Videogames in and beyond the L1 classroom

Gaming, literacies, and implications for practice

Abrams, Sandra Schamroth; Hanghøj, Thorkild

Published in:
L1-Educational Studies in Language and Literature

DOI (link to publication from Publisher):
10.21248/l1esll.2022.22.2.433

Publication date:
2022

Document Version
Publisher's PDF, also known as Version of record

Citation for published version (APA):
Abrams, S. S., & Hanghøj, T. (2022). Videogames in and beyond the L1 classroom: Gaming, literacies, and implications for practice. *L1-Educational Studies in Language and Literature*, *22*(2), 1-22. https://doi.org/10.21248/l1esll.2022.22.2.433

VIDEOGAMES IN AND BEYOND THE L1 CLASSROOM

Gaming, literacies, and implications for practice

SANDRA SCHAMROTH ABRAMS* AND THORKILD HANGHØJ**

**St. John's University ** Aalborg University*

> "Five [adolescent] youth hover around the Nintendo Switch to play a game about milking a cow. The smell of Doritos permeates the room...youth are sitting against the back wall, playing on a Switch. Two are playing; five are watching. Another runs over to watch. Approximately eight [additional] youth are watching game play on the large screen...As I write this, the combination of players and observers shifts; someone stands, someone moves, someone crouches." (Field notes, youth videogaming in a public library in the northeastern United States)

> "I think it all just depends on what type of game you play because some games could be like how to survive. You need to collect a certain amount of stuff to be able to do some things. You have to figure out how much of it you need to be able to build all of these different things. Then some games, you just need to figure out how do I…what's the secret way...to get through something to do it right and fast...There have been some times where I'm in a class, and we'll be talking about something. I'll think of a game I've played and like, 'Yeah. This relates. This is similar to this.' I like World War II games and World War games. Going to history, it [videogaming] helps me realize and know stuff that some other people don't know" (Interview with Tervain,[1] a high school student in the northeastern United States)

> "When you think of games, you don't think of Danish [as a subject], you simply don't" (Interview with Jasal, a secondary student in Denmark)

These observation and interview data from different contexts—a public library and two public schools, respectively, across two different countries—address videogame play experiences. The observation captures the movement of players, of practices,

[1] *All names are pseudonyms.*

Abrams, S. S. & Hanghøj, T. (2022). In and beyond videogames: Gaming, literacies, and implications for L1 classroom practice. Introduction to a special issue Gaming and Literacies, edited by Thorkild Hanghøj and Sandra Abrams. L1-Educational Studies in Language and Literature, 22, 1-22. https://doi.org/10.21248/l1esll.2022.22.2.433

Corresponding author Sandra Schamroth Abrams, St. John's University, 8000 Utopia Parkway, Sullivan 428, Queens, NY 11439 USA. Email: abramss@stjohns.edu; horkild@ikp.aau.dk

and of points of focus, and the interviews reveal not only an attention to game objectives, to strategy, and to efficiency ("do it right and fast"), but also the association (or lack thereof) of games with the curriculum. Across the three examples, there is a movement and a momentum that are part of the youths' game play experiences, and there is meaning making that simultaneously is both concrete and elusive. Meaning exists in ways that we can see and document (e.g., youth behavior, their use of devices, their physical stances). Even the smell of Doritos, a cheddar-flavored chip, is sensed with intensity. Through observations of and interviews about videogame play, such as the ones noted here, researchers can glimpse meaning making related to decision making processes ("you just need to figure out how do I … what's the secret way"), behavior ("the combination of players and observers shifts; someone stands, someone moves, someone crouches"), and connections across texts ("where I'm in a class, and we'll be talking about something. I'll think of a game I've played and like, 'Yeah. This relates"). However, not all students made connections between gaming and school ("When you think of games, you don't think of Danish [as a subject], you simply don't"). Nonetheless, there is something about the act of gaming and learning that remains somewhat tacit and elusive, namely the youths' ability and/or inability to make connections between their in-school and out-of-school practices, as well as the impetus and choice informing their movement up, down, and across the library space and within the games.

Here, too, we think about Huizinga's (1950/2014) "magic circle" related to game play and Csikszentmihalyi's (1990) flow theory that addressed a state of being that is both amorphic and sensed. These two theories suggest that there is a tacit aspect of game play that is felt or perceived but, nonetheless, difficult to explain or to define. And these concrete and elusive experiences—and combinations and variations thereof—are important to videogame play, as well as to educational experiences in and beyond L1 classrooms. It does not surprise us that classroom instruction that includes gaming or the ethos of gaming also might have concrete and elusive qualities.

As we recall the opening excerpts of gaming and this tension between concrete and elusive aspects of gaming, we cannot help but think about how, over a century ago, in 1902, Dewey published *The Child and The Curriculum*, in which he explained that a student's "learnings and achievements are fluid and moving. They change from day to day and from hour to hour" (p. 20). This fluidity and movement are part of the elusive aspect of the ever-changing learning experience, and, through our research, we have seen such fluidity and movement, especially when it comes to examining practices within and around videogame play (e.g., Abrams, 2015a, 2017; 2022; Hanghøj et al., 2020, 2022). Furthermore, as we explore the concrete and the elusive, we underscore our intention for this introduction—and this special issue—which is to become comfortable with being uncomfortable when discussing the complexity of videogaming and its related literacy practices. Thus, this special issue looks to provoke, to inspire, and to innovate thought, research, and education as they relate to videogaming, pedagogy, and L1 classrooms.

In what follows are sections that clarify our understanding of literacy and literacies, as well as our definition of "videogame" and related terminologies. Thereafter, we discuss some of the videogame genres and experiences that have been explored in research, hoping that, although not comprehensive, this section will offer readers—especially those not familiar with videogaming—a general sense of the range of game play experiences one might encounter. Following these foundational sections, we offer a multi-dimensional conceptual understanding of videogaming and L1 literacies, and we include an overview of the special issue.

LITERACY AND VIDEOGAMING

Literacy is a term that has a variety of interpretations, including a hyperfocus on alphabetic texts—or the autonomous model "somehow divorced from social and ideological contexts that give it meaning" (Street, 1999, p. 55)—and an expanded understanding that includes socioculturally imbued multimodal meaning making wherein literacy is interrelated with cultures and experiences (Gee, 1989; Street 1999). When it comes to videogaming, literacy and its various definitions seem to offer different insights into player and spectator practices and meaning making. After all, videogaming and its onscreen and offscreen practices include, but are not limited to, decoding, designing, synthesizing, and interpreting various multimodal and alphabetic texts (e.g., onscreen and offscreen writing, images, and sounds; onscreen and offscreen spaces; magazines; online forums, fan fiction), processes that are similar to some L1 literacy classroom practices and standards (Beavis, 1998; Squire, 2008; Steinkuehler et al., 2010) that rely on expansive understandings of texts and literacies (Elf et al., 2015). The very same practices also involve a series of interrelated activities—from offscreen movement to use of controller, body, and/or speech to interaction with players (e.g., avatars, teammates, spectators) to trial-and-error decision making—aspects of meaning making that cannot be identified, analyzed, and/or explained solely through the lens of traditional literacy. Thus, the expansiveness of literacy (i.e., literacies), which began to take shape in the late 20th century (Barton, 1994, 2001; Gee, 1996, 1999; New London Group, 1996; Street, 1984, 1995, 1999) has become an understanding embedded in explorations of student learning, in general, and in explorations of videogaming and student learning, in particular. This special issue *L1: Education Studies in Languages and Literature,* titled Gaming and Literacies, offers is a range of discussions of literacy and videogaming practices, and the mélange of research featured—from systematic reviews of literature to empirical investigations of gaming inside and outside the classroom—not only emphasizes the complexity of gaming and literacies, but also helps to advance understandings of how digital games and their related practices can inform L1 education.

