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# Choosing Classroom Technology

## 7 Key Factors to Consider



The educational technology marketplace is quite extensive, and there are now literally hundreds of instructional apps and software programs for educators to choose from. In fact, according to one report, the average U.S. student used nearly 150 different classroom technology tools during the 2021-22 school year alone.<sup>1</sup>

With so many choices available, selecting appropriate classroom technology can seem like a daunting task. But it doesn't have to be. With the right process in place for evaluating instructional technology, K-12 teachers and curriculum directors can choose the most suitable tools for their classrooms with minimal effort.

Here are seven important factors to consider when evaluating technology for the classroom.



## 1. Alignment with learning goals

First and foremost, any technology you choose must directly support the instructional goals you're looking to accomplish.

This means the technology must be relevant to what you're teaching. It should help students learn specific content and/or skills. It must be pedagogically sound. The content must be accurate, reliable, and aligned with state and national learning standards.

## 2. Capacity for use

The technology must be intuitive and easy to implement. It must be age-appropriate for the students who will be using it. If the technology isn't simple to use, then it isn't likely to be utilized.

Beyond that, you should make sure you have the IT infrastructure and other conditions needed to support the technology effectively in your classroom. For instance, the technology must be compatible with classroom computers. Consider whether you have the proper cabling and/or connectivity to use it, as well as sufficient electrical capacity.

## 3. Budget

Think about the cost of the technology and whether you can afford it. Not just the initial purchase price, but the cost of implementing it and owning it over time. Even if you use grant funding to help with the purchase, there might be ongoing expenses associated with the technology, such as maintenance and support charges. Make sure you have the money in your budget to account for these expenses.

Some classroom technologies are free to use initially, with premium options available at a cost. Be careful when implementing "free" software: Make sure you clearly understand whether there are any hidden fees for certain usage levels or features. Know what you're getting into before clicking "I accept."



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## 4. Equity and accessibility

The pandemic has underscored the need for digital equity. Choosing classroom technology should be done through a lens of equity and inclusion.

Make sure that any technologies you adopt are accessible by all students. For instance, instructional software should include accommodations for those who are hearing or vision impaired, such as captioning, compatibility with screen readers, and the ability to zoom in or adjust the font size.

## 5. Student data privacy and security

Student data privacy is a huge concern. While federal laws such as the Family Educational Rights and Privacy Act (FERPA) and the Children’s Online Privacy Protection Act (COPPA) are intended to safeguard student information, many of those laws are now outdated or misinterpreted.<sup>2</sup> School systems are putting their trust into third-party edtech providers to protect student data, but there is evidence to suggest that many providers aren’t doing a good enough job.

One report found that nearly nine out of 10 edtech products reviewed “appeared to engage in data practices that put children’s rights at risk.”<sup>3</sup> A high-profile security breach of one edtech vendor in 2022 reportedly exposed the personal information of more than a million current and former students across dozens of school systems—including New York City and Los Angeles, the nation’s largest public school districts.<sup>4</sup>

When evaluating technologies for use in the classroom, talk with service providers about their policies governing responsible and ethical data use. Consider how trustworthy they are in terms of collecting, storing, and safeguarding student information.



## 6. Training and support

Another factor to consider when choosing classroom technology is the extent to which training and support are available—and whether these are included in the purchase price or sold as additional services.

Too often, training and support are merely afterthoughts in the edtech procurement process. Yet, many edtech programs are derailed by a lack of training or support. One survey found that nearly two-thirds of educators in the U.K. were dissatisfied with the amount of technology training they received—and only 15 percent believed they had received sufficient training.<sup>5</sup>

If teachers don’t know how to integrate the technology effectively into instruction, or if the technology isn’t well supported, then it will do little to improve educational outcomes.

## 7. Interactivity and engagement

Finally, the classroom technologies you choose should promote active learning and student engagement. Rather than just sitting passively and taking in new information, students should be able to interact with the educational content in engaging and stimulating ways.

Student disengagement was already a problem before the pandemic: Surveys of U.S. students often found that many were uninterested in school, with disengagement increasing through middle school and into high school, ASCD notes. The pandemic has exacerbated this problem, with 42 percent of teachers saying they believe student engagement is lower now that it was before COVID emerged.<sup>6</sup>

The right classroom technologies can help change that by empowering students to take charge of their own learning, such as by constructing new meaning and creating projects to demonstrate their understanding.

## Supporting better outcomes

For technology to have a transformational effect on teaching and learning, educators need the right classroom technology solutions. Including these seven factors in the decision-making process can help teachers, curriculum directors, and other instructional leaders choose appropriate technologies that will help drive student learning and success.

