to all stakeholders, in user-friendly formats

- Families, who need to be assured that all measures are being taken for timely delivery of consistently high-quality accessible materials and technologies for their children
- State Instructional Materials Center (IMC), which can use the data to improve its conversion and delivery services
- [State AT Program](#), which can use the data to inform its training, technical assistance, and other services for State agencies and local districts
- All program personnel with roles and responsibilities in the provision and use of accessible materials and technologies for whom the data will inform continuous improvement in practice

Quality Indicator 7: Resource Allocation

Statement: The State and school districts **allocate resources sufficient to ensure the delivery and sustainability of quality services** for students who need high-quality accessible materials and technologies, as well as their families.

Intent: Sufficient fiscal, human, and infrastructure resources are committed to ensure that the needs of students and their families are effectively met.

Critical Components for Quality Indicator 7

To effectively address Quality Indicator 7, the following components should be present:

7.1. Resources that are provided for fiscal, human, and infrastructure needs

- Examples include:
 - Coordinating and braiding of funds as permitted (e.g., IDEA and ESSA funds)
 - Training and technical assistance informed by local district needs (e.g., self-assessments completed by personnel and families)
 - Supporting an inclusive technology infrastructure at the local level (e.g., the purchase and maintenance of digital materials and technologies that are interoperable with assistive technology)

7.2. Resources that are used to address the needs of all stakeholders, including all students being served and their families