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'Smart' boost to local classrooms

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By: [Ryan Johnson](#), Grand Forks Herald

In most ways, Miles Rodacker's enriched geometry class at Central High School last Thursday seemed like a typical math course, with students following along in their textbooks and jotting down notes and formulas as their teacher spoke.

But his teaching received a high-tech boost in the past few years when his classroom got a SMARTBoard, an eye-catching and modern take on the standard blackboard complete with a touch-sensitive display screen large enough to make just about any big-screen TV owner jealous.

The new technology has made Rodacker's job a little easier and has allowed his math classes to become more interactive — and even more fun — for the students.

New math class

Rodacker used his SMARTBoard last Thursday as he discussed proving the congruency of triangles, starting off with a short video about theories, which was shown on the large display.

During the lecture, he used the touch-sensitive screen to move and display notes, slideshows and images. When it came time to mark equivalent parts of two triangles, Rodacker picked up an electronic marker and drew lines and notes in multiple colors.

And he interacted with the display as he walked around the desks by using a wireless tablet, enabling him to add notes from anywhere in the classroom.

After the lesson was complete, students used their personal remote responders to answer questions. Rodacker said he could use that function to actually give exams and quizzes, but he prefers to not score the answers and instead uses it to make learning more interactive.

"To me, this way that we use it gives them a stress-free way to check themselves and see how they're doing," he said.

Several students said they liked the equipment because it makes things a little more fun while adding more teaching capabilities to the class.

"It makes things more visual so it's not all just speaking," Haleigh Mooney said.

Nate Cain said he thinks it makes the lectures more interesting to follow, while Ty Kennedy said he thinks the board is great because it makes things a little more functional.

"It's kind of neat too having it in the classroom," Kennedy said. "It kind of gets you involved."

Benefits

Rodacker is in his third year of using the SMARTBoard, one of only two in Grand Forks schools. He saw demonstrations of the equipment at national and state conferences and went to then-Principal Jeff Schatz to figure out a way to get one for Central.

"I was really excited to get it, actually," Rodacker said. "I kind of went gung-ho right away."

He said the basics were easy to pick up and he has learned the rest along the way. The equipment isn't cheap — it costs several thousand dollars for a standard unit — but he said it has been durable, and the only required maintenance is replacing burned-out projector bulbs.

"For my benefit, what it does is that everything I want to use is right at my fingertips," Rodacker said.

The unit has basically replaced an overhead projector, TV and DVD player, and anything he could do on a regular computer can now be accessed, manipulated and projected on the board because it is hooked up to his laptop.

Rodacker said the first students to see the SMARTBoard "thought it was really cool," but they quickly get used to it.

"They expect technology I think," he said. "They've gone beyond overhead projectors and writing on chalkboards and things like that, so it just kind of fits in with what they're used to."

Like its predecessors, the chalkboard and whiteboard, it gets used frequently as he explains formulas and notes. But it also allows Rodacker to save all his writing each day and upload it to his Web site so students can revisit the notes anytime they want.

'Leaps

and bounds'

Rodacker said he has seen dramatic changes in education technology during his 32 years as a teacher. "Of course, we very seldom used calculators when I first started teaching," he said.

It wasn't until about 1983 that computers were introduced to the classroom, Rodacker said, and technology has progressed by "leaps and bounds" since then.

That rapid advancement is sometimes scary for teachers because it's hard to keep up with everything, he said, and even the seemingly tech-savvy Rodacker admits it's not always easy to stay ahead of the curve.

"There are days when the technology turns on me, too," he said.

But the quick pace of progress has mostly benefited teachers and students, he said. The pre-calculator days of math instruction required careful teacher planning so the problems worked out nicely for students.

Because of the availability of calculators, computers and other technology upgrades in the schools, today's students are able to get beyond the basics and actually learn more about math, he said.

"We can spend a lot more time on the process, and we can dig further into those kinds of things because they're not spending all their time doing the calculations or graphing by hand," Rodacker said. "It's all about teachers getting students to use the technology correctly."

But low-tech items still have a place in his classroom — the students use blackboards to solve problems and bring their textbooks and notebooks each day so they can take notes and do assignments.

"I don't see us replacing the pencil and paper anytime soon," he said.

Johnson covers local K-12 education. Reach him at (701) 780-1105; (800) 477-6572, ext. 105; or send e-mail to rjohnson@gfherald.com.

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