Teaching with Games

Using commercial off-the-shelf computer games in formal education

Richard Sandford, Mary Ulicsak, Keri Facer and Tim Rudd

ELECTRONIC ARTS™

Microsoft®

T2 TAKE TWO™

ISFE

futurelab

Introduction

- TwG project - part of ‘suite’ of research into games – and broader possibilities supported by digital technologies
- Focussing on the utility of ‘off-the-shelf’ commercial computer games for educational purposes?
- 1 year investigation into the use of commercial mainstream games in the classroom - “How are these games used in the real world?”
- Not been done on this scale before

ELECTRONIC ARTS™ Microsoft T2 TAKE TWO ISFE futurelab

Why commercial games?

- Media rich, original, engaging content
- Up to date and state of the art
- Dynamic and high speed
- Provides instant feedback
- Multi layered and multi-level
- Flexible and customisable – end user choice
- Draws on incorporates the ‘traditional arts’, sound, visual imagery

- Discovery and exploration – self regulated
- Collaborative learning and co-operation
- How to use new information and communication resources
- Emerging communities of support and practice and social networking
- Media for expression and representation
- Increasingly scope for user generated content and personalised narratives

ELECTRONIC ARTS
Microsoft
TAKE TWO
futurelab

Titles

The Sims 2

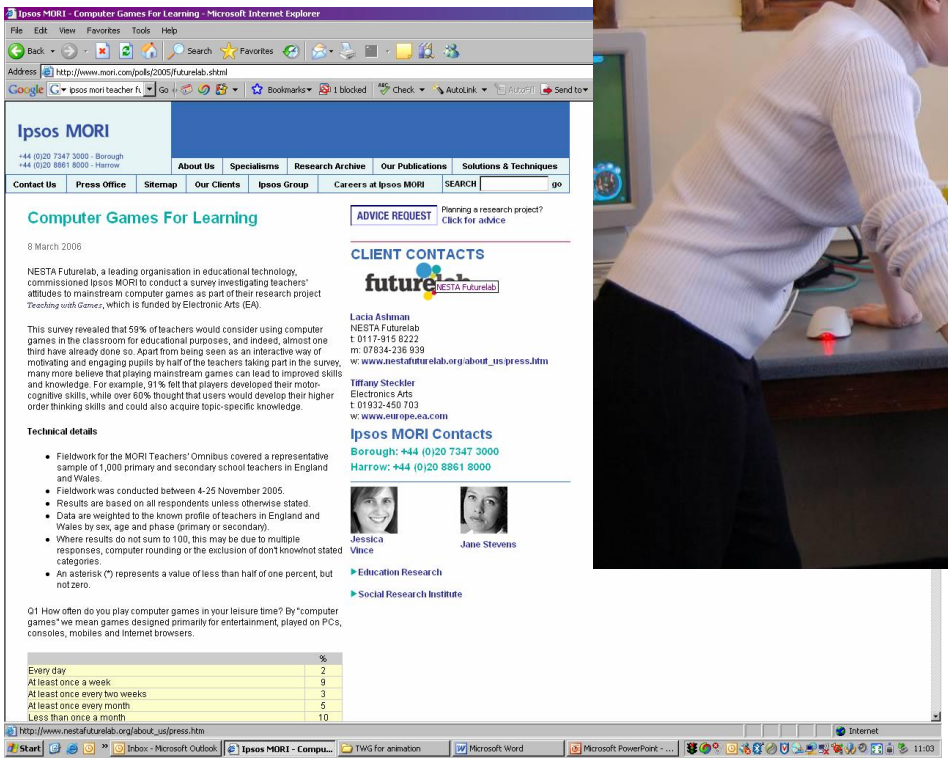
Knights of Honor

Rollercoaster Tycoon 3

- Rigorous and comprehensive selection procedure
- Supported by work from government and academia

ELECTRONIC ARTS™ Microsoft T2 TAKE TWO ISFE futurelab

What we did



ELECTRONIC ARTS™

Microsoft

TAKE TWO

futurelab

- 2 main forms of data collection
- Ipsos MORI polls – teachers Nov 2005, secondary students spring 2006 – attitudes to use of games in education
- 10 case studies in 4 schools - range of locations, curriculum and student intake
- UK and German school systems and range of curricula and subject areas
- Teachers supported but had autonomy around how to use the games, with what students
- Data collection through interviews, observations, focus groups, student data and e-mails, teaching/lesson plans

ELECTRONIC ARTS™ Microsoft T2 TAKE TWO ISFE futurelab

Three practical questions…

- How can commercial games be used in schools?
- Do students play games as expected?
- Do teachers need to be expert game players to use games in formal education?

