

Recommendations for Improving the Provision and Use of Braille for State- Mandated Assessment

By National AEM Center at CAST

Published: December 2022

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.



This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International license. <http://creativecommons.org/licenses/by-sa/4.0/>



National Center on Accessible Educational Materials at CAST (2022).
Recommendations for improving the provision and use of braille for state-mandated assessment. Lynnfield, MA: National Center on Accessible Educational Materials.

Acknowledgements

The AEM Center acknowledges the following experts who served on a workgroup to support our team in the development of the recommendations presented in this report:

- Michael Cantino, BVIS Technology Professional Development Specialist, Northwest Regional Education Service District
- Frances Mary D'Andrea, Program Coordinator, Visual Impairment & Blindness, Department of Teaching, Learning & Leading, University of Pittsburgh
- Kathy Kreplewski, Braille and Accessible Assessment Specialist, Florida Instructional Materials Center for the Visually Impaired
- Nancy Moulton, Program Director, Education Services for Blind and Visually Impaired Children, Catholic Charities of Maine
- Kristin Oien, Specialist for the Blind / Visually Impaired, Minnesota Department of Education
- Katherine Padgett, Accessible Test Editor, American Printing House for the Blind
- Katie Robinson, AEM Production Specialist, AT&AEM Center, OCALI
- Rachel Schultz, AEM Specialist, AT&AEM Center, OCALI
- Adrienne Shoemaker, TVI/APH Scholar, New Hampshire Department of Education

Table of Contents

Acknowledgements	1
Introduction	3
Purpose	3
Process	4
Recommendations	4
For the Provision of Accommodations for Braille Users.....	5
For the Administration of Assessment in Braille Format.....	5
For Test Requirements and Components	5
Next Steps.....	5
Suggested Publications and Resources.....	6

Introduction

The [National Center on Accessible Educational Materials for Learning at CAST](#) (AEM Center) is funded by the Office of Special Education Programs (OSEP), U.S. Department of Education, to increase the availability and use of accessible educational materials (AEM) and related technologies for learners with disabilities who need them. AEM is defined as “print- and technology-based educational materials, including printed and electronic textbooks and related core materials that are designed or enhanced in a way that makes them usable across the widest range of learner variability, regardless of format (e.g., print, digital, graphic, audio, video)” (Footnote 10, Federal Register / Vol. 79, No. 90 / Friday, May 9, 2014 / Notices, page 26728). The provision of AEM is an obligation of state and local education agencies under the Individuals with Disabilities Education Act (IDEA).

Supporting the participation of students who need AEM and related technologies in state-mandated assessment is an extension of the AEM Center’s technical assistance activities. The needs of students who rely on AEM for daily learning transfer to state-mandated and large-scale assessment. As stated by OSEP, “Far too often, [students with disabilities] cannot use their accommodations or assistive technology (AT) on State-mandated tests due to issues with interoperability, privacy, and security concerns. These problems persist even when the AT is an approved device or resource” (Federal Register / Vol. 84, No. 148 / Thursday, August 1, 2019 / Notices, page 37634). Students who require braille to access educational materials are at particular risk for being excluded from full participation in state-mandated assessment.

Purpose

This practice brief outlines a series of recommendations for improving the timely provision and use of high-quality braille – both embossed and electronic – and tactile graphics for state-mandated assessment. The primary target audience for these recommendations is State Education Agency (SEA) assessment leaders and others at the State-and national level who are responsible for ensuring that braille readers are full participants in their state assessment, whether general or alternate. Most desirable is that these recommendations will initiate conversations between and among states, districts, braille service providers, and test developers.

Process

The AEM Center established a workgroup of experts in services for blind and visually impaired (B/VI) students in late summer 2022. The expertise of these individuals extended to the provision and use of braille for state-mandated assessment. The stated purpose of the workgroup was to assist the AEM Center with developing recommendations for supporting States in achieving timely and high-quality braille provision for large-scale assessment.