Although videogames and literacies has been a topic of research for over 20 years (Abrams, 2015b; Beavis, 1998; Beavis & Charles, 2005; Bailey, 2016; Burnett & Merchant, 2014; deHaan, 2019; Engerman et al., 2019; Gee, 2003; Gerber & Abrams,

2014; Hanghøj et al., 2020; Hawisher & Selfe, 2007; Nash & Brady, 2021; Rosas et al., 2003; Schaffer et al., 2005; Squire, 2011; Steinkuehler et al., 2010; Steinkuehler et al., 2012; Van Eck, 2008; Wolf & Perron, 2003), we see this special issue (re)initiating the particular discussion of gaming and L1 literacies. With authors from across the globe—Australia, Cyprus, Denmark, Greece, and the United States—this collection includes research from various contexts and metacontexts, highlighting the idiosyncratic nature of gaming and literacies in particular spaces while revealing a universality of key features of gaming that can serve as fodder for educators and education researchers to literally and figuratively level up their research and teaching practices.

In what follows, we situate and define the terms used in this introduction, including videogame genres, specialist knowledge and behavior, as well as L1 literacy in various contexts. Although a comprehensive discussion of each of these components exceeds the scope and word limit of this introduction, we contend that definitions continuously evolve and, thus, need to be part of ongoing examinations, conversations, scholarship, and the advancement of the field of gaming and literacies.

DEFINING TERMS AND CONCEPTS

Despite our own concerns about defining terms that have elusive properties or multiple definitions, we use this section to offer readers a guide to interpret the types of experiences, interactions, and meaning making referenced throughout this special issue.

Videogames

To define a videogame[2] solely as a multimodal text would not aptly describe or represent the elements that complicate the role of the videogamer and the activity of playing the game. However, extant definitions remain limiting as well, and they tend to be related to how a game is understood and/or used in a particular context (Arjoranta, 2014). Nonetheless, we offer a glimpse into some of the varied meanings and focus on a concrete definition to use in theory and in practice.

Gee (2003) defined "video games" as those "played on game platforms (such as the Sony PlayStation 2, the Nintendo GameCube, or Microsoft's Xbox) and games played on computers" (p.1). Dictionary definitions are similar to Gee's in that the emphasis on the electronic equipment is a central feature: "any of various interactive games played using a specialized electronic gaming device or computer or mobile device and a television or other display screen, along with a means to control graphic images" ("Video Game," 2022a). However, touching upon the role of the gamer,

[2] *The use of "videogame" as one word or two has been a source of debate. However, according to the The Videogame Style Guide and Reference Manual (Thomas et al., 2007), because it is an established concept, videogame should be one word. Any quotation that includes videogame as two words will be left unedited.*

Wikipedia defines a videogame as an "electronic game that involves interaction with a user interface or input device—such as a joystick, controller, keyboard, or motion sensing device—to generate visual feedback" ("Video Game," 2022b). Interactivity is key because videogames are designed for a person or persons to use, interact with, and react to games played on platforms, on mobile devices, and on computers.

If the human element is important to videogame play, then a definition is needed that attends to software, hardware, human experience, and the online and offline videogame environment. Thus, we look to a definition that Abrams et al. (2017) used because they took into account the multifaceted nature of gaming, interaction, and the concrete and elusive nature of videogame play. They contended that

> in addition to the preset rules, images, and hardware, videogames include opportunities to experiment, (re)design, and engage in participatory practices that often belie the linear and dichotomizing contours of progression markers, narrative structures, and/or competition brackets. Recognizing the human aspect in videogame play—the necessary involvement of social interaction, decision making, and preference, among other things—we suggest that a videogame can be defined as a multimodal program manipulated by human reaction to on-screen and offscreen stimuli, decisions and actions mediated by the use of digital and nondigital tools. Videogames, played individually or collaboratively, often involve the player(s) on an emotional, behavioral, and/ or perceptual level. And videogaming can, of course, occur in a space when there is a "plurality of human participants" (Nugent, 1991, p. 609). (Abrams et al., 2017, p. 5)

It is with this working understanding of a videogame that we discuss the experiences playing games and students' meaning making in and beyond the L1 literacy classroom. Furthermore, we use this definition to ground our discussions of videogames—including the debate about gaming.

Videogaming: A not-so-new and ever-evolving practice

The word, videogaming, often is used to represent videogame play, and before we can address videogaming and education, we need to first address play. Play is a mammalian behavior that has been explored vis-à-vis culture and history (Huizinga, 1950/2014; Norbeck, 1974), and childhood play is a well-developed topic of research (e.g., Potter & Cowan, 2020; Smith & Jaipaul, 2018). Despite attempts to create heuristics to capture the essence of play, there remains a quality that is difficult to define, to label, and to explicate. Words, such as "magic," (Huizinga, 1950/2014) have been used to articulate what happens in the temporal space and act of play, and it is fitting that there is ambiguity in the language. After all, and especially when it comes to digital games, there is a blurring of boundaries (Burnett & Merchant, 2014; Castranova, 2005) between what is and what is not considered a game world, and this applies to the blurring of boundaries between onscreen and offscreen meaning making. Likewise, although we speak about videogaming writ large, we understand that there is a difference between the "litte-g 'game,'" or the innards of a game—the rules, the stories, and the design—and the cultural experiences and situatedness of the "big-G 'Game'" (Halverson et al., 2006, p. 1048). Gee (2012) and Gee and

Hayes (2011) explained that the little-g game represents the game software, and the Big-G Game is a combination of that software with the social experiences around the game (e.g., the "meta-game," Gee 2012, p. 62).

Although, at times, we might include discussions of dichotomies (e.g., onscreen and offscreen; design and play), it is only to call attention to specific practices, experiences, and ways of being that need to be accounted for when discussing gaming and meaning making. Otherwise, we work diligently not to embrace dichotomies because gaming and literacies are not bifurcated concepts; rather, they are integrated, complex, and messy.

Aren't videogames bad?

Violence in videogames has been a long-standing topic (Anderson & Dill, 2000; Giumetti & Markey, 2007; Sheese & Graziano, 2005; Shibuya et al., 2008), as have concerns about addiction (Young, 2004). In 2014, the World Health Organization (WHO) published the meeting report, "Public health implications of excessive use of the internet, computers, smartphones and similar electronic devices," and, in 2018, the WHO added "Gaming Disorder" to its list of International Classification of Diseases (Kamenetz, 2019; World Health Organization, 2020). Yet, in 2020, in light of human interaction through videogame play during the COVID-19 pandemic, the WHO indicated that videogaming can reduce stress and promote social interaction (Kowert, 2020). Although the pandemic might have helped to change the WHO's stance, such a shift in labeling also could be rooted in the fact that, for quite some time, the relationship between videogames and violent behavior has been found *not* to be causal (Ferguson, 2007, 2015; Ferguson et al., 2009; Ferguson et al., 2012), and videogames are not responsible for antisocial behavior (Zendle et al., 2018). Furthermore, Blake and Sauermilch (2021) warned that a "formal diagnosis of IGD [Internet Gaming Disorder] fails to account for the benefits of gaming" (para 7).

Although a more comprehensive discussion of gaming and psychological and behavioral concerns extends beyond the scope of this introduction, we would be remiss if we did not acknowledge that controversy related to videogame play exists. We embrace videogaming and its merits, and we discuss videogaming and L1 instruction with the understanding that gaming—and the ethos of gaming—can be beneficial and, as with the inclusion of any other media (e.g., movies, television, podcasts) in educational spaces, pedagogy and practice need to be thoughtful, purposeful, and relevant. We also argue that learning, regardless of the venue, should be fun.

VIDEOGAMES, GENRES, AND L1 LITERACIES: DIVERSE EXPERIENCES

When videogames are integrated into L1 classrooms, research shows that the use of games can support complex meaning making. As the two unrelated systematic reviews (Bacalja, 2022; Hanghøj et al., 2022) in this special issue reveal, L1 researchers tend to favor particular commercial game genres to be used in the classroom. This

mainly involves role-playing games (e.g., *World of Warcraft* or *Neverwinter Nights*), sandbox games (e.g., *Minecraft*) and simulation games (e.g., *The Sims*). These game genres, which involve quite different game mechanics, narratives, and aesthetics, can resonate with L1 curricular aims, particularly those related to storytelling, a multiplicitous and complex concept, especially with regard to game play. As Burn (2007) argued, the stories of many videogames can be comparable to oral storytelling more so than to the 19th century realistic novel.