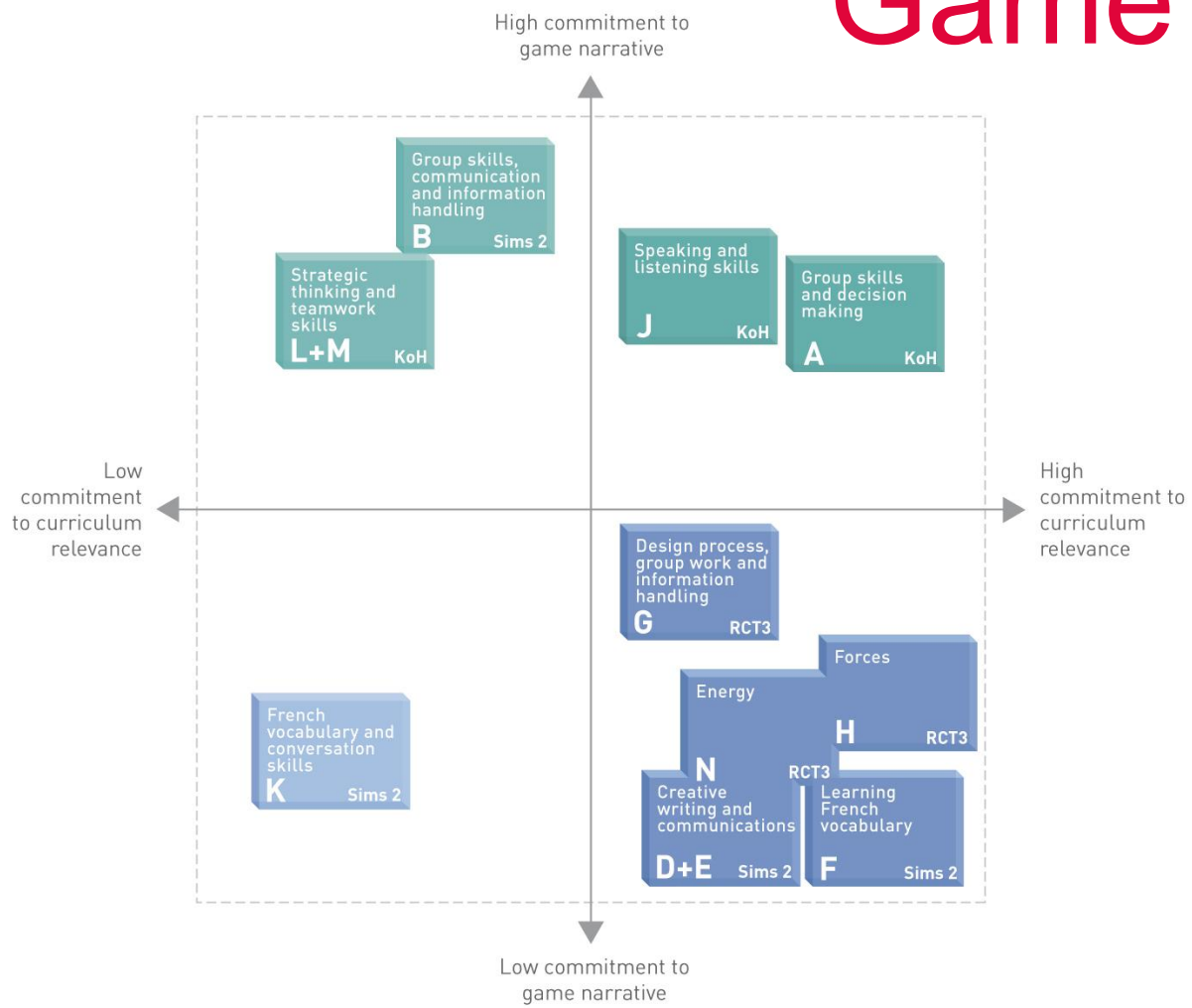
ELECTRONIC ARTS™ Microsoft T2 TAKE TWO ISFE futurelab

Things that the teachers specifically considered…

- In the case studies the game use depended upon:
  - Relevance to their curriculum?
  - Sufficient accuracy?
  - Able to be played in time available?

