



Using Multiple Measures of Academic Achievement to Inform Instruction for Students with Disabilities Who Moved from the Alternate Assessment to the General State Assessment

MIDAS Report 101

Using Multiple Measures of Academic Achievement to Inform Instruction for Students with Disabilities Who Moved from the Alternate Assessment to the General State Assessment

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Executive Summary

The 2015 reauthorization of the Elementary and Secondary Education Act (ESEA) as the Every Student Succeeds Act (ESSA) required that no more than 1.0% of students in a state participate in the alternate assessment based on alternate academic achievement standards (AA-AAAS). Since then, states have worked hard to reduce their AA-AAAS participation rates through efforts such as developing and refining guidelines and decision-making tools to assist Individualized Education Program (IEP) teams in making appropriate participation decisions.

As AA-AAAS participation rates decreased, students who had previously taken the AA-AAAS moved to the general state assessment, presenting a new challenge. Some special and general educators were not prepared for the transition. They did not know how to confidently use data to plan and implement instruction for these students. Students who participate in the AA-AAAS learn grade-level content at less breadth, depth, and complexity than their peers who participate in the general assessment. Once students move to the general assessment, they need to learn content at the same level of rigor as other students who participate in the general assessment.

This report presents an overview of two sources of data that can aid in the instructional decision making for students with disabilities who moved from the AA-AAAS to the general assessment: (1) interim assessments and (2) formative assessment practices. Specifically, research regarding the use and applicability of interim assessments and formative assessment practices is shared, along with the results of a scan of commercial interim assessments. The report concludes with six key takeaways:

1. Have high expectations for all students.
2. Use data from multiple data points and from multiple measures.
3. Ensure that interim assessments are used appropriately.
4. Focus on formative assessment practices that are effective for the entire classroom.
5. Integrate the use of the formative learning assessment cycle and universal design.
6. Provide pre-service and professional development on assessment participation and the use of assessment data.

Table of Contents

Executive Summary	iii
Purpose.....	2
Interim Assessments.....	2
Scan of Commercial Interim Assessments.....	3
Process	3
Findings	4
Conclusions.....	4
Formative Assessment Practices.....	5
Formative Assessment Practices Learning Cycle	5
Research on Formative Assessment Practices and Student Learning.....	7
Integrating Formative Assessment Practices into the Instructional Cycle.....	9
Universal Design and Formative Assessment Practices	10
Application to Practice.....	10
References.....	13

In 2015, the reauthorization of the Elementary and Secondary Education Act (ESEA), often referred to as the Every Student Succeeds Act (ESSA), placed new requirements on states about assessment participation. This included a 1.0% cap on participation in a state’s alternate assessment based on alternate academic achievement standards (AA-AAAS). With this new requirement, no more than 1.0% of a state’s total tested population could take the AA-AAAS beginning with the 2017-18 assessment administration. ESSA stated that students who take the AA-AAAS are students with the “most significant cognitive disabilities” (Quanbeck et al., 2023; Thurlow & Lazarus, 2017).

The 1.0% threshold that ESSA placed on states for AA-AAAS participation led states and districts to refine their processes to support assessment participation decision making. For example, many states refined their assessment participation guidelines. Individualized Education Program (IEP) teams then used these refined guidelines when making participation decisions. Some students who previously took the AA-AAAS, or who previously would have been recommended to take the AA-AAAS, are now taking the state general assessment. This is due to IEP teams making more appropriate decisions about which students should participate in the AA-AAAS.

ESSA and the Individuals with Disabilities Education Act (IDEA) require that the instruction of all students is based on grade-level content standards. Students who take the AA-AAAS may learn the content at less breadth, depth, and complexity than other students. However, when students with disabilities take the general assessment, the expectation is that they will learn the content based on the same *grade-level achievement* expectations as all other students who participate in the general assessment (Hinkle et al., 2022; Thurlow et al., 2024). Some teachers struggle with confidently planning classroom assessment and instruction for students who have moved from the AA-AAAS to the general assessment and the increase in achievement expectations.

