



## EDUCATION

# Don't Leave them Flat.

### Washington State public school district buys innovative classroom displays from Casio.

From a technology department's perspective, flat panel displays seem perfect for a classroom. They're bright, crisp, and they last for years with little or no maintenance. Yet looks can be deceiving.

"I really thought we would go with monitors this time, but then we talked to our teachers," says Derrick Brown, Chief Innovation Officer for the Evergreen Public Schools in Vancouver, Washington. "They told us they needed bigger screens, that a 50" or even a 70" display was not going to be readable from the back of a classroom. We listened and started talking to partners who have worked extensively with large school systems, asking their advice."

Andy Lusk, at the Seattle-area office of Troxell Communications, suggested a device that had everything they wanted, providing big, bright images up to 110" diagonal at a cost lower than flat panels half the size. This device would be absolutely reliable, lasting 10 years or longer with little required maintenance. Then too, it weighed less than 1/7 what a flat panel did, making it far easier to install and far easier to take down and send out for service should there ever be a problem.

The solution was simple but often overlooked: LampFree projectors from Casio.

### Reliability Crucial

Evergreen Public Schools is a large district, with 37 schools, 26,000 students and more than 1,600 classrooms. Because the district is transitioning from textbooks to digital resources, Brown says having reliable large-screen displays is absolutely crucial to their teachers' success. The district has also been investing in mobile devices for all teachers and students, leasing them, for the most part. In the 2017-2018 school year grades K-2 will primarily have access to an iPad, grades 3 - 5 will have 1:1 access to Chromebooks in carts, and grades 6 - 12 will have 1:1 take home Chromebooks.



**Advanced Series**

Brown was also worried about maintenance costs. On the one hand, he says, there was the cost of the bulbs: \$150 - \$200 per projector, or roughly \$280,000 every 20 - 24 months. Then there was the cost of the manpower: a team of technicians spending every summer changing bulbs and cleaning or changing air filters. "The Casio, with no lamp and a five year warranty, is a huge improvement," Lusk says. "Now they potentially have no costs and no downtime for at least five years."

Lusk adds that Evergreen precedes every large purchase with a pilot program, in this case buying 47 Casio XJ-F20XN LampFree projectors for the 2016/2017 school year. Teachers appreciated their bright crisp images and instant on and off, and Brown and his staff found, as well, that they did not have a single service call for any of these projectors. “Based on that, they decided to roll them out throughout the district.”

## An Exceptionally Smooth Transition

Brown says that the projector rollout was part of a three-year technology upgrade that saw the development of a digital curriculum based on Google and Microsoft educational platforms, plus Hapara management software. In the process, the district standardized on Windows 10 convertible laptops linked to the projectors though either a wired or wireless connection.

He says the rollout went remarkably well, because the technology team phased in each component gradually, giving principals and teachers plenty of time for input and ideas that the team included in the plans. For example, the district built up the student devices gradually, but then added 14,000 new Acer Chromebooks this fall, phasing out older machines while at the same time finishing the transition to a 1:1 student to device ratio .

*“The Casio, with no lamp and a five year warranty, is a huge improvement. Now they potentially have no costs and no downtime for at least five years.”*

ANDY LUSK

Troxell actually finished the bulk of the projector installations before the end of the spring term last year. Their technicians worked second and third shift, from 3:00 p.m. until 2:00 a.m., and in this way installed 1,200 projectors in two months. Teachers were never sure exactly when each classroom would be finished, and so a sense of excitement built as the work progressed. “They would walk into their rooms, and perhaps not realize they had gotten their upgrades the night before,” Brown recalls. “But the minute they turned the new projectors on, they could see the difference, and the quality really is amazing. I hadn’t realized how important this was to our teachers.” Troxell finished the last 350 installations over the summer, while in the meantime the technology team set up the remaining Chromebooks and Dell convertibles.

“One of the things the district looked for was digital inking,” Lusk explains. “All the devices have an active stylus, so when a student

types up an essay and submits it to OneNote, the teacher can mark it up and add notes by hand, and save it back to OneNote. “We went to a workshop model several years ago, with students working in groups, often on separate projects,” Brown explains. Now teachers can move from group to group, sending images to the Casio from anywhere – even giving students access to the projector via the Hapara software.

## A Sustainable Investment

While Brown says the district went through some lean times after the 2008 recession, keeping computers and projectors far beyond their expected lifetimes, they now have updates built into their technology budget. “Today our computers are all leased, for students with a three-year lifecycle and for teachers for four years.”

The LampFree projectors are a different story. Brown says the plan is to re-evaluate them when their five-year warranties are up, but Lusk expects them to keep them longer. Casio rates the projectors at 20,000 hours, or about 16 years in a school environment. “At five years, they will still be at 80% of their original brightness, compared to a lamp-based projector, which drops to that level or lower in about a year.”

Another major advantage to the LampFree projectors is their low environmental impact. Unlike lamp-based projectors, they contain no mercury or other hazardous material which might be released into a classroom or into a landfill. Their energy use is low, requiring at least 30% less AC power over the course of a day.

For now, Brown says his teachers are ecstatic with the classroom displays. “The new projectors are brighter, greener, everything we wanted our older projectors to be. Like anything in IT, you want them to be like a light switch—you flip it on and it just works.”

Looking at the larger picture, he says the process of communication was most critical to the technology upgrade. “To succeed at an organizational transformation, most folks know you have to start out talking to your people. We spent almost a full year gathering input from our principals, and then another year with the teachers, and beyond.

“Our work was never about the technology itself, but about the resources that teachers need to do their jobs. So it’s a process of learning, building, training, and then at some point, it becomes kind of a zombie apocalypse – our people bite into the new technology, then infect each other one at a time, spreading the excitement of this new model for learning.”