Students to their schools: 'Got game?'

Survey reveals a disconnect between kids', adults' views on tech in schools

Meris Stansbury
Assistant Editor

Educators are largely missing out on what could be a huge opportunity to capitalize on their students' appetite for electronic games and simulations to teach them about core curriculum topics, results from a new national survey suggest.

Project Tomorrow's fifth annual Speak Up Survey, which polls the attitudes and opinions of K-12 students, teachers, parents, and school administrators toward the use of technology in education, reveals that online or electronic gaming is one of the technologies that students use most frequently—and that educational gaming is one of the emerging technologies that students would most like to see implemented in their schools. Yet, only one in 10 teachers has adopted gaming as an instructional tool.

More than two-thirds of students in grades K-12 say they play online or electronic-based games regularly. On average across all grade levels, students are playing electronic games about 8 to 10 hours a week. More than 50 percent of students in grades 3-12 would like to see more educational gaming in their schools—yet only 19 percent of parents and 15 percent of administrators favor that idea.

"What was really interesting to see in this year's survey is how the pervasiveness of gaming has really taken a stronghold," said Julie Evans, Project Tomorrow's chief executive. "Students are really articulating their interest in gaming, as well as the many benefits educational gaming can provide."

New York-based Tabula Digita makes a series of immersive educational video games, called DimensionM, designed to help students master key algebraic concepts. Three Florida counties—Orange, Seminole, and Volusia—have adopted this software in their middle school classrooms.

DimensionM embeds pre-algebra lessons within a three-dimensional virtual setting, so students can learn mathematical concepts by completing missions, or lessons, in a game-based environment.

Students can play in a single-player format or a tournament-style format with students in their class, district, or around the world. The software also correlates with both NCTM and state standards.

"When I first saw the DimensionM product, I thought the graphics were incredible and the idea of making math practice a part of a video-game format was brilliant," said Melissa Young, district mathematics specialist for Orange County Public Schools. "As I've been working with the math teachers and students in recent weeks, I've realized why it works—because it gives kids a reason to want to learn math."

She continued, "We are witnessing a metamorphosis of sorts. Within the first few weeks, we saw students seeking assistance from their teachers before the scheduled time for math, so they could beat their friends. … It's driving up math scores. When our students are experiencing success on the game, it transfers to success in the classroom."

The Speak Up survey results support Young's impressions by revealing that the No. 1 reason K-12 students like to play electronic games is the competition with other kids. For students in middle and high school, finding ways to be successful at the game and the high level of activity also are strong motivators.

Just over half of the students surveyed (51 percent) said they're interested in educational gaming because games make it easier to understand difficult concepts. Fifty percent said gaming would make them more engaged in the subject, and 44 percent said it would be more interesting to practice problems.

Yet, while more than half of teachers said they would be interested in learning more about integrating gaming technologies into their teaching and 46 percent would be interested in professional development on this topic, only 11 percent said they are currently incorporating some gaming into their instruction.

What's more, there seems to be a disconnect between what students want from their own education and what the adults in charge think is best. This disconnect extends beyond the topic of gaming and applies to many other educational technologies, too.

According to the survey, students' frustration with school filters and firewalls has grown since 2003, with 45 percent of middle and high school students now saying that these tools designed to protect them inhibit their learning.

Nearly two-thirds of middle and high school students said "let me use my own laptop, cell phone, or other mobile device at school." Fifty percent would like to be able to access their school work and related software applications and projects from any computer on the school's network and have unlimited internet access while on campus.

While 53 percent of middle and high school students are excited about using mobile devices to help them learn, only 15 percent of school leaders support this idea. Also, fewer than half as many parents as students see a place for online learning in the 21st century school. And even fewer teachers, parents, and school leaders want students to have access to eMail and instant-messaging accounts from school.

"The disconnect between what students want and what they're actually receiving is significant," said Evans. "There have been huge investments in technology, educators are receiving more training, and more policies are being implemented—but still, this student frustration is rising." eSN

In which of these activities do you regularly use technology?