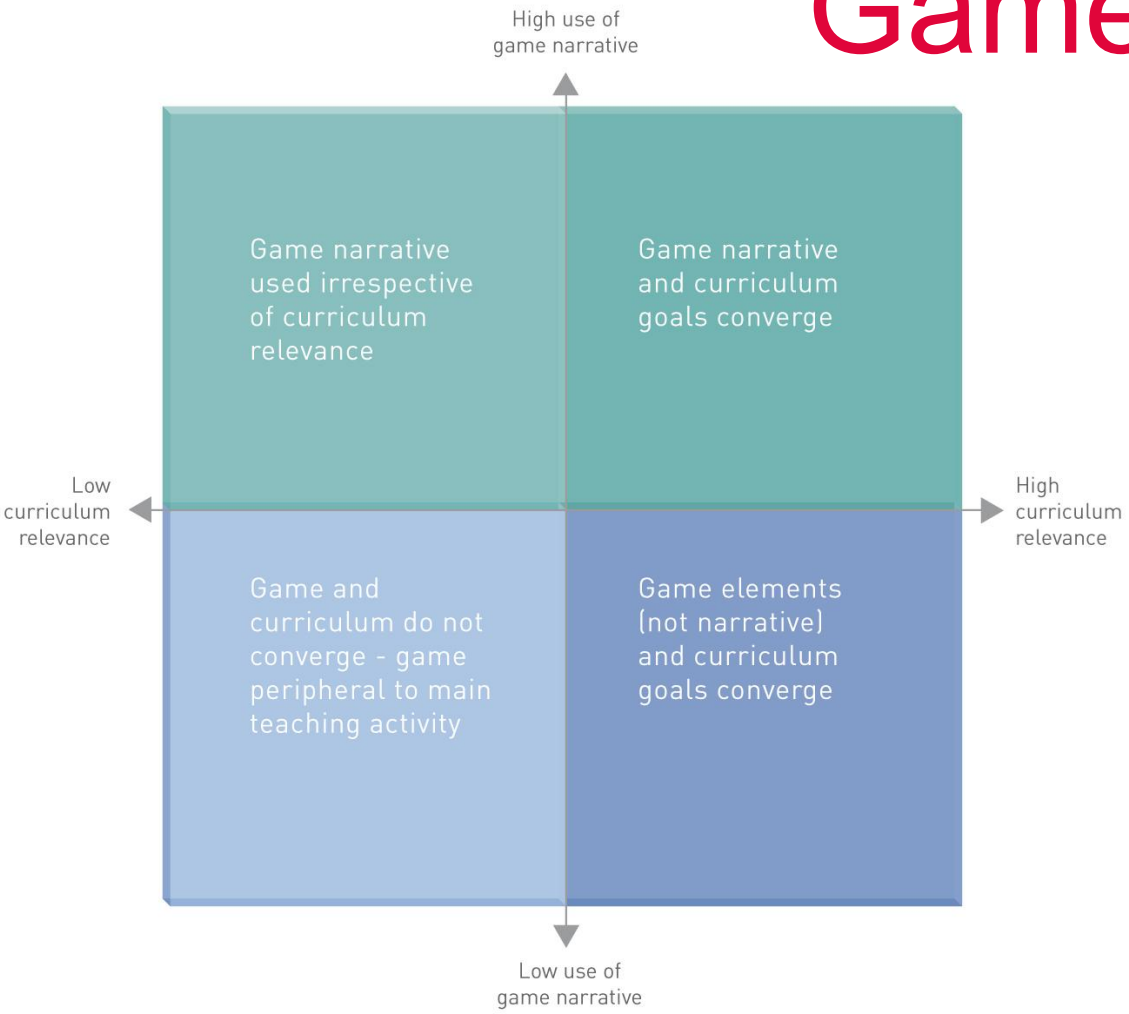
ELECTRONIC ARTS™ Microsoft T2 TAKE TWO ISFE futurelab

