

GAMING, SCHOOLING AND KNOWING

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SOME BACKGROUND

- ▶ PhD: *Playful Knowledge* – educational gaming as a dynamic interplay of knowledge traditions
- ▶ Serious Games on a Global Market Place (2007-11)
 - ▶ Birgitte Holm Sørensen, Bente Meyer, Rikke Magnussen, and Mikala Hansbøl
 - ▶ Exploring *Mingoville* and *Global Conflicts* in various national contexts
 - ▶ Classroom perspectives + policy perspectives
- ▶ My primary focus: Game-Based Teaching

PLAN

- ▶ Problem: Why are things moving so slowly?!
- ▶ Time to move beyond celebration & understand the “barriers”
- ▶ Teachers = gate keepers, “the ultimate change agents” (Bruner, 1996)
- ▶ Empirical examples of teaching with games
- ▶ Recommendations for “next-best practices”

GAMES AND MOTIVATION

- Games are motivational – they are often seen as a “**fix**” that can remedy the problems of schooling
- But games are **also** boring, tedious, time-consuming, repetitive, temporary, one-off events
- Games are always engaging in relation to **something** – i.e. girls trying out their own game design (picture)

THE GAME IN THE BOX

- **Essentialism** – how we become seduced by the magic circle of games
- Black boxing: we tend to conceptualise games in terms of **fixed categories**
- We need to describe the **messy reality** of actual gaming and teaching practices

GAMES AS LEARNING MACHINES

- **Naturalistic fallacy:** both computers and games represent “machines” with measurable outcomes, which implies that we can also measure learning outcomes!
- Even though games may be great for “training” basic math and literacy skills, they are poor at facilitating **critical reflection**
- Myhring: “the students don’t learn from the games, but from the ways in which the games are taught”

GAMES FOR EVERYTHING...

- Very weak evidence of learning **transfer** from game domains to other domains
- We have been **too optimistic** about what games can be used for (when mapped to the curriculum)
- We should be more precise and talk more about **limitations** – what we *cannot* learn from particular games

GAMING VS. SCHOOLING

- There has been a strong tendency to link games with a necessary **revolution** of schools in order to prepare for 21st century skills blah blah.
- There are great examples of how schools and curricula can be transformed, but these things **take time** and must be carefully studied and documented. Especially the curricula of secondary schools seems to be a problem.
- So we need to understand how games can be **integrated** into everyday classroom practices, otherwise they are not going to end up being used other than in an neverending series of exotic or isolated research projects

FOLLOWING THE GAME INDUSTRY

- One of the most common arguments is to focus on and teach the most **popular** games such as WoW
- However, WoW may not be that **suited** for educational purposes: price, time, server, different levels of expertise, lack of overview...
- Instead, we need to develop a better sensibility of how to **develop** and/or **select** games that might fit with particular goals

THE 'FOLK THEORIES' OF GBL

1. **Fun factor**
2. **The game in the box**
3. **Games as learning machines**
4. **Games for everything**
5. **School is boring, games are great**
6. **We must follow the industry**

THE BIG QUESTIONS

We need to ask ourselves:

- ▶ **Why** we want to teach with games
- ▶ What **genre/type** of games
- ▶ **What** competencies we expect students to develop
- ▶ **How** we intend to do it
- ▶ and how we can **assess** what the students have learned

GBT APPROACHES

- ▶ Teaching with games
 - ▶ Learning games (serious games, edutainment...)
 - ▶ COTS games
- ▶ Teaching about games
 - ▶ Analysing game genres, narratives, characters etc.
- ▶ Teaching by designing games
 - ▶ Creative forms of media production
- ▶ Teaching game design as way of linking theory and practice
 - ▶ Designing games as answers to professional challenges

WHO HAS A LOT OF THINGS TO DO?

