

# **GAME-BASED LEARNING AND THE SURMISED MOTIVATING POWER OF GAMES**

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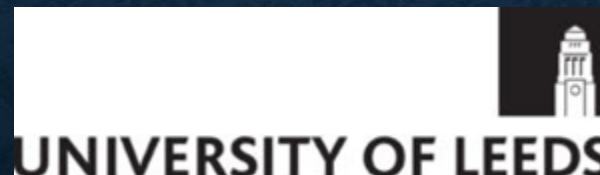
Grant agreement 732332



<https://www.gaminghorizons.eu/>

Twitter: @gaming\_horizons

Facebook: Gaming horizons



# ISTITUTO PER LE TECNOLOGIE DIDATTICHE (ITD) CONSIGLIO NAZIONALE DELLE RICERCHE (CNR)

## **Istituto Tecnologie Didattiche (ITD)**

Institute for Educational Technology

- Founded in 1970
- Headquarters in Genoa
- A branch in Palermo
- Around 60 staff members

## ***ITD is part of CNR (National Research Council)***

- *main Italian public research body*
- *109 institutes (11 departments)*
- *range of disciplines*



# GAMING HORIZONS: AIMS - OBIETTIVI

- Opening up the dialogue about the role of video games in society education
- Considering the intended and unintended consequences (ethics and social responsibility) of the pervasive use of games
- Challenging the “taken for granted” narratives and propose alternatives.

# ITD'S ROLE

- Investigate the relationship between digital games and learning
- Identify contentious issues: the «tensions»
- Produce «recommmendations» for education stakeholders:  
teachers, parents and players

# GAMING HORIZONS IN A NUTSHELL

## **Informed challenge:**

Methodological Framework;  
Literature review, critical analysis of official docs, interviews with stakeholders



**Areas of tensions and draft recommendations**

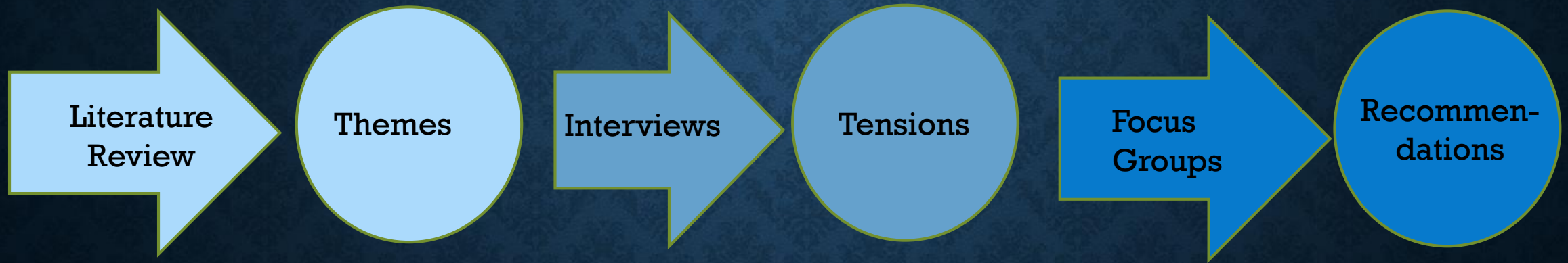


**Cultural expansion:**  
Public engagement, webinars; workshops



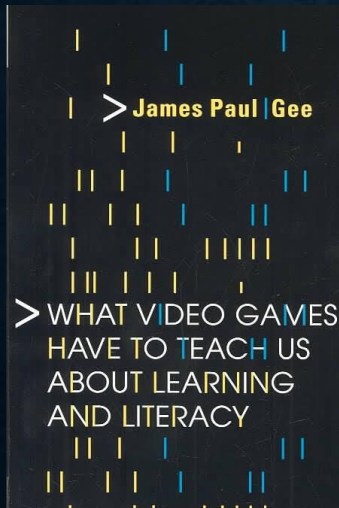
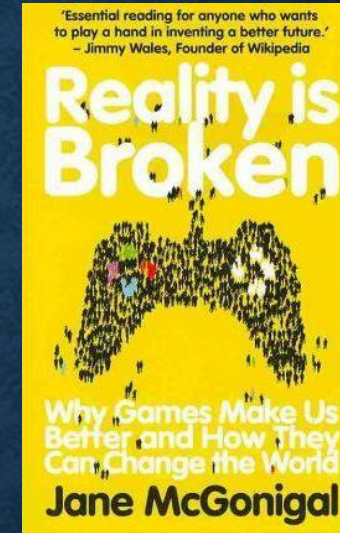
**Recommendations for stakeholders**

