Caption: Thomas Kenyon, a high school math and science teacher at Cuba-Rushford Central School, explains a three-minute YouTube video made by his physics students, who recorded two-dimensional motion and then analyzed the data using iPads.

Engaging interactive learning with the help of latest iPads

Changed teacher's role from lecturer to facilitator

By Jeff Cole
Olean Times Herald

CUBA — This school year Cuba-Rushford Central School math and science teacher Thomas Kenyon decided to ditch the old methods of discovery in his physics class.

Mr. Kenyon, who teaches grades 10 to 12, recently began using seven iPads during lab time in an "engaging and meaningful way in the classroom."

He said, "Instead of me lecturing this year — it took me out of my comfort zone, way out of my comfort zone — we are doing an experiment with gravity. The kids have to drop a ball from upstairs, out the window, and time it with a stopwatch and do some calculations. We use photographs Cappelletti’s doing a great job making it happen and then Erie 1 BOCES, right before Christmas, is going to leave and take their iPads with them. That would have been devastating at that point," said Mr. Morris. "So, with the support of the administration, we got another seven iPads to replace the ones that Erie 1 BOCES was taking out, to let that momentum that was built carry on. Based on the very positive input that the seventh-grade social studies
timers. They have to analyze reasons for their errors and we use spark timers and the same kind of thing and what are the reasons for the errors, so I actually have them think about what they’re doing.

But Mr. Kenyon’s class, comprised of 13 students, decided to shift from studying one-dimensional motion to two-dimensional motion, in which the motions of an object’s X and Y directions are independent of one another. After dropping a ball from the window, Mr. Kenyon’s students played catch with the ball and analyzed its motion, using a software called Videophysics, and then posted the three-minute video to YouTube.

“Last week they finished the video so that I could take it to Buffalo State (College) with me, so that I could show the other physics teachers how we’re using this technology,” he said.

Students marked the ball’s position on the iPads, which then calculated the data.

“This makes it a lot more engaging for the students. A lot of the kids want to do a lot more stuff now using this,” he said.

The iPads, according to Mr. Kenyon, replaced several items such as cameras, cables and conversion programs. They also modified his job.

“It changed my role from a lecturer into a facilitator to point the kids in the right direction and make sure they’re engaged in the activity,” he said.

But Mr. Kenyon isn’t the only teacher in his district who has benefited from modern-day technology. Last December, according to Jay Morris, technology integration specialist at Cuba-Rushford, Chris Cappelletti, a seventh-grade social studies teacher at Cuba-Rushford, conducted a six-week pilot program with Erie 1 BOCES in which students used a MacBook Pro and seven iPads to work on apps that were educationally beneficial in seventh-grade social studies.

“You picture this program’s going on and the kids are getting more excited and Mr.
students were giving us, we decided to get back with Erie 1 BOCES and Cattaraugus-Allegany BOCES and say, ‘Hey, for the 2011-2012 school year, can you folks support us and do more pilots in our district?’ We ordered an additional 100 (iPads) after the ones that (Mr. Cappelletti) got when his pilot was over.”

Mr. Morris, who was one of several teachers who brought the iPad idea to the district, said the iPads were ordered by the school this summer, and that currently, iPads are being used in 10 classrooms within the district: three at Rushford Elementary School; two at Cuba Elementary School; three within the Cuba-Rushford Middle School; and two within the Cuba-Rushford High School. Another 40 are in use for the school’s special education department, thanks to a grant applied for by Kim Fisher, C.S.E., chairperson of the Committee on Special Education.

“It’s been a team effort, input from students, staff, Chris Cappelletti. We just had great input to help design this model that is working really well,” said Mr. Morris. “They’re being used as lifestyle-changing devices and it’s amazing the difference that it makes students and teachers are changing the way and the students are enjoying it when you see the improvement, it gets exciting. We’re going to be in short supply — we have 16 gigabytes in each and we need 32 at the district’s superintendent’s office, and Cattaraugus.”

“They’ve been a lifesaver for us and helpful in the educationally disabled classroom so that we’re not having to pay for five different books that are tied to...
within the two schools. "Within the two schools, they are embracing the way and the rate that they're learning. And when you see the rate change, that starts to get exciting. The kids are doing great things in short amounts of time."

Implementing the iPads, which each have 16 gigabytes of memory and cost $484 apiece, has also received support from the district's administration and Kevin Shanley, the district's superintendent, as well as Erie 1 BOCES and Cattaraugus-Allegany BOCES.

"They've brought people in and supported us and helped us to utilize these devices in educationally beneficial ways in the classroom so that the students are doing things that are tied to the New York state standards in the common core curriculum. Without the help of those essential partners, it would be a lot harder for us as a district to be where we are today," said Mr. Morris.

The real heroes, however, according to Mr. Morris, are the students.

"Since the beginning of the year, I have not had to repair an iPad. To have that many devices out there, with their hands touching them every day and them not breaking them and taking great care of them, that is important as anything," he said.

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