Storytelling via game play might emerge through the game's storyline (e.g., the quest to save the princess in *Mario Bros.* or the strategic maneuvering across levels in *Call of Duty*); storytelling might exist in the narratives of a game (Burn, 2007), in which the stories of the game can be related to those conveyed in print or on film (e.g., transmedia: Jenkins, 2006); and/or storytelling might take shape through the game play, itself, wherein players develop their own embodied meaning in and beyond the game (e.g., paratexts, Apperley & Walsh, 2012; Black, 2008; Consolvo, 2007). Thus, storytelling is not confined to the screen, nor is it only relegated to videogame play. Rather, storytelling takes on a life of its own because players reenact or apply their knowledge of game characters, plots, and themes to other media, often folding in features from other digital and nondigital texts. For instance, in her research of fan fiction (a type of paratext), Black (2008) found that "fan fiction authors draw from their favorite media, such as books, movies, video games, and television shows, to artfully engage in a range of literate practices" (p. 10). Relatedly, storytelling can exist in various ways because media extend across platforms (i.e., transmedia), and "on transmedia websites, children dress up avatars, play videogames as their favorite characters, watch videos, view countless advertising messages, and purchase products" (Wohlwend, 2017, p. 2). Additionally, although the fast-growing global phenomenon of esports can involve storytelling (Block et al., 2018), success in the gaming competition extends beyond the narrative to include highly specialized communication, interaction, and behavior (cf. Harvey & Marlatt, 2021).

In other words, videogaming is anything but a new phenomenon and, yet, to date, L1 research tends *not* to focus on videogames from a variety of genres, which are also quite popular among the students in their leisure activities, such as first person shooters (e.g., *Counter-Strike*), online battle arena games (e.g., *Fortnite*), sports games (e.g., *FIFA*), platform games[3] (e.g., *Super Mario*), or casual games (e.g., *Hay Day*). Moreover, there exist other game types used for educational purposes, such as language games (e.g., using *GraphoGame* to teach spelling) and game design tools (e.g., using *Scratch* to teach coding and computational thinking), but these are less frequently studied within the context of L1 classrooms (Hanghøj et al., 2022). In this

[3] Wikipedia defines platform games as those with the primary action of moving a character between two points using "acrobatic maneuvers" to achieve an objective ("Platform Game," 2022, para 1).

way, the videogames being used in L1 classrooms are not necessarily representative of the games being played by the broader student population, and games—rather than being thought of only as texts—need to be understood in light of their activities (e.g., communication, interaction, strategy). Thus, the integration of games into L1 curricula requires innovation.

What is important, then, is that L1 educators and researchers make conscious choices about which games they select for the classroom and for what curricular aims. One aim could be to study videogames as texts by analyzing and/or applying first- or third-person perspectives and the narrative structures informing game play. Another aim could be to learn about multimodal production and narrative patterns through a proposed redesign of an existing game. And a third aim could be to work with a specific lens (e.g., critical literacy perspective, feminist theory, critical pedagogy, discourse analysis) and study aspects of the culture, norms, language use, and power structures that surround and inform videogame design and videogame play. Moreover, when trying to establish meaningful connections among specific games, curricular aims, and pedagogical approaches, it is highly important to consider how the games might appeal (or might not appeal) to students based on their level of expertise with the particular games; such proficiency might elevate some students to become co-teachers while potentially alienating students who have a hard time keeping up with their more experienced peers. Careful planning, scaffolding, and sensitivity to students' needs all will be important to support students' L1 classroom engagement with videogames and videogame concepts.

Do genre and experience really matter?: Specialist knowledge and behavior

Beavis and Apperley (2012) explained that there are opportunities to explore intertextual connections among games and other texts. As an example, the authors contended that students "might study narrative structures and features of specific games, and their relation to other narratives in games and other modes, and call on or develop their knowledge of the characteristics and features of the relevant genre" (p. 18). Yet, this is not a simple endeavor. In order to engage in such a discussion, at the very least, the students would need knowledge of the game, the narrative, and the characteristics of the genre. Furthermore, being knowledgeable of the various genres of videogames involves more than just a general understanding of a game's context and objectives, and a similar concept is true for L1 texts. For example, learning about the literary genre, historical fiction, might signal to readers that the story loosely will be based on events and/or people in history. However, the experience with the text will remain idiosyncratic, as will the understandings gleaned from the story; although some skills (e.g., traditional reading and decoding) can be applied to other texts, the use of text-specific knowledge is not necessarily applicable to, say, a science-fiction text, or even another historical fiction. And just because one has read historical fiction does not mean that that person will read other historical fiction—or any other text, for that matter—with ease, excitement, or interest.

The same is true for videogames. Mastering one game, such as the basketball videogame, *NBA 2K22,* does not mean that the player equally will be proficient in playing the first-person shooter game, *Call of Duty*, because videogame play requires the use of specialist knowledge and specialist behavior (Abrams & Lammers, 2017; Hayes & Lee, 2012). In other words, each person's experience is akin to a fingerprint that might look similar to another person's but remains unique. Thus, when considering the use of gaming or the ethos of gaming in the L1 classroom, we suggest that educators and education researchers be mindful of students' experiences—what they bring to and what they develop within and beyond game play—and be careful *not* to distill the experiences or overly assess them to the point of "burying youth's pleasures by exposing them to adult critique" (Alvermann & Heron, 2001, p. 121).

L1 literacies and games: Different national contexts

As we broach the subject of gaming and L1 education, we also acknowledge that "L1" can have different meanings in different contexts. According to the aims and scope of this journal, L1 learning and teaching may refer to "teaching and learning related to verbal skills and arts in language one (that is, typically a region's language of instruction)" (Aims & Scope, n.d.). In other words, L1 in Denmark refers to the teaching of Danish, in English-speaking countries it refers to the teaching of English, and so on. Traditionally, L1 education has been concerned with the dyad of language and literature, but in the last decades also with literacy, as well as the plural forms of languages, literatures, and literacies (Green & Erixon, 2020). However, L1 is not necessarily a term commonly used in all countries, such as in the United States, where there is not a specific L1 class; rather, there are ELA classes, humanities classes (which include languages), and English classes, and, although not nationally adopted,[4] there has been a movement away from supporting only the dominant culture and to include culturally responsive texts (Bomer, 2017; Ebe, 2012; Muhammad, 2020).

Additionally, the notion of L1 can take on different meanings within different national contexts. This means that there can be large national and cultural differences as to how videogames are seen as relevant or legitimate texts in the L1 curriculum. To illustrate this difference, we consider how videogames are mentioned in the Danish L1 curriculum as an example of an "aesthetic text," which can be used to develop the students' "personal and cultural identity" similar to when working with other aesthetic texts, such as film and literature (Børne og Undervisningsministeriet, 2020, p. 38, our translation). In the United States, the use of videogames (or video games) in the classroom tends to be part of parenthetical acknowledgments, exemplars of

[4] *In the United States, the adoption of particular curricular frameworks in public schools typically is state specific; see, for example, New York State's Culturally Responsive-Sustaining Education Framework (2019) or Massachusetts Department of Elementary and Secondary Education's resources for Culturally Responsive Teaching and Leading (2021).*

innovative teaching, or discussions about possibilities and obstacles. For instance, the National Council of Teachers of English reprinted a blog (Baker, 2022) in which the author acknowledged that, over a decade ago (Beach & Baker, 2011), the Common Core Standards had been criticized for not including the production and analysis of media, including videogames. In fact, "the introduction of Common Core standards wiped out many of those media literacy elements in state standards" (Baker, 2022, ¶20). Thus, despite numerous publications that identify links between videogaming and learning standards (cf. Caldwell et al., 2017; Engerman et al., 2015; Stufft & Gillern, 2021), videogames, at best, remain on the periphery of most state and national discussions about standards and student learning in L1 (or L1-related) contexts.