# HOW?



# GAMES AND LEARNING

*Fun from games arises from mastery. It arises out of comprehension. It is the act of solving puzzles that makes the games fun. In other words, with games, learning is the drug. (Mc Gonigal, 2011, p.16)*



*I argue that schools, workplaces, families, and academic researchers have a lot to learn about learning from good computer and video games. Such games incorporate a whole set of fundamentally sound learning principles, principles that can be used in other settings, for example in teaching science in schools. (Gee, 2003)*

# GAME-BASED LEARNING

## FOUR RESEARCH STRANDS

- Serious games
  - games designed for a purpose other than entertainment (Ratan and Ritterfeld, 2009)
- Entertainment Games for learning
  - Es “that dragon, cancer” or “Fragments of him”
- Gamification
  - the use of game design elements in non-game context(s) in order to influence user behaviour (Deterding et al., 2011)
- Game making
  - Using e.g. Minecraft, Unity, Scratch

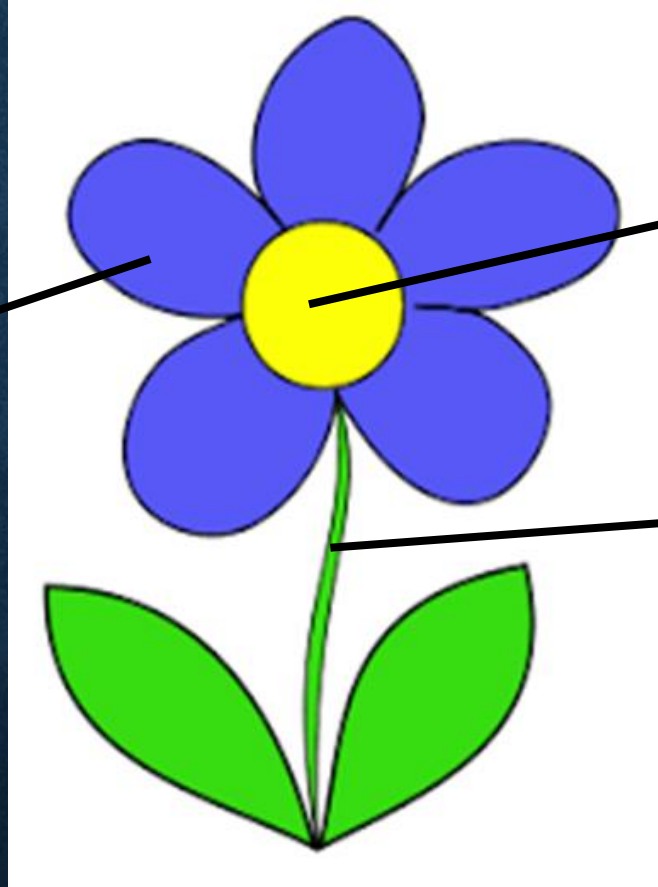
# INTERVIEWS METHOD



- 73 online interviews with teachers, players, developers, reserachers and policy makers

# FOCUS GROUP APPROACH: METAPHOR

Resources  
Experiences  
Opinions  
Problems & Solutions



Area of  
tension

Suggestions  
Recommendations

What are games good for?

