



Planning for pedagogy and resilience



Envisioning the learning technology experience

By Davin Huston

Whether you are starting a new school building design or creating a comprehensive plan for learning technology at an educational facility, it is important to step back and ask: How is this technology relevant and supportive of pedagogy? And is it resilient?

Including technology needs during the planning and design phase allows you to assess if the pedagogy requires these expensive tools or a less technological approach, and if the solution will serve multiple areas of your educational facilities. It provides a way to take control of Information Technology cost and vendor management, and improve institutional resilience, find

effective solutions, and reach better decisions. It can also help balance costs and risks, streamline processes, data, and technologies, create universal access to institutional services, improve learning and student success, and improve educator adoption and satisfaction.

This guide will provide tips to help you move forward with an effective plan.



Identify the strengths and opportunities in your current facility, pedagogy, and existing learning technologies.

The best way to build out or improve your technologies is to understand what you're working with today. That means taking a technology inventory. Try to do this without judgement — don't rate positive or negative values about each item at this point. Just collect the information. Here's what you should include:

- **Create a list of current software or technology services.** Include the application's name, website, point of contact and who owns it or authorizes its

use — the district, school, or teacher. If it requires a license or contract, note where that is located and the start/stop dates.

- **List how the technology supports learning or administrative needs.** Does it manage student, parent, and teacher data? Is it used to support learning? If so, is it integrated into learning? How is it accessed — online, in an app, both?
- **Identify when the facility last had technology infrastructure improvements.** Again, whether that was last year or 2010, don't judge. Just collect the information.



- **Identify if there is a school-wide standard for learning technology.**
- **Identify if you have ongoing maintenance budgets.** Does your IT department have the capability to manage integrated technology systems? What are your average IT ticket support times? It's important to understand this, because if you're going to add more advanced technology, that number is unlikely to improve. In some cases, targeted training may be all you need.
- **Identify if you have ongoing professional development budgets.**
- **Quantify, in general terms, how happy the user bases are.** How comfortable are the teachers with the technologies? Do the teachers feel the technology provides value in their day-to-day classroom activities? How about the IT people? The administration? The students? Understand they each have different world views — your administrator probably wants to know what data is captured as part of the technology, and if you have access to it. Teachers may be mostly concerned that it doesn't disrupt their classroom workflow and can be easily maintained.



Identify where technology could be integrated with your pedagogical approaches.

The next step is to assess your curriculum to see where technology could be integrated. It's a good idea to ask teachers, staff, and administrators for their ideas – they will probably have plenty, and that is a good opportunity to let them try out a new technology; if it's successful, you can find a way to standardize it.

Some good questions to ask include:

- What are you teaching now?
- What is your current method of teaching the subject(s)?
- What methods would you like to try to deliver the same material?
- Do you have any ideas around technology now?

- Are you running a mockup or a trial of any technologies and collecting data on them?
- Are you having pedagogical challenges with the technology you have now?
- Do some of your educational activities call for technology? If you don't have that technology, how are you managing the activities with what you have available?
- How much of your curriculum is active learning? Traditional? Do you have many hands-on teaching areas, like laboratories?
- What do your state standards require?

Vocational schools present a unique opportunity since the pedagogy is already hands-on, though it may also be a mix of hands-on and traditional techniques. You'll need to know how they teach those courses and determine if the educators can or want to teach at the bench, rather than in a separate classroom area.



Identify strategies to leverage technology to address diverse student needs and learning styles.

There's a growing trend toward using technology to make teaching methods more inclusive and to empower students with differing learning styles and abilities, and from increasingly diverse backgrounds. Before choosing technology platforms and software, be sure to address issues of resources, digital equity, tech support, and professional development.

You need to be strategic here. You don't want to drop a bunch of trending (and costly) digital technology into the classroom without evaluating its effectiveness and offering solid professional development, training, and support to the educators, who must embrace it for students to benefit.

Again, begin by collecting information about current practices.

- What strategies are you employing to handle different learning styles–visual/non-visual/neurodiversity?
- How do you balance technology use to avoid distractions, like other available apps on a computing device?
- Do you have a plan for students who lack devices or strong internet connections, or who have difficult or unstable home lives? Could a wrap-around program help support these learners, for example? What are your funding options for such programs?

What gaps do you see? Could technology help close those gaps, or do you need to offer more training and support?

Evaluate high and low budget items, recognizing it's not always about cost, it may be about time and people.

When you consider the budget, you probably think about technology costs first. But there are other factors to consider beyond the technology: Teaching, time, and people. Each plays a part in determining the best value for your school or district.

To start, refer to the work you've already done – it will help you create a wish list. For example, this may include more expensive items like remote synchronized learning with cameras and streaming services, or remote asynchronous

classes available on demand, which may be less expensive overall, but will create more work for educators, who will likely have to teach the class several times to create the final project.

Determine your class size targets – relatively inexpensive technology can still be a high budget item depending on the size of the room.

For your teaching budget, consider to what extent technology will change the teaching process. How much development time will be needed? How much tech support time – which could eat into classroom teaching time. Is your IT staff big enough? If you have one IT person for 1,200 students, the answer is probably no.



Identify strategies to take control of the learning technology budget.

The learning technology budget encompasses large numbers of technology equipment and software, so start looking for areas where a budget change could have larger impacts.

For example, take some time to assess how many Chromebooks or tablets you have floating around the district. How many are out of commission because they need to be reformatted, or have broken batteries, or dinged charger cases? Each of those is wasteful spending.

And that's just the Chromebooks. As we mentioned in the early stages of review, how much technology is no longer in use, but the licensing or software fees continue to pile up?

Begin taking control of your learning technology budget by identifying where the dollars are slipping through the cracks. That's low-hanging fruit.

You'll also need to get a handle on funding opportunities, because there's never enough money, no matter how wealthy your district or school. Some school boards will support technology purchases, others are suspicious of any spending they consider "extras." What's your tax base



like? Every tax base in America has a different ability and willingness to support its schools — and you can't assume the ability will equal the willingness.

Outside the tax base, does your district have its own educational foundation that funds certain projects? Any state programs or community foundations that target educational needs? What about your PTO and parents — do they have the ability and willingness to support special projects? Are there any alumni or donors, local, regional, or national, you can try to tap into?

If the answer is yes to any of those questions, you need to create a pitch to sell your idea. Don't just assume saying "we want to put a Chromebook in every student's hand" is enough. Be specific, talk about expected outcomes, and ways it will engage and improve learning.

Generating one-time donations to support a big technology purchase is one thing but remember you must

budget the ongoing costs of training, maintenance, repair, and replacement.

The takeaway

While it may seem daunting to get started, gathering data is the essential first step toward creating an effective education technology plan. With the data, you have control. You can prioritize investments, slim down your needs, or create a plan to build on over several years, because you know what you need, what you want, and how it will be funded.

Contact the author

Davin Huston
Technology Designer of Distinction
310-853-7194
davin.h.huston@imegcorp.com

