

A CRITICAL REVIEW OF DIGITAL GAME LITERACIES IN THE ENGLISH CLASSROOM

ALEXANDER BACALJA

University of Melbourne

Abstract

This paper reviews research into the use of digital games in the L1 English classroom. It deals specifically with qualitative case study research investigating the potentialities of these new social, cultural and textual forms. The aim is to provide a critical review of the research to identify how teachers have been using these new forms of meaning making and to explore the literate practices associated with the study of digital games in the English classroom, as well as the games selected and the forms of classroom play utilised. Analysis of the 16 studies which met the inclusion criteria reveals that digital game literacies present opportunities for meeting the historical imperatives of English teaching, but also for providing new ways of thinking about how we support students to know themselves and the world. Connecting with students' lifeworlds, developing traditional and contemporary skills, questioning representations within texts, and supporting the aesthetic dimension of textual experience, were reported to be important outcomes that could be achieved through learning about digital games in English.

Keywords: digital game literacies, subject-English, pedagogy.

1

Bacalja, A. (2022). A critical review of digital game literacies in the English classroom. Contribution to a special issue Gaming and Literacies, edited by Thorkild Hanghøj and Sandra Abrams. L1-Educational Studies in Language and Literature, 22, 1-28.

<https://doi.org/10.21248/l1esll.2022.22.2.370>

Corresponding author: Alexander Bacalja, University of Melbourne, email: alex.bacalja@unimelb.edu.au

© 2022 International Association for Research in L1-Education.

1. INTRODUCTION

This paper reviews research into the use of digital games in English classrooms and within countries where English is the primary language. The paper deals specifically with qualitative case study research investigating the potentialities of these new social, cultural and textual forms. The aim is to provide a critical review of the research so as to identify how teachers have been using these new forms of meaning making and to explore the literate practices associated with the digital game English classroom, as well as the games selected and the forms of game-play utilised.

Over 40 years since the popularisation of *Pac-Man* and the mass production of home gaming consoles, statistical data demonstrates the prevalence of games in the lives of the young and old. For example, in Australia, nine out of ten homes have a device that has been used for gaming, and 59% of parents play with their children (Brand et al., 2019). In the United States, 75% of household have at least one gamer in their household and the average adult gamer plays 4.8 hours a week online with others (Entertainment Software Association, 2019). In the European Union, 54% of the population aged 6-64 play games and over three-quarters of them play at least one hour per week (ISFE, 2019, p. 6). There can be little doubt that digital games have become a ubiquitous part of contemporary culture.

In their work mapping the L1 context, Erixon and Green (2020) have identified the meta-theme of “technocultural” (p. 1) change as a factor informing the changing nature of L1 as a school subject. The digital transformation of the social world, they argue, has created a tension between teaching based on digital texts and more traditional subject L1 work. One example is the shift from print technologies to new digital technologies. Elf et al. (2020) elaborated on the central role technology has in the development of the L1 subject, arguing that “technology is inseparable from L1 as a set of utterances, practices, and discourses, which together construct L1 subject cultures around the globe” (p. 209).

We can see historical evidence of this interdependence in the personal growth movement with its emphasis on student-centred experiential language-based learning, centred in the lives of students, including their textual worlds (Dixon, 1975). As the technologies informing young people’s out-of-school literacy practice evolved, so did calls to rethink what constituted textual or literary study in the L1 English classroom (Beavis, 2018). As Dixon explained, “though our central attention was for literature in the ordinary sense we found it impossible to separate this sharply from the other stories, films, TV, plays, or from pupils’ own personal writing or spoken narrative” (Dixon, 1975, p. 58). When combined with more sociologically orientated approaches to culture as “a whole way of life” which included the everyday, the taken for granted, and the mundane, the result has been an openness to studying popular forms of cultural production and consumption in the L1 English classroom (Hall, 1981; Hoggart, 1957). L1 English as a discipline solely interested in print-based literary forms of literature has expanded to include textual forms that are constructed and mediated digitally.

These two forces, the proliferation of digital participation and the opening up of English to new forms of literate practice, have resulted in a body of research investigating how digital games can be used as objects of play and study in mainstream L1 education, situated within the nexus between game literacies and formal language and literature learning. Given the rapid growth of research in this space, it is appropriate that we pause to synthesise this important body of work, with the hope that such a review can inform the future use of digital games in the English curriculum. To provide clarity for the analysis that follows, it is important to first outline three key terms which are at the intersection of this paper's focus: digital games, subject-English, and literate practices.

1.1 Digital games

Singular definitions of digital games are challenging, not least because of the constantly evolving nature of the form in response to technological innovations (Aarseth, 2003). After reviewing the literature on digital game definitions, and for the purposes of this study, I employ Juul's (2003) definition of a digital game as:

a rule-based formal system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels attached to the outcome, and the consequences of the activity are optional and negotiable. (p. 5)

This definition recognises two important aspects of digital game research that appear frequently throughout the literature: (1) a focus on the digital game, including its rules and design, and (2) a focus on the player, with their unique dispositions and identities.

1.2 English

The school subject L1, also known as "mother tongue" (Erixon & Green, 2020, p. 1) in some countries, has undergone change in response to societal battles between different value orientations, increasingly informed by political forces (Sawyer & van de Ven, 2007). Economic, cultural and social changes over time have informed the nature of L1 subjects in ways that expand imperatives beyond the consolidating and strengthening mission of mid-nineteenth century iterations (Erixon & Green, 2020). L1 English, or subject-English, refers to a "hybrid phenomenon" (Green, 1990, p. 136), inextricably tied up in broad and narrow forms of literature, teaching, and ideology. While English as a school subject in the Anglophone world is heterogenous in its local application, there are also homogenising characteristics that contribute to the construction of a coherent and cohesive discipline practised across a range of countries including Australia, England, the United States, New Zealand and Canada. These similarities allow for discussion across national contexts, including, but not limited to, England, Australia, the United Kingdom and Canada. This hybridity has been captured by numerous commentators who identify four dominant orientations

which have been used to conceptualise the goals of English (Cox, 1991; Locke, 2007; Thompson, 1998). These are:

- Personal growth: focusing on the personal and communal lives of students' life-worlds, out of school literacy texts and practices (Beavis et al, 2015, p. 31), and the way these worlds are negotiated through language and social relationships (Dixon, 1975)
- Skills: referring to the development and control of specific expertise that have a practical quality
- Critical literacy: encouraging students to question ideological assumptions about texts and to challenge how texts seek to position us as readers
- Cultural heritage: reflecting claims about the enriching and civilising effect of acquiring knowledge, through consumption and production practices, associated with literature (Arnold, 1869; Leavis & Thompson, 1933), even though these have been greatly challenged

Defining subject-English according to the literate practices associated with each of the four orientations provides a framework for the purposes of this review.

1.3 Literate practices

Unlike traditional definitions of literacy, which limit the term to practices that can be produced through alphabetic text, contemporary approaches recognize literacy as a social and cultural process, where "particular socially constructed technologies are used within institutional frameworks for specific social purposes" (Street, 1998, p. 97). To focus solely on literacy as the ability to read and write alphabetic text would neglect the relationship between literacy and human relationships. It would also risk further shrouding what Gee referred to as "literacy's connections to power, to social identity, and to ideologies" (1996, p. 67). Importantly, this approach recognises that the values, attitudes, beliefs, feelings, and social relationships at the centre of literate practices are not observable per se, but, as Purcell-Gates et al. (2009) explained, must be inferred through the literacy events and texts which constitute a part of literacy practice.