Game usage



ELECTRONIC ARTS™ Microsoft TAKE TWO ISFE futurelab

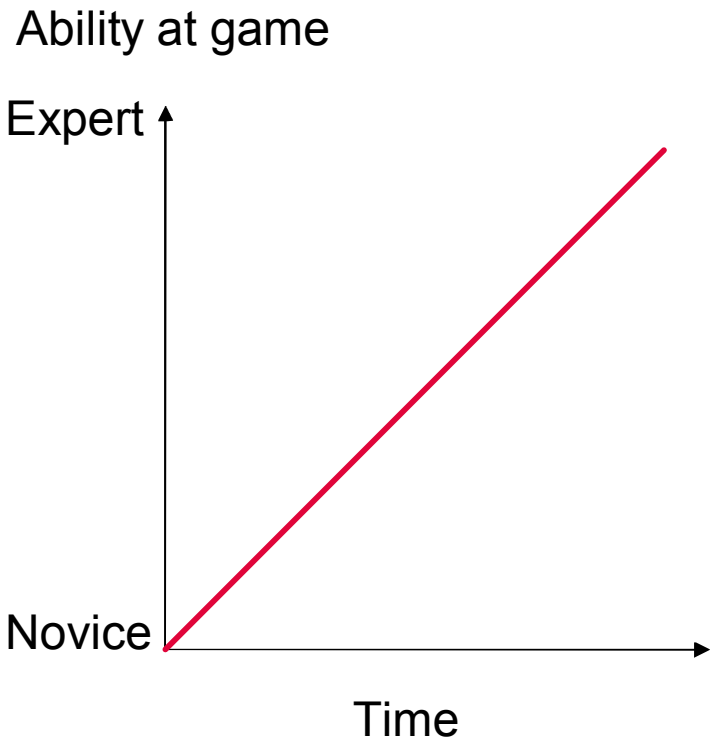
Game usage



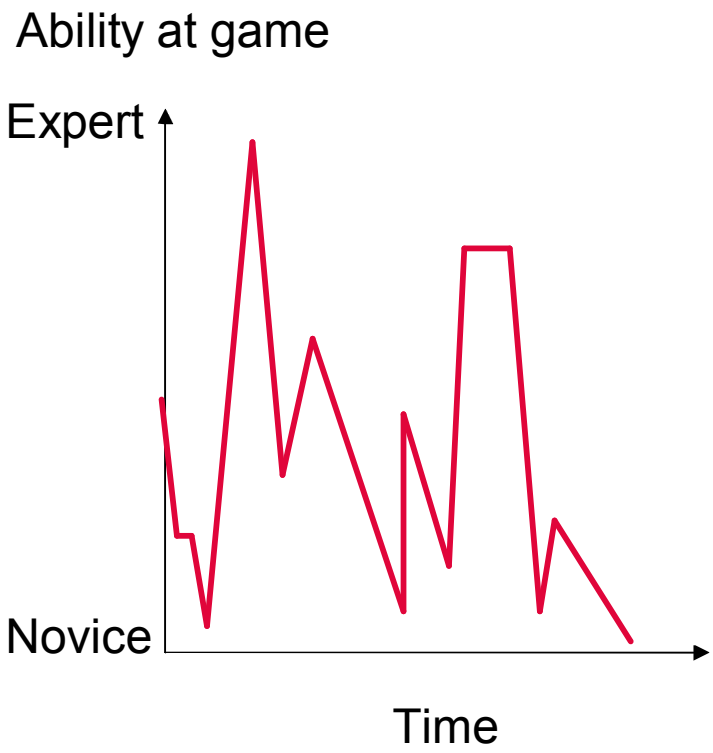
ELECTRONIC ARTS™ Microsoft TAKE TWO ISFE futurelab

How students play games

Hypothesised



Actual



ELECTRONIC ARTS™ Microsoft T2 TAKE TWO ISFE futurelab

Teacher expertise…

- How long does it take to learn a game?
- How long do teachers spend preparing lesson plans that use games?
- Would they use games again?

ELECTRONIC ARTS™ Microsoft T2 TAKE TWO ISFE futurelab

Wider implications

- What can education learn from games industry and vice versa
- Further disaggregation (and manipulation) of content will become a future direction?
- New markets for games industry – need for greater diversification? more ways into aspects of games – but still technical issues for schools
- Engaging and motivating – but why and how might we produce educational content like this?
- Modelling and simulations - thinking and problem solving skills?
- What do we mean by having ICT skills – confidence with new technologies or ability to apply effectively?

ELECTRONIC ARTS™ Microsoft T2 TAKE TWO ISFE futurelab

Further reading

- Final report
  http://www.futurelab.org.uk/research/teachingwithgames/findings.htm
- Teachers survey
  http://www.futurelab.org.uk/research/teachingwithgames/teachers_survey.htm
- Student survey
  http://www.futurelab.org.uk/research/teachingwithgames/students_survey.htm
- Teaching with Games: Guidance for educators

ELECTRONIC ARTS™ Microsoft T2 TAKE TWO ISFE futurelab

Any questions?