Chapter 5
Game-Based Teaching: Practices, Roles, and Pedagogies

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ABSTRACT
This chapter outlines theoretical and empirical perspectives on how Game-Based Teaching can be integrated within the context of formal schooling. Initially, this is done by describing game scenarios as models for possible actions that need to be translated into curricular knowledge practices, pedagogical knowledge practices, and everyday knowledge practices. Secondly, the chapter emphasizes how teachers must be able to shift back and forth between various interactional roles in order to facilitate game scenarios. Finally, a discussion is presented on how teachers choose different pedagogical approaches to game-based teaching, which may or may not correspond with the pedagogical models of particular games.

INTRODUCTION
This chapter addresses three recurring and interrelated challenges with Game-Based Teaching (GBT), which concern

1. How games are perceived and adopted within a formal school context,
2. How teachers facilitate games through different roles, and
3. The relationship between teachers’ pedagogical approaches and the pedagogical models of particular games.

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These three challenges are all addressed by conceptualizing games as scenario-based models for possible actions. This means that games are not viewed as self-explanatory aims or efficient “techniques,” but as more or less open-ended scenarios that may or may not be integrated with the pedagogical and curricular knowledge practices of a school context. In this way, game scenarios involve both opportunities and challenges for teaching and for fulfilling particular learning objectives.

The chapter primarily adopts a teacher perspective on games and learning, a relatively overlooked aspect within the research field. A number of general pedagogical frameworks exist
that describe how games can be integrated into educational contexts (Van Eck, 2009; Simpson & Stansberry, 2010; Arnab et al., submitted). However, only few empirical studies have been conducted on how teachers actually enact games within classroom settings (Squire, 2004; Sandford et al., 2006; Hanghøj & Brund, 2012). In order to generate knowledge that can be useful for practitioners in the field, it is crucial to conduct more empirical studies on the actual practices of teachers using games. Following this aim, the theoretical models and examples presented in this chapter are all based on empirical studies of educational gaming conducted by the author. These studies, each of which focuses on teacher use of a particular game, can be divided into three groups: the educational computer game Global Conflicts (Hanghøj & Magnussen, 2010; Hanghøj, 2011b; Hanghøj & Brund, 2012); the commercial off-the-shelf (COTS) game Penumbra (Bourgonjon & Hanghøj, 2011); and an ICT-supported debate game called The Power Game (Hanghøj, 2011a). Combined, these studies involve observations of game sessions conducted by approximately twenty-five teachers at the secondary and upper secondary level. In addition to classroom observations, the studies also include pre- and post-game interviews with the participating teachers.

The chapter is divided into five parts, the first of which defines game scenarios and why the scenario aspects of games are particularly relevant for educational purposes. Next, the three challenges mentioned above are introduced and then subsequently discussed in another section. Finally, the chapter concludes with a series of recommendations for GBT based on the opportunities and challenges discussed throughout the chapter. Based on a desire to put more emphasis on the crucial role of teachers as professional gatekeepers or “change agents” (Bruner, 1996, p. 84) when it comes to designing, facilitating and evaluating the outcomes of game-based learning environments, the term Game-Based Teaching instead of Game-Based Learning is used throughout the chapter. In this way, the theoretical perspectives and empirical findings presented here can hopefully be used to qualify the choices teachers, designers and researchers make when using game scenarios for educational purposes.

GAME SCENARIOS

It is common knowledge among both children and philosophers that the term game is, to say the least, quite ambiguous (Wittgenstein, 1958). This uncertainty means that researchers, game designers, journalists, policy makers, parents, schoolteachers, and students rarely have an identical point of reference when they talk about games. Some of this confusion can be explained by the fact that the term game refers to a myriad of different game formats (e.g. video games, location-based games, board games), game genres (e.g. strategy games, edutainment games, massively multiplayer online role-playing games), and a diverse array of game dynamics (competition, exploration, resource management, etc.). In order to reduce this complexity, the scenario aspect of games will be stressed when describing how games can be used and understood in relation to educational contexts.

The main reason for describing games as scenarios, a term derived from Italian meaning “that which is pinned to the scenery,” is that scenarios directly refer to the dynamic, future-oriented models for possible actions that are embedded in game designs. This points to a core dynamic of games, which is to make meaningful choices and to explore how these choices have consequences within a game world (Salen & Zimmerman, 2003). Following a pragmatist perspective, I assume that games are inquiry-based laboratories in which participants are able to imagine, engage with, and reflect upon their experiences (Dewey, 1916). Moreover, Dewey’s theory of inquiry may also be understood as a theory of scenario-based inquiry (Hanghøj, 2011a), an interpretation of Dewey’s pragmatism best illustrated by his term “dramatic