This paper employs Street's notion of literate practices, as it includes an emphasis on both literacy events (i.e. a focus on a situation where things are happening and can be seen to be happening), and that which gives meaning to these events, something of a more social or cultural nature which is not immediately observable (Street, 2000). Put another way, the gaming literacies at play as students play and write about digital games in the classroom represent literacy events. To give meaning to these events, the authors of the papers reviewed, as well as this author, must also consider the social and cultural contexts in which gameplay and study are taking place. This approach allows for discussion which goes beyond the digital games used and recognises the social and cultural practices that merge with digital games study when they are brought to the English classroom.

2. REVIEW OF LITERATURE

Research into the learning benefits of digital games has included quantitative and qualitative efforts addressing educational contexts broadly, but also discipline-specific settings.

Systematic reviews seeking to quantify the learning benefits of using digital games have concluded that playing and studying games in formal and informal learning environments produces positive outcomes, especially in terms of knowledge acquisition, skill attainment, motivation and engagement (Boyle et al., 2016; Connolly et al, 2012; Perrotta et al., 2013). These reviews have addressed different aspects of digital game-based learning (DGBL), which consists of the use of educational games and games designed for entertainment, including: the cognitive and motivational effects of serious games (Wouters et al., 2013), the effectiveness of narrative driven educational games (Jackson et al., 2018; Novak, 2015) and the cognitive gains from the use of digital games featuring interactive simulations (Vogel et al., 2006). Research in school contexts include Clark et al.'s (2016) meta-analysis of DGBL for K-16 students which found that digital games significantly enhanced student learning (as measured across cognitive, intrapersonal and interpersonal outcomes) relative to nongame conditions across a range of subject-areas (science, maths, literacy, social sciences), and Young et al.'s (2012) review of the use of serious games across distinct curriculum areas (e.g., K-12), which concluded that positive effects were limited to language learning, history and physical education.

In terms of language, literature, and literacy learning, Hung et al.'s (2018) review of DGBL for L2 language learners is noteworthy. Synthesising 50 empirical studies, the authors identified numerous trends which typified the types of research being conducted in this space. Immersive massively multiplayer online role-playing games (MMORPGs), were the most common genre utilised. University students were the cohort most likely to be used to test the efficacy of game-based learning, and the majority of studies featured positive outcomes, primarily in terms of affective states and, secondarily, language acquisition. Most of the studies reviewed used mixed methods. There is a broad recognition that research in this space is complicated by the indispensable multitude of design elements embedded within individual games, as well as the complex social and cultural factors that inform the research sites where digital games are being used.

Qualitative and theoretically driven research focused on digital game literacies have similarly sought to understand how digital games work and the literate practices associated with their use. In terms of the world inside the game, research has addressed: taxonomies of different types of games (Järvinen, 2003), game design (Salen & Zimmerman, 2004), game economies (Castronova, 2008), the components of digital game storytelling (Skolnick, 2014) and the objects and assets within games (Wolf, 2001). However, what is recognised by almost all contributors to this field is that digital games are not fully realised until they come into being through play, thus

necessitating a focus on the world outside the game (cf. Bourgonjon, 2014; Gee, 2003; Salen, 2007).

A digital game literacies discourse has emerged which recognises that the study of digital games cannot be separated from the contexts in which these cultural products are practised. Scholarly work investigating digital gaming as a social practice and a site for meaning making and learning builds on the notion that they cannot be approached like traditional text forms (Bourgonjon, 2014). James Gee's (2003) work has been foundational in opening up digital games for analysis from a literate practices perspectives, arguing that when people learn to play games, they are learning a new literacy, not only in terms of visual and multimodal forms of meaning making, but also in terms of affinity groups and identities.

This interest in the world outside the game, especially the relationship between play and identity practice, has been shared by others. For example, in Ian Bogost's (2011) aptly titled *How to do things with Videogames*, he argued that we need to be interested in the many ways that digital games are used in contemporary society. Likewise, Hanghoj et al., (2018) contended that we need to do more than focus solely on digital games and their design. We must focus on the broader learning ecology, including an interplay of practices across in- and out-of-school domains. Salen (2007) explicitly states that she is not just interested in how games work, but also in how they support "a performative and often transgressive learning stance based in play" (p. 307). For this reason, she uses the term gaming literacies, rather than game literacies. For Salen, gaming literacies emerge from a gaming attitude, a stance tied directly to play. Others have also highlighted dimensions of game literacies that impact on their relationship to learning in formal contexts, such as: play as meaning-making activity (Abrams, 2009), the role of feedback (Abrams & Gerber, 2013), the relationship between specific game worlds and the lived experiences of learners (Hanghøj et al., 2018), the role of specialist knowledge, interaction, and proficiency in developing relationship-building in digital game affinity spaces (Abrams & Lammers, 2017). Thus, gaming literacies are about the literacies and learning that take place in and around the play experience.

Efforts to examine digital games literacies as they manifest in formal literacy environments in secondary schools include *Digital Games: Literacy in Action* (Beavis et al., 2012), exploring what it means to 'play games' in English and literacy classrooms, *Serious Play* (Beavis et al., 2017), an account of the possibilities and challenges of teaching and learning with digital games across numerous formal learning contexts, and *Bridging Literacies with Videogames* (Gerber & Abrams, 2014), exploring international perspectives of literacy practices, gaming culture and traditional schooling.

This section has synthesized the body of work associated with digital games and learning, seeking to focus on literature related to L1 contexts, especially related to subject-English. What is clear from these and other efforts to explore the nature of digital game literacies is that there has been a lack of focus on reviewing the integration of digital games into L1 contexts. Given the specific imperatives of this domain

(e.g., personal growth, skills, cultural heritage, critical literacy), a review of the literature situating digital games in English classrooms is needed to understand how the literacy practices produced in such contexts relate to historical orientations to English.

3. METHODOLOGY

A critical review was identified as the preferred method of conducting the synthesis of research. Critical reviews go beyond simple description, seeking to present, analyse and synthesize the literature (Grant & Booth, 2009). Exploring relevant literature from a range of studies allows the author to appraise the state of the field while also critically evaluating what is of value from the body of work and identifying gaps and silences. While the interpretative elements of such a method have been identified as a weakness, due the perception of increased subjectivity (Grant & Booth, 2009, p. 97), the focus on research that is qualitative in nature, and rich in thick descriptions, necessitates an approach that is sensitive to the complexity of lived experiences (Geertz, 1997).

This paper will review case studies which place digital games as the central objects of study in secondary English classrooms in mainstream L1 education. The critical review is guided by the research question: What do studies of learning about digital games in the L1 English classroom reveal about the literate practices in these contexts? The review adhered to Onwuegbuzie and Frel's (2016) four attributes of a critical literature review, namely:

- explicit inclusion/exclusion criteria
- transparent search strategy
- systematic coding and analysis of included studies
- some form of synthesis of the findings (p. 25)

The first three attributes are addressed here, while the fourth is taken up in the body of the paper.

