The Expert, The Novice, and The Skeptic: Game Literacy and Pedagogical Practice

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Abstract: This qualitative case study explores how teachers' video game literacy impacts their pedagogical use of the digital game *The Walking Dead* in an ethics education course at a Norwegian high school. The research question addressed is: how is teachers' pedagogical use of a digital game impacted by their levels of video game literacy? The study followed seven teachers, varying in teaching and gaming experience, over two semesters. Observations and semi-structured interviews were conducted to gather data on the teachers' experience and pedagogical practice using *The Walking Dead* in their classes. Three teachers were selected for deeper analysis based them showing differences in attitudes and practices, while having similar teaching experience. These teachers were labeled "the expert," "the novice," and "the skeptic" based on their gaming literacy and attitudes. The analysis was based on a two-dimensional approach to video game literacy, emphasizing operational and cultural literacy. The results show that operational literacy impacted how teachers perceived and used various game elements, especially how they identified and framed the game's dilemmas. The expert and novice saw the game's narrative as an important contextual resource for engaging with the dilemmas, while the skeptic saw it as merely a backdrop. The skeptic also had difficulties distinguishing between relevant and less relevant aspects of the game relative to the learning goal. Cultural literacy mainly impacted the teachers' ability to differentiate between students' perceptions and experiences of the game and different modes of playing. The expert had a more nuanced approach to how students perceived the game's motivational power, emphasizing the story's importance. The novice and expert explicitly instructed students to distinguish between playing for fun and playing to learn, while the skeptic made less of a distinction and saw playing the game more as a standalone learning activity. The findings suggest that teachers' video game literacy can significantly influence pedagogical use of digital games. Higher levels of operational and cultural literacy enable teachers to better navigate the game's elements, guide students' engagement, and facilitate connections between gameplay and learning objectives.

Keywords: Teachers, Video Game Literacy, Ethics, Game-based Teaching, The Walking Dead

1. Teachers, Gaming Literacy and Pedagogical Practice

Teachers have long been known to be important for games to become useful in the classroom (Molin, 2017). However, using digital games as educational tools has been shown to be a quite complex and difficult feat, and there are several factors which hinder teachers from incorporating games in their teaching. They include technical challenges related to hardware and software, pedagogical challenges related to connecting the game with educational content, institutional challenges such as lack of support from school administration, structural challenges like not having the time to prepare for or conduct game-based classes, and personal challenges like not having sufficient gaming experience, interest or literacy (Molin, 2017; Hayak and Avidov-Ungar, 2020).

Facilitating good use of educational games requires teachers to master a range of different roles and tasks. Berg Marklund and Taylor (2015) note the broad range of different tasks needed to be undertaken if games are to be successfully used in the classroom, such as designing the game based curriculum, preparing the necessary hardware and software and associated infrastructure, and administrative tasks during and in-between classes. They also list a number of different roles the teacher needs to take on: *gaming tutor*, instructing the students on how to play the game; *authority and enforcer of educational modes of play*, ensuring that students play the game with a subject-oriented mindset; and *subject matter anchor*, bridging the gap between the game and the subject matter it is intended to help students learn (Berg Marklund and Taylor, 2015, pp. 363–365). These roles partially overlap with the roles identified by Hanghøj and Brund (2011, p. 127), which include *playmaker* (explain the game, its goals and dynamics to the student), *guide* (help students link their gameplay with learning objectives), *instructor* (explaining how the learning goals relate to the game), and *evaluator* (understanding, exploring, and giving feedback based on players' experiences seen from an outside perspective).

However, the degree of video game literacy required by these tasks and roles remains unclear. Gaming literacy does not automatically result in confidence in teaching with games, but lack of gaming literacy does not

necessarily hinder teachers in using games (Bourgonjon and Hanghøj, 2011). Wargner and Wernbacher argue that "teachers who want to use digital games in the classroom do not need to be gamers" (2013, p. 2), stating that the main role of the teacher is to oversee the learning process offered by the game, making sure all students stay on track. However, this claim conflicts with the observations by Hanghøj and Brund (2011), who found that game literacy was critical for identifying disruptive game play and to scaffold the students' gaming experience in a curricular manner. In a later publication, Hanghøj argues that it is "crucial that teachers have developed *game literacy* based upon their experience with and understanding of different game designs" (2013, p. 6).

