

Book Review

Video Games and Learning: Teaching and Participatory Culture in the Digital Age

Kurt Squire

New York, NY: Teachers College Press, 2011.

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At the back of my Grade 5 classroom sat a dusty, Pentium, desktop computer. This computer was a foreign entity in our classroom, as our educational world was encapsulated by a print-based understanding. As students, we identified the computer as having one very valuable application, the ability to play educational video games. We all clamoured around the weekly computer schedule to see if our name was on the list, as we were anxious to have our try at *The Oregon Trail* and *Carmen Sandiego*. Playing video games was fun, as they introduced both historical and geographical concepts in a visually appealing way. Remarkably, educational gaming has remained relatively stagnant since the initial introduction of *The Oregon Trail*. For well over two decades the controversies surrounding video games have riddled the growth and implementation of game-based learning environments. Kurt Squire (2011) begins to unpack these constrictive ideologies in his book, *Video Games and Learning: Teaching and Participatory Culture in the Digital Age*.

As an eminent researcher of educational video gaming, Squire presents a refreshing perspective of school-based gaming. His book clearly speaks to the transformative possibilities of educational games as he creates “a vision of digital games and learning that draws on critical analysis of games, naturalistic research of game communities, descriptions of design research, and empirical studies of learning through games” (p. xiii). Although Squire spends considerable time discussing his varied gaming research experiences, he does orientate the book towards an educational audience. Squire provides an array of evidence that demonstrates how an educator might purposefully incorporate and construct an educational video game as an applicable curricular project.

Squire organizes the text around his varying video gaming experiences. From childhood to academic researcher, Squire has developed both a technical and research-based understanding of gaming. This deep understanding allows the reader to establish a sense of confidence that Squire does in fact embody the ideologies associated with a gamer. Each chapter further clarifies educational video gaming through Squire’s varied research projects and applications. As the chapters consecutively build, the reader begins to envision the possibilities of video gaming in their own classroom space, even potentially building their own educational game. The 10 chapters are organized with useful headings and, perhaps most importantly, include a detailed “theory and practice” summary at the end, which not only summarizes the chapter, but also highlights the ideas educators would find most useful. Squire does an excellent job in the overall organization and flow of the text, as he devotes equal attention to both the practical and

theoretical elements of educational gaming. Educators will likely find this text useful, even if they only read one or two chapters that apply to their educational context.

What makes a video game, a “good” game, from an educational perspective? As an educator beginning to explore the possibilities of gaming, I find that violence is one of the most concerning topics for both colleagues and parents. Certainly the controversy surrounding violence and video games goes beyond the scope of this review, however, it is important to further define what a good educational video game actually looks like. It would seem obvious that games such as *Grand Theft Auto* clearly fall outside the conceived understanding of good as their violent content is often not appropriate for school settings. However, games such as *Sid Meier’s Pirates* and *Sid Meier’s Civilization* offer some relevancy as they enhance topics that are often concurrent with curricular objectives. In clarifying his understanding of the characteristics of good video games suitable for educational purposes, Squire shares with readers a childhood experience from his own schooling, where he is asked a question about the causal factors behind colonization. Although young Squire is initially dumfounded by the question (he identifies himself as not the most dedicated student), he remembers visualizing an experience he garnered from playing *Sid Meier’s Pirates*, a game that follows the life of a pirate in the Spanish Main during the 16th, 17th, and 18th centuries. Squire is able to eloquently respond to the question because of his learned experiences from the video game. Although Squire did not purposely play *Sid Meier’s Pirates* to establish a more detailed understanding of colonization, his recollection of this childhood experience does begin to clarify what a good video game is.

Squire broadly identifies both meaning making and participation as key factors in the development and application of a good video game. Although gaming is often considered a passive activity, Squire argues that learning through “game play is about creating knowledge in a way that challenges even our most ‘student-centered’ notions of learning” (p. 30). These genuine and deeply rooted learning opportunities can only be found in games that offer players the ability to construct goals, strategies, and theories about the game system. Squire references *The Sims*, a video game that simulates the daily activities of virtual people living in a suburban house near SimCity. He believes *The Sims* is a good video game, as it provides players with the ability to produce and distribute content based on their own perceived understanding of the world. *The Sims* offers a sense of creativity that allows a player to have a more active role in the gaming experience.

Although Squire does not identify the aesthetics of play in his discussion of good video games, the structural entities of aesthetics are analogous to the factors that comprise a good video game. Squire first identifies the significance of *entrainment*, not to be confused with entertainment, which is the careful timing of moves, the rhythm found in a fight, the overall timing that directs the feeling, and the pace of the game. This pace elicits a deep rooted connection with the character, which results in a sense of flow. Squire references Mihaly Csikszentmihalyi’s theory of flow (1990) as the interconnected relationship that exists when abilities are perfectly matched with challenges. Certainly a good video game presents these flow experiences, otherwise the user would likely experience some level of dissatisfaction with the game. Squire also mentions the need to have some underlying narrative that elicits an emotional response. The evolving storyline must employ narrative techniques that produce both positive and negative emotions, as these emotions motivate the gamer to make a strong commitment to the game. Squire provides a fairly comprehensive understanding of what is considered to be a good educational video game, which supports the educator in selecting educational video games that are more rigorous and educationally relevant.