3.1 *Explicit inclusion and exclusion criteria*

Inclusion and exclusion criteria were developed to facilitate the search for relevant studies published prior to 2021. Firstly, a paper was excluded if it reported research not conducted in a formal learning environment, such as a classroom. Given the focus on the literacy practices of the L1 classroom, it was important that studies were situated in learning contexts that reflected similar ecologies for teaching and learning (e.g., presence of a formal curriculum, guidance by a classroom teacher, secondary school context (generally students 12-18 years old).

Secondly, a paper was excluded if the formal learning context did not resemble the characteristics and imperatives of L1 English education. This criterion recognises the role that disciplines have in mediating literacy practices. Numerous papers that identified research located in literacy classrooms without sufficient connection to

the historical goals of English were omitted, as were studies which were situated in Media classrooms or tertiary contexts. For example, Buckingham and Burn's (2007) study of Year 8 students engaged in game making and critical play was omitted because the case study was situated in a media education course linked to media studies, rather than the field of L1 English.

Thirdly, studies that did not establish some form of pedagogical intervention where not included. While literature describing the potential impact that digital games might have in English are important (see Bradford's (2009) summary of the potential benefits of using the game, *Bully*, in the English classroom as an example), this review's interest in moving beyond hypothetical possibilities and towards actual literacy practices requires a close attention to contexts of teaching and learning.

Finally, studies that did not have a sustained focus on a digital game/s, or where no gameplay took place, also were excluded. Game play is a fundamental component of this form of media. Studies were included which referred to classroom practice in which digital games were enacted through play (students using a controller or other device to engage directly with the coding as anticipated by the games' designers). What constitutes a digital game was considered broadly for the purposes of inclusion. That is, digital games from a wide-range of platforms, including dedicated game-consoles, mobile phones, and personal computers, were considered. More important was the emphasis on the sustained study of these games. Studies that included digital games but which were not the central objects of study were not considered (for example, Abrams and Walsh's (2014) study of gamified vocabulary did not meet the criteria because websites used to facilitate learning were not positioned as texts to be studied but rather as the means for language-learning). This criterion highlights the distinction between learning through games, in comparison to learning about games, and the preference this review placed on the latter.

The effect of applying these criteria was to focus the search more precisely on studies that emphasised learning about games and which incorporated gameplay into the teaching and learning context.

3.2 Transparent search strategy

To identify studies which addressed the research question, searches across a number of databases were conducted, including Web of Science, Scopus, and Science Direct. A search strategy was developed that used combinations of keyword terms including: English, Subject English, literacy, game literacies, videogame literacies, literature, videogames, video games, digital games, games, computer games, classroom and others. L1 English and literacy journals, as well as reference lists from included and excluded papers, were also hand-searched using combinations of the aforementioned terms.

3.3 *Systematic coding and analysis*

After the application of these criteria, and the limiting of the search to journal articles and book chapters, 16 peer-reviewed publications were deemed suitable for further examination, a summary of which found be found in appendix A. The development of codes was both theory driven and data driven. Theory driven coding entailed utilising the literate practices associated with the aforementioned four orientations of English to identify codes. For example, codes associated with the personal growth orientation included choice, everyday lives, shared experiences, and at-home literacies. Data driven codes were developed as a result of reading and reviewing the research. These codes supported the search and organisation of concepts which were thematically analysed (Boyatzis, 1998), the results of which are presented here.

4. RESULTS AND DISCUSSION

4.1 *Personal growth literacies*

Personal growth literacies focus on the child or learner. They emphasise the relationship between language and learning in the individual, encourage engaging with the textual lifeworld of the learner, and are interested in the interactions through which children engage in schooling (Dixon, 1975).

4.1.1 *Connecting with students' lifeworlds and their gaming knowledge*

Engaging with students' lifeworlds, and explicitly with their out-of-school gaming literacy practices, was a stated objective of 11 of the studies reviewed. These studies, seeking to leverage students' enthusiasm for digital texts, reported improved engagement and high levels of positive affective sentiments towards learning during intervention activities involving digital games (Apperley & Beavis, 2011; Glover-Adams, 2009; Marlatt, 2018; Toomey & Kitson, 2017; Walsh, 2010). Marlatt's (2018) case study, whereby the analysis of a literary novel was supported through the digital game, *Minecraft*, is representative of the ways that literate practices from home were brought into formal literacy learning contexts. Students previously disengaged with traditional reading and literary analysis were repositioned, producing what the author called "equitable literacy" (p. 228). Equity in this instance was framed in terms of an inclusive approach to curriculum, enacted through numerous entry points, including celebrating students' diverse literacy practices.

Connecting with students' lifeworlds was conceived in terms of validating and exploring the gaming knowledge which students brought with them to the various studies. Gaming capital is described by Consalvo (2009) as how players belong to particular groups that share similar practices, beliefs, and a sense of style, "a culture distinct from mainstream society" (p. 3). A range of case studies reported the knowledge students possessed as presenting opportunities for classroom activities

focused on how games work (Apperley & Beavis, 2011; Bacalja, 2018b; Partington, 2010). For example, Bacalja (2018b) described a teaching intervention which began by asking students to share their experience with digital games. Apperley and Beavis (2011) explored numerous cases studies that used digital game paratexts, those texts which sit neither entirely inside or outside of a text but which informs its reading (Genette, 1997), as the basis for curriculum units. They focused on a particular subset of paratexts, those associated with walkthroughs, FAQs and strategy guides, to understand how students used these texts to engage with digital game play. Providing opportunities for students to share their gaming knowledge improved engagement and contributed to learning contexts that often began with the learner and that used this knowledge as the basis for other teaching and learning.

4.1.2 *Sharing and understanding experiences of the world through language*

Personal growth philosophies also emphasise the importance of constructing an English classroom wherein shared experiences of the world can be created and facilitated through language (Barnes, 1992). 4 studies focused on how students used talk during moments of game play to facilitate learning. This included the use of talk for exploring new vocabulary (Glover-Adams, 2009); producing a shared kind of reader-reception (Berger & Mcdougall, 2013); assisting one another and forming a sense of attachment to the affinity group (Marcon & Faulkner, 2016); and developing multi-vocal dialogic conversations (Marlatt, 2018).

Burn's (2003) study of 12-13 years-olds playing the computer game, *Harry Potter and the Chamber of Secrets*, involved students taking turns playing the game on an interactive whiteboard while other students offered advice and instruction. Burn described the form of collaborative play that followed as communally motivated, referring to how students engaged with communities of players, both within and beyond the game. A sense of community was mediated by free-flowing language, even though students were found to have different repertoires of vocabulary with which to contribute to the discussion.

4.1.3 *Identity work*

Interest in the relationship between identity and literacy practices has provided many ways for researchers to examine the relationships between literate practices and matters of identity. Two ways of conceptualising identity raised by Moje and Luke (2009) provide contrasting frames for examining students' literate practices and their relation to identities: "identity as position" (p. 430) and "identity as self" (p. 422).

Identity as position refers to the ways that literate practices inform how individual identities are produced, including their social positions and power relations. Several studies explored how the introduction of digital games into L1 English contexts positioned and repositioned students and their relations to one another. Rish (2014)

shares an account of one student, Roger, and his negotiation of literate practices in an intervention. Roger was able to leverage his gaming identity to take on new proactive roles in the classroom, leading the design of a game demo and facilitating the blurring of boundaries between teacher and student. The author determined that Roger's identity as a passive student morphed into an active teacher identity, rewriting the rules of school.

