ABSTRACT

Developing educational computer games that will appeal to both males and females adds an additional level of complexity to an already complicated process. Schools and universities need to be inclusive and new learning methods and materials should aim to be gender neutral. Traditional computer games are more popular with males than females, although the use of some simple guidelines in developing games for learning should reduce this preference. However females have a more careful and committed approach to learning and may be more willing to try out new methods of learning including computer games. These opposing influences make it difficult to predict how gender will impact on the acceptance of games for learning. There is some evidence that both males and females enjoy the kinds of games that have most potential for learning. The impact of new computer games for learning needs to be evaluated to ensure that they facilitate learning without disadvantaging one gender over the other.

INTRODUCTION

The idea that computer games might be useful for learning has been gaining acceptance due to the recognition that computer games are both highly engaging (Garris, Ahlers & Driskell, 2002) and have the potential to support many of the skills that are required by modern approaches to learning (Connolly, Boyle, Stansfield & Hainey, 2007). However, a key issue that needs to be addressed in considering the use of computer games in learning concerns whether there are differences between learners in their acceptance of games for learning. In introducing any new method of learning, it is
Games for Learning
desirable that it should not favour one group of
students over another. In particular the evidence
that males are much more enthusiastic players of
computer games for leisure than females (Gorriz
& Medina, 2002), are more confident users of
computers generally (Lee, 2003) and have better
computer skills and more positive attitudes to
computers (Bonnano & Koomer, 2008) suggests
that males might benefit more than females from
computer games for learning.

Understanding the relationship between gen-
der and computer games is extremely important
for creating computer games that will function
as effective educational tools. In this chapter
we look at explanations of gender differences in
playing computer games, consider the impact of
these gender differences for the development of
games in learning and consider features of the
educational context in which games for learning
are being introduced that might impact on the
acceptability of games for learning for males
and females.

PREVIOUS RESEARCH

Table 1 summarizes some of the findings of
the literature on gender differences in playing
computer games for leisure in terms of patterns
of play, characteristics of games and reasons for
playing.

Gender Differences in Amount and
Patterns of Play

Over the last thirty years computer games have
become one of the most popular leisure pastimes
for children, adolescents and even adults. How-
ever there is consistent evidence that playing
computer games is a much more popular activity
with males than it is with females. Research has
shown that, across ages and cultures, more males
play computer games than females. For example
in a recent survey of Scottish students, Connolly
et al (2007) found that 91.8% male students but
only 80.7% of female students played games. In
addition males played for significantly longer than
females, 9.3 hours per week on average compared
with 5.9 hours per week for females and 36% of
male students but only 9% of females played for
more than 6-10 hours per week. Hartmann and
Klimmt (2006) found similar gender differences
with German children with only 33% of 6-13 year
old girls playing compared with 54% of same-age
boys and only 12% of female adolescents com-
pared with 52% of male adolescents. Bonanno
and Koomer (2005) found that Maltese boys
(6.71 hours) also play for significantly longer per
week than girls (2.49 hours).

Gender Differences in Games
Preference

There are also differences between males and fe-
males in the kinds of games that they play. Males
show a consistent preference for most game genre
including strategy, adventure, sports and simul-
ations (Bonnano & Koomer, 2005; Connolly
et al, 2007) but this preference is particularly
strong for violent games. Connolly et al found that
84.3% of their sample of Scottish male students
but only 36.1% of females played shoot-em-ups.
Others have found a female preference for puzzle
type games (Bonnano & Koomer, 2005), board
games, quizzes, puzzles and card/dice games
(Lucas and Sherry, 2004) and educational games
(Gorriz & Medina, 2000).

Taylor (2003) also found that more women
than men play games such as hearts and domi-
noes online. It seems likely that these games are
popular with women because they are single user
games and take less time to play.

The most popular explanations of the male
preference for traditional computer games centre
on the view that computer games are designed
by men for men (Gorriz & Medina, 2000) and
consequently include features that are more ap-
pealing to men. In particular computer games