

Interactive Products Division Numonics Corporation **Case Studies**



Cleveland High School, Cleveland, TN: Interactive Whiteboard Enhances Education in High School's Health Science Department

Case Study by Ellen Kollie

Teaching health science classes that include anatomy, emergency medicine, rehab therapy and biomedical engineering was frustrating on several levels for Erin Hattabaugh, RN, a teacher at Cleveland High School/Vocational in Cleveland, TN.

It was difficult to involve and engage the 11th- and 12th-grade students as they worked through details of labeling complicated diagrams. It was challenging to ensure that every student labeled every diagram accurately. And there were days when it was just plain difficult to keep students' attention as they plowed through piles of facts.

Then Hattabaugh saw other teachers in the 1,100-student school using IPMII 2000 interactive whiteboards from Numonics Corp., Montgomeryville, Pa. "My first thought was, 'I could really use that.' I knew it was something I would be interested in, I just didn't know why," she confesses.

After talking with other interactive whiteboard users and researching the boards online, Hattabaugh ordered one for her classroom. In just one year, she's amazed at the difference the simple tool has made in how she teaches and how her students learn. "I can't imagine not having it," she says. "It's unbelievable: Every day I think of different ways to use it."

The IPMII 2000 is an interactive whiteboard that uses fast and accurate electromagnetic digital technology to

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turn a computer and a data projector into a powerful teaching tool. It's compatible with either Mac or Windows operating systems.

The IPM 2000 interactive whiteboard includes an electronic Multimedia Pen and, when the presenter touches the board surface with it, he

controls the computer environment in real time. All program functions are transferred to the pen enabling the presenter to stay in front of the audience without touching the computer. Annotations can be made directly on the projected images with electronic ink to improve audience retention of the material. Note-taking software automatically saves written notations or illustrations for distribution during or after the session in paper form or electronically over the internet.



All interactive whiteboards must align the desktop mouse cursor with the mouse pointer (in this case, the Multimedia Pen). The IPMII 2000 is calibrated in just four points.

The IPM 2000 interactive whiteboard features 17 user-definable Softkeys (located on each side of the board), which the user defines to launch web sites, applications, files and keyboard commands. They allow the teacher to quickly and smoothly navigate through a presentation. It also includes 14 different Presentation

Tools, including an Annotation Pen, Eraser, Highlighter, Reveal, Spotlight, Timer and Subliminal Message. With those features, it's no wonder Hattabaugh uses the interactive whiteboard every day.

Most commonly, Hattabaugh uses the whiteboard for labeling the many diagrams used in her courses. It ensures that every student sees the same thing.

"We just flash the diagram on the whiteboard and write on it," she says. When a diagram is completed, all notes and illustrations are automatically saved to her laptop for either electronic or hard copy distribution at any time.

The students even take turns using the electronic pen for labeling, which Hattabaugh notes is excellent for training the students to work in groups. "They're more involved," she points out.

When it comes to test taking, a diagram with parts numbered, but not labeled, is projected. The students write on their own paper the appropriate part for each number.

A powerful feature that Hattabaugh loves is the ability to hyperlink into Websites on the spot by defining one of the Softkeys to go directly to a site. The IPM 2000 is the only interactive whiteboard to offer this unique time-

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saving and dynamic feature. "It saves time by eliminating sending the students to the computers, and I can be sure that they're all seeing what I want them to see," she says.

Hattabaugh often brings up Websites for hooks — ways to hook the students in and get them interested in the lesson. For example, she may go to a Website where they can take a test about the brain and personalities or where they can quickly see medical emergency pictures.

A tool that both Hattabaugh and her students like is a ticker tape that runs along the bottom of the screen with a unique message. She uses it most often to announce upcoming tests. "When I use the ticker tape," she says, "there's no excuse for the students not to be prepared."

The interactive whiteboard's size is a definite plus for capturing students' attention. The active area measures 63.3 in. by 45.6 in., producing a large 77-inch diagonal image. "Before I got the whiteboard," Hattabaugh explains, "I was using my lecture notes through a Merck system. It allowed me to project whatever was on computer onto my television, which was 19 inches. But it still didn't keep their attention like this huge board does."

With so many features and benefits, it's no wonder that teacher usage of interactive whiteboards at Cleveland High School/Vocational has grown from one to nine in just a couple of years. As teachers see how Hattabaugh uses the whiteboard to enhance her students' education, even more are sure to incorporate them in their classrooms, too. "You're only limited by how many ways you can think to use it," she summarizes.