The impact of digital games study on identity and knowledge was also discussed. In Marcon and Faulkner's (2016) analysis of distributed knowledge, they found that the distributed nature of knowledge, referring to the ways that meaning and knowledge in digital game literacies are distributed across learners, objects, tools, technologies and environments (Gee, 2003), contributed to the formation of affinity groups which supported agency amongst students. As Marcon and Faulkner (2016) claimed, it was membership of two different worlds, the virtual world and the classroom world, that allowed students to be themselves and someone other than themselves (pg. 66). The consequence of which was identity repositioning and new ways of thinking about power relationships within the classroom. For example, despite being found to be less able gamers, the girls in the study were not hindered in their enthusiasm for playing and using Minecraft to shape virtual landscapes.

In contrast, identity as self-captures how selves come to be. In the literature, this approach to exploring how digital games study impacts identities tended to focus on cases where students created themselves within the digital games that were being studied. For example, the student, "Spock," in Toomey and Kitson's (2017, p. 41) study used narrative spaces within games to control and share experiences with the avatars. The student "Brad" in Bacalja (2018b, p. 59) projected his desires and appeals onto a virtual character, while the rest of the class watched. These are examples of a literacy practice that James Gee (2003) calls projective identity work, whereby learning involves taking on and playing with identities in such a way that the learner has real choices (in developing the virtual identity) and ample opportunity to mediate on the relationship between new identities and old ones. The story which ensued became the object of study. In Glover-Adams (2009), the student 'J.R' constructed a virtual identity during the classroom play and study of the game *Neverwinter Nights* that allowed him to escape the obstacles he faced in school. These examples show students 'making' themselves through the play and learning activities afforded by the inclusion of particular digital games in formal learning contexts. Noteworthy was the absence of discussion regarding how these new identities impacted students' L1 English practice once the focus returned to more traditional literary texts.

4.2 Skills literacies

The skills orientation of English includes the development of finite competencies, at the word, sentence, paragraph, and text level (Locke, 2007), and are directed to-

wards specific forms of expertise (Macken-Horarik, 2014). The research reviewed explored skills in terms of traditional literacy skills (e.g., reading and writing), as well as game-making and game-design skills.

4.2.1 Traditional skills

Many studies identified how playing and studying digital games supported the development of reading and writing/creating skills. Table 1 summarises skills that were reported as having improved during the case studies.

Table 1. Summary of skills identified as improving in the case studies

Study	Mode	Skill
Apperley & Beavis (2011)	Reading	Increased reading
Bacalja (2018b)	Reading	Analysis of multimodality
Beavis & Charles (2005)	Reading	Reading and analysing multimodal texts
Berger & McDougall (2013)	Reading	Interpretation of linguistic and visual modes
Glover-Adams (2009)	Reading	Generic reading skills Vocabulary acquisition Reading comprehension Reading for information
Marcon & Faulkner (2016)	Reading	Analysis of games and gameplay
Russell & Beavis (2012)	Reading	Close reading Metalanguage
Toomey & Kitson (2017)	Reading	Increased vocabulary Text analysis
Apperley & Beavis (2011)	Writing	Increased writing ability
Beavis (2007)	Writing	Imaginative writing Production of multimodal tutorials and expansion packs
Gerber, Abrams, Onwuegbuzie, & Bengé (2014)	Writing	Reflective writing, including the production of fan-fiction.
Marcon & Faulkner (2016)	Writing/creating	Filming and sharing gameplay Production of hybrid texts
Walsh (2010)	Writing/creating	Generic writing skills The preparation of PowerPoint presentations.

8 studies identified improved reading skills as an outcome of the use of digital games, including close reading, reading for analysis, vocabulary acquisition, and increased reading generally, although how the notion of improvements was determined was not explored beyond assertions. There was also a strong emphasis on reading literacies, which privileged visual forms of meaning making (e.g., exploring how colour, shape and movement contributed to game stories). Understanding how visual elements contribute to storytelling (Bacalja, 2018b, p. 56), the analysis of how multimodal elements impact the construction of meaning and ideology (Beavis & Charles, 2005, p. 364), the relationship between cinematic genres and game-based representations (Berger & McDougall, 2013, p. 145), and reading and navigating games as

they played (Marcon & Faulkner, 2016, p. 67) were highlighted as examples of multimodal literate practices which improved.

In terms of writing and creating, studies reported a range of practices and improved outcomes. Students engaged in written literate activities included: writing game walkthroughs and generally increasing the quantity of writing (Walsh, 2010); producing comparative written analyses across platforms (Apperley & Beavis, 2011); constructing explanations to illuminate game play (Marcon & Faulkner, 2016); and imaginative writing that further developed key events from set games (Beavis, 2007). Improvement here usually referred to the quantity of writing, as well as students' ability to engage in discipline-specific ways of producing written responses.

Four papers also commented on skills associated with new literacies (Lankshear & Knobel, 2003), those forms of practice that have become possible through rapid the development of digital technologies, such as text-messaging, blogging, social networking, podcasting, and videomaking. These were evident in the Instagram and Facebook practices of students sharing their annotated moments of game play (Marcon & Faulkner, 2016), the design of digital game paratexts (Walsh, 2010), the production of videogame trailers and online game profiles (Gerber et al., 2014) and the preparation of digital game design briefs and multimodal posters to promote new game ideas (Toomey & Kitson, 2017). With the exception of Gerber et al.'s (2014) account of student's using their gameplay as a springboard to develop their traditional reading and writing practices, the connection to game play was rarely explored with an emphasis instead on the novel forms of responding to text embraced by teachers and researchers. The studies reviewed suggest that actual game play in formal learning contexts is not a prerequisite for the creation of new literacies texts not traditionally created in English. Furthermore, there was a noticeable lack of detail regarding the origin of skills necessary to produce the texts identified here. The absence of any explicit mention of the teaching of skills to engage with these new literacies also raises questions about students' existing digital literacy capabilities and the role of scaffolding needed to support development.

4.2.2 *Game design*

Six studies incorporated game-design skills into their interventions, which tended to be utilised for two purposes: (1) to support the study of literary texts, and (2) to focus on game design literacies.

On the one hand, 3 interventions explored how game design was used to support the study of literary texts. Marlatt (2018) described a class of disengaged and reluctant readers studying Hinton's novel, *The Outsiders*. Daily reading of the set-text was accompanied not by comprehension quizzes or vocabulary worksheets, but rather the use of *Minecraft* to recreate key scenes. Simultaneous design-thinking, play, peer-review, and syntheses of the novel were reported as key to the analysis which ensued. Rish's (2014) study combined digital map-making tools, three-dimensional landscape editing software, and game design to enable students to create their own

fantasy worlds for a student-designed digital game, all in support of understanding fantasy and science fiction. Likewise, Russell and Beavis (2012) described how one student used *Runescape* and *Minecraft* to build metaphoric worlds based on *Romeo and Juliet* and artwork. In these examples digital game design skills were emphasised as tools for improving the comprehension of literary texts.