Establishing possible links between videogames and L1 curricula is not solely contingent on different national and cultural configurations of the L1 school subject. Because most videogames are developed for a global market, they typically use English text. In countries that do not have English as a primary language, L1 educators might find it difficult to integrate a text-heavy game written in English, such as *Fall Out* or *Final Fantasy*. On the other hand, some games, such as *Limbo, Journey,* or *Minecraft*, involve minimal written text, which lowers the language barrier and can make the games easier to adopt for L1 teaching across the globe. In this way, the educational use of videogames potentially could benefit the of learning L1 and L2 (English as a second language; see also the review by Hanghøj et al., 2022).

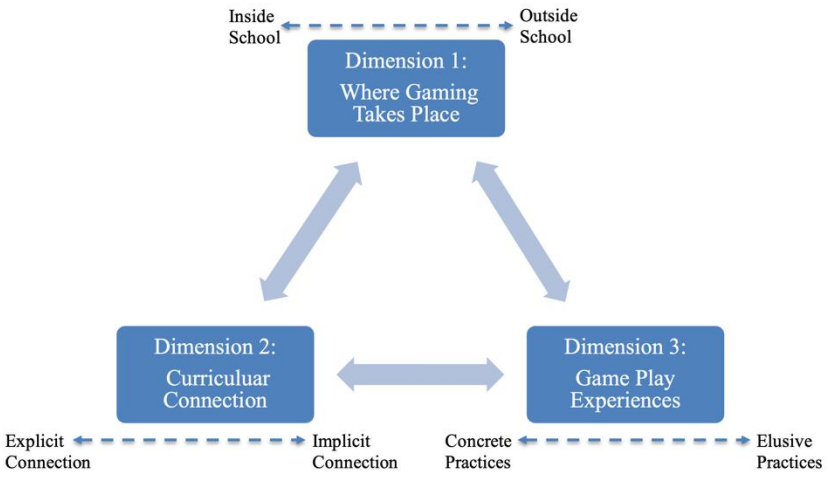
Gaming as political acts

Just as language might be a barrier, so, too, can access to technologies. Some countries—and even regions within countries—can have poor access to digital games in educational spaces that are not able to provide functioning computers or sufficient internet connection (Abrams & Gerber, 2021). Additionally, there can be large national differences in the cultural norms and values that surround games, further influencing the accessibility of games in the L1 classroom. As an example, new government rules in China prohibit children and teenagers from online gaming on school days and limit such gaming to one hour a day on weekend and holiday evenings (Buckley, 2021). In contrast, many teachers in Denmark use their own judgment to determine when and how to use games in the classroom, and they even allow children to play games with a higher age rating (Hanghøj et al., 2021). In other words, how, when, and why videogames are used can be context-specific and political in nature. Due to space constraints, we do not delve into this aspect of videogaming and social, cultural, economic, and political divides; however, we would be remiss if we did not acknowledge these factors and suggest that readers explore this topic at greater length in the future.

VIDEOGAMING AND LITERACIES: A MULTIDIMENSIONAL CONSTRUCT

Because we do not espouse the use of dichotomies—they tend to preclude rich understandings of the nuances of gaming and literacies—we envision the use of digital games as a multi-dimensional construct with various continua. Although limited by the two-dimensional nature of this published introduction, we see various dimensions of gaming and literacies—many of which are addressed in this special issue—informing pedagogy and practice (see Figure 1). Even though attending to *all* dimensions of videogaming extends beyond the scope of this introduction, Figure 1 underscores not only how the noted dimensions help to shape how gaming knowledge and literacies are manifested in L1 practice (and possibly vice versa), but also how the topic of gaming and literacies is anything but simple. We parse these dimensions solely to discuss them; we acknowledge that they are integrated and, thus, inform each other.

Figure 1. A multidimensional model of gaming and literacies explored in this special issue



Articles featured in this special issue include research in and beyond school, and there is a discussion about how practices in one domain can shape practices in another (Dimension #1). The inside school-outside school continuum does not mean that practices outside school are unrelated to those inside school; rather, it suggests that the practices in the other two dimensions—curricular connections and game play experiences—exist in and beyond school (e.g., practices at home, in libraries, in parks), informing meaning making in various, often complex ways. This, too, extends to the identities students form while playing games at home. As Bacalja (2020) previously indicated, "student capacity to engage in projective work within the classroom space was dependent on the game identities they brought with them and the

pedagogical tools which created the opportunities for these identities to be enacted in the classroom space" (para 41).

Furthermore, the studies featured in this special issue explore how, when, and in what ways gaming is (or can be) connected to academic content even if such connections range from explicit to implicit (Dimension #2). This dimension, deeply rooted in teaching practices and curricular culture (and constraints), is key to recognizing the rigid and the flexible nature of curricula; after all, curricula can be so bounded and scripted that teachers and students have little time, space, or agency to explore connections to outside-school practices. Yet curricula can be open to interpretation, and, in meeting students' needs, educators can draw upon various modalities and experiences to make content relevant, interesting, and meaningful. Moreover, flexible curricula can support pedagogical experimentation, and curricular connections can span from explicit (i.e., the teacher and/or students are purposeful in their use and integration of games or game concepts) to implicit (i.e., gaming or gaming features are embedded in—rather than overtly designated to a part of—instruction). For instance, a teacher might embrace collaborative problem solving but might not necessarily extend practice beyond group work to include co-opted practices in idiosyncratic and team-based ways. Likewise, students might make connections between gaming and school without the teacher even knowing.

Additionally, the discussion of gaming and literacies need not specifically involve a digital game. Sometimes the features of games or gaming are central to the exploration. Relatedly, articles in this collection also address the range of ways a game, its concepts, or a combination thereof, are used to make meaning (Dimension #3). In this dimension, there are concrete practices and elusive ones. The Cambridge Dictionary defines the adjective, concrete, as "clear and certain, or real and existing in a form that can be seen or felt" ("Concrete," 2021). Although a seeming antonym might be abstract, its definition—"existing as an idea, feeling, or quality, not as a material object" ("Abstract," 2021)—did not quite capture what we intended because experiences can be tacit and concrete because, according to the definition, "concrete" includes that which is felt. Thus, we turn to the word, elusive, which means "difficult to describe, find, achieve, or remember" ("Elusive," 2021), a far more apt definition that captures how game play experiences can inform teaching and learning in direct and oblique ways.

Videogaming and literacies can be conceptualized across these multiple dimensions, especially when considering how videogame play can be part of classroom practice. The decision to use a game, such as *Minecraft*, in the classroom could be an example of a concrete practice inside school, and the students' and teacher's connection to content would exist along the explicit-implicit continuum (Dimension #2). Likewise, when game concepts are used in class to inform instructional practices, as well as student thinking and behavior, then the concrete or elusive game play that takes place in school also could have an explicit curricular connection. There are other examples of what teaching and learning might look like across these continua. For instance, a teacher might use game-related terminology (e.g., boss levels, quests)

in a class, which would be an attempt (a) to include aspects of outside-school game play inside the classroom; (b) to create explicit connections to curricula (these remain implicit, however, because the connection is made solely through labels and not through the integration of aspects of game play); and (c) to create concrete game play that remains somewhat elusive because the aspect of play is only embedded in the naming of terms and not in practice (i.e., the teacher presents it in a concrete way, but there is little semblance of game play). These examples are just that, examples, and they do not represent the full integration of gaming or gaming concepts in the L1 classroom. We contend that educators and education researchers can look to this multi-dimensional construct to consider if and how approaches represent integrated teaching and learning, or if the labeling and selection of activities superficially draw upon student interest and motivation (Lieberoth, 2015).