Further complicating the matter is the observation that different teachers can approach the same game in different ways. This can range from using them as a reward for students' work, merely showing video clips from the game, sitting and watching students play without much intervention, to facilitating deep connections between learning goals, game elements, and learning activities (Hanghøj and Brund, 2011; Berg Marklund and Taylor, 2015, 2016; Bacalja and Clark, 2021). Moreover, teachers' approach and perceptions can vary depending on professional experience (Hayak and Avidov-Ungar, 2020) or general attitude towards games related to their pedagogical beliefs (Prestridge, 2017).

Despite the crucial roles of teachers for successfully implementing digital games in education, teachers are still under-researched (Molin, 2017; Hayak and Avidov-Ungar, 2020). Studies have yet to explore the differences in how teachers use games in a thorough manner. Why do teachers approach games differently? Why do they struggle with using them in an educational manner? What is the relationship between teachers' gaming literacy, attitudes, and their pedagogical practices?

This study's approach to video game literacy is adapted from Bourgonjon (2014) and Hanghøj and Møller (2017). The study focuses on two aspects of video game literacy: *operational literacy* – being able to play the game, and having the necessary frame of reference required for interpreting what happens in the game, and *cultural literacy* –seeing the game in light of different cultural contexts and being aware of games as a diverse cultural medium, and making distinctions such as how a game is designed vs. how it is played or seeing the game as simulation vs. representation.

This goal of this paper is to provide an answer to these questions by reporting on the findings from a qualitative mixed-methods case study exploring how teachers at a Norwegian high school use *The Walking Dead* (Telltale Games 2012, 2016) in a course on ethics, aimed at helping students learn to use ethical theories. The research question this paper seeks to answer is: how is teachers' pedagogical use of a digital game affected by their levels of video game literacy?

The Walking Dead is an interactive narrative videogame not developed for educational use, but which nevertheless has a strong focus in ethics and moral decision-making. This makes it well suited for adaptation in the ethics education classroom. The paper investigates the use of a lesson plan created by two teachers at the school in 2012 (one of whom is the author of this paper) and has been in use ever since. The lesson plan focuses on the dilemmas found interspersed throughout the game's story. The class plays the game together in a classroom or auditorium, with students taking turns playing the game. The teachers pause at regular intervals to engage students in discussions of the game's dilemmas, using the ethical theories from the curriculum, including relational ethics, virtue ethics, ethics of duty (deontology) and consequential ethics (utilitarianism). The overall goal for the lesson is for students to appropriate these ethical theories as a basis for their own moral reasoning.

2. Method

This study follows a qualitative case study approach. Observations, class recordings, and semi-structured interviews were conducted with seven teachers over two semesters, all of whom varied in teaching and gaming experience. The teachers used *The Walking Dead* as an interactive thought experiment, where the game's dilemmas facilitated discussions based on ethical theories. All teachers received advice and instruction on using the game from more experienced colleagues at the school. The classes played a single copy of the game in the school auditorium or a classroom (see figure 1), with some students taking turns playing. The teachers instructed the game to be paused at critical points, engaging the class in group or whole-class discussions, after which students voted on the course of action.

