



# Video Games in Higher Education

Matthew Barr | HATII at the University of Glasgow, Glasgow G12 8QJ | Matthew.Barr@glasgow.ac.uk

## Background

With scholars including Gee (2003), Egenfeldt-Nielsen (2005) and Squire (2011) extolling the pedagogic potential of video games for some time, and several generations having grown up with gaming as a commonplace facet of their existence, there exists an opportunity to explore how video games have indirectly taught, or otherwise influenced, those who have played them all their lives. Further, by developing our understanding of games' influence on students in Higher Education (HE), we may be able to harness their reported capacity to motivate, engage and promote collaborative practice.

Much effort has been expended on the production of educational video games, but the aforementioned researchers are particularly relevant to the work described here, as they have examined the use of commercial video games – those designed, developed and marketed for entertainment purposes – in educational contexts. Commercial video games are particularly relevant in HE today as these are the titles that our students will have grown up playing – and, in many cases, continue to play while at University.

James Paul Gee has been particularly influential in making the case for the learning potential in games, with an emphasis on literacy and on systemic thinking. Kurt Squire's work with the historical strategy game, *Civilization III*, demonstrated that games which have enjoyed immense commercial success also have a role to play in learning.



With the notable exception of Whitton (2009), however, much of the game-based learning research has focused on school-age children and not on HE. This emphasis does not reflect the demography of today's video game players, or the interests and motivations of students currently enrolled in HE. The US-based Entertainment Software Association estimates the average age of those who regularly play games to be as high as 37 (ESA, 2011) and there can be little doubt that a greater proportion of our students is engaging with video games – on their phone, via Facebook or on their TV-based Nintendo, Xbox or PlayStation – than ever before. There exists, therefore, a need for further work with older players to their attitudes to playing and learning from video games.

## References

- Egenfeldt-Nielsen, S. (2005). *Beyond Edutainment: Exploring the Educational Potential of Computer Games* (Doctoral Thesis). Copenhagen: IT-University of Copenhagen.
- Gee, J. P. (2003). *What Video Games Have to Teach Us About Learning and Literacy*. Palgrave Macmillan.
- Johnson, S. (2005). *Everything Bad is Good for You: How Popular Culture is Making Us Smarter*. Penguin.
- Oliver, M., & Carr, D. (2009). *Learning in virtual worlds: Using communities of practice to explain how people learn from play*. *British Journal of Educational Technology*, 40(3), 444–457.
- Squire, K. (2011). *Video Games and Learning: Teaching Participatory Culture in the Digital Age* (Technology, Education - Connections). Teachers' College Press.
- Whitton, N. (2009). *Learning with Digital Games: A Practical Guide to Engaging Students in Higher Education*. Routledge.

## Acknowledgements

With thanks to Dr. Steve Draper (School of Psychology) and Dr. Susan Stuart (School of Humanities), and to all focus group participants.

## Attitudes to learning from video games in Higher Education

As part of the preliminary stages of a larger piece of work on incidental learning in commercial video games, a number of focus group sessions were conducted. The discussion was also designed to investigate the influence games might have had on players' vocational or academic choices, and any other attendant effects gaming might have had on their lives.

Focus group participants were all in the adult age range, and drawn from a mixture of staff and students at the University of Glasgow. Volunteers with an interest in video gaming were sought from the outset: while the opinions of non-gamers may provide an interesting counter-balance to the opinions expressed here, the work is currently focussed on the 'gaming generation', or those who have grown up playing video games.

"I don't really like history that much. I like *Day of Defeat* because I like reading war novels and things like that but from a more sociological point of view, how people dealt with it all."



"I do History and I was studying at the same time [as playing *Assassin's Creed*] and I was like 'oh, wow, maybe I should go to the library and read some of these books'."

"I enjoyed playing in a team, as I was always bad at sports but I was a really heavy raider in *World of Warcraft*. It's twenty-five people and you had to be really organised and I really enjoyed that. It taught [me] a lot about how to act in a team environment and sometimes how to lead a team."



## Conclusions

The work described here suggests a number of learning strategies, which may warrant further investigation:

- Trial and error ("zero cost" experimentation)
- Consulting external sources, e.g. wikis, walkthroughs
- Peer discussion
- Learning from one game and applying in another (i.e. identifying and applying conventions)

Some attendant benefits of gaming described by participants (e.g. experience of working as part of a team, creative problem solving) align closely with our own institution's stated 'graduate attributes'. There may be scope for examining the role that video games may play in developing or even assessing these desired attributes in our students. Some of the perceived value in gaming that is alluded to by focus group participants – specifically that games encourage and develop imaginative problem solving – might, in fact, be unique to gaming. If this is the case, then video games may play a role in graduate development that higher education currently cannot fulfil.