

# Can Computer Games motivate Next Generation Learners? A Survey of Students' Reasons for Playing Computer Games

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## Long summary

The popularity of computer games has attracted the attention of educationalists who are interested in finding out whether the features of games that make them so engaging could be captured and used to help people learn more effectively. Fun and challenge have been identified as the two major reasons that people play games. While challenge is clearly an important characteristic of learning, there are differing views about the extent to which fun can be usefully incorporated into learning. Okan (2003) argues that computers may motivate students to play rather than to learn, while Prensky (2002) predicts that fun will be an essential element of learning for future generations. The word edutainment has been coined to describe a form of entertainment, such as computer games, that is designed to educate as well as to amuse. However it may turn out that entertainment and education are ultimately incompatible.

The current study reports a survey of University students' computer games behaviours, their reasons for playing computer games and their views of the features of computer games that might be useful in learning. Reasons for playing games were derived from Malone and Lepper's (1987) theoretical framework of factors influencing intrinsic motivation in educational computer games, as well as pleasure, leisure and relaxation. The survey was carried out online and was made available to all students at the university over a two week period in February.

972 students across a range of disciplines responded to the questionnaire. The survey found that computer games played an important role in the students' lives with students playing for 7.5 hours per week on average. Pleasure, challenge/achievement

and control came out as distinct factors in an analysis of reasons for playing computer games. Challenge was the most frequently selected reason for continuing to play games as they get increasingly difficult, and was also rated as the feature of games that might be most useful in learning in Higher Education. Men spent significantly more hours per week playing computer games than women did. There were no gender differences in students' ratings of pleasure as a reason for playing games, but males rated challenge and control as more important than females. 85% of students thought that computer games are potentially useful for learning in HE, although very few actually had any experience of using games in this way.

The current generation of students has been raised in a technologically rich environment and this probably contributes to their acceptance of the potential of computer games in learning. The students distinguished between important reasons for playing games (challenge, competition, curiosity, cooperation and recognition) and important characteristics of games for learning (fantasy and leisure). An important debate is whether the emotionally engaging features of games linked to the fun factor hinder learning by diverting attention from the information required to learn or whether, on the contrary, this emotional engagement can help students to learn by focusing attention on relevant information.