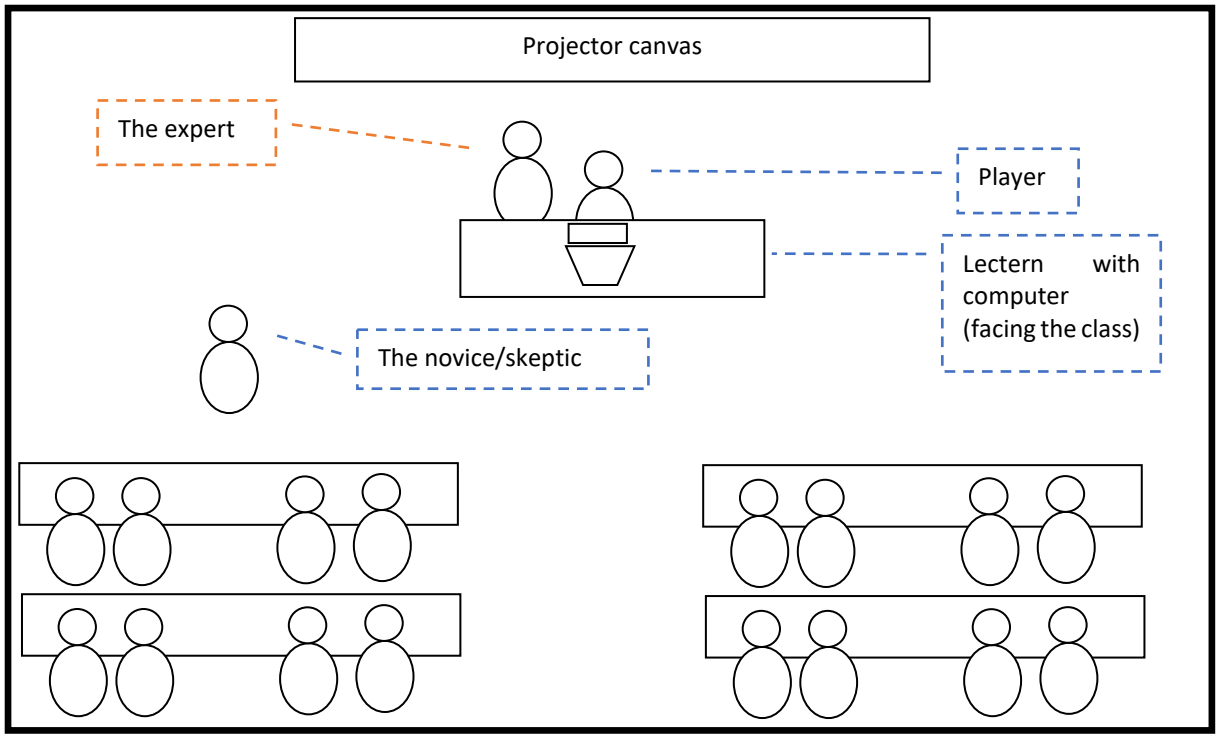

Figure 1: The classroom setup. Students took turns playing. The skeptic and novice positioned themselves to the side. The expert stood next to the player, providing guidance and support.

The data was collected during the spring and autumn semesters of 2019. Classes were observed and recorded for transcription, along with field notes written during observation. These notes sought to identify episodes for further exploration in the subsequent retrospective, semi-structured interviews. The interviews sought to investigate teachers' experiences of and perspectives on teaching with games in general, and *The Walking Dead* specifically. The interview guide contained both general questions pertaining to the teachers' gaming experiences both in and outside the classroom, and questions unique for each teacher, referring to specific episodes during the observed classes. These questions sought insight into how teachers experienced and reflected on these episodes, which could concern how they positioned themselves relative to the game and their students, where they stopped to engage in discussions, their motivations for doing so, and what episodes they themselves found positive or negative. In other words, the transcribed data from the classes focused on what the teachers were doing, while the interviews sought to uncover the underlying rationale for their practices and their subjective experiences.

The initial phase of analysis involved open coding of the transcribed data to identify preliminary themes related to teachers' practices and experiences. These themes were then refined and informed by relevant theories on video game literacy, creating a framework for thematic analysis. This framework was used to conduct a more focused and detailed analysis, operationalizing video game literacy concepts through interaction with the empirical material. Specifically, the framework distinguished between *operational* and *cultural* literacy (Bourgonjon, 2014; Hanghøj and Møller, 2017), with the former concerning how teachers approached the game as a pedagogical tool, and the latter pertaining to teachers' perceptions of their own and students' gaming experiences and dispositions.