# 3 keys to success

***Know your school or district's procurement and approval process.***

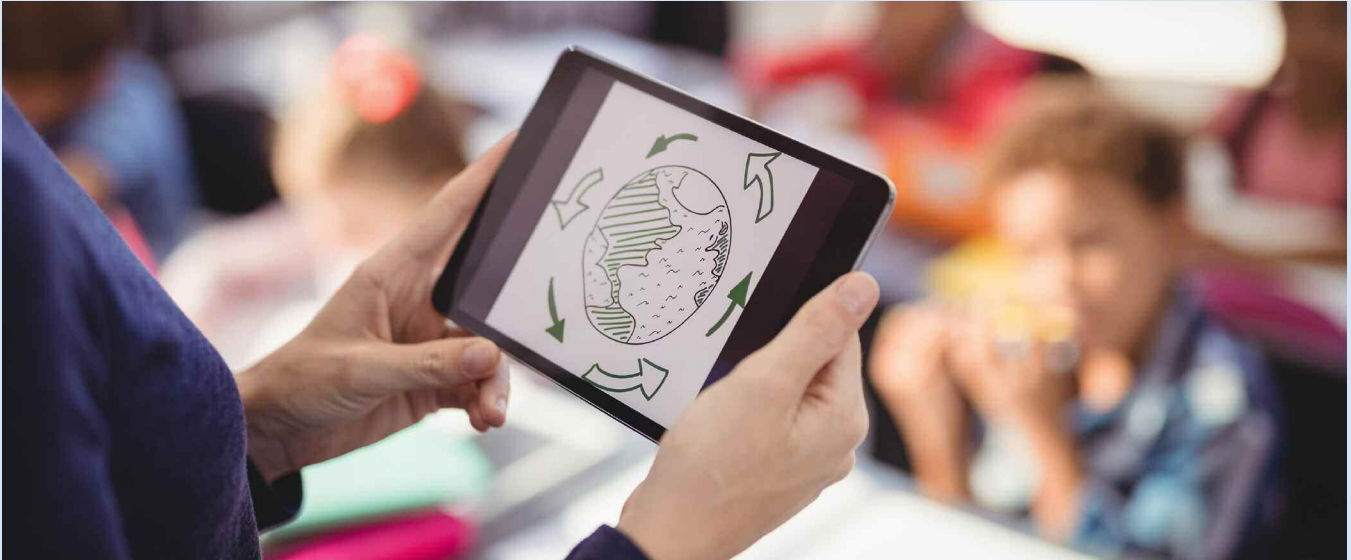
Every school or district has its own rules governing edtech purchasing or approval. Make sure you understand what those rules are before you acquire any classroom technology. For example: Do you have to choose from a district-approved list of vendors? Do you have to get prior approval for any technologies you plan to use in your classroom, even if those technologies are available at no cost?

***Do your homework.***

Make sure you properly vet all providers of technologies you're thinking of adopting. Are they stable and reputable companies? Do they have a track record of success within the education space? Can you talk with current customers to learn about their experience with the technology?

***Try before you buy.***

Before committing to a specific product, ask if you can pilot it first to see how it works. Use it within an authentic classroom context to ensure that it meets your specific needs and learning goals.



## Questions to ask of edtech vendors

### ***Alignment with learning goals***

- What grade levels and subject areas does the product address?
- What specific skills does it support?
- Is the content aligned with state and national standards? If so, which ones?
- Is the content of high quality? Who produced it? What is the creators' educational experience and subject-matter expertise?

### ***Capacity for use***

- What hardware and/or software is required to use the product?
- What type of classroom environment is needed for implementation?
- How easily navigable is the technology? Is it simple and intuitive to use? Are there help functions or tutorials available for users?

### ***Budget***

- How much does the technology cost? Is this a one-time purchase or a recurring expense through a subscription-based model?
- What features or services are included in the cost of the technology?
- Beyond the initial purchase price, are there any other costs associated with owning or operating the product?

### ***Accessibility***

- Does the product allow students to personalize the user interface?
- Does it give students or instructors the flexibility to alter settings to meet students' unique learning needs? If so, how?
- Does it offer personalized or adaptive skill levels?



## Questions to ask of edtech vendors con't...

### ***Student data privacy and security***

- Does the provider have clear policies in place to safeguard student information?
- What types of student data does the provider collect and store? What student data is collected by its third-party partners? Can you request a copy of the data file maintained on your students by the provider and/or its partners?
- Does the provider claim to be fully compliant with FERPA and COPPA? Has it signed the Student Privacy Pledge developed by the Future of Privacy Forum and the Software & Information Industry Association?
- How does the provider safeguard student information from outside attacks or accidental breaches? For instance, how does the company protect student data in transit? Where is this information stored, and how is it protected while in storage?
- Who has access to the information stored or processed by the provider? Does the company perform background checks on all personnel with access to student data?
- How does the provider ensure the proper management and disposal of data? How will the company delete student information when it's no longer needed? Can you request that certain information be deleted, and if so, how?

### ***Training and support***

- What training is available? Is it included with the purchase of the product, or is there an additional fee for this service?
- Is the training delivered on site or remotely? Does it cover not only how to use the product but also how to integrate it into instruction?
- What support is available? Is it included with the purchase of the product, or is there an additional fee for this service?
- How is the support delivered—by phone, email, chat? Is it available 24-7 or only during certain hours?

