

MIAMI-DADE SCHOOLS

## High-tech classrooms of future showcased

· With \$100 million to spend on technology in the next few years, school officials invited vendors to show how their wares can improve education.

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Not a textbook or dry-erase board in sight, freshman agriscience teacher Surey Rios floated around pods of students at TERRA Environmental Research Institute on Monday, guiding them in a lesson on energy as a crowd watched.

Jessica Bustillos created an interactive poster on her tablet depicting how energy is both used and wasted at her high school in Kendall. Joshua Garcia projected the costs and benefits of renewable energy onto a Smart Board 800. Around them, classmates used their fingers to operate a Smart Table, iPads to view a video on creating potable water, and a Steelcase media:scape to share thoughts on managing India's growth.

In Miami-Dade, call this class of interactive technology and new-school teaching methods the class of the (near) future.

"I keep calling it the classroom of the future," Schools Superintendent Alberto Carvalho told a crowd of onlookers. "But really, it's the classroom of now."

Today, that is true for some Miami-Dade classrooms, though not most. But that's going to change now that the district has about \$100 million to spend on technology as part of a \$1.2 billion voter-approved project to renovate, rebuild and upgrade school campuses.

The district will begin the upgrades this summer. So on Monday, Carvalho and the Miami-Dade School Board held a workshop and technology bazaar, inviting vendors to hawk the kinds of wares that might end up in classrooms, and showcasing how technology is being used to change the way teachers teach and students learn.

"We're at the threshold of something special," School Board member Carlos Curbelo said.

Among the district's broader goals:

· Dramatically expand each school's bandwidth — likened to an Internet highway — so it can support access by hundreds or even thousands of students without slowing down or freezing up.

· Place interactive, multimedia and touch-screen devices in every classroom within two years.

· Upgrade and improve technology across the board so that students in all communities will each have access to a device and first-class content with equity, regardless of where they live.

When the money is spent, the district hopes to emerge with a more-interactive, high-tech system more geared to projects and presentations, personalized instruction and the use of the ubiquitous smartphone and tablets. Though the district won't buy every student a device, the hope is that every student will have access to one.

"This is going to be transformative work," Carvalho said.

To display the technology coming to classrooms — or in some cases is already there — the district invited vendors to set up in TERRA's gym and created a bazaar that attracted education officials from around the state. Reading Plus and Discovery Education showed off their educational programs, while TekTouch vendors explained how their touch screen with a built-in computer allowed students at Nathan B. Young Elementary School to talk to kids in China last year.

Safe System presented equipment that places a camera in every classroom and gives teachers a small alert system to wear around their necks in case of emergency. The \$3,000 system can also be used to record lessons for professional development, or for "flipping" a classroom by recording lectures for students to view at home.

"This is what I've wanted in our schools for four years," School Board member Lawrence Feldman said. "But no one had been able to do it."

Adriana Diaz-Bergnes attended the bazaar to check out new programs for Dr. Michael Krop Senior High School, where she teaches math. She said she is now able to present all of her lessons on a high-tech Mimio

board and save them so that her students can download them through Dropbox. Most of her students download the lessons straight to their phones, she said.

“If you’re not working with this technology, then you’re behind,” she said.

School district officials agree, writing in their presentation that “classrooms without technological tools are obsolete.” They expect that when the money is spent, academic classrooms will resemble Surey’s TERRA classroom.

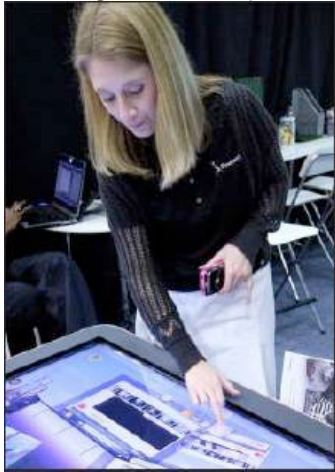
One such example coming this fall: iMath, a high-tech curriculum that will be in every middle school math class, paid for with a \$32 million federal Race to the Top grant.

Surey said teaching such an interactive, tech-based class takes the right approach, which differs from the traditional lecture-and-textbook teaching model.

“I want to be with them. I don’t want them following me,” she said of her students. “I want to push them forward.”

To help with that, the district expects to spend to provide professional development and training for its teachers. Carvalho said the district is also taking into consideration the issue of equitable device access, considering that some students don’t have computers or high-tech devices at home.

“This is about bringing everybody up to the same level playing field,” Carvalho said. “The failure to do that will not get us to the place we need to be.”



JOSE A. IGLESIAS/EL NUEVO HERALD

WORKING TOGETHER: Deanna Harrison shows the Activ-Table, a multi-user device.

