

Equity Through Access: Assistive Technology for Students with Disabilities

Overview

States, districts and schools report ongoing difficulties ensuring students with disabilities have access to assistive technology (AT) needed for education. In particular, barriers to the use of AT during testing and limitations imposed by data privacy and test security requirements are posing substantial barriers to access, engagement, and valid measurement of learning outcomes. This ATIA Policy Brief examines these issues and offers recommendations to combat the problem.

1. Barriers to the use of AT during testing.

Regardless of individual sentiments, the use of large-scale assessment in K-12 education is here to stay for the foreseeable future.

The inclusion of students with disabilities in these assessments has been brought about by past iterations of both the Individuals with Disabilities Education Act (IDEA) and the Elementary and Secondary Education Act (ESEA), currently known as the Every Student Succeeds Act (ESSA). Both federal laws require students with disabilities to be included in state assessments. While the importance of the results of such assessments vary by state, all states include academic achievement on tests as a part of school accountability systems. And, in a move to refocus the implementation of IDEA to one balanced between compliance and results known as Results Driven Accountability, states are now evaluated in part on how students with disabilities perform on state assessments. Both ESSA and IDEA focus on closing achievement gaps between students with disabilities and their non-disabled, same-age peers.

The advent of computer-based assessments has introduced new and complex situations regarding the use of AT in testing. Consortia awarded federal funds to develop next-generation assessments—the Partnership for Assessment of Readiness for College and Careers (PARCC) and the Smarter Balanced Assessment Consortium (SBAC)—introduced revolutionary testing platforms that redefined traditional test accommodations for students with disabilities, as have most state-developed assessments. As reported by the National Center on Educational Outcomes (NCEO), “For students with documented needs, educators are now asked to use technology-based tools, such as a Personal Needs Profile (PNP) or an Individual Student Assessment Accessibility Profile (ISAAP) to indicate the assessment’s accessibility features that should be provided for them.”¹

However, with this innovation have come enormous challenges. In fact, it could be argued that the challenges outweigh the benefits for students with disabilities. The most significant challenges are:

- Policies regarding accommodations were developed without input from individuals knowledgeable about digital accessibility and AT interoperability.
- Assessment developers did not and still do not understand it is impossible to “build in” all the access features needed by students with all types and degrees of disabilities.
- Roles and responsibilities for accommodations were not clarified and frequently did not involve an AT specialist.
- No interface between consortia accommodation policies and IEP teams.
- No empirical evidence that technology supports violate construct validity.
- Universal accessibility requires design features that support both assistive technology and universal design.
- Students must not be forced to discard their routine assistive technology tools in favor of built-in tools that they have never seen or used because test developers prioritize test security over accessibility.

An assistive technology device is defined as “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 functional capabilities of a child with a disability.

Source: Technology Related Assistance to Individuals with Disabilities Act of 1988 (Tech Act)

¹ National Center on Educational Outcomes, Making Accessibility Decisions for ALL Students, Brief 11, June 2015
<https://nceo.info/Resources/publications/OnlinePubs/briefs/brief11/brief11.html>

- Assistive technology cannot be allowed to be banned by claims that access tools invalidate test scores.
- All stakeholders must work together to design tests that collect performance data, with and without tool use, in order to develop the empirical research base which is sorely lacking to inform current test accommodation policies.

NCEO reported on “lessons learned” from the initial administration of new assessments and found three major issues needing attention:

- **Unfamiliarity with Item Types:** Students struggled with some of the item types because they had never experienced unique response formats not commonly found in educational software.
- **Accessibility Challenges:** Some students found it difficult to meaningfully engage with the new assessments because they did not receive needed accessibility features and accommodations thereby invalidating the results.
- **Technical Challenges:** Problems with the testing system, as well as issues with how the testing system interacted with assistive technology (AT) devices, made it difficult for some students to access the test, which prevented meaningful accountability.²

AT suppliers have encountered reports of students being denied use of devices during testing that they routinely use in instruction. There are a number of reasons why this is occurring, including:

- **Lack of interoperability** (the ability of a system or a product to work with other systems or products without special effort on the part of the user). David Diketer, ATIA Executive Director puts it this way: “This creates an additional burden on students who use assistive technology because they are required to change the technology they routinely use.”
- **Concerns regarding data privacy and test security.** In the current testing environment, security appears to trump any other consideration. That is, inaccessible test design is defended by claims that doing otherwise would invalidate the test or jeopardize the security of the test. In fact, security doesn’t take away a student’s right to accommodations.
- **Misunderstanding and misinterpretation of policies**, such as limiting use of text to speech to a certain percentage of students with disabilities or setting requirements such as student must be a non-reader.