On the other hand, 3 studies reported game design decoupled from traditional texts. For example, Beavis and Charles (2005) recounted the case of a class of 14-15 years-olds using *Sims Deluxe* to create domestic spaces, which were then the source of analysis. In Apperley and Beavis (2011), Sam, a senior school student described as a reluctant reader and writer, used Microsoft PowerPoint to create *Wizardry*, a puzzle game that utilised narrative text to explore an ancient battle between two wizards. The software, in combination with Sam's knowledge of related games and his engagement with game design, enabled him to both design and critique his own multimodal creation. The possibility of bringing game design and multimodal creations together is noteworthy, especially given the ways that L1 English classrooms have already embraced the study of film, comics, graphic novels and other visual literacies. Marcon and Faulkner (2016) describe a study which utilised *Minecraft* to motivate girls' literacy practices, concluding that the software, as well as the participatory literacy practices of the students, enabled them to work collaboratively and strategically, leveraging skills associated with problem solving and distributed learning to support their activity. In these studies, the skills associated with game design were less orientated towards operational processes (coding or computational skills) and more focused on designing as a process, which opened up narrative and genre for exploration.

What was largely absent from the studies were details regarding how students were supported to engage in digital design and whether the skills necessary to engage in this kind of text-making were overtly taught. This poses two potential problems. First, there is a risk that presumptions about young people as a homogenous group of so-called "digital natives" (Prenkysy, 2001, p. 1), universally possessed with digital literacy dispositions and knowledge, might undermine the degree of scaffolding needed in this switch to creating new media. Second, it would be difficult for practitioners to determine how to engage in digital game teaching and curricula development based on the details found across the sixteen papers in the sample. While one might argue that peer-review publications are not necessarily the place for this level of detail, the lack of clarity regarding the 'how' of digital game literacies in English is concerning, especially given the emphasis in the journals and edited books cited on the importance of the theory-practice relationship.

4.3 Critical literacies

Critical literacies are those practices that promote critical understandings about how texts position their readers ideologically, with an interest in the uses of literacy for social justice in marginalized and disenfranchised communities (Luke, 2012; Misson,

2006). The aim of critical literacy pedagogies is to encourage resistant readings, asking students to challenge assumptions in the texts they engage with, and to engage in productive practices that present opportunities for transformation.

4.3.1 *Questioning representations of the world*

Numerous case studies found that students could be supported to question representations contained in the games they studied. Several studies reported interventions where the goal was to move students towards taking a critical stance. Berger and Mcdougall's (2013) study, from a United Kingdom A-Level English class referred to the use of examination questions specifically drawing attention to question of gender in their study to focus student's attention on critical readings. One such question was:

Film noir's portrayal of the "femme fatale" supports the existing social order by building up a powerful, independent woman, only to punish her. To what extent do you agree with this in relation to the portrayal of women in *L. A. Noire*? (p. 145)

Students were reported making links to literature to explain the ways that women and different ethnicities were represented in the digital game, *L. A. Noire*. Bacalja (2018a) also used critical questioning to move students beyond the engagement and entertainment aspects of digital games and drawing their attention to the relationship between character representation and social hierarchies in the digital game *Bully*. This manifest in terms of questions about who had power within the game and how this power was used. Through explicit classroom teaching, 15-16 years old students connected representations within the game worlds with ideologies and belief systems from outside.

In another example, students developed critical perspectives even when there appeared to be minimal indication of critical pedagogies. Beavis and Charles (2005) described a study wherein students used *Sims* to create and play games that focused on domestic spaces. Students were allocated time for free-play and then given activities that prompted them to fill out a grid that required short written responses reflecting on a saved section of their game play. While some responses could be characterised as uncritical acceptance of stereotypical domestic roles, others explored explicitly questions of gender, housework and domesticity. In another study, Beavis (2007) recounts students who produced written responses that demonstrated the critical evaluation of the values and worlds in several games. This raises questions about the degree of critical literacy that students can bring with them to such work and how much such skills need to be taught within the context of digital game curricula.

4.3.2 *Understanding how texts and meanings are constructed*

Six of the studies focused on the constructedness of digital games, both in terms of how game developers created games that position the player us and how decisions made by players as they engage in game design provide opportunities for reflection about literate practices.

Bacalja's (2018a) study supported students to understand how multimodality and interaction contributed to position audiences in specific ways. Activities which students were required to complete in this study included deconstructing the introductions to games to understand how multiple semiotic systems contributed to story making. Other studies which explored student understandings of how digital games are constructed included Berger and McDougal's (2013) use of the game *L. A. Noire* to explore the notion of digital games as "authorless" (p. 142) literature, found that students adopted a "curatorship" (p. 143) mindset, drawing on influences across a range of media to make sense of their 'reading', and relied on other literary texts they had been studying to make comparisons with the game and its characters. Apperley and Beavis (2011) described a similar interest in positioning, making use of Consalvo's (2007) work on paratexts, and the ways these contribute to meaning making. For example, one activity used digital games alongside *The Lord of the Rings* trilogy to analyse how archetypes from myths contributed to narrative structure within different media (Apperley & Beavis, 2011, p. 134).

Critical literacy pedagogies that addressed students' design decisions associated with game play and game design also were evident. In Beavis and Charles's study (2005), students reflected on their design decisions playing *Sims* and delivered presentations to their peers wherein selected segments of game play were combined with analytical commentary. Analysis included an emphasis on how multimodal elements contributed to the construction of meaning and ideology. Marlatt's (2018) use of *Minecraft* to support student understanding of a set novel revealed opportunities for students to reflect on their game play choices, especially in terms of cultivating multicultural perspectives. This is evident in the author's account of one student, Yem, a Latino, whose recreated scene from *The Outsiders* resisted the novel's privileging of male leads and an all-White cast, instead producing people of colour and females as active leads. Yem's design decisions were the conduit for him to draw attention to the novel's narrow forms of representation, as well as the limitations of the American education system's white-washed male-dominated canon (p. 227). Walsh's (2010) study also moved students towards critical stances through encouraging reflections based on the students' research of existing games, and their design of their own games using PowerPoint. The design process involved thinking systematically about potential game play and multimodal design, and the resulting literate practices were described by the author as "transformed practice" (p. 63), redesigning discourses from digital gaming culture to complete English assignments that required them to engage in multimodal design.

4.4 Cultural heritage

Literate practices associated with cultural heritage tend to emphasise the role schools play in leading young people to an appreciation of the works of literature that are widely regarded as amongst the finest (Cox, 1989, p. 60). The interest here is on “great literature” (p. 125) and the notion that, through literacies associated with the study of the so-called greats, a humanising and civilising effect can be realised, including an associated aesthetic pleasure. These literacy practices associated with the cultural heritage imperatives have been found to be problematic given the way they seek to perpetuate colonial ways of linking individual intellectual development to the project of nation and empire building (Bhabha, 1990). Nonetheless, cultural heritage paradigms continue to represent common ways of practising L1 English justifying the need to explore how the inclusion of digital games into the English curriculum preserves or challenges these discourses.

4.4.1 *Studying the best that has been said*

Using the English classroom to study “the best that has been thought and said” (Arnold, 1869, p. 6) has typically been limited to print-based texts. The interventions reviewed in this paper, and their privileging of digital forms of narrative, represent moves away from the rhetoric of Arnold. However, there were 4 instances wherein digital games were used as vehicles to improve engagement and understanding of more traditional literary texts. This was evident in studies which connected digital games with the *Lord of the Rings* trilogy (Apperley & Beavis, 2011), the *Harry Potter* stories (Burn, 2003), S. E. Hinton’s 1967 novel, *The Outsiders* (Marlatt, 2018), Australian young adult author Garry Disher’s *The Apostle Bird* (Walsh, 2010), and Shakespeare’s *Romeo and Juliet* (Russell & Beavis, 2012). Common among all these studies were conclusions that increased engagement and understanding emanating from digital games can be leveraged to support print-based learning and teaching. Hence, comparative text study, in which digital games are studied alongside other text-types, was widely supported and seen as mutually beneficial.