Using data from multiple measures (e.g., interim assessments, formative assessment practices) that are focused on student learning should be a key aspect of an instructional cycle (What Works Clearinghouse, 2023). Data from multiple sources can help support better instructional decision making for all students, including students who moved from the AA-AAAS to the general assessment. This also helps ensure that instructional decisions build on what students know and can do and that teachers are identifying gaps in knowledge and skills for targeted instruction. According to Wiliam (2011):

[A]ssessment is a, perhaps the, central process in effective instruction. It is only through assessment that we can find out whether a particular sequence of instructional activities has resulted in the intended learning outcomes. (p.3)

Purpose

The purpose of this report is to provide an overview of two types of assessments that can inform instructional decision making for students with disabilities who moved from the AA-AAAS to the general assessment: (1) interim assessments and (2) formative assessment practices. We share research regarding the use and applicability of these assessments. The section on interim assessments also includes a scan of how interim assessment documentation supported the appropriateness and utility of these assessments for students with disabilities. The report concludes with recommendations for how the findings of this review might inform the use of multiple measures to guide instructional decision making for students who moved from the AA-AAAS to the general assessment.

Interim Assessments

Interim assessments are comprised of a broad range of assessment tools “administered during instruction to evaluate students’ knowledge and skills relative to a specific set of academic goals in order to inform policymaker or educator decisions at the classroom, school, or district level” (Perie et al., 2009, p. 6). These assessments sometimes may be referred to by other names, such as progress monitoring assessments or benchmark assessments¹, but they all serve the same purpose of collecting data that can be used to improve classroom instruction and gauge the progression of student learning. Often students are assessed at the beginning, middle, and end of the school year using the same assessment with the intent of providing comparable data points. Academic interim assessments vary in their focus (e.g., math, reading). Districts select specific interim assessments for a variety of reasons and use them to achieve different purposes (e.g., predicting students’ performance on the state assessment, identifying learning gaps for focusing interventions, ensuring progress in learning standard-based curriculum, or a combination of these reasons). Some interim assessments are embedded within an instructional curriculum, such as a supplementary reading or math curriculum. They range from free, online resources to commercial assessments created by vendors, and they can often be customized or adapted to fit the curriculum or needs of an individual classroom (Boyer & Landl, 2021).

Educators who are making decisions about the potential usefulness of data provided by different interim assessments must consider the degree of alignment between interim assessments under consideration and the state content standards. If an interim assessment is not well aligned with a state’s grade-level content standards, then educators will get little information regarding how students are progressing in learning grade-level content (Lazarus et al, 2021). It is also important to consider the appropriateness of these assessments for students with disabilities. For

¹They are also sometimes referred to as “formative assessments” which can lead to confusion with “formative assessment practices;” therefore, the term “formative assessments” is not used in this report.

example, if some students with disabilities are not included in the assessments (e.g., students with sensory disabilities may be excluded because needed accommodations are unavailable), the data may be of limited usefulness.

There sometimes are gaps between the evidence interim assessment vendors provide and their claims (explicit or implied). Boyer and Landl (2021) examined “the manner and degree to which interim assessment documentation supported the appropriateness and utility of these assessments for students with disabilities” (p. 3). Their findings were based on publicly available documentation for 13 commonly used interim assessments produced by eight test vendors. They found several gaps regarding students with disabilities for the reviewed interim assessments:

- Marketing materials generally stated or implied that the intended population for the assessment was all students; however, there generally was a lack of statistical evidence that scores for students with disabilities had the same meaning as scores for other students.
- Documentation was not provided showing that growth measures had the same meaning for students with disabilities.
- Technical documentation for most of the assessments did not provide details about the involvement of experts in students with disabilities in the development process.
- Evidence generally was not provided during the development of the assessments, and during any cognitive laboratory-style studies that were conducted, which could have supported an understanding about whether some components of the test or the presentation procedures were particularly challenging for students with disabilities.

