Using games in the classroom

Computer games are beginning to introduced to schools but do they really work as a tool for education? A study, known as Teaching with Games, is being undertaken by Futurelab and Electronic Arts to find out...

Electronic Arts (EA), the world-leading interactive entertainment software company, and Futurelab, an organisation dedicated to researching, developing and evaluating new technologies for learning, launched the study in September 2005 to explore the possible impact surrounding the use of interactive computer games in schools.

Also part-funded by ISSEF (the Interactive Software Federation of Europe), the research aims to look at what children can learn from computer games, how best to integrate games into the curriculum and what changes might be required to make them more relevant to the educational environment.

Three games

Teaching with Games is using three games:

The Sims™ 2 (EA), RollerCoaster Tycoon® 3 (Atari) and Knights of Honour (distributed by 2EA); installing them in five UK schools. Researchers from Futurelab are working closely with teachers from these schools to extend their understanding of the titles selected, and to identify learning opportunities within the games. The games have been used, in conjunction with supporting materials developed by the teachers, over a term in January 2006.

Computer games for learning

Annila Small, Managing Director at Futurelab, says: "There has been a lot of interest in using computer games for learning but, to date, no one has really investigated what young people might be able to learn from games and how they might best be introduced in schools. We propose to do this by working closely with teachers and students to design new support materials for use with commercial games. We will evaluate the success of these materials and begin to produce a road map for educators across Europe to provide a framework for how games may be used in the classroom."

An initial MORI Poll was commissioned to investigate teachers’ attitudes and the results, published in January 2006, showed that 95% would consider using them in the classroom for educational purposes. The willingness of respondents to use computer games was reflected in the fact that almost one third have already used them in their classroom.

In addition to higher than expected percentage of teachers interested in the use of computer games, the study also found that 70% of the teachers who were using computer games in school would do so because they are an interactive way of motivating and engaging pupils.

The majority of teachers polled believe that playing mainstream games can lead to improved skills and knowledge. For example, 91% felt that players developed their motor-cognitive skills, while over 60% thought that users would develop their higher order thinking skills and could also acquire topic-specific knowledge.

Barriers to the use of games

The Poll findings also highlight some barriers to the use of games in schools, noting a lack of access to equipment capable of running the games as well as a lack of strong evidence of the educational value of games. This is an issue of focus for the Teaching with Games project. The appropriate choice and use of games for learning is also noted by respondents. Despite over one quarter playing computer games themselves, around two-thirds still felt, for example, that computer games may present stereotypical views of others and lead to anti-social behaviour.

Capacity to engage

A spokesperson from EA, commented in January 2006: "The Poll confirms what we have long believed at EA - that interactive computer games have the capacity to engage both teachers and learners. In a short space of time, Teaching with Games has already highlighted the important collaborations between industry and the education sector to show how learning can be enhanced through gaming.”

A second MORI Poll, to explore students’ attitudes to commercial computer games has been commissioned and the results will be available in the summer of 2006.

Futures group

The project has a ‘Futures Group’ of leading thinkers and practitioners in education, curriculum and game design has been formed to build upon findings arising from the research and to present possible motivational and educational applications that push current boundaries.

Angela Mcfarlane, Professor of Education of the University of Manchester and Chair of the ‘Futures Group’, comments: “There is a great deal of interest in the levels of engagement, and the complex learning that take place when many young people play games. Early research has shown some powerful outcomes in the classroom, but we need to understand how, when and why not to use games to support education. The Teaching with Games project aims to shed some light on these questions in a way that will be of use to teachers and designers.”

It is hoped that the findings from Teaching with Games, expected in autumn 2006, will assist the further development of supporting materials for use of games in classrooms and contribute to the development of educational computer games in the future.

Excited and intrigued

Marius Frank, Head Teacher at Bedminster Down School in Bristol, who is taking part in the Teaching with Games project comments: "I am excited and intrigued by the prospect of using gaming technology in the classroom. Individualised learning, at rates hitherto thought impossible, may be the norm if we get it right."

For project updates please visit: www.futurelab.co.uk/research/teachingwithgames.htm

Sticky Fingers

Alex Magges describes the development of her company, a mobile children’s cookery school, and the enthusiasm of the children from as young as twenty months up to eighteen year olds.

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Sticky Fingers does what it says on the tin. With young food enthusiasts at the age of two months up to as young as twenty months up to eighteen year olds.

I have a company called Sticky Fingers, a mobile children’s cookery school, which I launched about two years ago. I was working as a carer with two young children, and was perturbed by the fact that although I lived in a rural area, the children I worked with had very little interest or understanding of food. Although they were interested in teachers and cows, they did not make the connection between those things and the food that eventually ended up on their plates.

Primary and secondary schools

I started doing local cookery lessons in village halls, and from there I moved into working with primary and secondary schools, and other clients such as Surestart, local youth organisations and with children with special needs and behavioral problems.

What I have found, that runs across the board, is a massive enthusiasm from the children. I have yet to meet a child who decides that cooking and food is boring. By taming their impulse to make a mess (something that is always a concern when working with children) in a competitive with a small prize to make sure that as little as possible gets spilled) and organizing recipes into workable stages, I have managed to cook with children from as young as 20 months up to those leaving school for university.

Food in the classroom

I also take part in inset days for teachers and have been involved in the Food In Schools organization, doing practical demonstrations on how to bring more food into the classroom. Again I have found enthusiasm, many teachers are keen to bring more food education into their classrooms, but are unsure of how to do this safely and practically.

Common problems

Some of the common problems seem to be making time for cooking, financial and curriculum constraints and a lack of good recipe books.

My recipe to that it to set aside one day a week where you do two or three recipes are quick (most of my recipes take 10 minutes to make and 20 minutes to cook) spend time developing relationships with local producers who are often very enthusiastic about their product and more than willing to offer you free samples. Finally fit cooking into a curriculum where you can, using it to illustrate history, science, literature or geography. What is important is that children get hands on experience of real food.

Food and community

My intention is not to produce a generation of ‘ninja-chefs’ and I do not want to put children in white coats and tall hats and teach them to create complicated food. I want children to understand why food is important to them and to their communities and the role it has played in the development of our country. I want them to understand that they must take responsibility for what they put in their bodies, and that what they eat has a direct effect on their behaviour, their concentration and their moods.

Food from the fridge

So often the only experience our children have of cooking is watching their parents unwrap frozen meals, and it would probably sadden you to know that when I ask children where a certain food comes from, they often answer the ‘fridge’ or the ‘supermarket’.

Long way to go

I believe that we have a long way to go before we instil in children an appreciation of good food and teach them the skills they need to be able to cook for themselves. However I have seen many good things happening in different schools, from bringing in my attention, children’s cookery clubs and school workshops, to teachers creating vegetable gardens, dinner ladies cooking out of the kitchen and the children in primary schools and parents getting involved in running their own cookery clubs. Let’s hope the good work continues....