3. Results

This section presents the impact of video game literacy on attitude pedagogical practice related to *The Walking Dead*. First follows a short presentation of the three teachers. Then follows an account of how operational and cultural literacy was found to impact the teachers' pedagogical practice with *The Walking Dead*.

3.1 The Expert, The Novice, and The Skeptic – a Presentation of the Teachers.

The three teachers studied for this paper have been given the aliases "the expert, "the novice" and "the skeptic". These labels have been created both for convenience's sake, as anonymity and research ethical concerns

demand identifiers such as gender be removed, and as descriptive categories summarizing the teachers' gaming experience and attitudes. They have each been teaching for eight years or more and have been using *The Walking Dead* for at least two.

"The expert" is a self-professed gamer and has used games several times across all their subjects and has been playing games since early childhood into their adult life. They report being very comfortable with games both in and out of classes and describe the use of games in their educational practice as something completely natural to them, treating games as just any other pedagogical tool in their repertoire.

The two other teachers, **"**the novice**"** and **"**the skeptic**",** have little experience or familiarity with games. The novice has used games in one other of their subjects, while the skeptic has only ever used *The Walking Dead*. While they both lack gaming experience and literacy, they display quite different attitudes both toward games in general, and the use of games in their classes.

The novice does not play digital games outside their professional life, and their attitude is best described as unenthusiastic rather than dismissive. They explicitly state that they would not have enjoyed playing *The Walking Dead* in their spare time, saying that they lack the patience for such games. However, they express much enthusiasm for the game used as an educational tool, saying that they found much joy, as well as utility, in it right from the start. While being unfamiliar with the game, the novice is familiar with the game's fictional setting, as they have enjoyed watching *The Walking Dead* TV-series.

The skeptic shares the novice's disinterest in recreational play of digital games and is even a bit dismissive of the concept. While having partly embraced the use of digital games in education, they repeatedly use the phrase "I'm still not convinced" regarding the pedagogical utility of games, and do not see the game as any more useful than other pedagogical tools.

It should be noted that all three teachers shared the same sentiment regarding the game's pedagogical utility on a general level. They all saw it as a useful way to vary their teaching methods, engage students, and provide dilemmas for discussion that were suitably removed from reality and everyday life that they did not risk offending students or making them feel uncomfortable. However, as the following sections will show, they displayed interesting differences when it came to using *The Walking Dead* in practice.

3.2 Impact of Teachers' Operational Literacy

Operational literacy was found to impact how the teachers perceived the game and its various elements, and consequently also affected how they used the game in their classroom. This largely concerned how teachers navigated challenging parts of the game not related to ethics, what parts of the game they thought of as most important for teaching and learning, and how they called (or did not call) attention to these aspects during class.

3.2.1 Gameplay Interventions

The three teachers differed in how they intervened during the gameplay sequences bookending the dilemmas, which often involve pressing buttons quickly in the correct order to defeat a zombie or navigating an enclosed space in search of an important item. The expert constantly stood by the side of the student currently playing the game, instructing them on where to go, what to do, and what buttons to press, assuming the role of "gaming tutor" or "guide" (Hanghøj and Brund, 2011; Berg Marklund and Taylor, 2015). The reason for this, the expert explained, is that they did not want "gameplay to steal attention from the story" and wanted to have as few interruptions or distractions as possible. In this statement, the expert demonstrates an understanding of "narrative" and "ludic" immersion (Bell et al., 2018) as different modes of play which can come into conflict with each other. The expert, in other words, is aware that there can be several, mutually exclusive ways of experiencing the game, and only some of which will be conducive to learning.

The novice also helped students navigate difficult parts of the game, but unlike the expert, did not position themselves right next to the student playing the game. They were also less consistent and explicit in their guidance. The skeptic, on the other hand, did not enter the role of guide or gaming tutor at all. However, both teachers explained that they saw students as a very valuable resource in their classes, often asking experienced students to handle playing the game.

