

**NEA: National Education Association**  
Great Public Schools for Every Child

October 2007

**neatoday** Try This!

## Educators Got Game

### Using video games and simulations in the classroom.

by Cindy Long



The U.S. military uses video games to train forces. Doctors use them to practice surgery. And education technology experts are encouraging teachers to play simulation-themed games in the classroom to help students think more critically. By building cities, empires, cultures—or even zoos—students enter virtual worlds where they must rely on creative problem-solving and analytical skills.

#### Can students really learn from video games or simulations?

David McDivitt, who teaches world history and sociology at Oak Hill High School in Converse, Indiana, says games teach his students important lessons about cause and effect. In the game *Making History*, for example, students act as leaders of different countries during World War II. They have to make strategic decisions and anticipate the consequences, such as making a treaty with one country or violating a treaty with another. Their chosen strategies can also impact the outcome of the war, providing “excellent teachable moments,” McDivitt says.

“I’ve had kids tell me they don’t think the war would have lasted as long if countries had been more aggressive with Hitler earlier on,” he says. “They can read that in a textbook, but they’re much more likely to remember it after seeing it played out.”

In McDivitt’s sociology class, students play *The Sims*, where they control the day-to-day lives of characters called Sims (short for simulations), choosing their careers, steering their social lives, and plotting their futures.

Students learn by assigning social roles to their Sims. McDivitt explains to the class that he’s a father, a teacher, a coach, a husband, a brother, and a son. “Which role is the most important?” he asks. “How do they overlap?”

“The students then apply it to their own lives,” says McDivitt. “In high school, kids are in transition—they start to think about whether being a son, a daughter, a friend, a sibling, or college student is their most important role.”

#### What other games work in the classroom?

A pioneer of educational video games is *Civilization*, says Bill MacKenty, head of instructional design at Hunter College High School in New York City and a former Massachusetts elementary school teacher. In *Civilization*—called “Civ” by devotees—students literally build a civilization and learn how it survives through the ages with technology (like the invention of the wheel), agriculture, commerce, and the role of government.

*SimCity* is another favorite of MacKenty’s. While planning and creating a virtual city, the game shows students how to build revenue through taxes, provide water and power sources, build industrial and residential zones, and learn why distances between them are important.

Other titles he recommends are *Age of Mythology*, *Age of Empires*, and any title by the company Muzzy Lane.

#### Aren’t video games violent?

Games like *Grand Theft Auto* are popular with kids, but are “spectacularly inappropriate for the classroom,” MacKenty says. Look for games with age-rating labels and do your research to weed out the violent titles.

#### Doesn’t gaming isolate children from the real world?

We often think of gaming as a diversion from reality, says David Williamson Shaffer, an education science professor at the University of Wisconsin-Madison and author of *How Video Games Help Children Learn*, but they’re actually more real than some of the experiences kids have in school. “Elections for student body can be a powerful way for kids to understand government and democracy, but not all students can run, and what you can really do as president is limited,” he says.

But in a game like *The Political Machine*, students become campaign managers for a presidential campaign, and they decide on everything from platforms and fundraising strategies to advertising messages.

Shaffer, a former history and math teacher, was frustrated by his school's emphasis on testing basic skills, which he believes does nothing to prepare students for the technological world. Games teach students to be innovators, he says. He now works in a research group that field tests games that "help students learn to think like engineers, urban planners, journalists, lawyers, and other innovative professionals, giving them the tools they need to survive in a changing world," according to the group's Web site, *Epistemic Games*.

### **OK, I'm convinced. How do I get started?**

"Play games! Play lots of games. Find out what they're like, and talk to other people about what games they're using," advises Brock Dubbels, who teaches language arts and literature at Richard Green Central School in Minneapolis, Minnesota. He says that after playing a few different titles, you'll see how they can apply to your teaching goals.

Dubbels uses the literary elements of games—such as genre, tone, plot, setting, and characters—to increase student comprehension and critical evaluation skills. "All games have a story," he says. "They're built on traditional narrative elements and film theory, but have interactivity that students find engaging."

[Test drive a video game and find a wealth of online resources for educational games with this list from Brock Dubbels.](#)

He emphasizes, however, that games are merely tools that help teachers achieve pre-established curricular goals. A video game is "a killer app in the classroom," but it's a means, not an end, he says.

Bill MacKenty agrees that goal-setting is key. "You have to have a conversation before and after the game; you have to ask questions and get students writing about what they've experienced, or that critical thinking isn't crystallized," he says. "If you stick a kid in front of the computer and expect something magical to happen, you're going to be disappointed. You need to ask, 'what are my objectives?' You need planning and assessment. It's just good teaching."

Plus, it's just plain fun. "'We're going to play a game' sounds a lot more appealing to a class than, 'We're going to summarize a story and analyze a plot diagram,'" says Dubbels.

### **Problem-Solver**

#### **Our school can't afford to purchase games and costly user licenses.**

##### **A solution:**

Ask your students to bring in their own games and their gaming platforms, suggests Brock Dubbels of Richard Green Central School.

Before asking his students to bring in their PlayStations, Xboxes, and GameCubes, Dubbels sent home letters to parents to explain why. "I told them the games would be used as part of rigorous, thoughtful, and relevant lessons, and encouraged volunteers to come into the classroom to participate and see for themselves how the games would be used," he says.

Older, and cheaper, versions of games can also be found on Craigslist or eBay, and Dubbels says people often will donate them after buying the newest version.

#### **Some of my students aren't gamers and don't feel comfortable with the technology.**

##### **A solution:**

"Not every kid loves games, but not every kid likes a worksheet or lecture either, so be prepared to 'sell' the game to that group," says David McDivitt of Oak Hill High School.

"Explain that it's not about winning or losing, and that the outcome of the game does not impact the grade," he says. "Be clear about the goals of the game, and explain that following the goals is more important than being a good player. Also, it's helpful to team students who are new to gaming with students who play them a lot."

**What's your advice?** [Share it with your colleagues on our discussion forum.](#)

### **Dance Dance Revolution!**



Say good-bye to the do-si-do. Dance Dance Revolution is the latest craze in gym class. Kids burn calories, build bone density, and fight obesity by stepping on the appropriate button on a dance pad to follow the arrows displayed on a big video screen, all to the rhythm of techno, Latin, or pop music blasting in the background.

"It's an outstanding workout, and it's a lot more fun than jumping rope or sit-ups," says Madison Elementary School gym teacher Mike Matejck. "It's also fun for kids who don't feel confident about their athletic abilities. Everyone loves to dance!"