Testing  
Gus limit  
Bandwidth  
Emotion, etc

Second  
Language  
Development

Game  
Literacy  
Literacies  
Planning  
metac

Collaboration

Creativity

Reinforced  
Motor  
Skills

Meta reflection  
Reflecting  
on  
learning

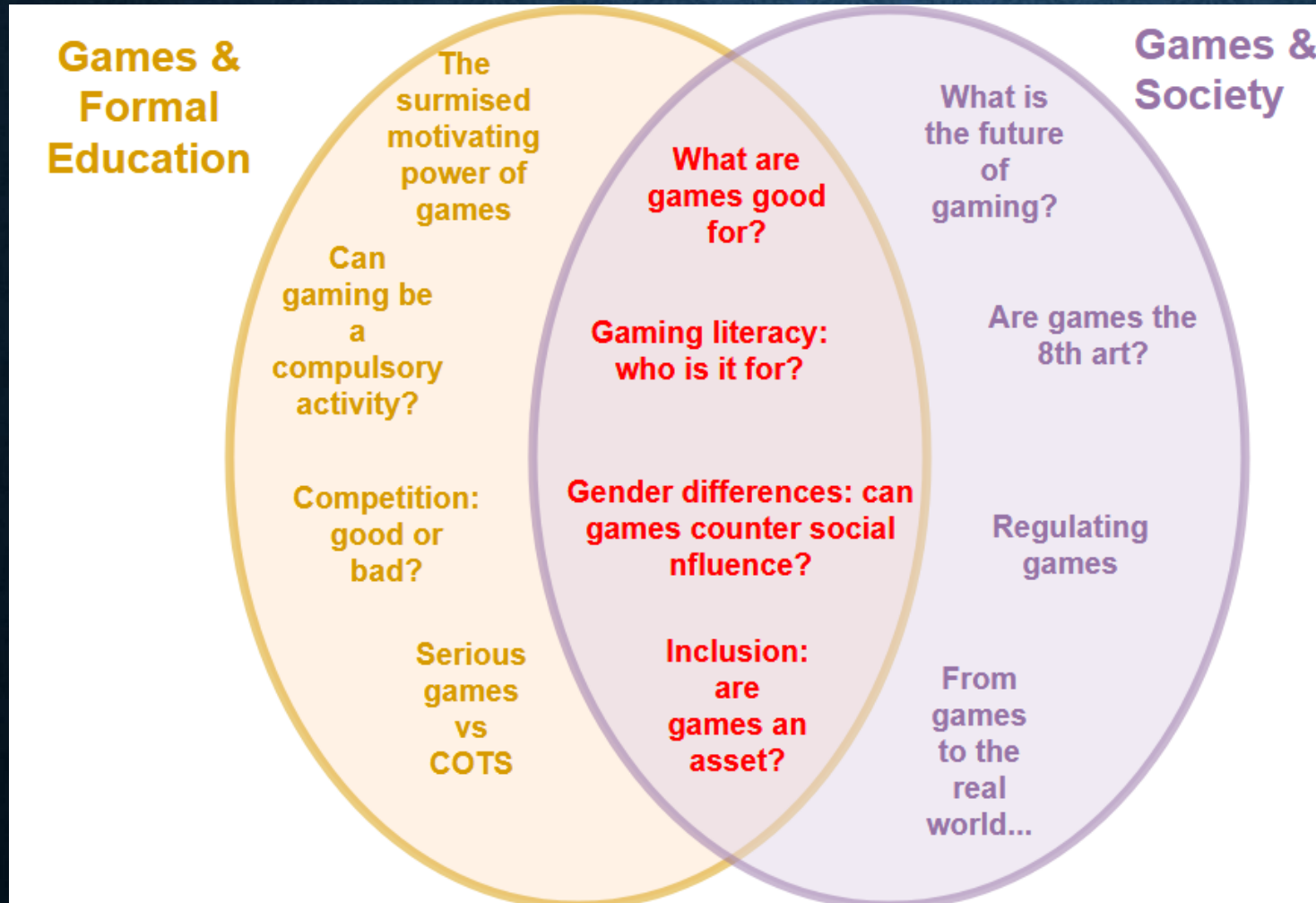
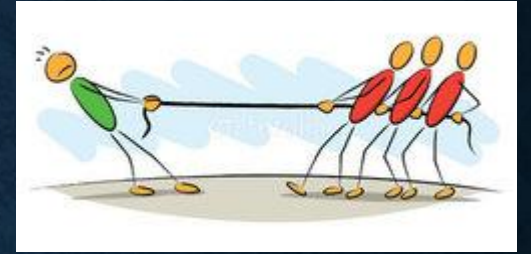
Catharsis

