

Minnesota district finds document cameras are transforming teaching and learning

Qomo cameras in Osseo School District make science and math come alive

A science teacher dissects a deer heart before the eyes of every student in the class. Another teacher displays a tiny hydra in a sample of pond water and captures the video for use in an online blog. A math teacher shows students close-up properties of an actual three-dimensional object, instead of drawing it on the blackboard.

At Osseo School District 279 in Minnesota, classroom demonstrations like these are part of everyday teaching as a result of the district's installation of more than 200 Qomo document cameras, according to Darrell Olson, a technology integration collaborative teacher.

"To call these devices 'document' cameras is really a misnomer," Olson said. "Anything that can be put underneath the lens can be seen by the entire class, including a three-dimensional object. For instance, instead of having 30 kids crowded around a teacher, trying to look over her shoulder while she dissects a deer heart, now the dissection is done underneath the document camera and the entire class can see it taking place at once."

Throughout this district, Qomo document cameras are quickly replacing older technology such as overhead projectors. "The overhead projector is a relic, and its death is probably a good thing," Olson said. "Teachers are freed from standing in front of a class with an overhead light shining in their eyes, and they don't have to make transparencies anymore."

Osseo School District encompasses the northwest suburbs of the Twin Cities area. With more than 22,000 students, it is the fifth largest district in the state. According to Olson, Qomo cameras—either the ProMax DP580 or the QueView QD700—were installed over the past two years in each of the

district's 26 schools, with one being offered to every sixth-grade teacher and every math teacher in grades six through 12.

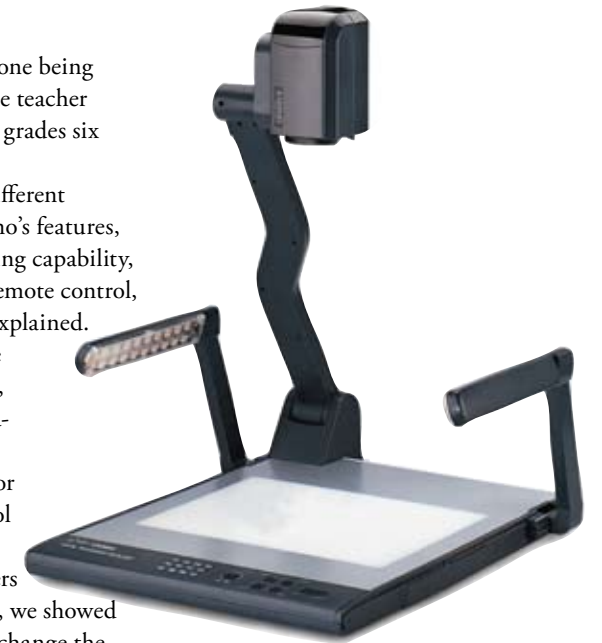
"We looked at many different cameras and felt that Qomo's features, including its video capturing capability, its magnification and its remote control, made it superior," Olson explained.

With such an extensive and rapid implementation, training was a major initiative. "We provided staff development over a three or four day span before school started," he said. "In addition to showing the teachers how the cameras operated, we showed them how they can really change the pedagogy of their classroom."

Because the cameras are fully integrated with other classroom technology, including display systems and teacher laptops, objects placed under the camera can be shown to the entire class, and the images can be captured and saved for other uses. "One of our teachers captures the images from the camera and puts it on his blog so every student who accesses his website can see the same images that he showed in his class," Olson said.

The Qomo cameras' magnification capability has been used extensively in science classes, Olson said. "In one of our schools, students obtained samples of pond water and put them under the camera. With the high-power zoom, you can see actual micro-invertebrates, and all the kids can see it at once, instead of having the teacher put it underneath the microscope where only she can see it."

In math classes, the cameras are used every day by teachers to show students how to solve problems and to illustrate concepts. "In geometry, instead of having to draw on the board and demonstrate a three dimensional



"The document cameras have really transformed the way the teachers do business in our classrooms."

object in two dimensions, you can put a three dimensional object under the document camera and kids can actually see the shape and its properties," Olson explained.

"The document cameras have really transformed the way the teachers do business in our classrooms," said Olson. "We feel the tipping point has been reached and document cameras have been instrumental in that change."

QOMOTM
Summit of Vision



enhance.

www.qomo.com

QOMO
HiteVision