The result is that the academic achievement of students with disabilities has been seriously suppressed. For example, according to reports from teachers and administrators, special education students across California spent days toiling over computerized tests that their teachers say often made it more difficult, not easier, for them to access the material. Of the more than 300,000 students with disabilities who took the tests in California, 88 percent did not meet achievement targets in English language arts and 91 percent did not meet targets in math, according to data on the state’s testing website.³ This poor performance is then used as the baseline for setting future expectations for students with disabilities.

2. Barriers to the use of AT during instruction.

Barriers to the use of AT during assessments may lead to more restrictive use of AT during instruction. For example, many administrators and teachers have reported that they have been encouraged to not allow AT use that is not allowed on high-stakes assessments.

It is often assumed that online learning is fully accessible when, in fact, many online learning environments are NOT accessible.⁴

² National Center on Educational Outcomes, Lessons Learned About Assessment from Inclusion of Students with Disabilities in College and Career Ready Assessments, March 2016 <https://nceo.umn.edu/docs/OnlinePubs/LessonsLearnedAboutAssessment.pdf>

³ Special Ed Testing Accommodations Backfire, www.disabilityscoop.com/2016/01/12/special-ed-testing-backfire/21760/

⁴ Center for Online Learning and Students with Disabilities, Equity Matters 2016 <http://centerononlinelearning.org/equity-matters-2016/>; Accessibility Benefits of E-Learning for Students with Disabilities <https://www.disabled-world.com/disability/education/postsecondary/e-learning.php>

Intersect of AT and Universal Design for Learning (UDL)

There is considerable confusion about the difference between implementing UDL principles in a digital environment and developing/using a digital environment that meets accessibility standards. UDL is a framework used to improve and optimize teaching and learning for all students based on scientific insights into how humans learn. UDL principles guide the design of instructional goals, assessments, methods, and materials that can be customized and adjusted to meet individual needs. In a digital environment, these adjustments can be done within the settings of the digital user interface without the use of any additional AT.

Using UDL principles does NOT ensure interoperability with commonly used AT. To ensure a reasonable level of access for individuals using AT, the digital environment must conform to accepted information and communication technology (ICT) access standards, e.g. the Web Content Accessibility Guidelines (WCAG) 2.0. Since no digital interface could possibly provide all of the built-in adjustments needed by all individuals with all types and degrees of disabilities, ensuring conformance to accepted ICT accessibility standards is critical to allow students who rely on AT to equitably access education.

Accommodation policies conflict with stated purpose of UDL. Accommodation policies were developed through surveys of existing state accommodations to identify unanimous agreement in what interventions were allowable. This backwards perspective failed to look forward to understand the unique features of a digital assessment environment. When a test is designed in accordance with principles of universal design, the result is multiple means for accessing, engaging, and responding with test items. In fact, what happened is what Tom Hehir calls ableism, the test developers have determined there is only one way to see an item and only one way to respond to an item.⁵

RECOMMENDATIONS

ATIA Call to Action

At the Federal level:

- Compliance for AT consideration
- Ensure ESSA plans comply with interoperability
- Ensure compliance with U.S. Department of Justice Testing Accommodations Guidance
www.ada.gov/regs2014/testing_accommodations.html

At the District level:

- Identify Actions above that are needed from state officials
- Express concerns/burdens created by policies to state officials
- Increase access to AT on State assessments according to IEP's
- Fully understand the guidelines for providing accommodations for students who use AT
- Monitor fidelity of implementation of AT
- Ensure students are provided AT for all areas of instruction including assessment

At the State level:

- Revise policies to align to above recommendations
- Assure interoperability AT in all of state assessments
- Develop widespread information and resources for local districts to understand accommodations and how to expand use of AT not limit it
- Revise Accommodations Manual and trainings
- Correct statements in trainings that elude to limits
- Create a vision of college and career readiness assuming use of AT and skills
- Compliance for AT consideration
- Interview districts/staff for undue burdens created by policy

⁵ Confronting Ableism <http://www.ascd.org/publications/educational-leadership/feb07/vol64/num05/Confronting-Ableism.aspx>

