How to Launch a 1:1 Computing Program on a Tight Budget

- Upgrade the Wi-Fi Network
- Secure Administrator and Faculty Buy-in
- Be Flexible About BYOD
- Let Teachers Determine the Level of Control
- Develop a Take-Home Policy
How to Launch a 1:1 Computing Program on a Tight Budget

A flexible approach to BYOD is allowing a cash-strapped Connecticut district to create a 1:1 computing program in its schools. Here are the five secrets to its success.

Montville Public Schools knows exactly where it wants to go. The rural Connecticut school system has a goal of providing every student in its six schools with a laptop computer. Unfortunately, financial realities have a way of derailing such tech dreams, and in Connecticut the situation is especially dire: In 2017, for instance, the state didn't even have a budget until December, putting the kibosh on any non-critical spending.

Even so, Montville is forging ahead by using an innovative blend of school-provided technology and student BYOD to create a stopgap 1:1 environment. "Our end goal is for the schools to provide devices to all the kids, but it's not going to happen in the next few years," said Nicholas Savoie, Director of Technology for the school district. "The only way we can do it now is to let parents and students know that they can bring their own devices."
1. Upgrade the Wi-Fi Network

It doesn't matter who owns the devices if they can't connect to the network reliably, so the first priority is to ensure that schools have the bandwidth needed to handle the load. And that load is going to be particularly heavy if districts encourage students to bring their devices to school. "When kids walk into school now, they have their smartphones, they have their computers, or their Apple watches," said Savoie. "It's not really a 1:1. It's almost a 1:2 or a 1:3."

Montville most recently used E-rate funds to redo the wireless in the high school, and the district is now talking about how to upgrade its Internet backbone to 10 GB from the current 1 GB.

"Take your forecasted network load and then double it," advised Savoie. "If your infrastructure can't handle it, then your program is going to be in trouble."

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2. Secure Administrator and Faculty Buy-in

The need for administrator and faculty buy-in is probably the most frequent advice associated with school technology initiatives, but it doesn’t make it less true. Savoie advises working with administrators first, before involving teachers. “If your administrators don’t buy into it, then it’s not going to work because they’re not going to support the teachers,” he said. “You need to have a very open relationship with administrators and principals. I get very excited about technology, and I think that makes them a little excited as well.”

Bringing teachers on board is equally vital, so the district gave each one a laptop at the outset. “If you’re going to a 1:1 approach, the teachers need to have laptops,” said Savoie.

Savoie also recommends conducting pilot projects with teachers who are already on board with educational technology. At the elementary school level, for example, the district gave 20 laptops to a 5th grade teacher who was active on the technology committee. “We basically have to prove to teachers that this is a useful tool,” said Savoie. “If it does well and kids start talking about it, it starts spreading around the school.”

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3. Be Flexible About BYOD

In past years, Montville had been reluctant to let students bring their own computers to school, with administrators worried about the possibility of theft. Given the financial realities, though, the district had no alternative if it wanted a 1:1 computing environment. Theft has not been a problem, fortunately, but the district learned other lessons along the way. First, schools cannot be selective about what devices students bring. "You're going to see a mix," said Savoie. "You're going to see a MacBook, you're going to see a Chromebook, a Lenovo, or an HP."

Not surprisingly, the idea of a hodge-podge of computers in class made some faculty members nervous. "The number one concern from teachers was that they were not going to understand all these different devices," said Savoie. "We said, 'We don't expect you to. The kids will know how to do it.'"

Even so, the district recognizes that students and teachers need to use the same applications. Accordingly, the district provides access to cloud-based productivity suites, including Google Classroom and Office 365, which can be accessed online without the need for software uploads.

Second, schools must accommodate students who—for whatever reason—are not able to bring a device from home. Some parents can't afford a laptop. Others may share a computer with their kids, while still others don't want their kids bringing expensive devices to school. Of course, some students simply forget their devices at home.

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In circumstances like these, it's imperative that students have access to school computers. To that end, Montville initially purchased 100 laptops that it can lend out to kids. Not surprisingly, the number of students who bring in their own devices varies from grade to grade. "At the high school, the BYOD approach has worked out great," said Savoie. "In the middle and elementary schools, though, parents don't trust their kids bringing in the devices."

At these lower levels, school-provided computers are the norm, with many teachers favoring the cart approach over having students carry laptops from class to class.
4. Let Teachers Determine the Level of Control

Using BYOD as a stopgap method to implement a 1:1 program does have a downside: Aside from a district-wide web filter, schools have no control over the devices kids bring to school. "We decided that Montville couldn't install classroom management software [CMS] on these computers because some of them belong to parents," explained Savoie. "We don't want the responsibility of seeing something that we shouldn't see, like a bank statement."

In contrast, all the computers owned by the Montville Public Schools run LanSchool, a CMS that gives teachers an easy way to share screens with students, provide help, and control what students see and do.

In this kind of mixed environment it's important to let teachers use the setup that makes them most comfortable, notes Savoie. "Some teachers will share their screens with the kids who have school computers and tell the others to sit next to them so they can see what's going on," he said. "Because it's mostly web-based, if students want to share their screens with the rest of the class, they can just jump onto someone else's computer—even the teacher's—and log in quickly."

At the same time, some teachers find the lack of visibility into devices without classroom management technology off-putting. "They're concerned that they see only the backs of student laptops and have no idea what the students are doing," said Savoie.

This is where the school's computer labs and carts come in handy. With these, teachers can ensure that each student has access to a school computer, which in turn means they can avail themselves of the full power of LanSchool software. According to Savoie, teachers appreciate the ability of LanSchool to keep students focused on the task at hand. At the click of a keystroke, for instance, teachers can disable access to social media, limit access to select websites only, and even turn screens blank to recapture student attention.

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LanSchool also facilitates collaboration and teacher feedback. Students can share their screens with other members of their class, as can the teacher. In addition, teachers can help students who might otherwise be too shy to ask a question in front of classmates. "At the high school, kids can contact the library media specialist, who will take over their screens and message back and forth with them, which is really great," said Savoie. "It's not like calling kids out in front of the classroom where they get embarrassed."

Interestingly, teachers may find the ways they use classroom management software differs from year to year and class to class. As an example, Savoie cites a teacher at Oakdale Elementary who has broad experience teaching with computers. "I don't know if it was discipline or attention span with her class but this year she's using LanSchool a lot more," he said. "I think it ties in with the group dynamics of the students."

Obviously, once the district achieves its goal of giving each student a school computer, this balancing act will no longer be necessary, because all computers will be loaded with LanSchool software.

5. Develop a Take-Home Policy

When Montville becomes truly 1:1, it intends to let students take the school computers home with them. Until then, however, the district has adopted a tiered policy based on grade. High school students can take the school computers home, but it's not a regular practice for students in the middle and elementary schools.
About LanSchool

LanSchool makes it easy for teachers to manage devices in the classroom for improved learning outcomes and enhanced collaboration with students. With one-click customizable features, teachers can monitor real-time progress, keep students on task and increase class participation while providing a safe digital environment.