Videogames in the classroom: Practicalities

We recognize that the integration of videogames in the classroom might not be an easy task. There can be issues with outdated, malfunctioning, or insufficient software or hardware, as well as obstacles caused when students and/or faculty are unfamiliar with the technologies at hand (Abrams, 2015a). Furthermore, despite the vast research interest in games and literacies, researchers (cf. Arnseth et al., 2018; Hanghøj, 2013; Staaby, 2021; York et al., 2021) have stressed the need for more detailed descriptions of what happens when teachers effectively integrate videogames in the classroom. This call for more detailed accounts of the practicalities involved when enacting games in the L1 classroom include, but are not limited to, preparation time, system requirements for installing and running videogames, teachers' level of game expertise, and teachers' integration, facilitation, and/or evaluation of specific game-related literacy activities. One key point here is that there may be huge differences in teachers' game preferences, as well as their expertise/repertoire in relation to teaching with games in the classroom. Moreover, there is a tremendous span of complexity related to teaching with different games. For example, there can be differences between a teacher using a simple grammar game for decoding-training, such as *Graphogame*, which requires limited preparation, and a teacher creating separate worlds in *Minecraft*, which requires wholly different facilitation and game mastery skills. Ertmer's (1999) first- and second-order barriers have been used to conceptualize the integration of technology, in general, and the use of videogames in educational spaces, in particular. More specifically, Abrams and Van Eck (2022) explored the state of videogame programming in U.S. libraries and found that many first-order or extrinsic barriers (e.g., funding, hardware, technology access) and second-order or intrinsic barriers (e.g., belief systems, values) affected the uptake of videogame programming in public libraries. In other words, the integration of videogames can be supported or stymied by a variety of factors.

Thus, we advocate for more research that sheds light on teaching and learning wherein videogames or a game ethos is integrated into classroom instruction and

culture. In the forthcoming sections, we offer an overview of each contribution to this special issue, followed by a call to action, which we hope, collectively, will inspire readers as they consider their future research and practice.

IN THIS ISSUE

In this special issue, there are two comprehensive reviews of research. Alex Bacalja (2022) engaged in a critical review of digital games in the L1 English classroom, and his research suggests that digital games help students to develop a variety of skills and practices inherent in and essential for learning in the English classroom. Hanghøj et al. (2022) feature a systematic comparative review of digital games inside and outside school in relation to L1 and L2 contexts and applications. This comprehensive study maps and compares research on how videogames in L1 and L2 contexts have been used to support students' academic achievement (e.g., in terms of reading, writing, multimodal production, or vocabulary acquisition) and discusses overlaps and discrepancies between the L1 and L2 research traditions.

Moving from reviews of research to empirical studies, we call attention to the longitudinal research featured in this special issue. For instance, work by Koutsogiannis and Adampa (2022), stems from a five-year study in Greece and includes a holistic discussion of theories that contribute to a post-videogaming perspective that is socially, culturally, and historically rooted and that creates space for reimagined understandings of meaning. The authors' questionnaire data from over 1,185 students aged 11-15 years old, as well as 33 ethnographic case studies of adolescents, offer insight into the youths' videogaming practices, their identities, and their L1 education.

Gerber's (2022) five-year ethnographic study of a competitive collegiate esports team in the mid-south United States focuses on aspects of community practices, coproduced literacies, and the role of reflection in meaning making. The discussion about the production of digital artifacts also creates space to address how collaboration and community can inform L1 classroom practices.

Additionally, gaming and literacies are explored in Kiourti's (2022) study about *Counter-Strike: Global Offensive* (*CS:GO*), first theoretically and then juxtaposed with the data she collected over the course of nine months observing and interviewing four young male gamers not only in school, but also playing *CS: GO* in a Cyprus gaming café. In a similar vein, Tran's (2022) work addresses gaming and literacies in authentic spaces as she examined the practices of *Pokémon Go* players and their parents in relation to the player-produced guides that inform game play. Tran's study, which took place over the course of three months in the southwestern United States, included survey data from 149 players, as well as interviews with focal families she met while they engaged in *Pokémon Go* activities. For this special issue, Tran's article delves into an examination of the *Pokémon Go* guides vis-à-vis her interviews with the focal families.

There are two studies that specifically focus on games in the classroom. Hanghøj (2022) revisits data from a three-year study of *Minecraft* in the Danish classroom and presents the Games As Educational Challenge (GEC) model to identify and discuss elementary school teachers' pedagogical decisions and facilitation of game play. A dialogic frame supports the examination of student-student and student-teacher interaction. Abrams (2022) draws upon data from her ongoing, now eight-year study of gaming and learning in a public high school's math classes in the northeastern United States. Looking to cooperative competition (coopertition) and the ethos of gaming, Abrams addresses how principles of gaming (i.e., discovery, reflexivity, contextual understanding, and sharing) are part of a game-informed approach that supported the ongoing development of students' literacies and numeracies.

Finally, Gee and Gee (2022) provide an afterword that highlights the complexity of videogame play and of schooling, and the authors focus on the act of doing—the activities and practices—that are inherent in learning. As Gee and Gee explained, "In reality, there is no "physics" as a noun, save in schools and textbooks" (p. 2). Instead, the authors contend that "there is only 'physics-ing,' which is like gaming. Physicists 'do physics' by developing and using theories like quantum mechanics and the uncertainty principle to make predictions and solve physical problems" (p. 2). Thus, rather than examining school subjects as stand-alone elements, Gee and Gee suggest that a focus on doing, which "is surely a complex system, too," creates a space to reimagine learning spaces in light of gaming: "Games, or rather *well-designed* games, within larger systems of players, affinity spaces, and so forth, illustrate principles of learning and features of literacies that are supported by decades of scholarship in education and beyond" (p. 3).

A CALL TO ACTION

We spearheaded this special issue to curate international research addressing videogame play and L1 literacies. Our call for proposals included the need to address "the gap between students' out-of-school literacies and the subject-specific literacies related to L1 learning." Although this focus could be a unifying stance, what we have found—which also underscores the idiosyncratic nature of gaming, of teaching, and of learning—is that understandings of gaming and literacies are constantly evolving. Recalling the aforementioned Dewey (1902) point about the fluid and ever-changing aspect of learning, we do not attempt to discover one "right" way to use videogames or the ethos of videogames in a classroom, nor do we suggest that what is an effective practice in one instance will have the same result in another.

However, we do contend, as have others, that videogame play is a meaningful activity (and way of being; Gee, 2003) that can be drawn upon in education, in general, and in L1 classrooms, in particular. Thus, our implications for research and practice include a deep-seated awareness of gaming and learning as situated and ever-evolving practices.

Honor experience as idiosyncratic

When looking to investigate games in L1, it is important to understand the landscape (and playscapes; Abrams et al., 2017) and the variation of games and gaming. One cannot simply switch from one genre to the other because the complexities of games can preclude a quick shift among genres and platforms. Additionally, there are multiple dimensions that influence the integration of games in the classroom. Simply including games is *not* an example of integrating gaming and literacies, and research needs to attend to the nuances and idiosyncrasies that make some approaches more successful than others.

Develop a unified language

In order to move forward as a field, there needs to be consistency in language and labeling, be it about what a "game" is or what "teaching with games" can look like. There needs to be a unified language (without pigeonholing experience) so that researchers can identify and discuss what they discover and so that educators can communicate with each other and with researchers about their experiences. Likewise, teaching with games or with a game ethos involves honoring the game experience as something that can be built upon (as opposed to a one-off, disconnected activity). Part of developing a unified language also means valuing the creation and use of reviews/guides about games/paratexts as an established practice. There are opportunities to extend student meaning making and their development of L1 literacies.

FINAL THOUGHTS

The integration of gaming or the ethos of gaming happens in concrete and elusive ways inside and outside school and can be seen in implicit or explicit curricular decisions. We might call for more accounts of classroom practice, but we also issue the warning not to get stuck in the technology trap—a hyper-focus on the game can lead to a superficial use of it. It is important to understand the ethos of gaming and the experiences of the students *and* the teachers. There is a lot of sweat equity needed on behalf of the teacher to understand the game and to make it come alive in the classroom. School culture needs to be playful, and students and teachers need to embrace experimentation, failure, and iterative experiences. When reading this collection as a whole, which we hope readers will do, we ask that the multi-dimensional figure be considered to help draw connections among gaming and literacies in and beyond the L1 classroom.