- Digital instructional materials and assessments must meet accepted ICT access standards and provide interoperability with AT. Simply building in some access features and other adjustments in a digital user interface will not ensure all students with disabilities can equitably access the materials and assessments as is required by both the ADA and Section 504⁶.
- Students who use AT routinely for accessing their education should not be forced to learn completely different and frequently inadequate built-in access features to demonstrate proficiency on high stakes assessments. Unfortunately, building in access features is particularly attractive to digital assessment developers as a way to control for security concerns, which have been prioritized over delivering accessibility. Alternatives, such as proctoring assessments that are not “locked down” for security for students who use AT is one potential solution.
- Accommodation policies should only restrict the use of AT if and when there is sufficient and robust verification that the information “conversion” done by the AT does in fact invalidate the core test construct of a particular test item. Policies should not prohibit the use of AT across broad groups of test items (e.g. all of the English Language Arts items in multiple grade levels) without careful analysis of each item, identification of the actual construct being measuring and documentation of how the conversion done by the AT invalidates that test construct.

⁶ Testing Accommodations Guidance, US Department of Justice https://www.ada.gov/regs2014/testing_accommodations.html

EVERY STUDENT SUCCEEDS ACT (P.L. 114-95)

Pertinent sections of statute and regulations:

(P.L. 114-95, Sec. 1111 (b)(2)(B)(vii)(II))

(B) REQUIREMENTS.—The assessments under subparagraph (A) shall
(vii) provide for—

(II) the appropriate accommodations, such as interoperability with, and ability to use, assistive technology, for children with disabilities (as defined in section 602(3) of the Individuals with Disabilities Education Act (20 U.S.C. 1401(3)), including students with the most significant cognitive disabilities, and students with a disability who are provided accommodations under an Act other than the Individuals with Disabilities Education Act (20 U.S.C. 1400 et seq.), necessary to measure the academic achievement of such children relative to the challenging State academic standards or alternate academic achievement standards described in paragraph (1)(E);

In issuing final Federal ESEA regulations, the U.S. Dept. of Education stated:

“States are responsible for determining which accommodations are appropriate and for administering assessments such that a student who needs and receives such an accommodation is not denied any benefit afforded to students who do not need the accommodation. While it is true that a State is also responsible for ensuring that it administers assessments in a valid and reliable manner, these provisions must work together. The requirement that a State administer a valid and reliable assessment does not relieve the State of any responsibility related to appropriate accommodations. Rather, the State must ensure that any assessment it administers to meet the requirements of title I, part A meets all requirements of this subpart.” (Federal Register Vol. 81, No. 236, Thursday, December 8, 2016 at page 88908)”

34 CFR §200.6 (b) *Appropriate accommodations for students with disabilities.*

(1) A State’s academic assessment system must provide, for each student with a disability under paragraph (a) of this section, the appropriate accommodations, such as interoperability with, and ability to use, assistive technology devices consistent with nationally recognized accessibility standards, that are necessary to measure the academic achievement of the student consistent with paragraph (a)(2) of this section, as determined by—

- (i) For each student under paragraph (a)(1)(i) and (ii) of this section, the student’s IEP team;
- (ii) For each student under paragraph (a)(1)(iii)(A) of this section, the student’s placement team; or
- (iii) For each student under paragraph (a)(1)(iii)(B) of this section, the individual or team designated by the LEA to make these decisions.

(2) A State must— (i)(A) Develop appropriate accommodations for students with disabilities;

(B) Disseminate information and resources to, at a minimum, LEAs, schools, and parents; and

(C) Promote the use of such accommodations to ensure that all students with disabilities are able to participate in academic instruction and assessments consistent with paragraph (a)(2) of this section and with § 200.2(e); and

(ii) Ensure that general and special education teachers, paraprofessionals, teachers of English learners, specialized instructional support personnel, and other appropriate staff receive necessary training to administer assessments and know how to administer assessments, including, as necessary, alternate assessments under paragraphs (c) and (h)(5) of this section, and know how to make use of appropriate accommodations during assessment for all students with disabilities, consistent with section 1111(b)(2)(B)(vii)(III) of the Act.

(3) A State must ensure that the use of appropriate accommodations under this paragraph (b) of this section does not deny a student with a disability—

- (i) The opportunity to participate in the assessment; and
- (ii) Any of the benefits from participation in the assessment that are afforded to students without disabilities.