Scan of Commercial Interim Assessments

Process

In Fall, 2023 we updated the Boyer and Landl (2021) study by compiling and analyzing data for some of the commonly used interim assessments. The methods used in this study were modeled after the methods used by Boyer and Landl. The primary sources of information that were reviewed included publicly available technical manuals and reports, test administration manuals, and assessment-specific webpages. Not all sources of information were found for all assessments, but the identified sources were evaluated based on five guiding questions:

1. Are students with disabilities explicitly or implicitly identified as part of the targeted test population?
2. Is there evidence of detailed attention to the principles of universal design and involvement of experts in special education and students with disabilities during test design, development, and standard setting?

3. Are accessibility features and accommodations available to students with disabilities?
4. Is there specific evidence of the alignment between the supported interpretations and the intended uses of results for students with disabilities?
5. Is there evidence of measurement invariance between students with disabilities and students without disabilities? (Boyer & Landl, p. 2)

The websites of ACT, College Board, Curriculum Associates, Fountas and Pinnell, NWEA, Pearson, New Meridian, DRC, Smarter Balanced, the Center on Teaching and Learning (University of Oregon), Cambium, Cognia, ETS, and Renaissance Learning were searched for any available interim assessments. In this search, over 15 assessments were identified in reading, mathematics, science, language, and social emotional learning (SEL) that were marketed as intended for use in instructional decision making. Many of these assessments were part of programs or systems that also included instructional resources that aligned with the assessments or offered suggested interventions or plans for instruction depending on what the assessments revealed. Additionally, several of these vendors and testing companies offered resources to help teachers develop their own assessment measures that could be used formatively to inform instruction, such as item banks to choose from, formative assessment practices and strategies, and software that used artificial intelligence to develop assessment measures based on lesson plans and instruction.

Findings

The findings of this analysis revealed that many assessments identified students with disabilities as part of the targeted test population, provided accessibility features and accommodations, and implemented the principles of universal design in test development. However, fewer assessments provided specific evidence that supported their use with students with disabilities. Alignment between the supported interpretations and the intended uses of results for students with disabilities, as well as measurement invariance between students with and without disabilities, was rarely discussed.

Conclusions

Without evidence that many of these assessments can provide the same information about students with disabilities as they can about students without disabilities, the appropriateness of using these assessments for students with disabilities is often unclear. As such, there is a need to consider the validity of scores for students with disabilities before making claims, either explicit

or implicit, about the validity of the data. Educators should take this into consideration when determining which interim assessments to use in their districts or classrooms.

Formative Assessment Practices

Formative assessment practices are “a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students’ achievement of intended instructional outcomes” (Brookhart & Lazarus, 2017, p. 8). These assessment practices are used to gather evidence to understand the extent that students are learning new content, identify gaps in learning and misunderstandings, see how students apply specific skills in completing their work, and analyze the processes students are using to solve problems. These data are then used to adjust instruction to support student learning (Offerdahl et al., 2018).

Formative Assessment Practices Learning Cycle

Because data from formative assessment practices come in multiple formats, and because frequently there is a continuous flow of formative assessment practices data, having a framework for organizing these data is critical for using the data to impact student learning. As shown in Figure 1, the formative assessment practices learning cycle is based on three straight-forward questions that are useful for guiding teachers and students in collecting and using the data (Brookhart, 2020):

1. **Where am I going?** Teachers identify the grade-level standards-based learning outcomes for a course, unit, or individual lesson. They clearly convey this information to students so

Figure 1: Formative Assessment Learning Cycle



Source: Brookhart (2020). Used with permission.

that they know what they are expected to learn, why it is important, and what the criteria are for demonstrating that they have successfully learned the content.

2. **Where am I now?** It is important not only for the teacher and each student to know the goal of their learning but also to know where they currently are in the learning process. Implementing a continuous cycle of instruction and assessment helps students to understand where they are in their learning related to the desired learning outcomes. It also provides teachers with both whole class and individual student data for planning instruction to meet these goals.
3. **Where to next?** Based on the desired learning outcomes and current data, both teachers and students make decisions about how to support learning that will achieve the outcomes. Teachers continually assess how to adjust and refine their instruction to enhance the learning of the whole class as well as of individual students. They also support students to become self-directed learners who are responsible for their own learning.

