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K12 SPOTLIGHT

Gearing Up for Assessments

Integrating the Right Technology for Student Success

Student assessments are one of the many tools used to measure the effectiveness of learning methodologies and to gain an understanding of students' progress and how best to support them.

They serve several purposes and largely fall into three categories:

Diagnostic

Formative

Summative

This eBook provides guidance on how technology can augment ways of assessing student learning and mastery and how the right technology setups can support improved performance during assessments.

"Using the right classroom technology allows students to stay focused, comfortable, and confident during assessments, which can have a big impact on performance and help them meet their full potential."

—JASON SCHMIDT, DIRECTOR OF TECHNOLOGY AT OSHKOSH AREA SCHOOL DISTRICT

The information provided also applies to students who may be learning in alternative environments other than a classroom setting. In all cases, **assessments are meant to be unbiased indicators** of a student's academic abilities. Though there are biases that can impact any type of assessment, one of the major biases to address is cognitive fatigue.

What is Cognitive Fatigue?

Cognitive fatigue is an increasingly common phenomenon where brain overstimulation results in lower performance, motivation, and information processing, especially in students.[1] Some studies point to the particularly challenging impact of cognitive fatigue on younger students in elementary and junior high school—from slowing motor skills to decreases in attention.[2]

Many teachers and schools opt to assess students at the beginning of the day to ensure this bias does not impact performance. There are many more factors that schools and educators can consider to reduce the risk of cognitive fatigue in students.

Students' working memory is not fully developed until age 19.[3]

Audio Distractions

Keeping a classroom quiet can be difficult, especially when students finish tests at different times.

TIP

Creating separate areas in the classroom for students to take tests can help create quiet spaces. On-ear or over-the-ear headsets can remove distractions in the background, even if they are optional for the actual assessment.

Students using Logitech headsets saw a

350%

increase in performance with English learning apps.[4]

Visual Overload

Staring at information on a screen for long periods of time can be extremely taxing on the brain. Reducing proximity to the screen can lower eye strain and enable more comfortable sitting postures.

TIP

Consider creating assessment stations with external keyboards and mice and/or enabling students to choose support devices like these for their assessment.

85%

of educators say that hardware accessories make devices more functional and easier to use.[5]

Lack of Physical Movement

While seemingly contradictory, sitting in one position for a test can increase fatigue and challenge student performance. Enabling the use of mobile devices like tablets and flexible seating allow students to choose more comfortable positions throughout their assessment.

TIP

When using iPad devices, attached keyboards will ensure the devices are equitable and fully equipped to handle any type of assessment.

Focus on Focus

Reducing the amount of other information that a student needs to process will help them focus on the assessment at hand.

Diagnostic Assessments

Many schools have permanently adopted hybrid learning models. Districts are eager to understand the impact of this shift and identify gaps that may need to be filled. Common digital diagnostic assessments include iReady, NWEA, and Renaissance Star. Because these tests are designed to classify student needs, they require a high degree of reliability, validity, and fairness. Addressing cognitive fatigue is especially important so that students' results can be accurately interpreted. These three tests allow the use of external mice and keyboards and either recommend or highly recommend headsets, especially for early learners.

Diagnostic Assessment Tools from Logitech:

RUGGED COMBO KEYBOARD CASE FOR IPAD
(trackpad option available)