3.2.2 Game Narrative

The teachers also displayed interesting differences when it came to how they saw the interactive narrative aspect of the game. The expert refrained from intervening for the first 30 minutes of gameplay, skipping two major dilemmas, as they wanted the students to become immersed in the story. This was to "make them better equipped to make informed decisions", the expert explained. In other words, the expert saw the story as an important contextual resource for engaging with the dilemmas. The novice shared this mindset, explaining that the game's story let them experience making difficult decisions as another person.

However, the skeptic did not consider the game an interactive narrative at all. When asked about that role the story unfolding between the game's protagonist and the other characters, the skeptic was somewhat taken aback, answering that "it would probably have played a bigger role if I had given it any thought". Thus, instead of seeing the game as a story where the player acts vicariously through the protagonist, the skeptic saw the game's dilemmas not as situated in the game's story but as representations of more general dilemmas "that we all encounter as some point in our lives". The skeptic contended that their lack of experience or interest in games made them not pay much attention to the game' story, seeing it more as a backdrop rather than an important context for the dilemmas.

3.2.3 Dilemmas

The final way the teachers were affected by their operational literacy was how they distinguished between elements of the game relevant to the overall learning goal, and how they frame these elements in their class. Operational literacy involves not only the ability to play games but being able to recognize the various elements constituting a game. In the unit studied for this paper, the dilemmas of the game play a very important role in this regard. Analysis revealed that while all three teachers talk about the dilemmas being important, the skeptic's perspective stood out from the other two teachers. In the interviews, the skeptic often complained that they felt the dilemmas were very similar. No other teacher, including the four not studied in depth in this paper, shared this sentiment. The skeptic also expressed frustration, noting how they "can't find examples of virtue ethics", and how it was mostly the same two ethical theories – consequentialism and deontology – that were repeated. Furthermore, during one of the interviews, when asked what pedagogical tool they would compare *The Walking Dead* to, the skeptic answered that it was akin to a PowerPoint presentation with assignments and tasks for the students to solve.

Figure 2: An example of an in-game dilemma. The protagonist, Lee Everett, former teacher and convicted felon, is questioned about his troublesome past, and must decide whether to lie or be honest.

This indicates that the skeptic had difficulties with distinguishing between the relevant and less relevant aspects of the game relative to the learning goal. While they did stop at certain proper dilemmas, the skeptic also paused the game during points other teachers did not stop, and which were not signaled as being important decision points by the game's design. These were points where a character (the protagonist or another person) had done something which could be considered morally questionable, like uncuffing themselves from handcuffs, entering strangers' homes or killing people who had turned into zombies. But these points were all part of actions required for the player to progress though the game, not interactive dilemmas. The skeptic also stopped after an act had already been committed, engaging the students in discussions over if this was right to do or not. Only on occasion did the skeptic stop the game before the player had taken an action. This resulted in the class mostly deliberating actions that had already been done, rather than discussing what to do next, and why. Finally, the skeptic framed the dilemmas and ensuing discussions in a manner which became more concerned with finding suitable theories for determining whether an act was good or bad, rather than exploring different alternatives

with teach of the four theories. For example, the skeptic asked students questions like “do you agree that this is consequential ethics?”. All this indicates that the skeptic, lacking operational literacy, had difficulties perceiving the interactive nature of *The Walking Dead,* and the dilemmas as important decision points facilitating player agency in the game’s story. Consequently, they perceived the dilemmas not as *dynamic, situated choices*, but rather as *tasks to be solved*.

3.3 Impact of Teachers’ Cultural Literacy

Cultural literacy mainly impacted the teachers’ ability to differentiate between how the game might be perceived and experienced by the students, and how teachers differentiated between different modes of playing the game.

3.3.1 Perceptions of Student’s Motivation and Engagement

Both the novice and the skeptic underline the game’s ability to motivate and engage their students. The skeptic believes that it especially appeals to students who regularly play games, and that this is a way to show them that the school thinks their cultural practices seriously, “meeting them where they are”, as the skeptic put it. The expert, however, did not reason about the games motivational power in this way. They had a more nuanced approach to how students perceived the game, arguing that students that played more competitively oriented games would likely find the game boring. They thus did not trust the game to be motivating or engaging for all students, nor that it would have such an effect simply by “being a game”. Rather, as noted in the previous section on game narrative, the expert felt that the game “presenting students with a good story” was the key component for engaging students. The expert emphasized this, as described earlier, by giving students ample time to immerse themselves in the story, and by ensuring that distractions form the game’s more challenging aspects were kept to a minimum.

