

# Interactive Products Division Numonics Corporation **Case Studies**



## Interactive Whiteboard Brings Science to Life

By Ellen Kollie

“I can’t imagine teaching without it,” says Candice Delgado, a middle school science teacher at St. Agatha Catholic School in Miami, referring to her Intelliboard (I-Board) interactive whiteboard. “After two years, I have become used to using it every day for presenting new material, supplementing lessons and reviewing before tests.”

In fact, when the light bulb on her projector recently burned out, Delgado found teaching without the I-Board difficult. And her students found learning to be more frustrating. “The students would forget that we were waiting for a new projector bulb,” she recalls, “and they would ask, ‘What does that look like? Can you show us on the I-Board?’” Everyone was much relieved when a replacement bulb arrived and lessons continued in the class’s “normal” fashion!

For Delgado, “normal” means daily use of the I-Board, which is manufactured by Montgomeryville, Pa.-based Numonics Corp. When connected with a computer and projector, the I-Board integrates education software and an electronic pen in a digital interactive whiteboard to change the way students learn. It starts with the ability to control computer applications and display computer images on the board, which can be done with a mouse at the teacher’s desk. However, because a teacher prefers to maintain control by staying at the front of the classroom, she can use the multimedia pen to control all the computer applications on the board in real time. Specifically, all computer functions are transferred to the multimedia pen, such as opening files, running digital video clips, launching Websites, or downloading free content from the Internet.

Additionally, a teacher can choose a softkey to change the multimedia pen from a mouse to a pen, and thus write and draw on projected images, annotate in color, highlight, and cut-and-paste images in order to improve students’ retention of the material being taught. Note-taking software automatically saves the notations, which is ideal for later picking up where a lesson left off or reviewing before a test. Notations can also be electronically distributed during or after the session.

The I-Board comes with RM Easiteach, cross-curricula software that can be used across a wide range of grade levels. Subject-focused toolbars for math, English language arts, science, and geography provide all the resources teachers need to create compelling lessons and stimulating activities. In addition, a range of ready-made primary content packs and fun game packs are also available for elementary and middle school education.

One of the main reasons Delgado appreciates the I-Board is that it lets her reach visual learners. “Traditional classroom learning is mostly auditory,” she points out. “There might be the use of some visuals, such as posters and educational DVDs. But, with the interactive whiteboard, I am able to really reach both auditory and visual learners — the classroom is entirely visual now. And it’s not just through the use of PowerPoint presentations, but also through the use of educational websites.”

Another reason Delgado appreciates the I-Board is that it lets her reach kinesthetic learners. “The students are involved now,” she explains. “They can approach the whiteboard and use the multimedia pen to highlight items, like the different parts of a volcano, or write with it to solve problems. It really involves the entire classroom and, I have to say, has greatly improved classroom dynamics.”

Yet a third reason Delgado appreciates the I-Board is the “Aha!” moment that makes teaching so rewarding. The “Aha!” moment is when students’ eyes light up with understanding. “Two years ago,” she begins, “it would take two class periods to reach comprehension on defining the metric system’s meter. Some students would look at me blankly. On some students’ faces, I could see that they were confused about the difference between a meter and a foot.

“Now I use the I-Board to show a meter next to a foot,” Delgado continues excitedly. “I also show a meter and, next to it, things that are about a meter long. I see the light bulb go on with a little balloon bubble over their heads: ‘Oh, I get it.’ And the lesson is mastered in just one class period.”

Delgado has found that uses for the I-Board are limited only by her imagination. For example, aside from creating PowerPoint presentations, she uses it to show video clips that accompany science labs. She also displays pictures that illustrate a lesson, such as volcanoes and the digestive system. And she often creates a blank chart, which is then filled in with all the students’ data related to a specific subject, thus creating a class data table.

Delgado has also found numerous online sources for enhancing lesson content, all of which she presents on the I-Board. For example, Discovery Education has a lesson showing the digestive system in action. Similarly, National Public Radio produces “good news” science articles. “I bring those up, and we listen to the audio,” she says.

And Delgado’s students especially like learning from Tim and Moby on the Brainpop website. Tim and Moby animation clips are three to five minutes long and cover a variety of science topics, as well as math and health. “The characters use comedy to teach a concept, which my students really appreciate,” she laughs. “In fact, they even refer to Tim and Moby when writing about their memories in their yearbooks!

“To be honest,” continues Delgado about the I-Board’s advantage of accessing the Internet, “I would definitely say that, as a teacher without the I-Board, I would have to go to a variety of school supply stores to get posters and other visuals to put up for the students to view. With the I-Board, I can use any online search engine to locate any visual or video clip. It saves both time and money.”

When asked about future plans for using the I-Board in her classroom, Delgado notes that science is always evolving. For example, in 1996, Pluto was changed from the ninth planet in the Earth’s solar system to a dwarf planet. Similarly, new information about genes is continually being discovered. For this reason, she uses the summer months to update her lessons. “On the I-Board,” she points out, “it’s simple to change each lesson’s information and be ready for the new school year. With a textbook, you can’t add or change information, and it may be several years before the district can afford to purchase new ones.”

The I-Board has the distinct advantage of immersing students in a contemporary educational environment, thus bringing science to life. With the added benefit of reaching all types of learners, Delgado couldn’t ask for more.