AUTHORS' NOTE

We feel tremendous gratitude to the reviewers who offered their sage direction, to Kristine Kabel who provided feedback on the introduction, and to Jim and Betty Gee

who helped to extend the ethos of this collection with their afterword that underscores the importance of imagination in much-needed social and educational shifts. Finally, we are grateful to Reinold Funke, an incredibly kind, helpful, and patient editor who oversaw this project from its inception to its publication.

REFERENCES

Abrams, S. S. (2015a). *Integrating virtual and traditional learning in 6-12 classrooms: A layered literacies approach to multimodal meaning making*. Routledge. https://doi.org/10.4324/9780203077672

Abrams, S. S. (2015b). Videogames and literacies: Historical threads and contemporary practices. In J. Rowsell & K. Pahl (Eds.), *The Routledge handbook of literacy studies* (pp. 354-368). Routledge.

Abrams, S. S. (2017). Emotionally crafted experiences: Layering literacies in Minecraft. *The Reading Teacher, 70*(4), 501-506. https://doi.org/10.1002/trtr.1515

Abrams, S. S. (2022). Game-informed meaning making in U.S. math classes: Cooperative competition and students' literacies and numeracies. *L1-Educational Studies in Language and Literature, 22*, 1-26. https://doi.org/10.21248/l1esll.2022.22.2.368

Abrams, S. S., & Gerber, H. R. (2021). *Videogames, libraries, and the feedback loop: Learning beyond the stacks*. Emerald. https://doi.org/10.1108/9781800715059

Abrams, S. S., & Lammers, J. C. (2017). Belonging in a videogame space: Bridging affinity spaces and communities of practice. *Teachers College Record, 119*(2), 1-34. https://doi.org/10.1177/016146811711901101

Abrams, S. S., Rowsell, J., & Merchant, G. (2017). Virtual convergence: Exploring culture and meaning in playscapes. *Teachers College Record, 119*(12), 1-16. https://doi.org/10.1177/016146811711901208

Abrams, S. S., & Van Eck, R. (2022). Checked out? Videogame programming in U.S. libraries and implications for videogame literacies. *Journal of Adolescent & Adult Literacy, 65*(3), 227-236. https://doi.org/10.1002/jaal.1197

Abstract. (2021, December 15). In *Cambridge Dictionary*. https://dictionary.cambridge.org/dictionary/english/abstract

Aims & Scope. (n.d.). *L1: Educational Studies in Language and Literature*. https://www.l1research.org/aims&scope.htm

Alvermann, D. E., & Heron, A. H. (2001). Literacy identity work: Playing to learn with popular media. *Journal of Adolescent & Adult Literacy, 45*(2), 118-122.

Anderson, C. A., & Dill, K. E. (2000). Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life. *Journal of Personality & Social Psychology, 78*(4), 772-790. https://doi.org/10.1037/0022-3514.78.4.772

Apperley, T. H. (2006). Genre and game studies: Toward a critical approach to video game genres. *Simulation & Gaming, 37*(1), 6-23. https://doi.org/10.1177/1046878105282278

Apperley, T., & Walsh, C. (2012). What digital games and literacy have in common: A heuristic for understanding pupils' gaming literacy. *Literacy*, *46*(3), 115-122. https://doi.org/10.1111/j.1741-4369.2012.00668.x

Arjoranta, J. (2014). Game definitions: A Wittgensteinian approach. *Game studies: The international journal of computer game research, 14*(1). http://gamestudies.org/1401/articles/arjoranta

Arnseth, H. C., Hanghøj, T., & Silseth, K. (2018). Games as tools for dialogic teaching and learning: outlining a pedagogical model for researching and designing game-based learning environments. In H. C. Arnseth, T. Hanghøj, T. D. Henriksen, M. Misfeldt, R. Ramberg, & S. Selander (Eds.), *Games and education: Designs in and for learning* (pp. 123-139). Brill. https://doi.org/10.1163/9789004388826_008

Bacalja, A. (2020). It's got that power over you": Negotiating projective identities in the English Classroom. *Game Studies, 20*(2). http://gamestudies.org/2002/articles/bacalja

Bacalja, A. (2022). A critical review of digital game literacies in the English classroom. *L1-Educational Studies in Language and Literature, 22*, 1-28. https://doi.org/10.21248/l1esll.2022.22.2.370

Bailey, C. (2016). Free the Sheep: improvised song and performance in and around a Minecraft community. *Literacy, 50*(2), 62-71. https://doi.org/10.1111/lit.12076

Baker, F. W. (26, January 2022). *What do we want students to know about the media?* National Council of Teachers of English. https://ncte.org/blog/2022/01/want-students-know-media/

Barab, S. A., Scott, B., Siyahhan, S., Goldston, R., Ingram-Goble, A., Zuiker, S. J., & Warren, S. (2009). Transformational play as a curricular scaffold: Using videogames to support science education. *Journal of Science Education and Technology, 18*(4), 305-320. https://doi.org/10.1007/s10956-009-9171-5

Barton, D. (1994). *Literacy: An introduction to the ecology of written language*. Blackwell.

Barton, D. (2001). Literacy in everyday contexts. In C. Snow & L. Verhoeven (Eds.), *Literacy and motivation* (pp. 23-37). Lawrence Erlbaum Associates.

Beach, R., & Baker, F. W. (21, June 2011). Why core standards must embrace media literacy. *Education Week: Spotlight on Digital Literacy in the Common-Core Era*. https://www.pgsd.org/cms/lib07/PA01916597/Centricity/Domain/534/CoreMediaLit.pdf

Beavis, C. (1998). Computer games, culture and culture. In I. Snyder (Ed.), *Page to screen: Taking literacy into the electronic era* (pp. 235-256). Routledge.

Beavis, C., & Apperley, T. H. (2012). A model for games and literacy. In C. Beavis, J. O'Mara, & L. McNeice (Eds.), *Digital games: Literacy in action* (pp. 12-22). Wakefield Press. https://doi.org/10.2304/elea.2013.10.1.1

Beavis, C., & Charles, C. (2005). Challenging notions of gendered game play: Teenagers playing The Sims. *Discourse: Studies in the cultural politics of education, 26*(3), 355-367. https://doi.org/10.1080/01596300500200151

Black, R. (2008). *Adolescents and online fan fiction*. Peter Lang.

Blake, E., & Sauermilch, D. (2021). Reconsidering internet gaming disorder during the COVID-19 pandemic. *Journal of Technology in Behavioral Science, 6*, 348-351.

Block, F., Hodge, V., Hobson, S., Sephton, N., Devlin, S., Ursu, M. F., Drachen, A., & Cowling, P. I. (2018). Narrative bytes: Data-driven content production in esports. In *TVX 18: Proceedings of the 2018 ACM International Conference on Interactive Experiences for TV and Online Video* (pp. 29-41). Association for Computing Machinery. https://doi.org/10.1145/3210825.3210833

Bomer, R. (2017). What would it mean for English Language Arts to become more culturally responsive and sustaining? *Voices From the Middle, 24*(3), 11-15.