3.3.2 Modes of Engagement – Playing vs. Learning

Before playing the game, both the novice and the expert made it clear to the students that they were not "gaming" or playing to have fun, but that they were going to use the game's dilemmas as a way of practicing using the ethical theories. In doing so, they both clearly instructed their students to distinguish between playing the game for fun and playing to learn. However, the novice was at one point during their class somewhat surprised by a group of students who were wanting to do the correct thing because they would lose the game otherwise. These students had succumbed to what Frank (2012) refers to as "gamer mode", where the learning goals are discarded in favor of reaching a more game-oriented outcome. This surprised the novice, and they expressed some frustration in the interview over not being aware of this way of thinking about the game.

The skeptic made less of an explicit distinction between different modes of engaging with the game. They noted that "stopping every other minute" caused frustration among some students. Another intervention which students found objectionable was when the skeptic paused the game after the protagonist had shot and killed a zombie who was a living human just a few moments ago. This happened during a quite intense actions sequence and was not framed as a moral decision by the game developers. However, the skeptic paused the game and asked the students if this was ok, but was met with an overwhelming "it's just a zombie!" from several students. Without the cultural frame of reference in which "zombies are ok to kill", as the novice remarked to their students, it became challenging for the skeptic to negotiate the moral status of zombies vs. humans. In the interview, the skeptic simply noted the students "just did not go along with it".

The skeptic also made less a distinction between playing for fun and playing to learn in remarking that the students were likely to reflect on the choices in the game without teacher intervention. This indicated that the skeptic saw playing the game as a standalone learning activity, instead of a way of facilitating learning though dialogue and discussion. They mentioned conducting most class discussions before and after the game was played, in contrast to the two other teachers. The skeptic believed that the students would likely have learned more if they played the game in pairs, as they would not have to deal with them interrupting the students' gameplay and discuss the game at their own leisure.

4. Discussion and Conclusion

This study highlights the significant role that teachers' video game literacy plays in shaping their pedagogical use of digital games in the classroom. By examining the experiences and practices of three teachers with varying

levels of gaming experience and attitudes, the study reveals how operational and cultural literacy impact the way teachers navigate game elements, guide students' engagement, and facilitate connections between gameplay and learning objectives.

The findings demonstrate that gaming literacy plays a crucial role for teachers' ability to fulfill important roles related to teaching with games (Berg Marklund and Taylor, 2015; Hanghøj and Møller, 2017). Higher levels of operational literacy are necessary for guiding students through challenging aspects of the game and ensuring that the focus remains on the narrative and learning goals. The expert's and novice's emphasis on the game's narrative as a contextual resource for engaging with dilemmas underscores the importance of situated learning and context in game-based education. In contrast, the skeptic's view of the narrative as merely a backdrop and their difficulty in distinguishing between relevant and less relevant game elements highlight the importance of operational literacy in effectively using games for teaching.

Cultural literacy also emerges as a crucial factor in shaping teachers' pedagogical practices. The expert's nuanced approach to students' motivation and engagement, compared to the novice and skeptic, suggests that cultural literacy plays a vital role in understanding students' gaming experiences and dispositions. Furthermore, the novice's and expert's explicit instruction to students to distinguish between playing for fun and playing to learn, in contrast to the skeptic's less distinct approach, emphasizes the need for teachers to guide students' engagement and prevent "gamer mode" from interfering with learning objectives.

This study demonstrates that teachers' video game literacy significantly influences their pedagogical use of digital games in the classroom. Operational literacy is crucial for navigating game elements, identifying relevant aspects for learning, and framing dilemmas effectively, while cultural literacy is essential for understanding students' experiences and guiding their engagement.