The AEM Center convened the workgroup in a half-day meeting over video conference. In preparation, the members of the workgroup were given several weeks to contribute what they believed to be the primary challenges related to the provision and use of braille for state assessment. Thoughts and perspectives were collected in a shared online document. Additionally, the group offered shared readings to prepare for the half-day meeting (see Suggested Publications and Resources at the end of this brief).

Before the meeting, the AEM Center team coded and sorted the challenges pre-identified by the experts into the following four general categories, each with areas and sub-areas of concern: Test Components & Requirements; Accommodations; Test Administration; and Procurement. During the meeting, the AEM Center team facilitated multiple breakout group activities to guide deliberation and consensus-building among the experts. In the process, workgroup members collaboratively edited and revised language, refined categories, and provided further considerations for the AEM Center team.

Following the meeting, the AEM Center team reconciled the feedback from the workgroup and developed a series of draft recommendations to address the challenges conveyed by the experts. These recommendations were re-categorized and returned to the workgroup for asynchronous feedback. The AEM Center team then used the comments and suggestions to develop the final list of recommendations, presented in the following section.

Recommendations

The following recommendations are offered for consideration by States, districts, braille service providers, and test developers to improve the provision and use of braille for state-mandated assessment.

For the Provision of Accommodations for Braille Users

- Use and type of accommodations during instruction must be allowable for and available during assessment.
- Use of media, including manipulatives and audio (for input and output), that does not interfere with construct relevance.
- Availability of a separate item bank optimized for braille.
- Availability of technical materials in both UEB with Nemeth and UEB Math/Science via IEP/504 team recommendation.
- Image descriptions provided in both accessible digital text and hard copy braille for all tactile graphics.

For the Administration of Assessments in Braille Format

- Provision of SEA-developed guidance documents for LEAs.
- Provision of practice tests, modified as appropriate for braille users, with equitable number of test items in the same format and using the same media, materials, and supports used during instruction.
- Coordination and consistency among SEAs.

For Test Requirements and Components

- Review of assessment items by a fairness/bias committee with membership criteria, credentials, and procedural requirements.
- Use of MathML for interoperability with a variety of assistive technologies.
- Production of braille and tactile graphics, including quality assurance reviews by certified transcribers.

Next Steps

The AEM Center, in collaboration with members of the workgroup and other experts, is developing a series of resources to support State assessment leaders and other state- and national-level decision makers in understanding the recommendations presented in this brief. These will include Q&A documents, guidance on available best practices, and recommendations for areas of additional investigation.

If you are interested in contributing to these activities, please contact the AEM Center team at aem@cast.org.

Suggested Publications and Resources

- [ACT, Inc: ACT Test Accommodations and English Learner Supports](#)
- [American Printing House for the Blind \(APH\): Accessible Tests Resource Center](#)
- [College Board: Accommodations on College Board Exams](#)
- [GED Testing Service LLC: Accommodations](#)
- National Center on Accessible Educational Materials (2022). *Improving the Accessibility of State-Mandated Assessments: Findings from a Focus Group of State Education Agency Representatives*. Lynnfield, MA: National Center on Accessible Educational Materials. Retrieved from: <https://aem.cast.org/get-started/resources/2022/improving-the-accessibility-of-state-mandated-assessments-findings-from-a-focus-group-of-state-education-agency-representatives>
- [National Center on Educational Outcomes \(NCEO\): State Policies for Students with Disabilities by Topic](#)
- Shyyan, V., Thurlow, M., Christensen, L., Lazarus, S., Paul, J., and Touchette, B. (2016). *CCSSO accessibility manual: How to select, administer, and evaluate use of accessibility supports for instruction and assessment of all students*. Washington, DC: CCSSO. Retrieved from <https://ccsso.org/resource-library/how-select-administer-and-evaluate-use-accessibility-supports-instruction-and>
- [Smarter Balanced: Accessibility](#)