

Interactive Products Division Numonics Corporation **Case Studies**



St. Pius X, El Paso, TX: Numonics Interactive Whiteboard Helps Teacher Meet Goals and Increase Productivity

Case Study by Susan Brooks-Young

St. Pius X is a pre K-8 Catholic school in El Paso, Texas. In addition to serving the children of parish members, some students come from Ft. Bliss (where their parents are stationed) and a large group resides in Juarez, Mexico crossing the border every day to attend classes. With such a diverse international student body, staff members at St. Pius X are well aware of the need to prepare their students to be successful members of a challenging, complex world. Two primary goals for the school are:

- Use multiple learning opportunities to enhance critical thinking skills and improve students' problem-solving skills
- Provide on-going opportunities for students to develop technological skills

When connected to a PC and an LCD projector, the Interactive Presentation Manager (IPM) 1000 creates a large interactive projection screen, enabling teachers to provide instruction using the board's surface and an electronic multimedia pen. Softkeys, located on each side of the IPM 1000, can be used to launch video, graphics, and software with a touch of the pen, which also controls all program functions. In addition, the screen capture feature makes it possible to save and retrieve files created or modified during a presentation. Patricia Martinez, the school's technology teacher recently became convinced that interactive whiteboards could be used to help meet the two goals mentioned above. She used federal funds to purchase an IPM 1000 for the school.

Carlos Gomez teaches 7th and 8th grade Science. He is comfortable tackling new technologies, so Martinez invited him to use the new interactive whiteboard in his classroom when it arrived. Gomez connected the IPM 1000 to the Dell laptop and InFocus projector already in his classroom and ran through the tutorial to teach himself the basics. In short order, he was ready to experiment with strategies for making the IPM 1000 an integral tool for daily instruction.



Mr. Carlos Gomez

This was the most labor-intensive part of the project. Gomez began by reviewing his lecture notes. He discovered that he spent a great deal of time describing concepts while students took copious notes. This gave students lots of information, but they were so focused on copying down everything he said, that there was little time left for in-depth discussions. Gomez hypothesized that he could use the IPM 1000's Reveal feature to help students identify the most important points and easily insert video clips, graphics and online resources to illustrate concepts, reducing lecture time.

Gomez reorganized and converted his lecture notes into Word files, finding supporting visuals and Web sites to launch at appropriate times during instruction; then, he started using the IPM 1000 during class. The benefits of the changes in his approach to direct instruction and the positive impact on students were immediately apparent. As he surmised, the quality of students' notes improved and the visuals helped them grasp concepts more quickly. More interesting class discussions based upon application of knowledge rather than simple comprehension followed. There were also positive changes in student work. Every year the 8th grade science students prepare and teach lessons. In spring 2005, the students used the IPM 1000 for this project. The content of those lessons and the quality of the presentations far surpassed previous years. But this device was just on loan to Gomez, so when Numonics invited school officials to apply for the Numonics 2005 President's Technology Grant, Gomez wrote a proposal and won an IPM 2000 for his classroom.

With two IPMs on campus, other teachers began indicating an interest and the IPM 1000 became a mobile unit. Gomez offered training to all teachers in the fall of 2005. He also taught 7th and 8th grade Applied Science students how to set up and troubleshoot the IPM. The mobile teaching unit is so popular that the school recently purchased two additional units. Teachers now hope to make interactive whiteboards standard equipment in every classroom.

Impact on teaching:

- Improved organization and preparation of lessons
- More effective lesson presentation using Reveal and highlighter features as well as video, graphics and online resources
- Increased ability to seize teachable moments using edit features to make revisions or additions to presentations during lessons
- Simplified task-management including making study notes available and projecting pop quizzes

Impact on students:

- Increased engagement in daily lessons, particularly in group discussions
- Ability to demonstrate work and share thinking processes with the whole class
- More effective note-taking
- Improved presentation skills
- Increased self-esteem among students who provide technical support to teachers