Different games  
for  
different skills

Games do not always  
train  
the skills we think they

SL09AN

# AREAS OF TENSION





images.jpg

# AREAS OF TENSION (EXAMPLES)



- ▶ Games and formal education: a difficult marriage?
  - ▶ What are games good for?
  - ▶ The surmised motivating power of games
  - ▶ Games inclusive power is not obvious (digital divide; special needs)
  - ▶ Compulsory gaming activities / catering for game preferences
  - ▶ Balancing competition and collaboration
  - ▶ Serious vs entertainment games vs art games: teachers tend to underestimate the artistic value of games, while players recognise it
  - ▶ Players call for more creative/innovative games and game narratives

# THE SURMISED MOTIVATING POWER OF GAMES



- The motivating power of (serious) games has been questioned: when extrinsic and intrinsic motivation are not aligned, the routes followed to succeed in the game may be very far from the desired ones (Westera, 2015; Wouters et al, 2013)
- Gaming is by definition a free activity, while formal education has its rules, its constraints, and sometimes the use of games isn't compatible with these restrictions.
- Not all players are in favour of this “marriage”, especially when the choice of games falls in the category of serious games, whose engaging power is often not as strong as that of entertainment games.
- Playing at school is almost an oxymoron: the nature of play is such that it cannot be done “under teacher supervision”

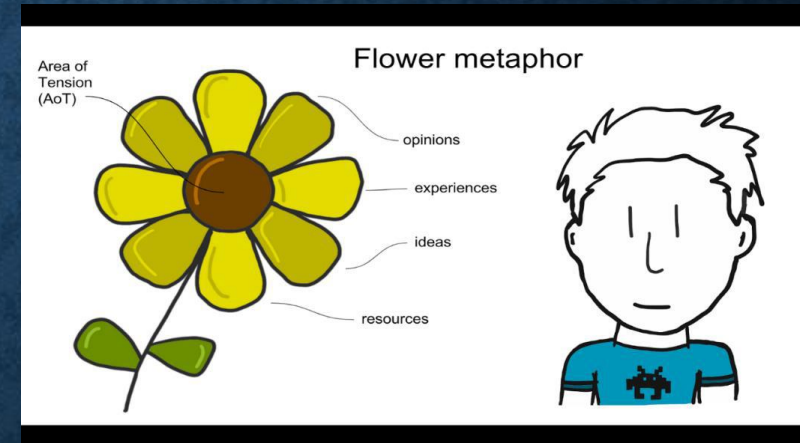
# FOCUS GROUPS EXAMPLES

Participants	Tensions
Parents & Players	Regulating games
Parents & Players	Games: socialisation or escapism?
Teachers & Reserachers	What are games good for?
Teachers	Are games REALLY motivating?
Developers & Researchers	What ethical responsibilities in game R&D?
Developers & Researchers	Is there a gap between reserach and development?
Teachers & Researchers	Competition: good or bad?