As progress is made on the learning goals, new learning goals are developed, and the cycle repeats itself. Teachers use the data from formative assessment practices to help students become aware of their strengths and needs as well as to take ownership of their learning. According to Lazarus et al. (2022), “Teachers and students engage in formative assessment practices not only to help students meet their learning goals but to assist them in becoming self-directed learners” (p. 88).

Formative assessment practices can support the learning of all students, including students who moved from the AA-AAAS to the general assessment. It has the potential to open new pathways for students to successfully access and learn grade-level content. Experts recommend five strategies for supporting teachers in implementing quality formative assessment practices that enhance student learning:

1. Clearly share the learning goals and criteria for student success.
2. Use effective instructional activities, including questioning and discussions, to gain insights and evidence into student learning.
3. Provide feedback that progresses student learning.
4. Support peers to become collaborative learning resources for each other.
5. Support students to own and be active participants in their learning (Black & William, 2009; William 2010).

Formative assessment practices can range from more formal activities that teachers build into their instructional plans to “on-the-spot” practices that are employed when appropriate. For example,

formal formative assessment practices could include the regular use of exit tickets to check for understanding, ungraded quizzes to determine students' current knowledge and areas that need greater instructional emphasis, and scanning how students completed a graphic organizer to ascertain conceptual understanding. More spontaneous formative assessment practices could include teachers listening to how students answer questions and immediately using that data to shape follow-up questions that probe for more information, watching how students solve a math problem to spot procedural errors, or listening to small group discussions for the frequency of academic vocabulary use. All of these provide immediate data for teachers to quickly adjust their instruction to meet student needs and maximize learning.

Research on Formative Assessment Practices and Student Learning

Research supports that using formative assessment practices to guide instruction can improve student learning and help students reach their intended learning goals. Black and Wiliam's (1998) review of the literature found that there is great potential to enhance student learning by using formative assessment practices. Almost forty years ago, Fuchs and Fuchs (1986) completed a meta-analysis on systematic use of formative assessment practices for students with mild disabilities. Their analysis found that formative assessment practices significantly increased the students' achievement. More recently, Gerten et al. (2009) conducted a meta-analysis that examined the impact of instructional approaches to enhance math proficiency, including using formative data, providing feedback to students with learning disabilities, and peer-assisted learning. All the instructional components had a significant impact on student learning except student-to-student feedback, which did not show a significant impact. In a study of 110 students with learning and mild cognitive disabilities (Bottge et al., 2021), a technology-based application with pre-test and post-test assessments and formative prompts was used to teach fractions. The students scored significantly higher on the post-test and retained most of the content they had learned for two weeks afterwards.

Hattie and Timperley (2007) conducted an analysis of meta-analyses and found that formative feedback had a powerful effect size ($d = 0.95$) when integrated with instruction. Quality feedback included confirming to students when their responses are correct and incorrect, guiding them when more information was needed, demonstrating how to gather this information, and indicating alternate ways to understand a particular issue or problem. The impact of this breadth of feedback contrasted with a relatively low effect size for simply providing general praise to a student ($d = 0.14$). Li (2016) found that high quality feedback can reduce the achievement reading gap for African American students while enhancing the outcomes for all students in a class.

Studies on the impact of formative assessment practices for students with more significant disabilities are less prevalent, particularly in general education classrooms. A recent literature review on using curriculum-based measures (CBM) to formatively assess reading skills of

students with mild to moderate intellectual disabilities found that CBMs captured the gradual changes in reading skills over time (Synder & Ayres, 2020).

