

Students excited about learning-thanks to new whiteboards As seen in the Oakland Press, June 6, 2010

In Carol Pinneo's math class, the new whiteboard – when it's not powered up – looks similar to the white or blackboards most adults remember from high school. Turned on, however, this board rivets the attention of even the most school-averse students.

Pinneo teaches pre-calculus and algebra at Seaholm High School in Birmingham, Michigan. She started using her interactive whiteboard this year, when she and several of her colleagues each received one as part of a grant from the Birmingham Education Foundation (BEF). Groves High School, as well as district middle schools, also received these “gifted” whiteboards from BEF, and, they're significantly changing the classroom experience.

Promethean boards, as these particular interactive whiteboards are known, work like giant touch-screens – similar to weather maps on television. Using a stylus, the teacher or student writes or manipulates images on the board, while a connected computer follows along or obeys. Pinneo and her colleagues who teach math, social studies and language arts use it practically everyday.

“A subject like math can seem so abstract, and the Promethean board helps them visualize,” she said. “I can give many more examples and demonstrations from everyday life,” she added. “The fact that it's high-tech also helps, because the kids are already very technologically oriented. They are fascinated with it. They come in before class starts, without any instructions from me, and start to work on it.”

2-D Toolbox

Anything that can be shown on a PC or laptop can also be displayed on an interactive whiteboard, Pinneo explained. She uses a You Tube video of a diapered baby dancing to a teen-friendly beat to make the quadratic equation memorable. To demonstrate calculator functions, she calls up a 2-D, 3-foot tall device

and pushes its buttons with her stylus. And to explain concepts in geometry, she drags a mammoth, 2-D ruler, compass or protractor into the picture. She also rotates shapes to make the dimensional concepts clear.

Adrienne Fazzolara, a 6th grade teacher at Berkshire Middle School, in Beverly Hills (also part of the Birmingham School District), said she also uses the interactive whiteboard everyday. She puts her lessons into the interactive “flip chart” presentation function and clicks on embedded links to access maps or other up-to-date references on the Internet. In Language Arts courses, Fazzolara added, teachers and students use the Promethean boards to edit in front of the class, then they save the corrections in a computer file.

Audience Polls

Ask the students about the Promethean boards and they’ll say the most popular feature is what they call “the clickers” – hand-held keypads that comprise the interactive response system, according to Pinneo. Like the “ask the audience” units used on television, these “clickers” give each student a chance to anonymously answer a question, while overall results instantaneously display in bar chart form on the board.

Pinneo and her math colleagues also credit this polling technology with bringing out an admirable “team spirit” in their classes. When a poll shows that someone is struggling, those who understand the concepts volunteer to help classmates who made mistakes. Since the display is a bar chart, the class can’t exactly identify who’s wrong, so it’s up to those who made mistakes to reveal who they are. The teacher, on the other hand, sees who enters what, on her computer screen, and can tailor explanations to resonate with the struggling individuals. “Kids sometimes want to hide when they don’t understand,” Pinneo said. “Now I know who’s holding back.”

Enriching Notes

Until this year, Fazzolara spent a lot of preparation time making overheads and copies. Now, she keeps all the content together in her electronic file and spends more time enriching it. She accesses the rapidly growing resources on the Internet for interactive whiteboard illustrations and examples. Teachers from all over the world share what they have developed through web-based communities as well as through other sites, so there are plenty of options.

Fazzolara also develops versions of the presentation for each class section, incorporating notes specific to in-class discussions and recording the group's evolving memory. "Then, when we review for tests, everything's together and is most likely to jog memories," she said. "Overall, the Promethean boards have made a huge impact in how they (the students) interact with the curriculum."

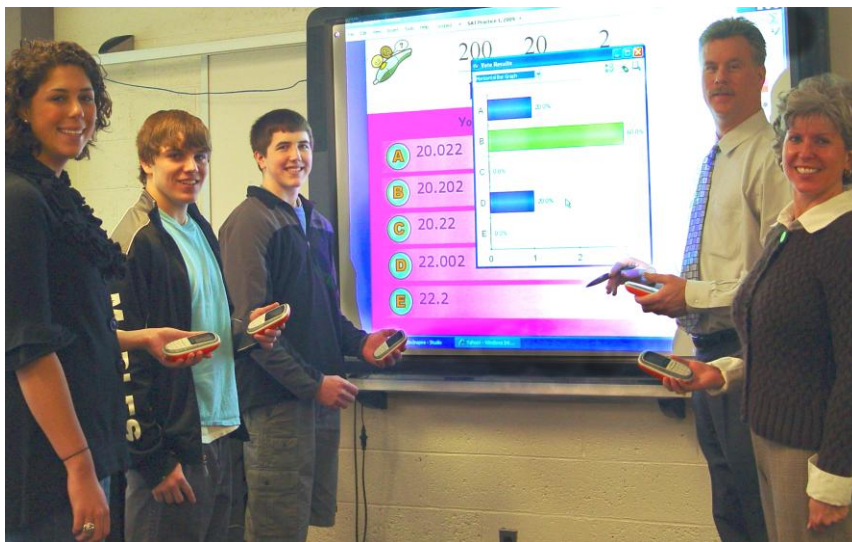
One of Pinneo's colleagues in Seaholm's math department, Keith Hart, added that since he has been using the interactive whiteboard, he has noticed improvements in students' ability to remember the material and likewise, test scores have risen. "I was one of the most skeptical teachers at Seaholm," Hart said. "Now I think it's a fantastic piece of technology!"