4.4.2 *Humanising the individual*

Although the issue of humanising the individual, and countering moral decline through literature, was not explicitly addressed by any paper in the sample, the premise that those who do not engage with canonical literature are somehow deficit, or that humanising could only be achieved through ‘good’ literature and the cultivating literary taste (Hilliard, 2012), was challenged by numerous findings. For example, Glover-Adams (2009) explored the literate practices of J.R., an African American male with a learning disability who enjoyed reading manga. Rather than constructing this practice as a deficit J.R.’s interest in graphic novels was encouraged by

the teacher who assigned him a digital game with a similar genre and structural conventions to the student's interest. Gerber et al. (2014) also described a case study wherein students' enthusiasm for visual and digital literacies was not perceived as a deficit of character that could be eliminated through exposure to canonical works. A class of 10th graders who had previously failed state-mandated reading and writing examinations engaged in self-directed learning and socially constructed meaning making through a games curriculum. Students were required to circulate across five learning stations:

- (1) play videogames (the "Videogame Quest Area"), (2) read independently ("The Reading Quest Area"), (3) engage in writing ("The Writing Quest Area"), (4) conference with the teacher ("The Conferencing Quest Area"), and (5) engage in peer review and reflective writing ("Metareflection Area") (pp. 22-33).

Rather than the sustained study of a 'classic', the provision of a rich and immersive array of literacy activities coupled with principles of self-selection, co-construction, and independence supported these struggling readers to develop and communicate complex inferential skills.

4.4.3 *Aesthetic pleasure*

In his definition of cultural heritage, Terry Locke (2007, p. 10) references Cleanth Brooks and Robert Penn Warren's *Understanding Poetry* (Brooks & Warren, 1976), which calls on readers to participate in an act of imaginative identification with the drama of meaning making that literature enacts. Rather than reifying literature's monopoly over aesthetic imaginative pleasure, the studies reported literate practices which shift the boundaries of what constitutes worthwhile aesthetic pleasure produced through textual enjoyment.

This was evident in Walsh's (2010) study, which involved a group of 12-13 years-old students, highly motivated but generally disinterested in traditional print-based literate practices. As a part of the intervention, students visited the *Game On!* exhibit, a touring curated collection of digital games from around the world. Instead of marginalising the pleasures of play, the teacher encouraged students to play the games in the exhibit and to report on the aesthetics of the avatars they inhabited. The result was literate practices which focused on students and the sensory particularities developed by digital game forms. The notion that digital games are aesthetic texts was commonly expressed (Marcon & Faulkner, 2016; Russell & Beavis, 2012).

4.5 *Games and game play*

The digital game literacies discussed above should be considered in the context of pedagogical and research design decisions made by the teachers and researchers involved in each study. Decisions relating to games selected and game play enacted during class time are also important factors worthy of discussion, especially given

that both factors impact the digital game literacies that emerged during these studies.

4.5.1 Games selected

Digital games were used in three distinct ways across the papers reviewed. Firstly, there were cases wherein a single digital game was used as the basis of play and study, often in association with more traditional classroom texts. This involved the teacher or researcher choosing a single digital game that became the object of sustained focus. Games used in this way included:

- Harry Potter and the Chamber of Secrets (Burn, 2003)
- L.A. Noire (Berger & Mcdougall, 2013)
- Minecraft (Marcon & Faulkner, 2016; Marlatt, 2018)
- Never Alone (Bacalja & Clark, 2021)
- Neverwinter Nights (Glover-Adams, 2009)
- RPG Maker XP (Rish, 2014)
- The Sims Series (Beavis & Charles, 2005)

Secondly, some papers reported the use of multiple digital games within the single study, usually for the purpose of comparative analysis, albeit in vastly different ways. An example is evident in Toomey and Kitson's (2017) study in which students played *The Elder Scrolls: Arena and Daggerfall*, *Myst* and *Riven* as stimulus to analyse how the speculative fiction genre was generated across different forms, including novels and films. In Walsh's (2010) study students played *Elder Scrolls IV* and a range of independent games, and used this gameplay as stimulus for developing their own research projects on digital games. Bacalja (2018a, 2018b) reported a context where students had opportunities to play a range of games, *Bully*, *Dungeon Siege III*, *Fable II* and *Forza Motorsport IV*, with comparative analysis focused on similarities and differences in how the games communicated the story and supported different forms of gameplay and interactivity. In Russell and Beavis (2012), the use of *Minecraft* and *Runescape* were found to serve different purposes, neither analytical. The former was used as a creative tool for building a recreation of scenes from *Romeo and Juliet*. The latter was similarly used to represent her understanding of another text, as the game's architecture and landscape to comment on themes from an artwork. Beavis; (2007) study reported students playing *The Age of Wonders*, *The Age of Mythology* and *The Sims*, and using their experiences during gameplay as material for the critical evaluation of the values and worlds constructed in the games. Lastly, Apperley and Beavis's (2011) study reported the use of a range of games used across at least five teaching contexts, highlighting the challenge of action when digital games are incorporated into English and literacy classroom activities.

Only one study involved students selecting their own games for play and study. In Gerber et al. (2014), students selected digital games from a game library. Play was combined with independent reading, teacher conferencing, writing and peer review.

4.5.2 Classroom game play

The manner in which games were played during classroom interventions also differed across the studies. Game play took on three distinct forms: individual gameplay on individual computers/consoles; shared gameplay on individual computers/consoles; and shared gameplay on a class computer/console (see Table 2).

Table 2. Types of gameplay and platform used

Type of gameplay	Study	Platform	
Individual gameplay on individual machines	Glover-Adams (2009)	Not stated	
	Apperley & Beavis (2011)	Personal computer	
	Bacalja & Clark (2021)	IPads	
	Beavis & Charles (2005)	Not stated	
	Berger & McDougall (2013)	Not stated	
	Gerber et al. (2014)	Consoles (not specified)	
	Marcon & Faulkner (2016)	Personal computer	
	Marlatt (2018)	Personal computer	
	Rish (2014)	Personal computer	
	Russell & Beavis (2012)	Personal computer	
	Toomey & Kitson (2017)	Personal computer	
	Shared gameplay on individual machines	Apperley & Beavis (2011)	Personal computer
		Beavis (2007)	Classroom laptops
Shared gameplay on projector	Bacalja (2018b)	Xbox	
	Bacalja (2018a)	Xbox	
Not stated	Burn (2003)	Class computer	
	Walsh (2010)	Not stated	

With the exception of Bacalja and Clark (2021), the literature rarely explored the impact of different forms of game play on classroom activities. While the affordances of different game play types on the practices observed in the classroom were addressed by several studies (Bacalja & Clark, 2021; Gerber et al., 2014) they were not addressed in all other studies, nor was their discussion of the impact of using different game platforms for intervention activities. Given the significant effect that game selection and game play forms have on how digital games are realised (Bogost, 2011), there is a need for a closer exploration of these factors, especially as they relate to pedagogical determinations and their impact on the aforementioned orientations of English. Furthermore, a common theme which emerged, in particular in the parts of the papers which detailed the design, both in pedagogical and structural terms, was the lack of specificity regarding pedagogical decisions associated with game selection and classroom game play. A lack of justifications regarding these decisions was almost universal, suggesting a closer attention to this aspect of study design is needed.

