

Game time for pupils

Research Summary

Computer games have changed many children's experience of childhood. Through the eye of an Argonaut or the time travel of a Tardis, they give young people access to a new world of multi-dimensional interactivity in which they can go where they want, without leaving home. However, until recently, they couldn't make their own video games.

Recognising the educational potential, researchers from the University of London in partnership with Immersive Education Ltd have developed software to let young people create their own 3D adventures. The ESRC backed research has had far reaching impact. The software, known as Mission Maker, is already being used in many schools, colleges and city Learning Centres. It has added to the debate about games in education, enabled teachers to explore the game literacy model and Mission Maker 2 is already on the market.



The impact of the work on research, educational practice and policy and on the games industry itself has been impressive. The findings have been extensively disseminated through published outputs and keynote addresses at international conferences and media literacy seminars in the EU, the US and Australia. This has helped develop the profile of the Centre for the Study of Children, Youth and Media as an expert centre for research in this field and a key player in related academic works.

The models have also had practical impacts on teaching in schools and have been disseminated to educators through TV, professional publications and teachers' conferences. Also, the UK national training organisation for broadcast, film, video and multimedia –Skillset –specifically refers to the project as one of its principal commitments to developing the skill base of the industry at school level.

The project brought together 100 students and a dozen teachers from two schools - a mixed comprehensive school in Cambridge and a girls' comprehensive school in Lambeth. They worked with researchers from London University's Centre for the Study of Children Youth and Media at the Institute of Education and developers from Immersive for three years developing an understanding of each other's interests.

Impact

Computer games are studied as part of Media or English courses in schools in the same way that literature, film and television are studied. Software existed for video editing, music composition or web design, but very little software existed for the design and production of computer games. Researchers wanted to fill that void by developing software to allow young people to design their own computer games.

The first of the four main objectives was to create a 3D 'game-authoring' tool with components such as locations (rooms and corridors), props and characters (which the player can pick up), triggers (which trigger an action) and media (sound, still and moving images). The inclusion of these allowed young people to create games as complex as commercial games with a similar level of graphic and audio quality.

Second was a model of game-literacy, using the designer's own cultural experience of games and other media alongside a critical understanding of how they are built resulting in a creative transformation using the new digital tools. The model also included understanding texts (music, voice and visual imagery), audiences



(games designed differently for target audiences) and institutions (placing game design into commercial and regulatory framework for marketing and distribution).

The third was to create a teaching model to show how game-literacy is taught and learned. For Media and English classrooms, a six week course was produced as a teaching pack to accompany the software while, for after schools clubs, a competition was developed in which students presented their games to experts. The debate about the development of the games helped researchers understand the games/gender issue.

Finally, researchers created a model for industrial design incorporating user input and feedback. Immersive released three prototypes of the game-authoring software which the team took into schools and homes to collect feedback and develop new designs alongside teachers and students. In this way, the target end-user groups were involved as co-designers.

Further Information

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Young people's DIY approach to video game making

Institute of Education, University of London, carried out the research in partnership with Immersive Education Ltd

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Key Findings

- The development of 'Mission Maker' software which can be used by children from A-level and beyond with no previous knowledge of programming.
- Models of game-literacy allowing students to get to grips with concepts of game design, such as target audience, commercial aspects and regulation.
- A teaching pack with the software for use in the classroom and in less formal settings, addressing aspects such as gender stereotyping.

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