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GRANDE INNOVATION ACADEMY

SMALLab brings virtual reality to school

Staff Reports

CASA GRANDE — A new SMALLab at Grande Innovation Academy aims to get students up out of their seats during science class.

Grande Innovation Academy is the first school in the area to install a SMALLab, which combines computer-human interaction, virtual reality and classical science for an innovative approach to learning.

"The SMALLab will give our scholars the opportunity to develop critical thinking skills through the collaborative, multimodal interactions during SMALLab lessons," said school Principal Patty Messer.

Students will begin using the new lab next year. But on Monday, the school's teachers and staff received SMALLab training.

Students will have a chance to play with the technology next week, Messer said.

SMALLab was created by Arizona State University researchers led by David Birchfield. It uses motion-capture technology to track student movements as they learn.

"Students learning about a physics concept like velocity can hear the sound of their actions getting faster. They can see graphs and equations that represent their motions in real time. They can feel the weight of an object in their hand as they interact in real physical space," a press release from the school said.

Through the program, Kinect for Xbox 360 skeletal tracking cameras will be brought into classrooms to work in conjunction with whiteboards and lessons. The program includes 25 STEM learning scenarios.

In the chemistry lab, for example, scholars will grab virtual molecules and insert them into a flask, Messer said.

Scientists believe embodied experiences are more effective for learning.

"Cognitive scientists have discovered compelling evidence that most language and



Submitted photo

Teachers at Grande Innovation Academy were trained to use a new SMALLab at the school Monday.

cognition is grounded in a bodily experience. This suggests that embodied, physical activities can lead to more effective learning. Embodied learning has the potential to transform K-12 learning in schools, museums and community centers," the press release said.

The program is also fun.

"Scholars think they're having fun, but they're sharpening their critical thinking and communication skills. With SMALLab

learning, entire classes participate by working together to solve problems," the press release said.

Grande Innovation Academy is a state-funded charter school that emphasizes a quality education while striving to make education fun and preparing scholars to succeed in college and be valuable global citizens.

It's located at 950 N. Peart Road. For more information visit www.grandinnovationacademy.com.