



Skills acquisition and knowledge appropriation through computer and videogames



OECD expert meeting on video games and education
7th session

The industry and the future of videogames :
exploring the potential for cooperation in education

Santiago August 26-28, 2007



OECD expert meeting on videogames and education

- ▣ Interactive Software (IS) recognized unanimously as a playful way to acquire ICT skills
- ▣ There is more to it though
- ▣ Serge Tisseron on the 4 main attractions of (online) gaming :
 - ▣ IMMERSION
 - ▣ INTERACTION
 - ▣ RECOGNITION
 - ▣ NEGOTIATION



Bottom up learning through interaction

- ▣ Problem-solving has an inherent intellectual value supplementing passive intake of knowledge.
- ▣ Challenged to “think on their feet”, gamers develop a taste for rewarding experiences, thus build up self-esteem.
- ▣ Tangible results and constant critical feedback are directly relevant to professional work (John C. Beck, University of Southern California, in “Got Game” Harvard Business School Press).

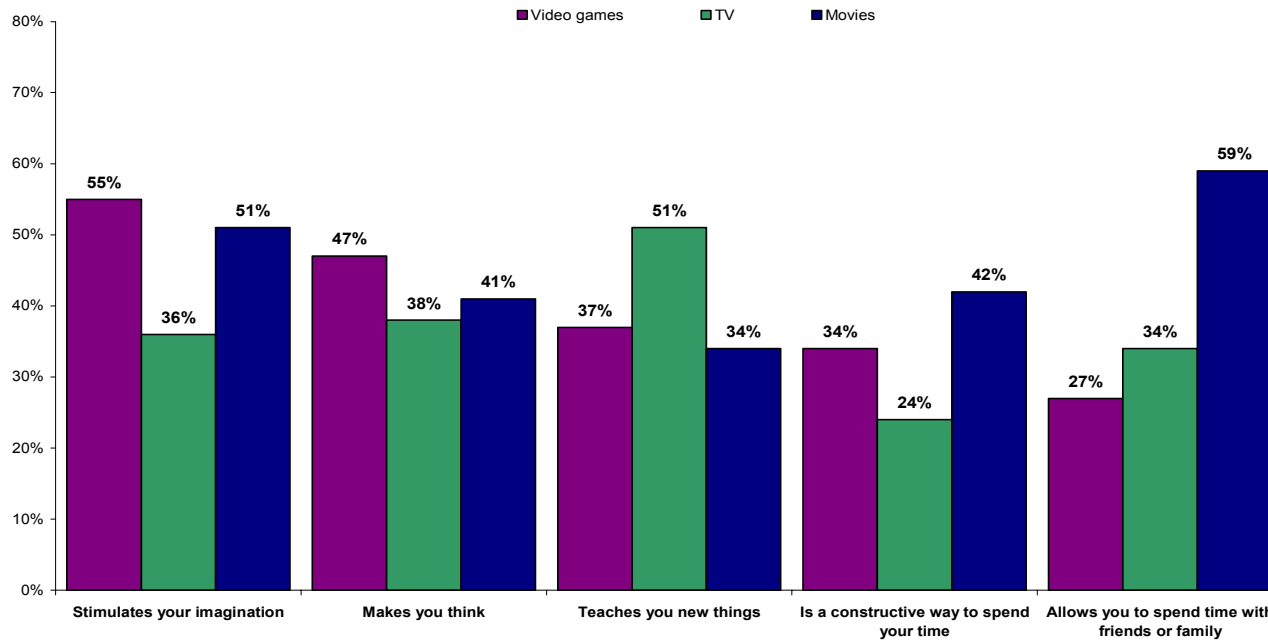


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Nielsen on the perceived benefits of IS

Total European Gamers

Please indicate whether you agree with each statement using a 1 to 5 rating scale, where a 5 stands for Agree Strongly, and a 1 stands for Disagree Strongly
- Total agreement (5 plus 4)





Beyond perception

- ▣ Appropriation suits better than acquisition the process whereby I turn knowledge into my own.
- ▣ The former sounds more action-oriented and personal, the latter more fit for rote learning and mimicry.
- ▣ IS therefore affords students a unique tool to grow their ability to appropriate and create knowledge.



Education is about making students fit for life

*« Tell me and I will forget
Show me and I may remember
Involve me and I will understand »*

Confucius

*« I hate whatever only increases my knowledge
without enhancing or directly inspiring my action »*

Goethe

How to make the most of IS ?

- ▣ Simon Egenfeldt-Nielsen in *Beyond Edutainment*
 - <http://www.itu.dk/people/sen/egenfeldt.pdf>
- ▣ “When thinking about making the educational qualities explicit in computer games one needs to recognize that computer games differ from other media. Primarily, computer games are about engaging and doing concrete things - not much different from any other physical activity like soccer. When playing soccer we will naturally draw on a number of important principles in the world, for example probability, force, movement, anatomy and social relations. All these elements are part of playing soccer, but during play we will not appreciate or explore these elements, and certainly rarely link them beyond the soccer field”.

Beyond the soccer field

Simon Egenfeldt-Nielsen :

- ▣ “The formal characteristics of computer games have earlier been described as a set of rules with semantic content making up a game universe.
- ▣ Computer games can indeed provide strong and rich concrete experience, but we need a context where these can be transformed into something more - we need the coach from the soccer field”.



Where is the coach?

- ▣ Issue = enhancing the value of games by setting them in a real world perspective
- ▣ Educators seem to be naturals for delivering on this
- ▣ For them to meet this critical challenge is not as straightforward as it looks

Teaching with games (TwG): main findings

▣ Generational divide :

- Teachers inform school environment
- Students more influenced by their home environment

▣ Students' motivation enhanced when able to use games familiar from home and given autonomy

▣ Recommendations to the industry :

- IPR management: licensing, copy protection
- Detailed guidance to schools' technical staff

Mediappro: key findings

- ▣ Great gulf opening up between schools and their environment: all what matters to young people, most of what they learn happens outside
- ▣ Schools are “clearly not responding”: they restrict or ban access. “Worst, they fail to teach skills of information retrieval, search, site evaluation and creative production”.
- ▣ Nonetheless, the European youth expect teachers and educators to help, to « author » an explanation of the new, ICT-based environment. Those educators able to claim back this authorship may find their authority restored as a result.



The way forward

- ▣ By providing a much-needed context to the entertainment use of IS, educators will enhance :
 - IS value as a unique, playful tool for knowledge appropriation
 - their own authority through authorship of the broader context to ICTs

- ▣ On giving up hope in the future, the youth make the future hopeless.

- ▣ So it's all hands on deck to address this critical challenge



Three basic avenues explored so far :

1. Commercial games at school
2. Games developed by students
3. Bespoke games halfway between « boring » educational games and commercial games meant only for entertainment.



Next steps envisioned by ISFE

- ▣ “Great Battles of Rome” (The History Channel-Black Bean Publishing).
- ▣ Working at a sequel to TwG with higher ambition: broader geographical scope, more teaching communities offered an expanded sample of games, etc.
- ▣ European Year of Intercultural Dialogue in Education: online alternative reality game being developed by ISFE.



More research available at



www.isfe.eu