### ***Interactivity and engagement***

- Is the product or material inviting to use?
- Are students motivated to use it?
- Does it support active learning?

For technology to have a transformational effect on teaching and learning, educators need the right classroom technology solutions.

## Questions to ask your IT team

### ***How are you ensuring seamless connectivity for students and staff?***

Reliable, high-speed connectivity is essential for using technology to support instruction. Students (and staff) must be able to connect from anywhere, both inside and outside of school. Yet, 56 percent of high school students say a lack of consistent, high-speed connectivity is still the biggest barrier they face in using technology for learning.<sup>7</sup> If students and staff experience bottlenecks, they're less apt to use technology for instruction. Ask your IT team what they're doing to ensure dependable broadband service throughout your school or district.

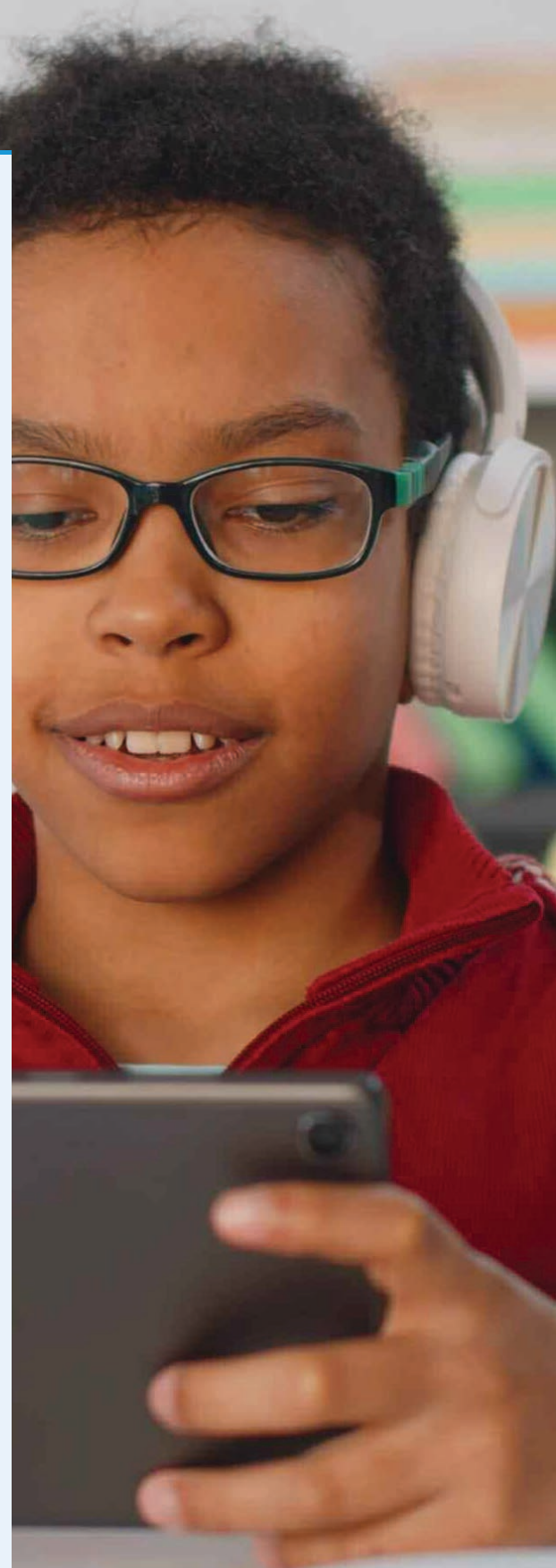
### ***How are you guaranteeing equitable access to digital resources?***

The pandemic has shone a bright light on disparities that have always existed within education. To ensure equity, all students must have access to the same high-quality instruction and learning resources—including digital devices and home connectivity. What are IT leaders in your school or district doing to ensure digital equity for everyone?

### ***How are you helping to safeguard student information?***

Student data privacy and security requires a total team effort. Not only should it be a key factor when evaluating technologies for the classroom, but IT leaders also play a critical role in overseeing the security of school networks and data centers.

When school systems purchase and maintain their own network infrastructure, they're also responsible for installing patches and upgrades to keep these systems secure. With managed network services, security patches and firmware changes are installed automatically to keep network systems continually secure and up to date. Ask your IT team what steps they're taking to safeguard student information—and whether they're aware of the security benefits that managed network services can provide.





- <sup>1</sup> “K-12 Students on Average Used 143 Ed Tech Tools in 2021-22.” *Government Technology*, Aug. 18, 2022. <https://www.govtech.com/education/k-12/k-12-students-on-average-used-143-ed-tech-tools-in-2021-22>
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- <sup>7</sup> *Beyond the Homework Gap: Leveraging Technology to Support Equity of Learning Experiences in School*, Project Tomorrow and Spectrum Enterprise (2022). <https://tomorrow.org/speakup/pdfs/Beyond-the-Homework-Gap-2021-Equity-in-Education-Report.pdf>

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