

# Teaching with Games: COTS games in the classroom

**By Richard Sandford**

In the last few years, academics and educationalists have seen a massive rise in the amount of attention accorded to games as learning tools, with an almost exponential rise in the number of conferences and publications dealing with explorations of various approaches towards successfully combining the two. In particular, the depth and complexity of recent commercial 'off-the-shelf' (COTS)<sup>1</sup> titles has suggested to many researchers similarities with the fundamental interests of current learning theories, particularly those giving weight to the notion of socially-constructed and situated knowledge. Gee (2003) and Prensky (2001) in particular have been credited with giving this observation wider circulation.

In the UK, two reports from Becta (2001) and TEEM (2003) have surveyed the use of these COTS games in formal curricular settings. Both highlight the many strengths of games and their ability to promote collaboration, foster engagement and motivation, and to develop students' thinking skills, yet also detail the difficulties teachers face in incorporating complex, time-consuming and technically sophisticated games into short lesson times on equipment not intended for use with commercial games. These conclusions are mirrored in a more recent DfES report (Kirriemuir & McFarlane, 2005), which provides an overview of many instances of the use of COTS games in formal curricular settings, and emphasises the need for more detailed examples of classroom use, pointing out that the majority of games used in schools are used by teachers that develop an affinity for the games and the associated necessary expertise in their own time. For teachers with less familiarity with a particular game, the report suggests that guidance, perhaps in the form of lesson plans or examples of how the game has been used by other teachers, would likely be necessary.

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<sup>1</sup> There are various ways of referring to these games in use at the current time: Kirriemuir (2003) proposes the use of "pure" games to differentiate between games designed for the entertainment market, often with a large budget and development team, and those developed for the educational market. Here, I use COTS as an abbreviation for "commercial off-the-shelf game", meaning much the same thing.

Recent work (e.g., Egenfeldt-Nielsen, 2005; Sanford & Williamson, 2005; Squire, 2004) has supported this, providing practical examples of the need for teachers to be familiar with the games being used, and additionally making explicit some of the difficulties faced when trying to link gameplaying activities to broader curricular objectives.

These examinations of the potential of using COTS games in formal curricular environments have clearly set out the reasons for educators' interest in such games while also articulating the very real practical issues that might be seen when actually using these games in a classroom setting. However, with the exception of the work of Squire and Egenfeldt-Nielsen, there are few descriptions of the actual activities and processes involved in implementing these games. Further detailed, practical and naturalistic accounts of the ways in which COTS games might be used in classroom settings are necessary for a proper understanding of their potential as learning tools.

Drawing on and extending the work carried out to date in this area, the Teaching with Games project<sup>2</sup>, a partnership between the games publisher Electronic Arts and NESTA Futurelab, aims to provide case-study accounts of the sustained use of COTS games in curriculum-based education that will go some way towards providing the kind of practical evidence of their implications and potential called for by previous research. Researchers from Futurelab have been working closely with teachers from four schools in the UK to extend their understandings of the titles selected, and to identify learning opportunities within these games: where appropriate, teachers have been using the games in their lessons from January 2006. Through classroom observation, surveys and interviews, we're building a deeper understanding of the kinds of approaches towards the technical and curriculum issues that might help to resolve some of the tensions apparent from earlier work.

So what kinds of activities have been observed so far? While we are still in the process of collecting data from schools and teachers, there are some themes and areas of common ground that are becoming apparent. Many of the difficulties suggested by previous research have indeed been encountered, both the short-term practical issues revolving around the level of technical provision in schools and the broader long-term curricular issues involved in finding educationally-appropriate roles

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<sup>2</sup> For more information on the Teaching with Games project, see <http://www.nestafuturelab.org/research/teachingwithgames.htm>

for the titles, but there have been more positive experiences using COTS games than previous work might have led us to expect. Teachers are using games as simulations and models for exploration and experiment, as texts to respond to through writing and drama, as challenging activities to promote awareness of thinking techniques and collaboration, and as the means of producing their own media, all within existing curricula.

One of the issues highlighted by all research in this area is the difficulty for teachers of effectively using a COTS game without having a high level of familiarity with it, in order to identify the features of the game that are most relevant to the planned wider learning activity and to be able to provide the kind of “just in time” help described by Squire as essential in facilitating a class’s use of the game. Learning particularly from Squire and Egenfeldt-Nielsen, we gave teachers four months to play the particular game they were planning to use in their own time. This period, while essential for increasing teachers’ fluency within the game and giving them the confidence to address the thornier issues around integrating the title with their teaching, was still relatively short, given the complexity and depth of the titles, and the lack of experience of some teachers. However, among the teachers we’ve seen a willingness to recognise and use students’ existing expertise and “game literacy” when developing resources and lesson plans, which has not only had a beneficial effect on the practicalities of preparing lessons using the games, but has given some students the chance to actively contribute to lessons in a far deeper way than might be usual.

There are other, possibly more fundamental, themes becoming apparent from our work with schools. What’s clear from our ongoing observations so far is that discussing “games” and learning runs the risk of preventing a full understanding of the different possibilities inherent within particular titles, and perhaps encourages the kind of generalisation that encourages discussion to focus on the barriers rather than the benefits of using games in schools: better perhaps to talk about “this game” and learning. Differentiating between the kinds of learning opportunities afforded to teachers by different kinds of games would aid the process of coming to a fuller understanding of the potential of this form of media within education.

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