Squire's discussion of good video games is important, as he fosters a sense of imagination regarding the possibilities of game-based learning environments. For cautious readers, this in-depth exploration of video game implementation might be overwhelming; however, as educational gaming is an emerging field, Squire thoughtfully and purposefully explores the varying dimensions that comprise a game-based learning environment. Squire introduces both (a) interest-driven learning, and (b) open-access learning environments as the two pivotal educational gaming elements. He further explores these two elements through his own experiences with the Montessori School framework. Many of the overarching themes found in a Montessori classroom are analogous with interest-based learning and open-access environments; however, this preschool orientated environment may be out of the scope for some readers. In fact, beyond Squire's initial discussion of the Montessori classroom, he makes no reference to preschool children or preschool game-based environments. Although there are many parallels between the Montessori classroom and game-based environments, Squire may have been wise to discuss a more common classroom environment.

Squire's discussion of *affinity spaces* illuminates the transformative possibilities of educational video gaming. Affinity spaces are digital spaces where groups voluntarily gather to learn together. The interdisciplinary nature of affinity spaces allows gamers to participate in both game and print-based contexts. Squire references the participatory culture that is found in Joystick101.org (<http://website.education.wisc.edu/kdsquire/joystick101.html>), a web-based affinity space that further explores video games. These collaborative communities establish a deep analysis of the game through collaboration, multi-faceted participation, and written communication. Certainly these affinity spaces have a broad appeal to educators, as they address and build upon an array of cross-curricular skills. Through the immersive possibilities of affinity spaces, Squire builds a strong case for game-based learning environments and educational gaming.

Squire continues to build confidence through detailing his own humbling experiences with game-based learning environments. He introduces one research project that centered around the immersion of *Sid Meier's Civilization III* for a group of struggling Grade 9 students. *Sid Meier's Civilization III* focuses on building an empire from the ground up, beginning in 4,000 BC and continuing into the future. He begins by admitting that the first few days of the gaming project were a colossal disaster. However, through trial and error, Squire revised the project to include small group work, collaborative experiences, and shared moments. In addition, Squire also emphasizes the importance of establishing an equitable balance between skill and knowledge: "we tried many teaching approaches, but found the most success when teaching and learning activities were in direct response to game play challenges" (p. 138). Educational video games offer a sense of fluidity, as the gamer actively constructs a world based on their background knowledge. Squire is wise to discuss the constructive aspect of educational games, as they offer a more rigorous application of game-based learning.

Although Squire spends most of his time discussing the use of pre-fabricated games, including *Sid Meier's Civilization* and *The Sims*, he does bring forth the possibility of constructing place-based video games. These constructed games offer immense potential as they address both community and curricular objectives. Squire discusses one particular game entitled, *Dow Day, about a student protest over two days in 1967 on the campus of the University of Wisconsin-Madison*. This game was constructed by a practising educator to showcase the detrimental impact Agent Orange had on the community. The educator included a variety of roles in the construction of the game, which allowed the students to embody different

perspectives of the tragic incident. Certainly an array of strong learning applications can be derived from a place-based learning game, including embedded assessments and situated learning experiences. However, Squire neglects to inform the reader of the actual mechanics needed to construct a place-based game.

Readers may find the chapters discussing game construction overwhelming as the detailed expertise involved in designing a game goes beyond the skill-set of most educators. Squire states that when constructing a game, “teams should negotiate learning between scientists, game designers and subject matter experts” (p. 105). Educators generally do not have access to these detailed resources, which makes it virtually impossible for educators to consider the possibilities of place-based gaming. Certainly as gaming technologies continue to evolve, the possibilities of place-based video games might become a more realistic endeavour; however, at this point Squire’s interpretation of game design seems like an unrealistic possibility.

Despite these shortcomings, I found Squire’s text, *Video Games and Learning: Teaching and Participatory Culture in the Digital Age*, to be clearly written and educationally relevant. Educators will find this text helpful as they wade through the muddy waters of using video games in schools. Squire provides the reader with an array of examples that clearly highlights the successes that have emerged from his own game-based research experiences. Although he presents some concepts that go beyond the expertise of many educators, Squire does provide strong evidence that educational video games can be effectively implemented into the classroom environment. Squire offers an innovative and refreshing perspective regarding the future of digital learning. It is through his text that we come to understand the rigorous and meaningful learning experiences that can be garnered from playing and constructing educational video games.

References

- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York, NY: Harper & Row.
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