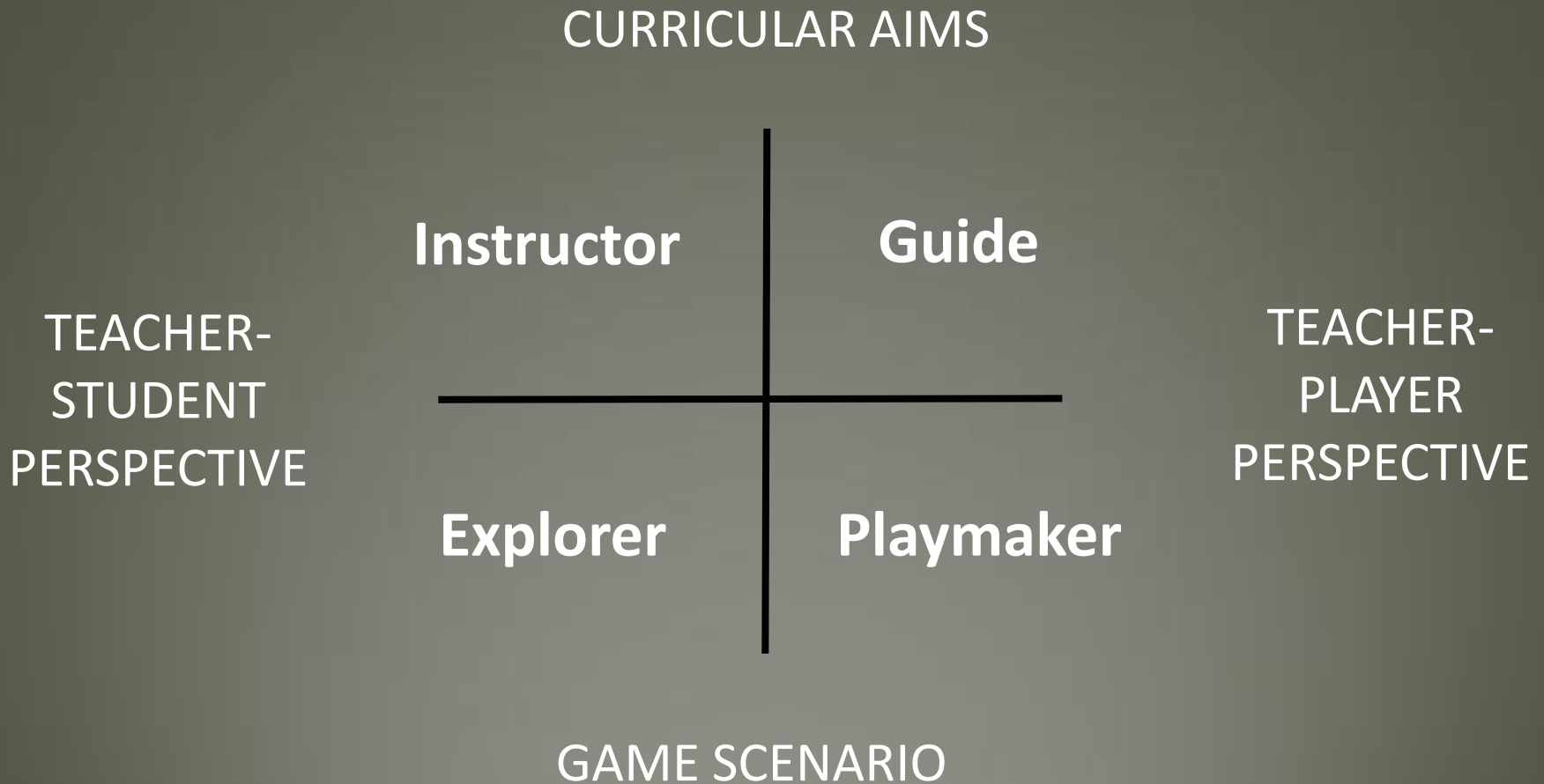
Who must....

- ▶ evaluate and select the games?
- ▶ take time to play and understand the games?
- ▶ map the games with curricular aims?
- ▶ find the time for the game sessions?
- ▶ ensure that the technology is working?
- ▶ facilitate the games?
- ▶ promote the students' reflective thinking?
- ▶ assess the students' learning outcomes?

... THE TEACHERS!