The findings have important implications for educational practice, suggesting that enhancing teachers' video game literacy should be a priority for the successful integration of games in education. Teacher education and professional development programs should address both operational and cultural aspects of game literacy to better prepare teachers for using games as educational tools.

However, the study's limitations, such as the small sample size and focus on a single game, should be acknowledged. It should also be pointed out that other aspects of teachers' knowledge, as well as other forms of media literacy, like the novice's familiarity with the The Walking Dead TV-series, and with the zombie trope in general, might also have impacted their pedagogical practice. Future research should explore the impact of video game literacy across different educational contexts and game genres to gain a more comprehensive understanding of its role in game-based learning.

In conclusion, this study underscores the importance of considering teachers' experiences and perspectives when exploring the educational use of digital games. By recognizing the diversity of teachers' gaming backgrounds and attitudes, and by promoting the development of their video game literacy, we can better support the effective integration of games in teaching and learning.

References

Bacalja, A. and Clark, K. (2021) 'Playing with Digital Game Pedagogies', in *Digital games and language learning: Theory, Development and Implementation*. London: Bloomsbury. Available at: https://doi.org/10.5040/9781350133037.ch-006.

Bell, A. *et al.* (2018) 'Immersion in Digital Fiction: A Cognitive, Empirical Approach'. Available at: https://doi.org/10.15462/ijll.v7i1.

Berg Marklund, B. and Taylor, A.-S.A. (2015) 'Teachers' Many Roles in Game-Based Learning Projects', in *Proceedings of the 9th European Conference on Games Based Learning*. *European Conference on Games Based Learning*, Academic Conferences and Publishing International Limited, pp. 359–367.

Berg Marklund, B. and Taylor, A.-S.A. (2016) 'Educational Games in Practice: The Challenges Involved in Conducting a Game-Based Curriculum', *Electronic Journal of e-Learning*, 14(2), pp. 122–135.

Bourgonjon, J. (2014) 'The Meaning and Relevance of Video Game Literacy', *CLCWeb: Comparative Literature and Culture*, 16(5). Available at: https://doi.org/10.7771/1481-4374.2510.

Bourgonjon, J. and Hanghøj, T. (2011) 'What does it mean to be a game literate teacher? Interviews with teachers who translate games into educational practice', *Proceedings of the European Conference on Games-based Learning*, 2011, pp. 67–73.

Frank, A. (2012) 'Gaming the Game: A Study of the Gamer Mode in Educational Wargaming', *Simulation & Gaming*, 43(1), pp. 118–132. Available at: https://doi.org/10.1177/1046878111408796.

Hanghøj, T. (2013) 'Game-Based Teaching: Practices, Roles, and Pedagogies', *New Pedagogical Approaches in Game-enhanced Learning: Curriculum integration* [Preprint]. Available at: https://www.academia.edu/39432916/Game_Based_Teaching_Practices_Roles_and_Pedagogies (Accessed: 25 April 2024).

Hanghøj, T. and Brund, C. (2011) 'Teacher roles and positionings in relation to educational games', in *Serious Games in Education*, pp. 125–136. Available at: https://doi.org/10.2307/jj.608141.9.

Hanghøj, T. and Møller, L. (2017) 'Den spilkompetente lærer', *Learning Tech*, (3), pp. 8–31. Available at: https://doi.org/10.7146/lt.v2i2.107734.

Hayak, M. and Avidov-Ungar, O. (2020) 'The Integration of Digital Game-Based Learning into the Instruction: Teachers' Perceptions at Different Career Stages', *TechTrends*, 64(6), pp. 887–898. Available at: https://doi.org/10.1007/s11528-020-00503-6.

Molin, G. (2017) 'The Role of the Teacher in Game-Based Learning: A Review and Outlook', in M. Ma and A. Oikonomou (eds) *Serious Games and Edutainment Applications*. Cham: Springer International Publishing, pp. 649–674. Available at: https://doi.org/10.1007/978-3-319-51645-5_28.

Prestridge, S. (2017) 'The Non-Gamer Teacher, the Quiz and Pop Teacher and the Kinect Teacher', in *Serious Play*. Routledge.