

[Return to Main Page](#)



All Play and No Work

By Bill MacKenty -- 9/1/2006

Computer games are invading the classroom—and not a moment too soon

[Current Issue](#) ▶ [Features](#) >

Brian, a 14-year-old eighth grader, has always struggled in school. You probably know a kid just like him—slumped over a desk in the back of the room and, except for an occasional disruption, not very involved in class.

ALSO IN THIS ARTICLE:

- [Off the shelf, into the classroom](#) ▶
- [Becoming a player yourself](#) ▶
- [The joy of failure](#) ▶



Yet, lately, Brian has become a classroom leader, participating in discussions and helping his fellow students. And—the most significant transformation of all—he is excited about learning. What's Brian up to? He's carefully regulating economic growth in the municipality that he manages in his role as mayor: Brian is playing the popular computer game *SimCity*.

Brian (not his actual name) was a student of mine. Although I was already a big fan of using games in school, I was genuinely surprised and delighted to witness his success in my classroom. Given his lackluster academic history coupled with a difficult home life, Brian's newfound enthusiasm for learning was especially gratifying. In fact, his experience is one of my most treasured moments as a teacher.

So what do computer games have over textbooks and worksheets when it comes to inspiring students? Well, games are fun. That's why they're called games. But, there's more to it than mere recreation, according to Raph Koster, former chief creative director of Sony Online Entertainment and author of *A Theory of Fun for Game Design* (Paraglyph, 2004). "Fun from games arises out of mastery," he says. "It arises out of comprehension." And it's the act of problem solving that makes games so engaging. In fact, devoid of challenge or risk of failure, games really aren't all that much fun.

Computer games also provide students with an opportunity to role play. As we've seen with *SimCity*, a teen can become the mayor of a big city, confronting all the complex challenges that come with the job. Other games allow players to step into the shoes of a famous literary or other popular character. Imagine giving your students a chance to don Harry Potter's magic cloak or explore the world as SpongeBob Squarepants. Gamers can also inhabit the world of doctors, medics, and firefighters (as in the game *Emergency: Fighters for Life*) or transport themselves back in time (check out *Civilization*). Hundreds of other games address every armed conflict that has occurred throughout history.

Given a good challenge and a compelling role, kids will devote a huge amount of energy and time to understanding and playing a

game, as any parent or educator has surely witnessed firsthand. Incorporate some thoughtful teaching, and these same games can be a powerful force for learning in the classroom.

Off the shelf, into the classroom

COTS (commercial, off-the-shelf) games make excellent learning tools. Created for the mass market, they feature high-quality graphics and sophisticated, challenging strategies. Moreover, COTS games, such as *SimCity* and *Age of Empires* (a game in which players transform small Stone Age tribes into major civilizations) have large, fan-supported sites, where users can download add-ons, further enriching the gaming experience.

COTS games allow saving (ideal for 40-minute classes), and many facilitate networked play, so students can work together as a team to overcome a common challenge. COTS software also offers varying levels of difficulty, which is very important for children who might not be particularly skilled or experienced gamers. COTS games tend to have strong technical support; should you encounter a problem, you can easily find a solution online via Google or a gamer's forum.

The award-winning *Civilization* (www.civ3.com) is considered by many to be among the finest computer games ever made, and it's a perfect activity for the classroom. In it, players literally build a civilization, and in the process learn about technology, agriculture, and government. Appropriate for ages 14 and up, *Civilization* is exceptional for social studies and history classes. For the same age range, *SimCity 4* (simcity.ea.com) is another classic game that's a good social studies tool. While hard-core gamers assert that *SimCity* does not accommodate consensus and compromise, central concepts of management in real life, this can be alleviated somewhat by having students play in teams.

If you want to be king, then *Age of Empires* is the game for you. In this resource-management exercise, players select villagers to gather food, stone, and wood and train soldiers to build an ancient town, and that's just the beginning. In contrast, *The Sims 2* (thesims2.ea.com) features a contemporary setting in which players control the lives of simulated characters. According to the *Sims*'s slogan: "They are born. They die. What happens in between is up to you." Players respond to the needs and wants of their *Sims*, creating relationships and managing every element of their character's lives. This game (best for students over 14) is brilliant for exploring life skills.

While all wonderful choices, these games represent only a fraction of available COTS titles. How then, can you choose good games for your media center or classroom? To evaluate the educational potential of COTS games, consider the following guidelines:

Does this game have an educationally accessible context? For example, I would have second thoughts about using a game about aliens invading earth, such as *Half-Life*. One that focuses on a specific historical topic—*American Civil War: Gettysburg*, for instance, would probably be a better fit for a learning environment. I always have a clear objective when using games; on the odd occasion when I encounter a skeptical parent, I simply explain our teaching goals.

What does it teach? *Rome: Total War* has an appropriate context, but beyond Roman military strategy, you can't learn much by playing it. Here, we must examine precisely what the player does. In *Civilization*, a player creates a society; it is a central part of game play. Other titles, however, adopt a historical setting as simply a backdrop for "shoot and kill" activities.

What must a player do to be successful? Success should depend on intelligent choices and decisions. Too often, games rely on "twitch" or how quickly one can click a mouse or push the spacebar.

How do you win this game? I look for games that can be won in a number of ways, such as in *SimCity*, where players can win by creating any type of city they choose. Meanwhile, *Age of Mythology* has more stringent conditions for achieving victory, but many different ways of getting there. Be wary of a title that offers just one way to win.

Are there different levels? A game must continue to challenge students or they will become bored.

Becoming a player yourself

It all sounds good, you might say, but I've never participated in a MMORPG (massively-multiplayer online role-playing game) and couldn't tell an elf from a 60th-level warlock. Well, in order to teach any lesson you need to be prepared, and using COTS games is no exception. Before taking a game into your classroom, play it yourself for at least six to 10 hours (you may actually have trouble stopping). If you get stuck, remember GIYF (Google is your friend).

Then try the game with students, beginning with a small after-school group. The kids will love it, and you'll have a chance to test-drive the game before taking it into the larger classroom. But remember, don't interrupt your students during play, as a good gaming experience requires players' total attention. When you have an opportunity, do try to tie the game experience into other conversations. During a lecture, for example, I'll prompt students who have played the schoolroom classic *The Oregon Trail*, by asking: "When you were on your journey and you ran out of food or didn't have medical care, what happened and why?"

The joy of failure

I've never seen a student play a computer game and win on the first try. So I didn't expect much when Brian sat down to play a game. After all, he had a well-earned reputation for quitting anytime he was confronted by a real challenge. But when Brian played *Age of Mythology* (part of the *Age of Empires* series, but with centaurs and the like), I saw him lose and try and try again. When he did finally succeed, there was plenty of yelling and jumping around the classroom.

It's when we fail at a game that learning happens. Games provide immediate feedback, showing cause and effect when a player makes a poor choice, as in "Guess jumping off that cliff wasn't a great idea. I wonder what will happen if I try a different way?" When combined with thoughtful and deliberate instruction, failure can become a valuable tool.

One day when the students and I were playing *Civilization* in class, several boys immediately pounced on the closest city they could find, initiating a war at the very beginning of the game. After a few turns, they lost. So I took the opportunity to talk to them about the misuse of force. The conversation soon segued into a discussion of current events, and the students gained some important insights about war and its consequences.

As for Brian, he eventually rose through the ranks of his fellow students to become a skilled game player. Along the way, he failed—and learned—and, I'm sure, relished every moment of it.

For more about using games in the classroom, visit www.slj.com/podcasts to hear Bill MacKenty's podcast.

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[Return to Main Page](#)