

The Research Behind Games in the Classroom

When we think about video games and how they impact children, a number of ideas instantly come to mind. We might find them entertaining, distracting, stimulating or cognitively disruptive, but a great deal of research supports their use for developing and enhancing a child's core skills.

Video games, like many technological mediums of this digital age, have been adapted to become outlets for mental development. As children might use the Internet to broaden their knowledge base on a particular topic, they might also now play a game on an iPad® to help them think critically, apply learned ideas or investigate different solutions to a problem.

The positive element that video games have to offer the learning community is a form of stealth teaching. Students can learn from video games in a variety of different ways without ever feeling imposed upon by the stress of a traditional learning atmosphere.

Games as a Teaching Modality

Take, for example, a research report in *Innovate: The Journal of Online Learning*¹ details the learning experience that students have when playing an electronic game, as opposed to traditional textbook learning. Not only did students obtain and retain knowledge far more effectively through playing a video game, but those students having trouble grasping concepts also responded exceptionally well to the introduction of a deviant medium of learning.

What's more, the added entertainment value of video games, coupled with the lessons taught by the games themselves, form a perfect equilibrium of cognitive stimulation—one that's been proven to excite children and help them retain knowledge.

Strengthening Core Skills

Video games offer a number of skill-building opportunities, especially in core development skills, where some students can fall behind. Here are just a few areas of focus where common video games like the very popular *Draw Something* or *Puzzle Me* can work to help a student grasp important concepts:

- **Critical thinking:** When a straightforward problem-solving approach doesn't always work, games that offer critical thinking emphasis can help to build a student's focus. A recent study² suggests that games involving sequences and combinations, like *Sudoku* and *Words With Friends*, give students the opportunity to make critical-thinking decisions to help them choose the best option based on the variables they are given.
- **Hand-eye coordination:** Video games like *Flow* and *Fruit Ninja* for the iPad or the age-old game of *Brick Breaker* rely on a child's ability to effectively coordinate his or her hand-eye movements in order to succeed. Because games like this challenge a student while at the same time entertaining them, a unique learning ability is fostered and dexterity can be dramatically improved.
- **Trial and error:** Life is rarely a "one solution fits all" scenario, which is the basis for much of our trial and error learning. One study³ shows that the ever-popular *Angry Birds* game gives students the necessary means to test a trial and error scenario without negative repercussions, as they can always restart to remedy their mistakes. Video

games also teach patience to children, instilling this virtue in them before they must make real-world choices that have real impact.

Despite the negative connotations with video games out there, this research suggests that educators can use these games—if on a limited basis—as helpful classroom tools that encourage and enhance the learning process.

¹ Squire, Kurt. “Changing the Game: What Happens When Video Games Enter the Classroom?” *Innovate: Journal of Online Education*. 1.6 (2005).

² Hitti, Miranda. “Video Games May Help Critical Thinking.” *WebMD*, 18 Aug. 2008.
< <http://www.webmd.com/brain/news/20080818/video-games-may-help-critical-thinking>>

³ Skelton, Alissa. “Is Angry Birds Keeping Your Brain Healthy?” *Mashable*, 6 February 2012.
< <http://mashable.com/2012/02/06/brain-games/>>