

Chapter 8

Video Games and the Challenge of Engaging the ‘Net’ Generation

Anthony Gurr
Simon Fraser University, Canada

ABSTRACT

Video games are a popular form of entertainment for students in North America and around the world. They provide widely diverse experiences on a variety of platforms. Participants can engage in solo play, or in games that attract thousands of other players. The levels of player participation, skill mastery, and thought processes required by many video games attract and engage students because they are able to control and eventually master challenging virtual environments. The holding power of video games and their ability to engage players is the subject of much educational research as educators recognize that game technologies are highly sophisticated. Students are interacting with subject content in ways that differ greatly from established methods of classroom instruction. This chapter reviews the current discussion among educators, researchers, and professional game developers about using video games in the classroom.

INTRODUCTION

There has been much discussion in Canadian society about the possible benefits or negative effects of playing video games. Everyone has an opinion – academics, educators, the media, medical professionals, parents, and politicians. Many educators recognize that video games are highly sophisticated, developed with powerful hardware

and software technologies that immerse players in challenging, engaging virtual experiences requiring high levels of participation, skill mastery, and thought. The current generation of students, born since 1990, views these technologies as a natural part of their lives. They interact with video games in ways that differ greatly from established methods of classroom instruction.

As a veteran video game developer with experience and formal training in education, I have often visited elementary and secondary schools

DOI: 10.4018/978-1-61520-731-2.ch008

in Canada and the United States to talk about video game design and what it was like to work in the game development industry. Parents and teachers frequently observe that students would gladly spend more time playing video games than doing schoolwork. Facer (2002) states "...computer games seem to motivate young people in a way that formal education doesn't" (p. 2). These comments confirm my own observations about the qualities shared by commercially-successful video game designers and outstanding educators. Both are passionate about their profession. They understand how to engage their audiences, immerse them in the content being presented, and help their audiences build on what is learned to master the next steps. Designing a unit of instruction and designing a video game are not dissimilar. Good video games clearly demonstrate how careful design and planning result in effective learning and application of knowledge (Squire, 2005). In this chapter, I argue that there are a number of compelling reasons for including video games at all levels of the curriculum.

THE "NET GENERATION" AND TECHNOLOGY

Canada's "Net Generation" at Play

Three decades ago, video games were perceived as little more than a child's toy and a nerd's hobby. The pixilated graphics were crude, the sound effects were minimal, and the game controls consisted mainly of moving a joystick and pressing one or two buttons. Many of them let two people play together by taking turns or participating at the same time. Today video games are considered a legitimate form of recreational entertainment around the world, competing with other established entertainment industries for the consumer's attention. According to the Entertainment Software Association of Canada (2008), nine out of ten Canadian households

owned a personal computer in 2007. Four out of ten Canadian households owned a video game console. Canadian consumers spent (Cdn) \$1.67 billion on video game hardware and software. They purchased 22.3 million units of video game software. People play video games across a wide variety of hardware platforms, including portable game systems, mobile and wireless devices, personal computers, and consoles. The availability of consumer broadband Internet technology in the last twelve years has provided a new opportunity for online game development and the creation of massively multiplayer online games. The current generation of video game consoles such as the Sony *PlayStation 3*® and the *Xbox 360*® are the technological equivalents of supercomputers; they use parallel processing cores, advanced three dimensional graphic capabilities, surround sound audio systems, and broadband Internet connections. The Nintendo *DS (i)*® portable game system incorporates a built-in camera, microphone, touch screen technology, and wireless connectivity. The Nintendo *Wii*® console uses motion sensors for its game controllers instead of a conventional button array. Video games of the 21st century offer players compelling, immersive, vivid, virtual entertainment experiences.

In November, 2003 the Canadian Broadcasting Corporation (CBC) aired a news story about the results of a large-scale media literacy survey commissioned by the Canadian Teacher's Federation and the Media Awareness Network (MNet) (Spears & Seydegart, 2003; 2004). The national survey, entitled *Kids' Take on Media*, was designed by Erin Research to examine the media viewing habits of 5,756 Canadian students from grades three to ten, across 122 public schools. The results were interesting, particularly when looking at video-game playing habits; 60% of boys in grades three to six reported that they played video games daily, and by grade ten, 30% of boys still played video games daily. 33% of girls in grade three played video games, but by grade ten the number was only 6%.

11 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/video-games-challenge-engaging-net/40878

Related Content

Principles of Educational Digital Game Structure for Classroom Settings

Youngkyun Baek (2010). *Gaming for Classroom-Based Learning: Digital Role Playing as a Motivator of Study* (pp. 281-292).

www.irma-international.org/chapter/principles-educational-digital-game-structure/42700

Conceptualizing Player-Side Emergence in Interactive Games: Between Hardcoded Software and the Human Mind in Papers, Please and Gone Home

Christopher Michael Yap, Youki Kadobayashi and Suguru Yamaguchi (2015). *International Journal of Gaming and Computer-Mediated Simulations* (pp. 1-21).

www.irma-international.org/article/conceptualizing-player-side-emergence-in-interactive-games/136332

Investigating Perceptions of Avatar Creation for Use in Educational MUVES

Joseph DiPietro (2009). *International Journal of Gaming and Computer-Mediated Simulations* (pp. 50-62).

www.irma-international.org/article/investigating-perceptions-avatar-creation-use/37538

Designing a Learning Analytic System for Assessing Immersive Virtual Learning Environments

Donna Russell and Steven E. Wallis (2016). *Handbook of Research on Gaming Trends in P-12 Education* (pp. 502-526).

www.irma-international.org/chapter/designing-a-learning-analytic-system-for-assessing-immersive-virtual-learning-environments/139822

New Forms of Interaction in Serious Games for Rehabilitation

Paula Alexandra Rego, Pedro Miguel Moreira and Luís Paulo Reis (2012). *Handbook of Research on Serious Games as Educational, Business and Research Tools* (pp. 1188-1211).

www.irma-international.org/chapter/new-forms-interaction-serious-games/64307