Andersson and Granberg (2022) examined how five formative assessment practice strategies (i.e., clearly share the learning intentions and criteria for student success; utilize effective instructional strategies to gain insights and evidence into student learning; provide feedback that supports greater learning and moves learning forward; support peers to become collaborative learning resources for each other; support students to own and be active participants in their learning) affected student outcomes in a qualitative study of two teachers who taught students with intellectual disabilities. Based on observations by the researchers and by teacher interviews, they found that the students showed growth in their content knowledge and self-regulated learning skills. They also identified barriers in implementing formative assessment practices with students with intellectual disabilities. These barriers included teachers having low expectations for the students with intellectual disabilities, teachers having a caretaking perspective in contrast to an achievement perspective, and teachers focusing on students' limited experiences and learning difficulties.

Jimenez and Warren (2023) looked at the relationship between formative assessment practices and students' participation in their own learning for three students with extensive support needs (defined as mild to moderate intellectual disabilities and autism) using a single-case design. They found a functional relationship between the interventions based on the findings of formative assessment practices and students' abilities to lead their own learning. To teach and reinforce student learning, the researchers used a fidelity checklist with visuals so the students could reference what they were learning, where they were now, if they were making progress, and where to go next.

Anderson and Ostlund (2017) concluded that some teachers found it challenging to use formative assessment practices with students with extensive support needs as well as with those with complex communication needs. Their study found a tendency for teachers to rely heavily on teacher-directed questions where only some students responded. To effectively use formative assessment practices, teachers need to be able to ask effective questions of all students, including students with disabilities. For example, a student may need a question reworded to be more to the point and concrete to facilitate a response (Ravet, 2012). Asking a student to share in their own words "What did you do during the lesson?" was more effective in scaffolding a response than framing the question as "What did you learn?" Other strategies teachers used to implement the use of data from formative assessment practices included:

- recording student responses (and teacher-student interactions) to make the response more visible

- enhancing listening and observation skills (e.g., identifying and responding to changes in student’s body language)
- allowing wait time for students
- being attentive to how and what students communicated with their peers in order to gather cues and information

Integrating Formative Assessment Practices into the Instructional Cycle

Research shows positive impacts on learning for all students, including those with disabilities who moved from the AA-AAAS to the general assessment, when effective formative assessment practices are implemented at the classroom level as well as adapted for individual students. To be most effective, formative assessment practices need to be integrated in the instructional plan and provide evidence about the whole class as well as evidence about individual student learning (Andersson & Palm, 2017). However, integrating these practices into classroom instruction often requires focused skill development for teachers. In a study that looked at implementation of the five components of formative assessment practices in three large urban districts, Johnson et al. (2019) found that master teachers were effective in questioning, collaboration, and developing learning tasks. The teachers were less effective with sharing the learning goals and criteria for success, providing opportunities for students to self-assess or collaboratively assess with their peers, and individualizing student feedback. The findings indicated the need for both pre-service training and professional development to focus on how to effectively implement formative assessment practices.

Understanding how to adapt formative assessment practices for students with disabilities, particularly those with more extensive support needs, into classroom instruction is important. Ravet (2012) discussed the need for teachers to be knowledgeable about the common characteristics of students with autism so they can interpret the challenges that the students might have with some instructional activities, such as making inferences or engaging in social interactions during work with peers. Knowledge about the common challenges faced by students with disabilities (e.g., difficulties with communication, understanding social environments, inflexibility of thought) helps teachers to reframe a student’s responses from being based on the expectations for peers without disabilities to consideration of strategies for removing barriers to learning. Ravet offers a menu of adaptations for inclusive classroom formative assessment practices for students with autism. For example, when sharing the learning goal and criteria for success, teachers should keep it simple and straightforward, and understand that some learners will need individual copies of the criteria to reference. There also is a need to frequently share the criteria for successfully completing a learning outcome both to the whole class and individually with students. The key

is understanding students' strengths and needs, and then reframing needs as barriers in the environment that can be reduced or eliminated to increase access and learning (TIES Center, 2020).

Data gathered using formative assessment practices can also provide important information for collaborative instructional teams. It can be used when planning instruction that is supported by all members of the team, including general educators, special educators, and others (e.g., English learner specialists). Joint professional development on effective use of formative assessment practices that are integrated with general education instruction builds a common knowledge base for the whole team. It enables team members to know where students are being successful, where they are struggling, what the learning barriers are, and what adaptations are needed (Lazarus et al., 2022). This foundational knowledge helps with determining not only how to design instruction to support student learning but also informs teams about what content and skill development they can collaborate on to meet the instructional needs of the whole class, small groups of students, and individual students.

