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# ENHANCING LEARNING THROUGH TECHNOLOGY

How students and teachers can benefit from using the right classroom tools



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## CLASSROOM TECHNOLOGY IS CHANGING

There's no getting away from the fact that technology is helping to enhance classroom-based learning. Whether tablets, laptops, digital pencils, podcast creation, or video-based solutions, current and future generations of students now expect modern tools in addition to or instead of traditional workbooks and writing materials.

However, it's the strategic implementation and application of that technology that matters. Some solutions introduce barriers to learning, and each student has their own preferences when it comes to the tools they use. For this reason, it's important that educators understand both the positive and negative impacts technology can have and tailor it to produce the best learning outcomes. This includes teachers making use of technology to drive engagement and help students develop new skills and absorb more information.

This eBook covers the challenges and opportunities classroom technology affords and provides insights and ideas to enable students to achieve more and teachers to do more with digital tools.

# IMPROVE STUDENT FOCUS AND STAMINA WITH TECHNOLOGY

## Ensure better comfort and control

With more laptops and mobile devices in the classroom, ensuring students can work and learn at their best is crucial.

Young students whose motor skills are still developing are often less effective using a computer or laptop with a trackpad<sup>1</sup> and find them less comfortable.

**In fact, 60% of children between 10 and 17 report discomfort during laptop use without companion tools like an external keyboard and mouse<sup>2</sup>.**

This is particularly concerning given the critical skeletal growth period they are in and can also distract students from the task at hand. Removing these distractions with a comfortable mouse and keyboard will enable children to work more precisely and keep their focus on learning.



### CLASSROOM TECH TIPS

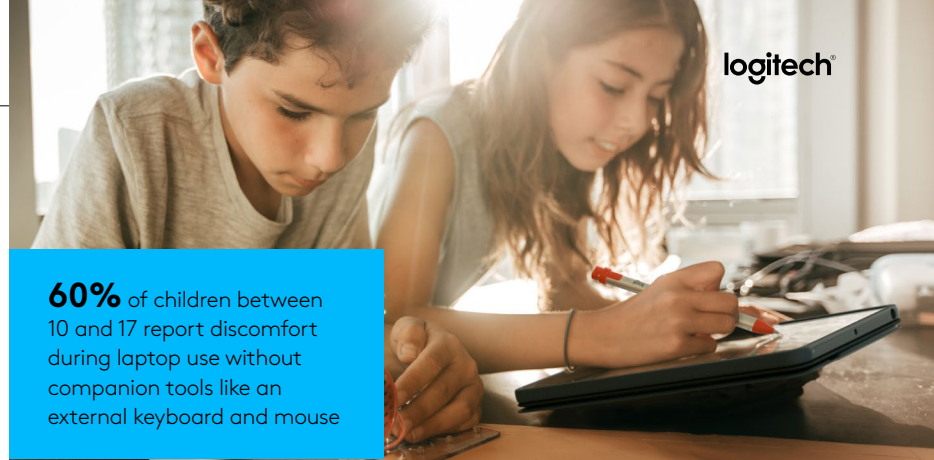
- Provide mice as an alternative to trackpads to enhance precision and comfort for young students.
- Understand the media students prefer and tailor lessons to make use of video and other popular formats.
- Enable students to enjoy a natural writing experience in a digital format as well as absorb and analyze information better by using digital pencils with iPads

## Enhance comprehension with video-based learning

The average teen has an attention span of 28 seconds.

Therefore, educators must do all they can to engage with students and ensure they absorb as much information as possible. With mobile devices and social media pushing students to crave constant stimuli, educational tools must provide familiar, absorbing experiences to compete.

A Pearson study<sup>3</sup> found that Gen Z students are able to focus when they receive information through a preferred format, making video an ideal way for teachers to capture their students' attention<sup>4</sup>.



