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DES 157

Project Research

For the final project, I wanted to create something for the ISEA symposium; specifically the "Game Over – Play Again Y/N" theme.

The first article I read was "What Would a State of the Art Instructional Video Game Look Like?" by J. P. Gee. The focus on this article is on the qualities of video games that allow them to be effective vehicles of learning. The author used an example called *Full Spectrum Warrior*, a game that teaches the user "how to be a professional soldier" (Gee, 2). Gee discussed how the game provides numerous opportunities for learning and allows the user to use that knowledge first hand. It is a combination of carefully selected information to present to the user, a goal, and an immersive where the user can relate the information received to situations that arise in the game. Gee also states that by no means, games should replace schools and teachers. An excellent argument for both methods of teaching (video games vs. institutional learning) is that one cannot just blurt out information and expect the student to remember it, but it also does not mean teachers should just throw the game at students and expect them to know what to do. They go hand in hand, which will provide the student with an immersive and educational experience. Companies just have to learn how popular games provide information to its users.

The second article is titled "The power of play: The effects of *Portal 2* and *Lumosity* on cognitive and noncognitive skills" by Valerie J. Shute, Matthew Ventura, and Fengfeng Ke. This study involved people playing *Portal 2* and *Luminosity*. The participants' skills were measure before and after playing the games for 8 hours. Those who played *Portal 2* (famous 3D puzzle game) were found to have an increase in their cognitive and noncognitive skills as opposed to

those who played *Luminosity* (brain game/advertised as a game that improves cognitive functions), in which they found improvement at all. They observed/focused on three skills; problem solving, spatial skill, and persistence. The participants were administered a pretest (before the gameplay) and posttest (after the gameplay). Those that play *Portal 2* were seen to have greater improvement in their skills compared to those that play *Luminosity* in nearly all the tests, meaning video games can be beneficial to gamers and can help them improve cognitive, as well as noncognitive skills.

The third article is "The Impacts of Video Games on Cognition (and How the Government Can Guide the Industry) by C. Shawn Green and Aaron R. Seitz. The article discusses the research done on video games and how they can affect cognitive abilities. I found their definition of video games very memorable. "Video games, by their very nature, involve predominately active forms of learning (i.e., making responses and receiving immediate informative feedback), which is typically more effective than passive learning" (102). They also explained that levels in games usually get harder as skill increases, which keeps the player continuously challenged. Action games are believed to have a greater impact on cognitive functions while "brain games" usually lack good design, which leads to no improvement in skills. The authors also proposed ways in which government can get involved. The government should have incentives to have people play video games once in a while. They also proposed a collective collaboration between science and gaming design.

I decided to read these articles because I am not really sure what the theme is for the ISEA. It is a little ambiguous/confusing for me to understand. Do they want a combination of art and games? Isn't that already a popular thing (art in games are usually gorgeous)? Are they talking about fine art?

Work Cited

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