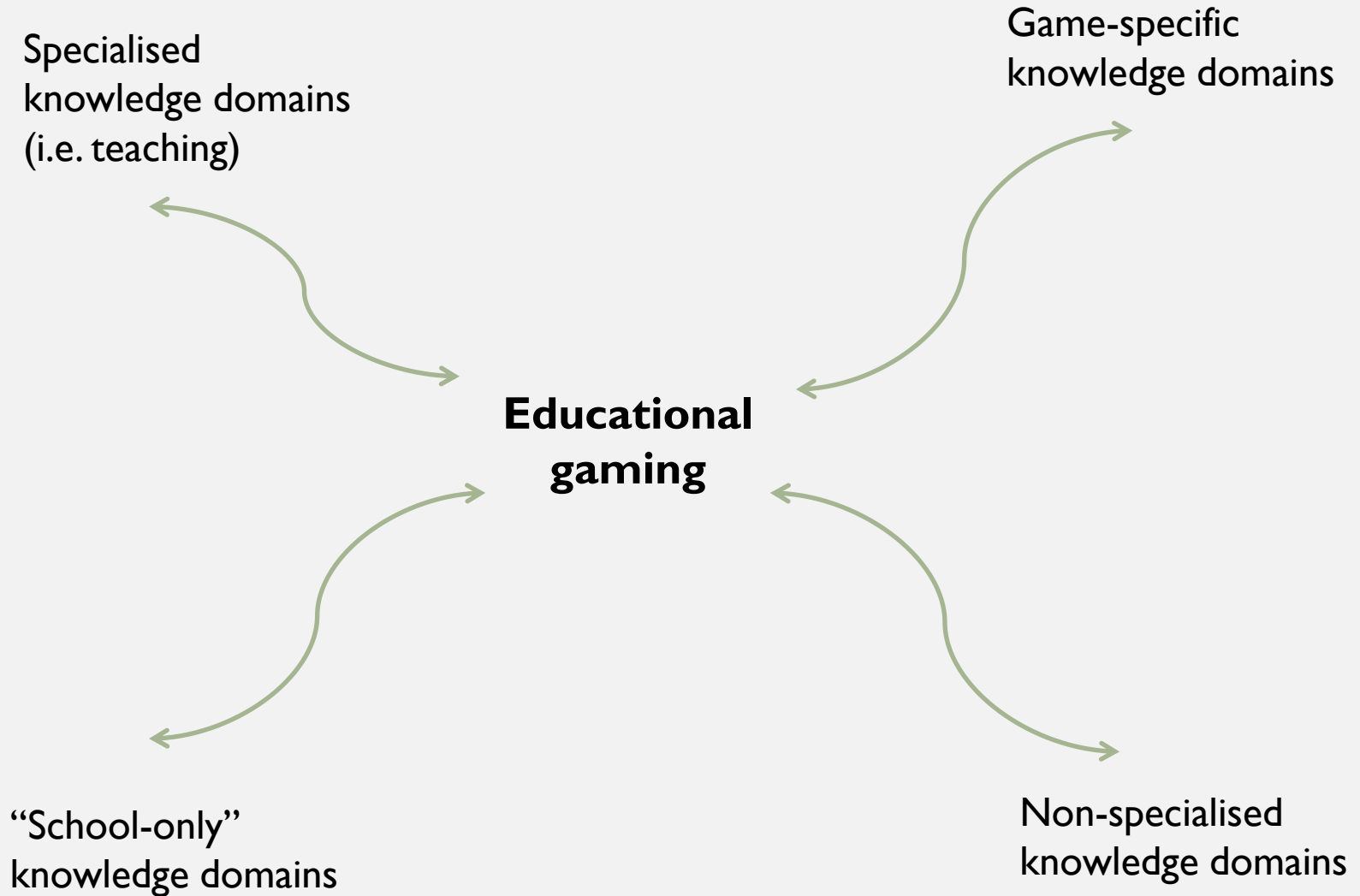
- ▶ Crucial **gate keepers**
- ▶ Reflective practioners (Schön)
- ▶ C1: Teaching practices
- ▶ C2: Planning and designing
- ▶ C3: Theorising and communicating
- ▶ The ability to **re-design** the use of games in relation to different aims

The shifting roles of game-based teaching



GAMING AND KNOWING

- ▶ Gaming can be understood as a multimodal form of inquiry, where the player/student moves from knowledge to “knowing” (Dewey)
- ▶ Educational gaming involves a dynamic interplay of different knowledge traditions (Barth, 2002), which consists of:
 - ▶ **Assertions** Ideas, values, beliefs, emotions
 - ▶ **Modes of communication** Media, technologies, modalities
 - ▶ **Social organisation** Roles, relations, power



The knowledge domains of educational gaming
(Hanghøj, in review)

EXAMPLE: *GLOBAL CONFLICTS*

Classroom observations and interviews with 19 teachers (DK, N, UK)