LOGITECH ZONE LEARN WIRED HEADSET

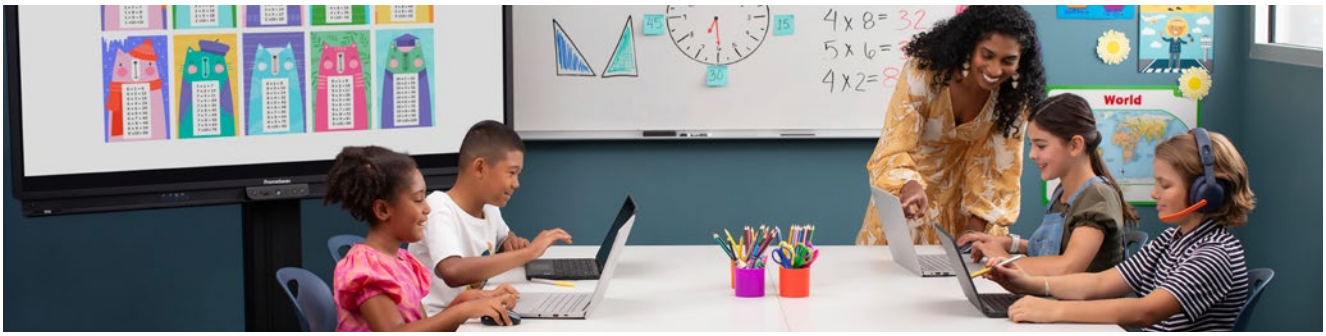
MK120 CORDED KEYBOARD AND MOUSE COMBO

Over **70%** of state testing agencies in the U.S. highly recommend or require external keyboards for assessments on iPad devices.[6]

Formative Assessments

Formative assessments are an educator's best friend. When done consistently and with the right focus, they provide a quick way to get regular feedback to both the student and educator. This is an area where educators can be more creative in assessing student learning and apply real-world processes in the classroom. Multiple choice tests do not exist in the real world. People have to formulate their thoughts and write, orally present, or show their understanding. Formative assessments can bring that real-world practice into the classroom.

A critical factor in formative assessment success is ensuring that students own the process and tracking. Allowing multiple options for students to show learning can increase student ownership in the process and make assessments more accessible and inclusive. When students own the process, they are more reflective and engaged in the content.[7] In digital learning and content creation, a best practice is to limit recording or screencasting time to 2 minutes or less. This will ensure students focus on showing their learning from the most recent lesson and objective.



1. Embed checks for understanding within the lesson.

Instead of waiting until the end of class or week to assess learning, there are a multitude of digital tools to integrate checks during instruction. Nearpod, an interactive presentation builder, or Edpuzzle, a video-based lesson tool, lets you embed questions within your lesson. Students can use their tablets or notebooks to type or write in their answers.

