PROFILE

Name: Livonia Public Schools

Location: Livonia, MI

CHALLENGE

Positively impact student achievement with strategic technology investments.

SOLUTION

Harness the power of interactivity and connectivity to individual student devices to boost engagement using Epson BrightLink interactive displays in every classroom. Provide high quality teacher training and professional development to ensure smooth effective technology integration.

Clean Slate

Michigan School District Chooses Epson BrightLink for Ground-up Classroom Upgrade

If you had a blank slate – if you could install any classroom technology without having to adapt older gear or worry too much about adequate funds, what would you choose?

Such was the case at the Livonia Public Schools (LPS) in Michigan. After much research, the technology committee came up with the technologies they thought were imperative for student learning: new student and teacher computing devices, a voice amplification system, document cameras and new interactive whiteboards.

Then it was up to Timothy Klan, Administrator of Information and Instructional Technology, to choose the individual components. His criteria included interoperability, reliability, manageability and simplicity.

For those reasons the centerpiece of every classroom is an Epson BrightLink interactive display.

A $190 Million Bond Issue

Livonia is a large suburb northwest of Detroit, and the district has 26 schools, 14,600 students, and almost 1,100 teachers.

After a vote, the school received a sizeable bond: $190 million for facility upgrades, including $30 million for new technology. "This was a really major overhaul," Klan explained. "We had a technology committee comprised of teachers, administrators

and parents who decided they wanted to overhaul the curriculum and get the best technology they could into the hands of the students."

The five-year project includes major remodeling of the school buildings, including new roofs, new HVAC, new plumbing, electric and a new network infrastructure.

A big part of the technology purchase has been student devices, but Klan said, "We never had a set plan to end up at 1:1." Instead, LPS has gone to a modified BYOD model, with students using district-provided devices, bringing their own, or using both, for example doing research on their phones or tablets while typing up notes on a school Chromebook.

> *"The kids obviously loved the interactivity of the BrightLink displays. Even our kindergarten teachers said the children took to them right away."*
>
> — TIMOTHY KLAN, ADMINISTRATOR OF INFORMATION AND INSTRUCTIONAL TECHNOLOGY

The district has purchased about 8,000 Chromebooks so far, but they have left it up to individual schools to decide how to deploy them. Most of the high schools have focused on using their Chromebooks for math, science and language arts while some of the elementary schools roll carts of Chromebooks from room to room and others have assigned 8–10 of the devices to each teacher. "This year we're essentially at a 1:2 ratio," Klan said, "but as the teachers get more comfortable with student devices, and as they use them more and more in their lesson plans, we will make more available."

Outfitting the Classrooms

The audio visual systems are a different story. When the upgrade is complete, every classroom will be equipped in the same way.

Klan chose to mount the Epson BrightLink interactive display above each classroom's whiteboard. Using the two included interactive pens, students or teachers can annotate and interact with projected images, websites, documents, and more. The annotation function allow users to highlight, circle, edit, and write notes—drawing attention to important points much like TV sportscasters mark up the video in a football game. They can then save the annotations they create and print or email them to students in the class.

Initially, Klan said, "We were not sure we could afford an interactive projector, but our teachers really wanted interactivity. Our committee loved the idea of getting the students involved, either by walking up to the board or projecting from their mobile devices." With the BrightLink, they can do both, and its pricing fit within the budget. A pilot program confirmed their choice: "The kids obviously loved the interactivity of the BrightLink displays. Even our kindergarten teachers said the children took to them right away."

The technology committee considered issuing laptops or convertible tablets to the teachers, but they felt a desktop with a hardwired connection to the BrightLink would last longer and be less likely to be dropped. That said, students and teachers can wirelessly connect to the BrightLink from their Chromebooks or personal devices, as long as they're equipped with Google Cast or the Epson iProjection app. the teacher can moderate these wireless sessions by giving students the ability to participate while leaving the teacher in control.

Among the funny things Klan saw as the Chromebooks were first deployed were requests for boxes of computer mice. "Some teachers were not familiar with the Chromebooks' trackpad so

they thought a mouse might help. But as it turned out, the kids were very comfortable with the trackpads yet many had never even seen a mouse."

In the same way, he said, "The kids pick right up on the BrightLink," because its operation is so similar to the touchscreen functionality of their phones and tablets.

Another priority for the technology committee was voice enhancement for every classroom. Research shows that students at every level do better when they can hear clearly, and with voice enhancement teachers have fewer problems with voice strain. "Our new sound systems tie into the teacher's computer and into a microphone they wear on their necks," Klan explained. "Then too, if an announcement comes over the PA during a video, it turns down the video's sound so everyone can hear the announcement."

Looking back, he said, "It was kind of a no-brainer. The teachers can speak normally and fill the room with sound."

Teacher Training Conferences

Crucial to the introduction of the new technology, Klan says, was training. In 2014, the professional development committee introduced an annual single-day educational conference, LevelUp LPS, to take place the week before school starts. The conference includes workshops, a keynote speaker and more than 80 breakout sessions.

> "*Among the most popular parts of the conference are a series of breakouts led by Epson representatives.*"
>
> — TIMOTHY KLAN, ADMINISTRATOR OF INFORMATION AND INSTRUCTIONAL TECHNOLOGY

By holding their professional development on a single day and hosting it in one of the high schools, Klan says LPS has been able to improve training, save money and ensure that teachers wouldn't miss class time. Bringing in food trucks proved a popular way to minimize meal costs as well. The professional development committee also asked teachers to pilot new technology and present what they learned in breakout sessions to help save money as well, and the approach contributes to the overall quality of the event.

Among the most popular parts of the conference, Klan says, are a series of breakouts led by Epson representatives, explaining the basics of, and some of the more technical features of, the BrightLink interactive displays. Epson has offered this training at no charge.

"By finding these efficiencies," Klan said, "we were able to include funding for high-quality, high-demand keynote speakers, which improved the staff members' experience and elevated the event's reputation."

The conferences have been very well-received, he added, and a great way to set the tone for the changes going on throughout the district. "LevelUp is challenging, but it's fun and our teachers appreciate it."

Supportable Gear

If the conferences are an important reason why LPS has been able to succeed with sweeping changes in its technology program, another is the ease of supporting the systems installed.

"We looked at a lot of different components, but the biggest issue was if you have thousands of devices to manage and you have to go to the classroom physically if one locks up, that's just not going to work. We needed pieces that a) would be solid and b) we could control remotely if something went wrong."

The Chromebooks, the desktop computers, and the Epson BrightLink display are all managed by IT over the LPS network. Like the computing devices, technicians can check the status of each BrightLink from the IT office and remotely install firmware and software updates. Better still, each BrightLink notifies IT if it detects any fault, and it sends an email when the lamp is nearing the end of its life.

"I feel the BrightLink was an outstanding choice," Klan said. "It's one of my favorite parts of the upgrade, because you just turn it on and it works."

> **"I feel the BrightLink was an outstanding choice."**
>
> — TIMOTHY KLAN, ADMINISTRATOR OF INFORMATION AND INSTRUCTIONAL TECHNOLOGY

The views and opinions expressed in this article are those of the individuals and do not necessarily reflect the official policy or position of Livonia Public Schools. Individuals and/or the school were compensated for this article.