

Dublin California, Teachers Teaching Teachers How to Integrate Technology

Finding the Right Tool

Director of Technology and Information Services, Tim McCarty and Assistant Principal, James Freeland of Dublin Unified School District were looking for something specific at the InfoComm Conference in 2004 to take their district to the next level in technology. Not knowing exactly what that “something” was, they knew when they walked into the Lumens booth.

This district of nine schools 40 miles east of San Francisco had at the time installed 50” flat screen televisions in all classrooms, the result of a grant to modernize the technology across the district. They were looking for ways to use the televisions to bring more interactive content to classrooms.

When McCarty and Freeland saw the document cameras from Lumens they knew they had found the perfect tool to make the most out of their new televisions. With the help of a computer technician Keoki Yee, the cameras were tested in various classrooms and readily accepted by teachers. Students were also thrilled with the features such as viewing three dimensional objects, capturing images, and the ability to use the document camera as a video camera.

After extensive evaluation of document cameras from several vendors, the district selected Lumens because of its included features and superior image quality. “The image quality is the most important criteria,” said Yee. “We want make sure that the student sitting the furthest from the screens can still see things clearly.”

Teachers Teaching Teachers

With approval in hand to deploy the document cameras, McCarty and Yee drafted an implementation plan. Because the document camera connected to a television by using an S-Video cable, the installation was simple and straight forward. The cameras were initially placed on rolling carts so they could be shared among multiple classrooms. Yee also developed a basic “Teach the Teacher” program with selected “technology coaches” throughout the district.

In addition to having current teachers trained on the use of the cameras, document camera training is included in the Tri-Valley Teacher Induction Program which gives them with general teaching and class preparation techniques. This program ensures that starting on their first day in the classroom all new teachers are completely up to speed on district technology.

As teachers learned the various features of the camera, they have become extensively used in Math, Reading and Science projects in elementary classrooms and Math, English, Science, Art and History in secondary classrooms. The document camera has completely replaced the overhead projector because of its many additional features and utility for the classroom.

Complete Technology Integration in Every Classroom

Subsequently, Lumens document cameras were purchased for all classrooms as part of the district’s systematic technology upgrade and implementation process. Also, the district moved away from using televisions over the last two years as they introduced interactive whiteboards and projection screens as the standard for media display. The primary classrooms use interactive whiteboards and the secondary classrooms have projectors and screens. This gives teachers a larger viewing area with greater image resolution for presenting content and for students when showing off their projects and class work.

“We make sure that every piece of technology put in classrooms enhances the teachers’ ability to engage with students,” said Yee. “Adding new tools in phases allows us to train our teachers properly, evaluate the implementation, and maximize the benefits and then move on to the next step. In addition, this does not put a strain on our budget or staff by buying everything at once.”

Five years after seeing the Lumens camera for the first time, Dublin USD classes have fully embraced the 21st century classroom model. The average elementary classroom in the district today contains a:

- SMART interactive whiteboard;
- Lumens document camera;
- IP Phone;
- Media cart with DVD/VCR;
- LightSpeed Voice Enhancement with 6 speakers and microphone;
- Computer Tablet; and
- Virtual Computers.

Classroom Examples of Features

In a third grade class, a teacher places a honeycomb (not a picture) on the camera. Every student can see the detail of the comb as the teacher zooms in closer to reveal pockets of honey and see the coarse texture. The teacher will then take a snapshot of the comb and give students copies so they can write a paper on “How Bees Make Food for People.”

Beyond the classroom, teachers are using the combination of interactive whiteboards and document cameras to capture images from class and send them to parents of students who may have missed class.

“Teachers and students love the idea to see the fine detail of the object up close and personal on the screen. Teachers find the Lumens document camera an asset as a teaching tool for everyday lessons,” said Yee.