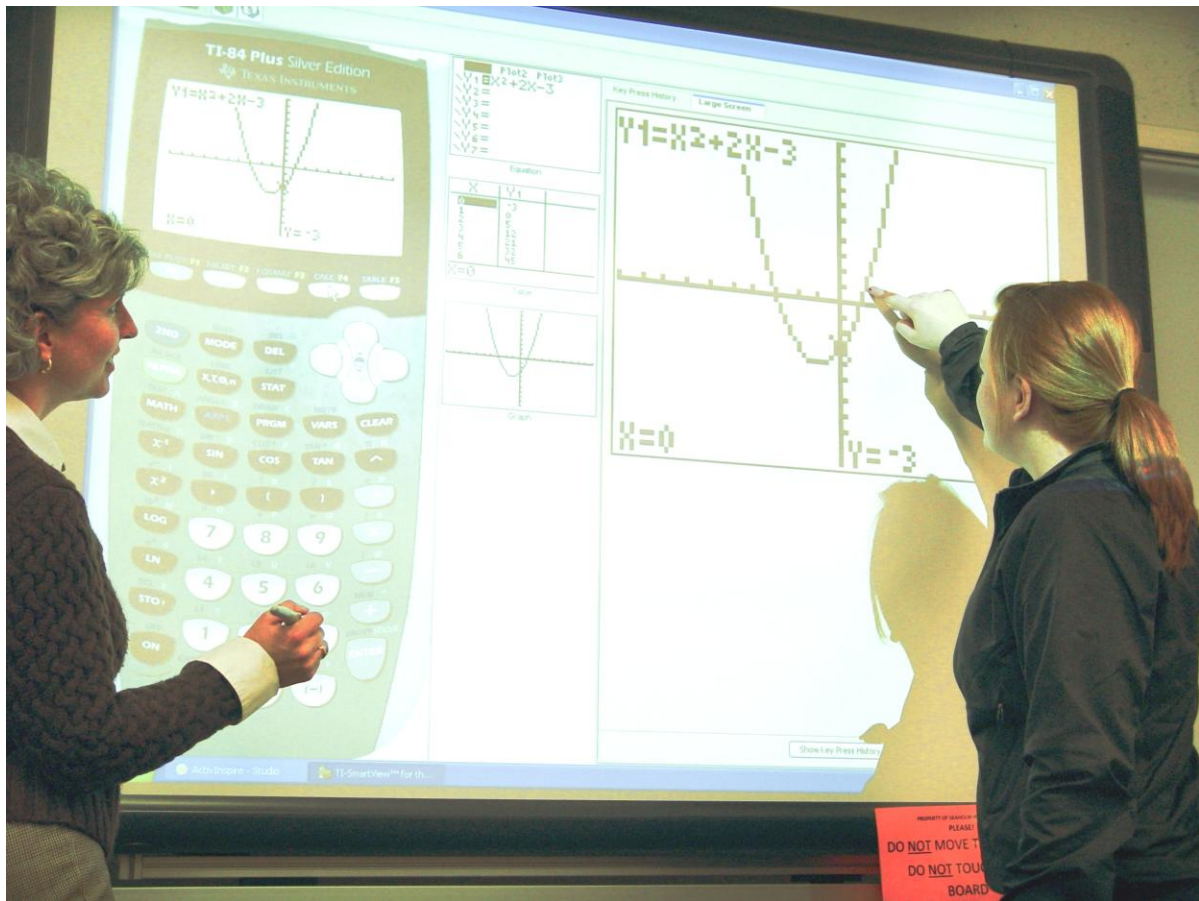
Carol Pinneo agreed. She said she was most surprised by how much she liked it. "I was nervous to change the whole way I teach. But now," she remarked, "I can't imagine teaching math without it."

Donors from the Birmingham community, large contributors as well as small, helped make the funds for these Promethean boards possible. On behalf of many teachers in the Birmingham district, Pinneo, Fazzolara and Hart send their thanks and want everyone to know how much it helps their efforts to educate Birmingham student. Please consider a tax-deductible donation today. With school funding cutbacks, there are a growing number of requests to support academics, the arts and athletics. (www.supportbef.org/)



Three Seaholm high school students, Aubrie Sass, Barclay Oudersluys, Mike Sarzynski, along with Keith Hart and Carol Pinneo, (on right), two math teachers at the school, demonstrate how “the clickers” work with their classrooms’ new interactive whiteboards. Once each of the activated keypads in the room submits a response, a bar chart shows the frequency for each of the answer options, which in turn sparks class discussions to clear up misunderstandings. Hart and Pinneo often use these systems for practice tests and work sessions to prepare for exams, as well as for their daily instruction. Pinneo and Hart said the interactive whiteboards, which were funded through a Birmingham Education Foundation (BEF) grant, significantly improve students’ engagement and performance in math, and want to express their gratitude to the many local BEF donors who made them possible.





Carol Pinneo, math teacher at Seaholm High School in Birmingham, Michigan, and one of her students, , discuss an algebraic function displayed on one of the school's new Promethean interactive whiteboards, which were donated through the Birmingham Education Foundation (BEF). The gigantic calculator is just one of the many tools Pinneo and her colleagues use on this system to enliven math and improve students' engagement and performance. BEF funds come from local donors, who contribute in amounts ranging from \$5 to \$10,000 each.



Algebra student, Tommy Scheidt, in Carol Pinneo's math class at Seaholm High School, mimics a dancing baby from YouTube that reviews the quadratic equation on the new interactive whiteboard. The Birmingham Education Foundation (BEF) donated 40 of these interactive whiteboards to Birmingham schools in the last year. Pinneo credits the new whiteboards with giving her the ability to engage students in the math curriculum like never before. BEF funds come from donations primarily given by the Birmingham public and local businesses.