Børne og Undervisningsministeriet. (2020). *Faghæfte for dansk* [Curriculum for Danish as a subject]. https://emu.dk/sites/default/files/202006/GSK_Dansk_Fagh%C3%A6fte_2020.pdf

Buckley, C. (2021, August 30). China tightens limits for young online gamers and bans school night play. *The New York Times*. https://www.nytimes.com/2021/08/30/business/media/china-online-games.html

Burn, A. (2007). 'Writing' computer games: Game literacy and new-old narratives. *L1-Educational Studies in Language and Literature, 7*(4), 45-67. https://doi.org/10.17239/L1ESLL-2007.07.04.04

Burnett, C., & Merchant, G. (2014). Points of view: Reconceptualising literacies through an exploration of adult and child interactions in a virtual world. *Journal of Research in Reading, 37*(1), 36-50. https://doi.org/10.1111/jrir.12006

Caldwell, K. E. H., Osterweil, S., Urbano, C., Tan, P., & Eberhardt, R. (2017). 'I just don't know where to begin': Designing to facilitate the educational use of commercial, off-the-shelf video games. In M. Ma & A. Oikonomou (Eds.), *Serious games and edutainment applications: Volume II* (pp. 625-648). Springer. https://doi.org/10.1007/978-3-319-51645-5_27

Castranova, E. (2005). *Synthetic worlds: The business and culture of online games*. The University of Chicago Press. https://doi.org/10.7208/chicago/9780226096315.001.0001

Concrete. (2021, December 15). In *Cambridge Dictionary*. https://dictionary.cambridge.org/dictionary/english/concrete

Consalvo, M. (2009). *Cheating: Gaining advantage in videogames*. MIT Press.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. Harper and Row.

deHaan, J. (2019). Teaching language and literacy with games: What? How? Why? *Ludic Language Pedagogy, 1*, 1-57. https://doi.org/10.55853/llp_v1Art1

Dewey, J. (1902). *The child and the curriculum*. University of Chicago Press.

Ebe, A. E. (2012). Supporting the reading development of middle school English language learners through culturally relevant texts. *Reading & Writing Quarterly, 28*(2), 179-198. https://doi.org/10.1080/10573569.2012.651078

Elf, N. F., Hanghøj, T., Skaar, H., & Erixon, P. O. (2015). Technology in L1: A review of empirical research projects in Scandinavia 1992-2014. *L1-Educational Studies in Language and Literature*, *15*, 1-88. https://doi.org/10.17239/L1ESLL-2015.15.01.03

Elusive. (2021, December 15). In *Cambridge Dictionary*. https://dictionary.cambridge.org/dictionary/english/elusive

Engerman, J. A., Carr-Chellman, A. A., & MacAllan, M. (2019). Understanding learning in video games: A phenomenological approach to unpacking boy cultures in virtual worlds. *Education and Information Technologies, 24*(6), 3311-3327. https://doi.org/10.1007/s10639-019-09930-2

Engerman, J. A., Mun, Y., Yan, S., & Carr-Chellman, A. (2015). Video games to engage boys and meet Common Core: A teacher's guide. *International Society for Technology in Education (ISTE) Conference & Expo* (pp. 1-9). Philadelphia, PA.

Ertmer, P. A. (1999). Addressing first-and second-order barriers to change: Strategies for technology integration. *Education Technology, Research and Development, 47*(4), 47—61. https://doi.org/10.1007/BF022 99597

Ferguson, C. J. (2007). Evidence for publication bias in video game violence effects literature: A meta-analysis review. *Aggression and Violent Behavior, 12*, 470-482. https://doi.org/10.1016/j.avb.2007.01.001

Ferguson, C. J. (2015). Do angry birds make for angry children? A meta-analysis of video game influences on children's and adolescents' aggression, mental health, prosocial behavior, and academic performance. *Perspectives on Psychological Science, 10*(5), 646-666. https://doi.org/10.1177/1745691615592234

Ferguson, C. J., Miguel, C. S., Garza, A., & Jerabeck, J. M. (2012). A longitudinal test of video game violence influences on dating and aggression: A 3-year longitudinal study of adolescents. *Journal of Psychiatric Research, 46*(2), 141-146. https://doi.org/10.1016/j.jpsychires.2011.10.014

Ferguson, C. J., San Miguel, C., & Hartley, R. D. (2009). A multivariate analysis of youth violence and aggression: The influence of family, peers, depression and media violence. *Journal of Pediatrics, 155*(6), 904—908. https://doi.org/10.1016/j.jpeds.2009.06.021

Gee, J. P. (1989). Literacy, discourse, and linguistics: Introduction. *Journal of Education, 171*(1), 5-17. https://doi.org/10.1177/002205748917100101

Gee, J. P. (1996). *Social linguistics and literacies: Ideology in Discourses* (2nd ed.). Taylor & Francis.

Gee, J. P. (1999). *An introduction to Discourse analysis*. Routledge.

Gee, J. P. (2003). *What video games have to teach us about learning and literacy*. Palgrave. https://doi.org/10.1145/950566.950595

Gee, J. P. (2012). *Social linguistics and literacies: Ideology in discourse* (4th ed.). Routledge.

Gee, J. P., & Gee, E. (2022). Afterword. *L1-Educational Studies in Language and Literature, 22*, 1-5. https://doi.org/10.21248/l1esll.2022.22.2.434

Gee, J. P., & Hayes, E. R. (2011). *Language and learning in the digital age*. Routledge. https://doi.org/10.4324/9780203830918

Gerber, H. R. (2022). The literacies of a competitive esports team: Livestreaming, vods, and mods. *L1-Educational Studies in Language and Literature, 22*, 1-25. https://doi.org/10.21248/l1esll.2022.22.2.365

Gerber, H. R., & Abrams, S. S. (Eds.) (2014). *Bridging literacies with videogames*. Sense. https://doi.org/10.1007/978-94-6209-668-4

Giumetti, G., & Markey, P. M. (2007). Violent video games and anger as predictors of aggression. *Journal of Research in Personality, 41*(6), 1234-1243. https://doi.org/10.1016/j.jrp.2007.02.005

Green, B. & Erixon, P.-O. (Eds) (2020). *Rethinking L1 education in a global era: Understanding the (post)national L1 subjects in new and difficult times*. Springer. https://doi.org/10.1007/978-3-030-55997-7_1

Halverson, R., Shaffer, D. W., Squire, K., & Steinkuehler, C. (2006). Theorizing games in/and education. In Barab, S. A., Hay, K. E., & Hickey, D. T. (Eds.), *Proceedings of the international conference of the learning sciences: Vol. 2* (pp. 1048-1052). International Society of the Learning Sciences.

Hanghøj, T. (2013). Game-based teaching: Practices, roles, and pedagogies. In S. de Freitas, M. Ott, M. M. Popscu, & I. Stanescu (Eds.), *New pedagogical approaches in game enhanced learning: Curriculum integration* (pp. 81-101). IGI global. https://doi.org/10.4018/978-1-4666-3950-8.ch005

Hanghøj, T. (2022). Teachers' framing and dialogic facilitation of Minecraft in the L1 classroom. *L1-Educational Studies in Language and Literature, 22*, 1-31. https://doi.org/10.21248/l1esll.2022.22.2.364

Hanghøj, T., Kabel, K., & Jensen, S. H. (2022). Digital games, literacy and language learning in L1 and L2: A comparative systematic review. *L1-Educational Studies in Language and Literature, 22*, https://doi.org/10.21248/l1esll.2022.22.2.363

Hanghøj, T., Kjellow, T. N., Melgaard, S., Møller, L. D., Henningsen, B., & Jensen, E. O. (Eds) (2021). *Sæt skolen i spil: Brug af computerspil og gamification i undervisningen* [The school at play: Using computer games and gamification for teaching]. Aalborg University Press.

Hanghøj, T., Lützen, P. H., & Geer, S. L. (2020). Positioning students as game journalists: Transforming everyday experiences into professional discourse. *Nordic Journal of Literacy Research, 6*(1), 1-19. https://doi.org/10.23865/njlr.v6.1991

Harvey, M. M., & Marlatt, R. (Eds). (2021). *Esports research and its integration in education*. IGI. https://doi.org/10.4018/978-1-7998-7069-2

Hawisher, G., & Selfe, C. (Eds.). (2007). *Gaming lives in the twenty-first century*. Palgrave Macmillan. https://doi.org/10.1057/9780230601765_1

Hayes, E. R., & Lee, Y. N. (2012). Specialist language acquisition and 3D modding in a Sims fan site. In E. R. Hayes & S. C. Duncan (Eds.), *Learning in video game affinity spaces* (pp. 186-211). Peter Lang.