Universal Design and Formative Assessment Practices

Formative assessment practices should incorporate the principles of universal design (UD) (CAST Professional Learning, 2015). Integrating formative assessment practices with UD frameworks provides the opportunity to meaningfully expand their usage for all learners in a class, including those who previously took the AA-AAAS.

UD is a framework built on the assumption that every classroom is composed of students with diverse backgrounds and learning needs. It includes both universal design for learning (UDL) and universal design for assessment (UDA). A primary goal of UD is to improve access for all students. When it underlies instruction and assessment (including the use of formative assessment practices), it supports accessibility. To address different learning needs, instruction should have:

- **multiple means of representation** to teach concepts and increase understanding
- **multiple means of engagement** to capture the students' attention, enhance self-direction, and increase motivation
- **multiple means of expression** so students can show what they know (CAST, 2018)

Application to Practice

This report considered the research and practices related to the use of data from interim assessments and formative assessment practices. It explored how they might be applied to increase access to the general education curriculum for students with disabilities who moved from the

AA-AAAS to the general assessment. When applying this content to practice, several key takeaways emerged:

- 1. Have high expectations for all students.** Historically, some educators have not held high expectations for some students. It is important to challenge educators' beliefs and assumptions about the learning capacity of students who moved from the AA-AAAS to the general assessment and to raise expectations by sharing data, case stories, and research findings. One way to do this is to reframe students' learning challenges from needs or deficits within an individual student to barriers within the learning environment that can be eliminated or diminished.
- 2. Use data from multiple data points and from multiple measures.** A single assessment data point does not provide adequate data to track student learning. Data from different types of measures provides richer data for instructional decision making. For example, data from interim assessments can be paired with data acquired through the use of formative assessment practices to validate what is known about individual students so instructional adaptations are appropriate and meaningful. To effectively use both interim assessment and formative assessment practices data, it is important for educators to learn how to not only identify areas for re-teaching for specific students but also how to consider ways to teach concepts differently to better engage students.
- 3. Ensure that interim assessments are used appropriately.** It is important to consider the appropriateness of various commercial interim assessments for students with disabilities, as well as their advantages (e.g., easy to use) and limitations (e.g., may not be aligned to state standards, accessibility issues, lack of documentation that the assessment provides valid measurement for students with disabilities, etc.) when determining their use in assessment for learning.
- 4. Focus on formative assessment practices that are effective for the entire classroom.** It is important to think practically about how to implement formative assessment practices for students with disabilities in general education classrooms. To do this, educators need to learn how to focus on formative assessment practices that are effective for the whole general education class and consider, if needed, how they can be adapted for some students before assuming unique assessment accommodations are needed.
- 5. Integrate the use of the formative learning assessment cycle and UD.** Formative assessment practices are based on an iterative learning cycle that includes three questions (Where am I going? Where am I now? Where to next?) that guide decision making. Five strategies that support teachers in implementing formative assessment practices that enhance student learning are:

- Clearly share the learning goals and criteria for student success
- Use effective instructional activities, including questioning and discussions, to gain insight and evidence into student learning
- Provide feedback that progresses student learning
- Support peers to become collaborative learning resources for each other
- Support students to own and be active participants in their learning (Black & Wiliam, 2009; Wiliam 2010)

Using the principles of UD to meaningfully expand the usage of formative assessment practices to support the learning of all students, including those who shifted from the AA-AAAS to the general assessment, can lead to instruction and assessments that are more accessible.

- 6. Provide pre-service training and in-service professional development on assessment participation and the use of assessment data.** During pre-service training and in-service professional development learning, it is important for all instructional team members to learn how to use the data effectively to inform instructional decision making. It is also important to stress that all students with disabilities, including those who moved from the AA-AAAS to the general assessment, participate in all assessments.

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