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## Accelerate learning through writing instead of typing

**Studies suggest that typing notes on a laptop negatively affect the performance of students by comparison to those using a writing utensil<sup>5</sup>.**

Handwriting, therefore, helps students better understand learning material, helping them integrate and apply their learning more effectively than taking notes on a laptop.

Using a pen, pencil, or, increasingly more often, a digital pencil and iPad, students' brains better listen, process and summarize information which results in better understanding and content retention<sup>5</sup>.

# ENABLE CREATIVITY AND STUDENT CHOICE IN THE CLASSROOM

## Enjoy the benefits of a digital classroom

The use of digital tools, such as tablets, can help students develop their creativity in a variety of ways.

**Through the creation of digital multimedia records and the use of electronic whiteboards, children are able to reflect on their evolving work<sup>6</sup>.**

By using input tools such as digital crayons and magic paint brushes, children can produce more sophisticated work than they normally could through traditional painting and drawing<sup>7</sup>.

Technology can also be transformative in helping students amplify their voices. The use of technology in learning can bring students from different backgrounds together to achieve a similar knowledge base on any topic in the course curriculum<sup>8</sup>.



### CLASSROOM TECH TIPS

- Use digital tools to record work so students can reflect on their progress.
- Enable students to express themselves through video and demonstrate their understanding of topics.
- Integrate podcasting into learning to help students better understand topics and ask them to create their own to promote collaboration.

## Drive motivation and personalized learning with video

Students find instructional videos of their teachers delivering course content to be more engaging and easier to relate to, which can benefit learning outcomes<sup>9</sup>, enhancing personalized learning for students.

As technology has developed, on-demand learning has been enhanced through video-based content. As a result of being able to access video content anywhere at any time, students can learn at a pace that suits their learning style<sup>10</sup>.

With a growing number of young students using video to communicate and express themselves<sup>11</sup>, the act of creating videos can help students use technology as a medium to demonstrate their understanding and knowledge of a specific topic<sup>12</sup>.



Students find instructional videos of their teachers delivering course content to be more engaging and easier to relate to.



## Use podcasting to promote peer-to-peer collaboration

Podcasting promotes collaboration in the classroom, helping to motivate students in meaningful ways. It enables students to experience a blended approach to learning that's more impactful when supplemented with other course materials.

**Creating podcasts can help students learn from and analyze other students' podcasts which creates a sense of collaboration<sup>13</sup>.**

They're also a great medium for providing access to specific study material that students may have missed out on or did not understand clearly<sup>14</sup>.

# EMPOWER TEACHERS TO BE GREAT DIGITAL CONTENT CREATORS

## Amplify teaching with digital tools

Teachers see great value in using digital tools for learning today and in the future, with a Gallup<sup>15</sup> study indicating that 81% were of this opinion.

76% of Principals and 80% of K-12 school administrators strongly agree or agree that equipping teachers with digital learning tools increases teaching effectiveness, and 77% of teachers surveyed believe that digital tools help personalize learning for their students.

Digital tools like webcams and microphones enable them to reach students in creative new ways, be it through podcasts, videos or presentations that are easily digested in class or as part of independent learning.

### CLASSROOM TECH TIPS

- Learn new technologies and implement more digital learning tools to enhance the impact of classroom teaching and better engage students.
- Use digital tools to personalize learning for individual classes and students.
- Use podcasting as part of the feedback process to help students develop critical thinking skills.





## Improve accuracy and develop critical thinking with podcasts

Creating podcasts for classes enables teachers to help students improve accuracy and develop critical thinking skills, with podcasts enabling teachers to help students understand the importance of accuracy and checking their work prior to submission.

In a study conducted by David and McGrail, a teacher recorded a podcast of a student's writing work. Students reflected on the reading and analyze where their audience might be confused.

The podcast was then linked to a written blog for other students to analyze. Through this process, the teacher helped students develop self-monitoring habits but also critical thinking skills to analyze their own written work<sup>16</sup>.

**81%** of teachers see great value in using digital tools for learning.



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