5. CONCLUSIONS AND FUTURE RESEARCH

This paper has reviewed case studies that have brought digital games into the L1 English classroom for play and study. Analysis revealed that digital game literacies present opportunities for meeting the historical imperatives of English teaching, but also for providing new ways of thinking about how we support students to know themselves and the world. Connecting with students' lifeworlds, developing traditional and 'new' skills, questioning representations within texts, and supporting the aesthetic dimension of textual experience, were reported to be important outcomes that could be achieved in the the study of digital games in the English classroom.

Where there is room for greater attention is in terms of focusing more closely on questions of research design. Few studies explored important questions about which the selection of games studied or how game play was incorporated into the English classroom. The diversity of available game genres provides an extraordinary variety of play possibilities, not to mention themes and concepts for exploration. Future research needs to more clearly address issues of game selection and the use of game play, examining how these factors impact teaching and learning in the L1 English game classroom.

There is also room for a greater focus on utilising non-literary forms of knowledge to explore a games-based curriculum. The studies tended to favour literary approaches to textual analysis, overlooking ways of understanding digital games emanating from the field of game studies (cf. Aarseth, 1997; Consalvo, 2007; Juul, 2011). Given the historical dominance of literary forms of texts in the L1 English classroom (novels, poetry, plays), it should not be surprising that teachers have relied on areas of expertise they are more familiar with and that the process of adapting their knowledge for a digital games curricula has been slow to evolve (Bacalja & Clark, 2021; Bourgonjon & Hanghøj, 2011; Hanghøj & Hautopp, 2016). Nonetheless, research is needed that focuses explicitly on knowledge distinct to games, such as knowledge about game economics (Castronova, 2008), game advertising (Jenkins, 2006b), media mixing and cross-media franchises (Jenkins, 2006a), the role of hacking and modding (Boluk & LeMieux, 2017), *game addition and emotioneering* (Freeman, 2004), and data literacies (Pangrazio & Selwyn, 2019).

Given the speed with which digital games are evolving, it also is important that teachers and researchers consider how critical digital literacies can be utilised. Critical digital literacies praxis, investigating manifestations of power relations in texts, and then designing, and redesigning, texts in ways that serve other, less powerful goals (Avila & Zacher Pandya, 2013, p. 2), will help teachers move beyond engagement and to avoid a digital games curriculum that accepts texts 'as they are'.

Despite the popularity of these texts, and the social and cultural literate practices that are produced through their study and play, the use of digital games in the secondary English curriculum remains a highly novel object for teaching and learning. While theoretical approaches to the study of digital games in formal learning contexts are extensive, case study research investigating pedagogical approaches is in

its infancy. Nonetheless, as this critical review demonstrates, digital games literacies have much to offer the L1 English learner, and the field requires researchers and educators who to continue to pursue this form of literacy research.

REFERENCES

- Aarseth, E. (1997). *Cybertext : perspectives on ergodic literature*. Johns Hopkins University Press.
- Aarseth, E. (2003). *Playing research: Methodological approaches to game analysis*. Paper presented at the Melbourne DAC - the 5th International Digital Arts and Culture Conference, School of Applied Communication, Melbourne. <http://hypertext.rmit.edu.au/dac/papers/index.html>
- Abrams, S. S. (2009). A gaming frame of mind: Digital contexts and academic implications. *Educational Media International*, 46(4), 335-347. <https://doi.org/10.1080/09523980903387480>
- Abrams, S. S., & Gerber, H. R. (2013). Achieving through the feedback loop: Videogames, authentic assessment, and meaningful learning. *English Journal*, 46(4), 95-103.
- Abrams, S. S., & Lammers, J. C. (2017). Belonging in a videogame space: bridging affinity spaces and communities of practice. *Teachers College Record*, 119(12), 1-34.
- Abrams, S. S., & Walsh, S. (2014). Gamified vocabulary: online resources and enriched language learning. *Journal of Adolescent & Adult Literacy*, 58(1), 49-58. <https://doi.org/10.1002/jaal.315>
- Apperley, T., & Beavis, C. (2011). Literacy into action: Digital games as action and text in the English and literacy classroom. *Pedagogies: An International Journal*, 5(2), 130-143. <https://doi.org/10.1080/1554480X.2011.554620>
- Arnold, M. (1869). *Culture and anarchy. An essay in political and social criticism*. Thomas Nelson and Sons.
- Avila, J., & Zacher Pandya, J. (2013). Traveling, textual authority, and transformation: An introduction to critical digital literacies. In J. Avila & J. Z. Pandya (Eds.), *Critical digital literacies as social praxis: intersections and challenges* (pp. 1-14). Peter Lang.
- Bacalja, A. (2018a). What critical literacy has to offer the study of video games. *Australian Journal of Language and Literacy*, 3(41), 144-154.
- Bacalja, A. (2018b). What videogames have to teach us (still) about subject English. *English in Australia*, 53(3), 51-63.
- Bacalja, A., & Clark, K. (2021). Playing with digital game pedagogies. In M. Peterson, K. Yamazaki, & M. Thomas (Eds.), *Digital games and language learning: Theory, development and implementation* (pp. 113-136). Bloomsbury
- Barnes, D. (1992). *From communication to curriculum*. Boynton/Cook Publishers.
- Beavis, C. (2007). Writing, digital culture and English curriculum. *L1-Educational Studies in Language and Literature*, 7(4), 23-44. <https://doi.org/10.17239/L1ESLL-2007.07.04.03>
- Beavis, C. (2018). Literature in subject English in Australia: purpose, identity and mode. In C. E. Loh, S. S. Choo, & C. Beavis (Eds.), *Literature education in the Asia-Pacific* (pp. 24-38). Routledge.
- 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>
- Beavis, C., Dezuanni, M., & O'Mara, J. (Eds.). (2017). *Serious play: Literacy, learning and digital games*. Routledge.
- Beavis, C., O'Mara, J., & McNeice, L. (Eds.). (2012). *Digital games: literacy in action*. Wakefield Press.
- Beavis, C., Walsh, C., Bradford, C., O'Mara, J., Apperley, T., & Gutierrez, A. (2015). 'Turning around' to the affordances of digital games: English curriculum and students' lifeworlds. *English in Australia*, 50(2), 30-40.
- Berger, R., & Mcdougall, J. (2013). Reading videogames as (authorless) literature. *Literacy*, 47(3), 142-149. <https://doi.org/10.1111/lit.12004>
- Bhabha, H. K. (1990). Introduction: narrating the nation. In H. K. Bhabha (Ed.), *Nation and narration* (pp. 1-7). Routledge.
- Bogost, I. (2011). *How to do things with videogames*. University of Minnesota Press.