2. Enable screencasts so that students can record what they are doing on the computer.

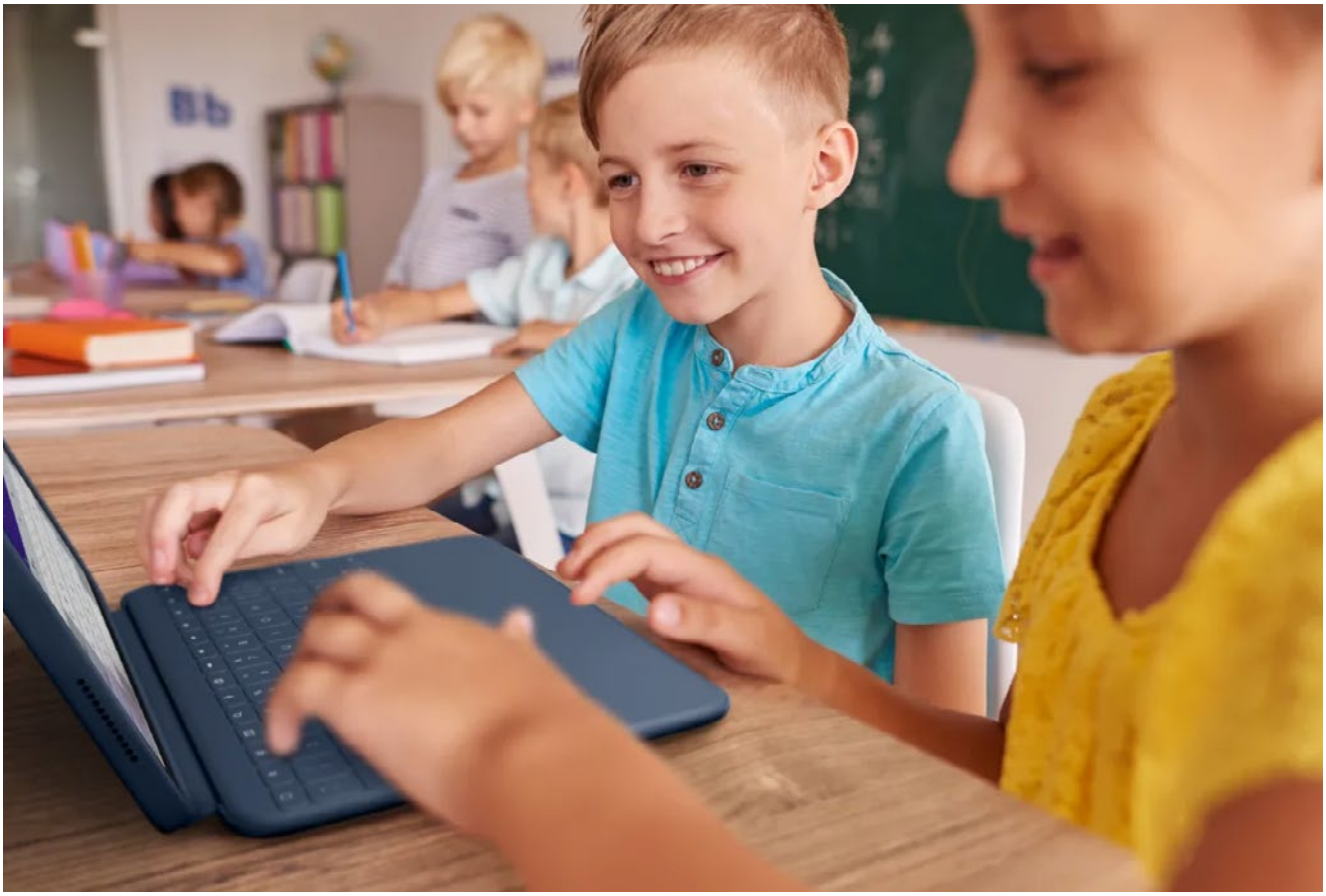
Explain Everything is a unique tool where students can record working on their device while also narrating their thinking. Using an iPad or Chromebook with a digital writing tool lets students become the teacher and walk through their thought processes step-by-step. Using external mics or a headset can ensure students are heard clearly and can focus on their explanation.

3. Use video and audio to enable students to explain their thinking.

Animoto or Audio Note are tools that can be used to let students create rich videos & audio recordings of their thinking. Students build skills that extend beyond showing their understanding, they learn to create concise oral presentations—focusing on what is important and leaving out what is not. One teacher set up a small studio and used Flipgrid to let students record 20-second responses to key prompts instead of written quizzes.

4. Give students digital tablets and writing tools to draw their analysis.

Drawing assessments are a great way to assess mastery without penalizing students who may struggle with writing or oral communication. Students can use shapes and colors to represent relationships between different concepts. A stylus can help students draw smoothly to capture their best work and give a true indication of their abilities.



Gone are the days of manila folders with half-bent papers that students lug home. Today, **digital tools can help students organize a portfolio of work** and track their progress in real-time. Seesaw, Project Foundry, and even Google Drive can help students manage and organize their content. Digital portfolios also help them reflect on their performance and assess where they need additional support.

Formative Assessment Tools from Logitech:

RUGGED COMBO KEYBOARD CASE FOR IPAD
(trackpad option available)

LOGITECH CRAYON STYLUS FOR IPAD

LOGITECH ZONE LEARN WIRED HEADSET

C270 HD WEBCAM

BLUE SNOWBALL ICE MIC

Summative Assessments

Educators conduct summative assessments at the end of lesson units to provide evidence that a student has met the learning objective. For educators, summative assessments at the end of units can be a rich opportunity for creativity and critical thinking.