## 12 FOCUS GROUPS



# FOCUS GROUPS METHOD



# RECOMMENDATIONS

## Parents

Acknowledge the positive outcomes of videogaming

Play with kids, watch over adolescents and see games as an opportunity to understand them better

Introduce “soft” regulations when needed: the aim is to empower rather than forbid

## Players

Reflect more on what effects games do to them, both in positive and negative terms

Consider gameplay as a chance to achieve better self-knowledge and self-control

## Teachers

Develop competence in designing effective GBL activities

Educate to games as part of media education

Do not overestimate the motivating potential of games and their inclusive power

Avoid compulsory gaming and respect personal preferences: blanket student acceptance is not a given

## Decision makers

Support research and teacher training on principles for designing GBL activities and game literacy as part of media education

Soften school organisation to facilitate taking advantage of students' LEs

Invest in the development of games with cultural and artistic value

# A Manifesto for European Video Games

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# THE GAMING HORIZONS SCENARIOS (1/4)



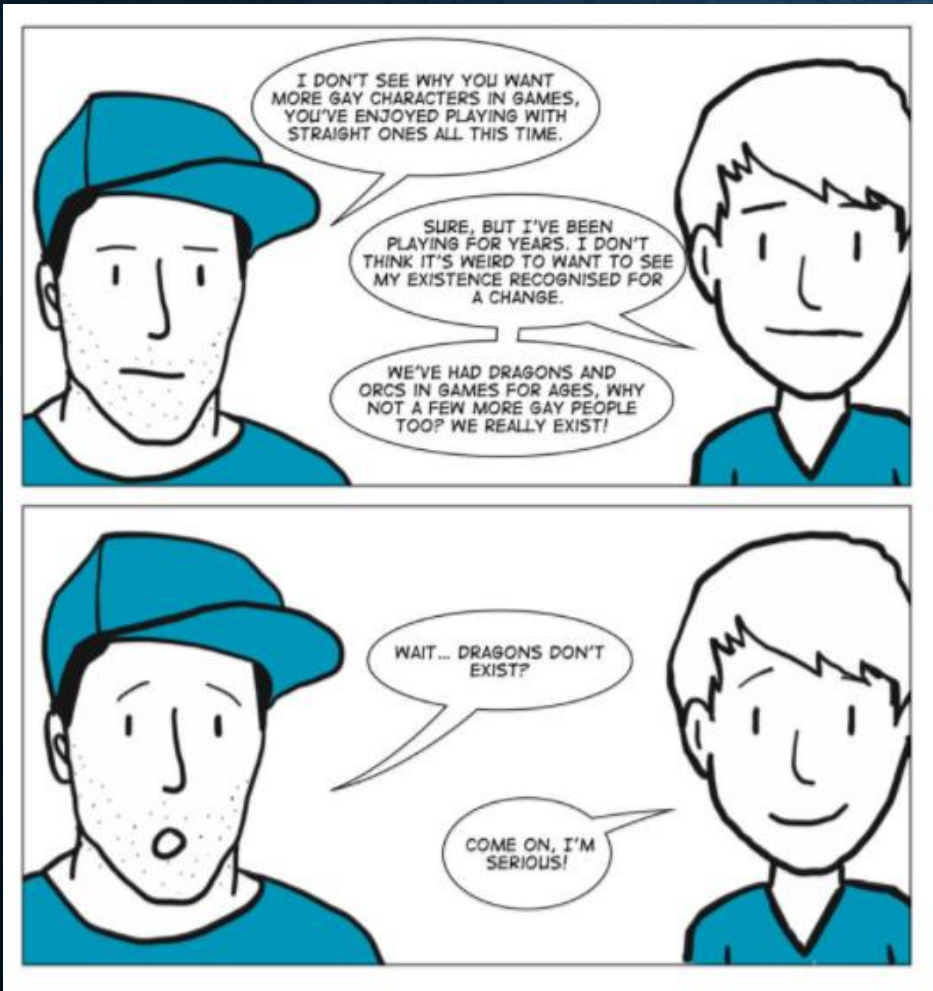
**Inclusion and  
special needs**

## THE GAMING HORIZONS SCENARIOS (2/4)



**Gambling and  
dark design**

# THE GAMING HORIZONS SCENARIOS (3/4)



**Gender,  
minorities and  
society**

# CONCLUSIONS

LEARNING DESIGN remains the core set of skills of the teacher, and it cannot be learnt once and for all

Educational  
aims

Contextual  
constraints

Students'  
features

Available  
resources



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Thank  
you

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