Design interventions: Teachers as first-time users

The teachers often facilitated the *GC* games rather passively – i.e. by “looking over the shoulders”

- ▶ Technical difficulties (installation, broadband etc.)
- ▶ The game design as a “black box” (difficult to assess/get an overview)
- ▶ The teachers’ lack of knowledge of the game (and 3D games in general)
- ▶ The lack of clear curricular goals for the game sessions

11:45

AFSLUTTENDE INTERVIEW:
20:00

MODARGUMENTER 0/5
UDTALELSER 0/8



Ja, ja, jeg kan huske, vi talte sammen over telefonen. Jeg er glad for at se dig. Velkommen til Xococ. Jeg er fader Salvador. Sig endelig til, hvis der er noget, jeg kan hjælpe med.



GC: CLASH OF EXPECTATIONS

Most teachers expected that many of the boys would become very engaged in the GC games due to their existing interest in games

However, several of the boys were clearly put off by the game due to its limited interactivity and relatively large amount of text to be read

At the same time, other students responded quite positively to the game and wrote journalistic articles, which were well-received by the teachers

Resulted in a **clash** between different expectations/knowledge domains

GC: THE TEACHERS AS RE-DESIGNER

Case: Mark, an English teacher of ICT, was an avid gamer and taught game design both at secondary and upper secondary school

- ▶ Re-designed and experimented with the educational goals
- ▶ Clearly communicated the game goals and game dynamics
- ▶ Interrupted the game: "Stop! This is not a click-a-thon!"
- ▶ Reflected on the GC game as a process of inquiry, which differed from other forms of inquiry-based teaching

- ▶ **T:** So what possibility can you see for using computer games in school?
- ▶ **M:** Well I think that we can use them all the time. We can use them for learning, you can do it for exploration, you can do it for your students' own independent understanding of things. You can search for bias, you can search for opinions, you can interact in ways that you're not able to do...

EXAMPLE: *PENUMBRA*

So – how to teach about games in basic way?

- ▶ Case: Andreas created a lesson plan for his 9th grade that involved the demo for *Penumbra* – a 3D adventure/horror game
- ▶ ”Scariest part”: <http://www.youtube.com/watch?v=LYiiVmSydM8>

WORKING WITH THE GAME

- ▶ The students were grouped in pairs with head phones and placed with a laptop in the (dark) basement of the school.
- ▶ Each group were asked to play the demo and write down a scene from the game in the horror genre using their own words
- ▶ Each group selected a sentence, which was discussed in the class in order to determine “the quality of the horror language”
- ▶ The students became engaged in the game, but also in the writing process and the discussion that followed afterwards

BREAKING OUT OF THE BOX

- ▶ The example shows how games should not be seen as ends in themselves
- ▶ Relation to curricular aims
 - ▶ Develop an understanding of computer games as a type of text
 - ▶ Develop a broader understanding of genres
 - ▶ Develop linguistic awareness
 - ▶ Develop creative writing skills

“NEXT-BEST PRACTICES”

Teachers should be able to...

- ▶ Develop basic understanding of game genres – form, content, function
- ▶ Be able to set and communicate clear goals
- ▶ Facilitate game sessions through guided inquiry
- ▶ Explore students’ game-based knowledge forms
- ▶ Adopt transparent forms of assessment (competencies vs. skills)
- ▶ Are these realistic goals...?

WHY TEACH WITH GAMES?

The three C's:

- ▶ Learning students a **cultural** understanding of games
- ▶ Learning students to be **creative** media producers
- ▶ Learning students to be **critical** gamers (cf. Burn & Durran, 2007)

But also:

- ▶ Learning to develop **scenario competence** in relation to particular knowledge domains – i.e. politics, human rights, language, math, science etc. (cf. Hanghøj, 2008)

THE FUTURE AGENDA

- ▶ Develop better relationships between **theory** and practice
- ▶ More **contextualised** studies of educational gaming
- ▶ Describe how teachers are able to **re-design** games for various educational purposes

TO BE CONTINUED...

- ▶ Post and share your examples of Game-Based Teaching at:

gamebasedteaching.ning.com

- ▶ Discussion: “Examples: Sharing game-based teaching practices”
- ▶ Any examples are welcome! Or mail me at: tha@dpu.dk

SOME REFERENCES

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- ▶ Buckingham, D. (2007). *Beyond Technology*. Wiley-Blackwell.
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