Consider incorporating project-based assessments. These assessments enable students to showcase their mastery through creation. Students have an opportunity to apply their learning and conduct in-depth exploration. Not to mention, this type of assessment has higher student motivation than typical tests.[8] Whether using a podcast project, video, or other creative exercise, ensure students are equipped with tools to record or document their project for future reflection. When creating rubrics for summative assessments, include elements to ensure students are actively engaging in the technology—including gaining familiarity with settings and features.

State summative assessments are typically performed in the spring to assess students by grade and content area. First, let's review the requirements for test day. If the classroom or school has iPad devices, they can be used for state assessments. iPad devices will require external keyboards that are either integrated into the case or are wired. Chromebooks and PCs can often be used with wired external keyboards and mice. It is recommended that students are informed not to use any shortcut buttons.

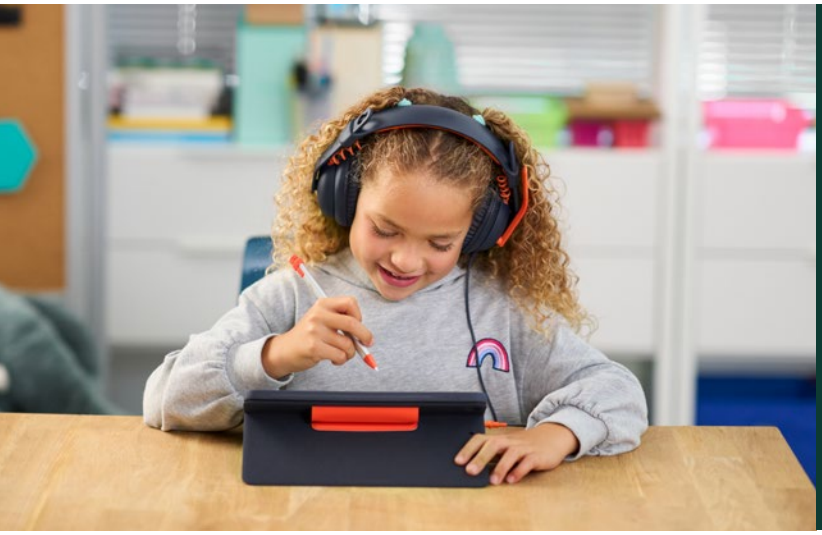
94%

of students felt very focused while using a learning app with Logitech Zone Learn wired headsets, compared to

18%

with earbuds.

Headphones or headsets are required for the audio portions of English Language Arts and Literacy portions of assessments. In many assessments, it is highly recommended that students record their verbal answers and use a headset with a mic to prevent recording external noise. Outside of this requirement, headsets also help focus students by removing external distractions. In one study, 94% of students felt very focused while using a learning app with Logitech Zone Learn wired headsets, compared to 18% with earbuds.[9] For students who require accommodations, speech-to-text features of assessments also require headphones/headsets.



"I saw an improvement in their performance with IXL, iReady, and Splash Learn. The students were motivated and focused while using Zone Learn."

—3RD GRADE TEACHER, PANAMA CENTRAL SCHOOL

Summative Assessment Tools from Logitech:

RUGGED COMBO KEYBOARD CASE FOR IPAD

(trackpad option available)

LOGITECH ZONE LEARN WIRED HEADSET

MK120 CORDED KEYBOARD AND MOUSE COMBO

B100 OPTICAL MOUSE

Project-based Assessments Tools from Logitech:

C270 HD WEBCAM

BLUE SNOWBALL ICE MIC

Testing Agency Tech Recommendations for the 2024-2025 School Year

State	Testing Agency	Headset	External Keyboard	External Mouse	Wired Mouse
Alabama	DRC	Required	Highly Recommended	N/A	N/A
Alaska	DRC	Required	Highly Recommended	N/A	N/A
Arizona	American Institutes for Research (AIR)	Recommended	Highly Recommended	N/A	N/A
Arkansas	Cambium	Required	Highly Recommended	Required	Required
California	Smarter Balanced	Required	Required	Recommended	Recommended
Colorado	Pearson	Required	Recommended	Recommended	Recommended
Connecticut	Smarter Balanced	Required	Required	Recommended	Recommended
Delaware	Smarter Balanced	Required	Required	Recommended	Recommended
Florida	Cambium	Required	Highly Recommended	Required	Required
Georgia	DRC	Required	Highly Recommended	N/A	N/A
Hawaii	Smarter Balanced	Required	Required	Recommended	Recommended
Idaho	Smarter Balanced	Required	Required	Recommended	Recommended
Illinois	Pearson	Required	Recommended	Recommended	Recommended
Indiana	Cambium	Required	Highly Recommended	Required	Required
Iowa	Pearson	Required	Recommended	Recommended	Recommended
Kansas	University of Kansas' Achievement and Assessment Institute (AAI)	N/A	N/A	N/A	N/A
Kentucky	Pearson	Required	Recommended	Recommended	Recommended
Louisiana	DRC	Required	Highly Recommended	N/A	N/A
Maine	NWEA	Required	Recommended	Highly Recommended	Highly Recommended

State	Testing Agency	Headset	External Keyboard	External Mouse	Wired Mouse
Maryland	Pearson	Required	Recommended	Recommended	Recommended
Massachusetts	Pearson	Required	Recommended	Recommended	Recommended
Michigan	DRC	Required	Highly Recommended	N/A	N/A
Minnesota	Pearson	Required	Recommended	Recommended	Recommended
Mississippi	DRC	Required	Highly Recommended	N/A	N/A
Missouri	DRC	Required	Highly Recommended	N/A	N/A
Montana	Smarter Balanced	Required	Required	Recommended	Recommended
Nebraska	NWEA	Required	Recommended	Highly Recommended	Highly Recommended
Nevada	Smarter Balanced	Required	Required	Recommended	Recommended
New Hampshire	Cambium	Required	Highly Recommended	Required	Required
New Jersey	Pearson	Required	Recommended	Recommended	Recommended
New Mexico	Cognia	Recommended	Required	N/A	N/A
New York	NWEA	Required	Recommended	Highly Recommended	Highly Recommended
North Carolina	DRC	Required	Highly Recommended	N/A	N/A
North Dakota	Cambium	Required	Highly Recommended	Required	Required
Ohio	DRC	Required	Highly Recommended	N/A	N/A
Oklahoma	Cognia	Recommended	Required	N/A	N/A
Oregon	Smarter Balanced	Required	Required	Recommended	Recommended
Pennsylvania	DRC	Required	Highly Recommended	N/A	N/A
Rhode Island	Pearson	Required	Recommended	Recommended	Recommended
South Carolina	Pearson	Required	Recommended	Recommended	Recommended
South Dakota	Smarter Balanced	Required	Required	Recommended	Recommended

State	Testing Agency	Headset	External Keyboard	External Mouse	Wired Mouse
Tennessee	Pearson	Required	Recommended	Recommended	Recommended
Texas	STAAR	Not Required	Not Required	Not Required	Not Required
Utah	American Institutes for Research (AIR)	Recommended	Highly Recommended	N/A	N/A
Vermont	American Institutes for Research (AIR)	Recommended	Highly Recommended	N/A	N/A
Virginia	Pearson	Required	Recommended	Recommended	Recommended
Washington	Smarter Balanced	Required	Required	Recommended	Recommended
West Virginia	Cambium	Required	Highly Recommended	Required	Required
Wisconsin	DRC	Required	Highly Recommended	N/A	N/A
Wyoming	American Institutes for Research (AIR)	Recommended	Highly Recommended	N/A	N/A

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[9] Logitech and Epic study conducted across 8 weeks with 50 students. (2024).