Huizinga, J. (2014). *Homo ludens: A study of the play-element in culture*. Martino Publishing. (Original work published 1950). https://doi.org/10.4324/9781315824161

Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York University Press.

Kamenetz, A. (2019, May 28). *Is 'gaming disorder' an illness? WHO says yes, adding it to its list of diseases*. WLRN. https://www.wlrn.org/2019-05-28/is-gaming-disorder-an-illness-who-says-yes-adding-it-to-its-list-of-diseases?_amp=true

Kiourti, E. (2022). Layering literacies and metagaming in Counter Strike: Global Offensive. *L1 — Educational Studies in Language and Literature, 22*, 1-27. https://doi.org/10.21248/l1esll.2022.22.2.367

Koutsogiannis, D., & Adampa, V. (2022). Videogames and (language) education. *L1 — Educational Studies in Language and Literature, 22*, 1-28. https://doi.org/10.21248/l1esll.2022.22.2.365

Kowert, R. (2020, August 15). Is video game addiction still a thing in the era of COVID-19? *Medium*. https://medium.com/@rkowert/is-video-game-addiction-still-a-thing-in-the-era-of-covid-19-d5bfbacc4df1

Lieberoth, A. (2015). Shallow gamification: Testing psychological effects of framing an activity as a game. *Games and Culture, 10*(3), 229-248. https://doi.org/10.1177/1555412014559978

Massachusetts Department of Elementary and Secondary Education (2021). *Culturally responsive teaching & leading*. https://www.doe.mass.edu/instruction/culturally-responsive/

Muhammad, G. (2020). *Cultivating genius: An equity framework for culturally and historically responsive literacy*. Scholastic.

Nash, B. L., & Brady, R. B. (2021). Video games in the secondary English language arts classroom: A state-of-the-art review of the literature. *Reading Research Quarterly*, *57*(3), 957-981. https://doi.org/10.1002/rrq.454

New London Group (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review, 66*, 60-92. https://doi.org/10.17763/haer.66.1.17370n67v22j160u

New York State Education Department. (2019). *Culturally responsive-sustaining education framework.* http://www.nysed.gov/crs/framework

Norbeck, E. (1974). Anthropological views of play. *American Zoologist, 14*(1), 267-273. https://doi.org/10.1093/icb/14.1.267

Nugent, W. R. (1991). Virtual reality: Advanced imaging special effects let you roam in cyberspace. *Journal of the American Society for Information Science, 42*(8), 609-617. https://doi.org/10.1002/(SICI)1097-4571(199109)42:8<609::AID-ASI12>3.0.CO;2-I

Platform game. (2022, July 6). In *Wikipedia*. https://en.wikipedia.org/wiki/Platform_game

Potter, J., & Cowan, K. (2020). Playground as meaning-making space: Multimodal making and re-making of meaning in the (virtual) playground. *Global Studies of Childhood, 10*(3), 248-263. https://doi.org/10.1177/2043610620941527

Rosas, R., Nussbaum, M., Cumsille, P., Marianov, V., Correa, M., Flores, P., Grau, V., Lagos, F., Lopez, X., Lopez, V., Rodriguez, P., & Salinas, M. (2003). Beyond Nintendo: Design and assessment of

educational video games for first and second grade students. *Computers & Education, 40*, 71-94. https://doi.org/10.1016/S0360-1315(02)00099-4

Schaffer, D., Squire, K., Halverson, R., & Gee, J. (2005). Video games and the future of learning. *Phi Delta Kappan, 87*(2), 105-111. https://doi.org/10.1177/003172170508700205

Sheese, B. E., & Graziano, W. G. (2005). Deciding to defect: The effects of video-game violence on cooperative behavior. *Psychological Science, 16*(5), 354-357. https://doi.org/10.1111/j.0956-7976.2005.01539.x

Shibuya, A., Ihori, A. S. N., & Yukawa, S. (2008). The effects of the presence and contexts of video game violence on children: A longitudinal study in Japan. *Simulation & Gaming, 39*(4), 528-539. https://doi.org/10.1177/1046878107306670

Smith, P. K., & Jaipaiul, L. (Eds). (2019). *The Cambridge handbook of play: Developmental and disciplinary perspectives*. Cambridge University Press. https://doi.org/10.1017/9781108131384

Squire, K. (2008). Video games and education: Designing learning systems for an interactive age. *Educational Technology, 48*(2), 17-26.

Squire, K. (2011). *Video games and learning: Teaching and participatory culture in the digital age*. Teachers College Press.

Staaby (2021). Still in another castle: Asking new questions about games, teaching, and learning. *Gamevironments, 15*, 102-129. https://doi.org/10.48783/gameviron.v15i15.146

Steinkuehler, C., Compton-Lilly, C., & King, E. (2010). Reading in the context of online games. In K. Gomez, L. Lyons, & J. Radinsky (Eds.), *Learning in the disciplines: Proceedings of the 9th International Conference of the Learning Sciences* (Vol. 1, pp. 222-230). International Society of the Learning Sciences.

Steinkuehler, C., Squire, K., & Barab, S. (Eds.). (2012). *Games, learning, and society: Learning and meaning in the digital age*. Cambridge University Press. https://doi.org/10.1017/CBO9781139031127

Street, B.V. (1984). *Literacy in theory and practice*. Cambridge University Press.

Street, B. V. (1995). *Social literacies: Critical approaches to literacy in development, ethnography, and education*. Longman.

Street, B. V. (1999). Literacy and social change: The significance of social context in the development of literacy programmes. In D. A. Wagner (Ed.), *Future of literacy in a changing world* (pp. 55-72). Hampton Press.

Stufft, C., & von Gillern, S. (2021). Fostering multimodal analyses of video games: Reflective writing in the middle school. *Journal of Adolescent & Adult Literacy, 65*(3). 245-255. https://doi.org/10.1002/jaal1198

Thomas, D., Orland, K., & Steinberg, S. (2007). *The videogame style guide and reference manual*. Power Play Publishing.

Tran, K. (2022). Stardust and statistics: Situated language and literacy in Pokémon Go guides. *L1-Educational Studies in Language and Literature, 22*, 1-20. https://doi.org/10.21248/l1esll.2022.22.2.369

Van Eck, R. (2008). COTS in the classroom: A teacher's guide to integrating commercial off-the-shelf (COTS) games. In R. Ferdig (Ed.), *Handbook of research on effective electronic gaming in education* (pp. 179-199). Idea Group. https://doi.org/10.4018/978-1-59904-808-6.ch011

Video Game. (2022a). In *Dictionary.com*. https://www.dictionary.com/browse/video-game

Video Game. (2022b). In *Wikipedia.* https://en.wikipedia.org/wiki/Video_game

Wohlwend, K. (2017). Monster High as a virtual dollhouse: Tracking play practices across converging transmedia and social media. *Teachers College Record, 119*(12), 1-20. https://doi.org/10.1177/016146811711901205

Wolf, M. J. P., & Perron, B. (2003). Introduction. In M. J. Wolf & B. Perron (Eds.), *The video game theory reader*. Routledge.

World Health Organization (22, October 2020). *Addictive behaviours: Gaming disorder*. https://www.who.int/news-room/questions-and-answers/item/addictive-behaviours-gaming-disorder

York, J., Poole, F. J., & DeHaan, J. W. (2021). Playing a new game—An argument for a teacher-focused field around games and play in language education. *Foreign Language Annals, 54*(4), 1164-1188. https://doi.org/10.1111/flan.12585

Young, K. S. (2004). Internet addiction: A new clinical phenomenon and its consequences. *The American Behavioral Scientist, 48*(4), 402-415. https://doi.org/10.1177/0002764204270278

Zendle, D., Kudenko, D., & Cairns, P. (2018). Behavioural realism and the activation of aggressive concepts in violent video games. *Entertainment Computing, 24*, 21-29. https://doi.org/10.1016/j.entcom.2017.10.003