- Bourgonjon, J. (2014). The meaning and relevance of video game literacy. *CLCWeb: Comparative Literature and Culture*, 16(5). <https://doi.org/10.7771/1481-4374.2510>
- Bourgonjon, J., & Hanghøj, T. (2011). *What does it mean to be a game literate teacher? Interviews with teachers who translate games into educational practice*. Paper presented at the Proceedings of the 5th European Conference on Games Based Learning.
- Boyatzis, R. E. (1998). *Transforming qualitative information: thematic analysis and code development*. Sage Publications.
- Boyle, E. A., Hainey, T., Connolly, T. M., Gray, G., Earp, J., Ott, M., . . . Pereira, J. (2016). An update to the systematic literature review of empirical evidence of the impacts and outcomes of computer games and serious games. *Computers & Education*, 94, 178-192. <https://doi.org/10.1016/j.compedu.2015.11.003>
- Bradford, C. (2009). Playing at bullying: The postmodern ethic of Bully (Canis Canem Edit). *Digital Culture & Education*, 1(1), 67-82.
- Brand, J. E., Jervis, J., Huggins, P. M., & Wilson, T. W. (2019). *Digital Australia 2020*. <https://igea.net/2019/07/digital-australia-2020-da20/>
- Brooks, C., & Warren, R. P. (1976). *Understanding poetry* (4th ed.). Holt, Rinehart and Winston.
- Buckingham, D., & Burn, A. (2007). Game literacy in theory and practice. *Journal of Educational Multimedia and Hypermedia*, 16(3), 323.
- Burn, A. (2003). Poets, skaters and avatars: performance, identity and new media. *English Teaching: Practice and Critique*, 2(2), 6-21.
- Castronova, E. (2008). *Synthetic worlds: The business and culture of online games*. University of Chicago Press.
- Clark, D. B., Tanner-Smith, E. E., & Killingsworth, S. S. (2016). Digital games, design, and learning: A systematic review and meta-analysis. *Review of Educational Research*, 86(1), 79-122. <https://doi.org/10.3102/0034654315582065>
- Connolly, T. M., Boyle, E. A., MacArthur, E., Hainey, T., & Boyle, J. M. (2012). A systematic literature review of empirical evidence on computer games and serious games. *Computers & Education*, 59(2), 661-686. <https://doi.org/10.1016/j.compedu.2012.03.004>
- Consalvo, M. (2007). *Cheating: Gaining advantage in videogames*. MIT Press.
- Consalvo, M. (2009). *Hardcore casual: Game culture return(s) to Ravenhearst*. Paper presented at the Proceedings of the 4th International Conference on Foundations of Digital Games.
- Cox, B. (1989). *English for ages 5-16 [The Cox Report]*. <http://www.educationengland.org.uk/documents/cox1989/cox89.html>
- Cox, B. (1991). *Cox on Cox: An English curriculum for the 1990s*. Hodder & Stoughton.
- Dixon, J. (1975). *Growth through English: set in the perspective of the seventies*. Oxford University Press for the National Association for the Teaching of English.
- Elf, N., Bulfin, S., & Koutsogiannis, D. (2020). The ongoing technocultural production of L1: Current practices and future prospects. In B. Green & P.-O. Erixon (Eds.), *Rethinking L1 education in a global era* (pp. 209-234). Springer.
- Entertainment Software Association. (2019). *Essential facts about the computer and video game industry*. <https://www.theesa.com/esa-research/2019-essential-facts-about-the-computer-and-video-game-industry/>
- Erixon, P.-O., & Green, B. (2020). Rethinking L1 education in a global era: The subject in focus. In B. Green & P.-O. Erixon (Eds.), *Rethinking L1 education in a global era* (pp. 1-14). Springer.
- Gee, J. P. (2003). *What video games have to teach us about learning and literacy*. Palgrave Macmillan.
- Gee, J. P. (1996). *Social linguistics and literacies: Ideology in discourses* (2nd ed.). Taylor & Francis.
- Geertz, C. (1997). Thick description: Toward an interpretative theory of culture. In C. Geertz (Ed.), *The interpretation of cultures: selected essays* (pp. 3-32). Hutchinson.
- Genette, G. (1997). *Paratexts: Thresholds of interpretation*. Cambridge University Press.
- Gerber, H. R., Abrams, S. S., Onwuegbuzie, A. J., & Benge, C. L. (2014). From Mario to FIFA: what qualitative case study research suggests about games-based learning in a US classroom. *Educational Media International*, 51(1), 16-34. <https://doi.org/10.1080/09523987.2014.889402>
- Gerber, H. R., & Abrams, S. S. (Eds.). (2014). *Bridging literacies with videogames*. Sense Publishers.

- Glover-Adams, M. (2009). Engaging 21st-century adolescents: Video games in the reading classroom. *English Journal*, 98(6), 56-59.
- Grant, M. J., & Booth, A. (2009). A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal*, 26, 91-108. <https://doi.org/10.1111/j.1471-1842.2009.00848.x>
- Green, B. (1990). A divided practice: 'Literature'. English teaching and cultural politics. In I. Goodson & P. Medway (Eds.), *Bringing English to Order: The history and politics of a school subject* (pp. 135-161). The Falmer Press.
- Hall, S. (1981). Notes on deconstructing 'the popular'. In R. Samuel (Ed.), *People's history and socialist thought* (pp. 227-240). Routledge & Kegan Paul.
- Hanghøj, T., & Hautopp, H. (2016). *Teachers' pedagogical approaches to teaching with Minecraft*. Paper presented at the Proceedings of the European Conference on Games Based Learning.
- Hanghøj, T., Misfeldt, M., Bundsgaard, J., & Foug, S. S. (2018). Unpacking the domains and practices of game-oriented learning. In H. C. Arnseth, T. Hanghøj, T. D. Henriksen, M. Misfeldt, R. Ramberg, & S. Selandar (Eds.), *Games and education: Designs in and for learning* (pp. 29-46). Brill.
- Hilliard, C. (2012). *English as a vocation: The 'scrutiny' movement*. Oxford University Press.
- Hoggart, R. (1957). *The uses of literacy*. Essential Books.
- Hung, H.-T., Yang, J. C., Hwang, G.-J., Chu, H.-C., & Wang, C.-C. (2018). A scoping review of research on digital game-based language learning. *Computers & Education*, 126, 89-104. <https://doi.org/10.1016/j.compedu.2018.07.001>
- ISFE (2019). *ISFE key facts 2019*. ISFE.
- Jackson, L. C., O'Mara, J., Moss, J., & Jackson, A. C. (2018). A critical review of the effectiveness of narrative-driver digital educational games. *International Journal of Game-Based Learning*, 8(4), 32-49. <https://doi.org/10.4018/IJGBL.2018100103>
- Järvinen, A. (2003). *Making and breaking games: a typology of rules*. Paper presented at the DiGRA Conference.
- Juul, J. (2003). *The game, the player, the world: looking for a heart of gameness*. Paper presented at the Level up: Digital games research conference proceedings, Utrecht University.
- Juul, J. (2011). *Half-real: Video games between real rules and fictional worlds*. MIT Press.
- Lankshear, C., & Knobel, M. (2003). *New literacies: changing knowledge and classroom learning*. Society for Research into Higher Education & Open University Press.
- Locke, T. (2007). Constructing English in New Zealand: A report on a decade of reform. *L1-Educational Studies in Language and Literature*, 7(2), 5-33. <https://doi.org/10.17239/L1ESLL-2007.07.02.05>
- Luke, A. (2012). Critical literacy: Foundational notes. *Theory into practice*, 51(1), 4-11. <https://doi.org/10.1080/00405841.2012.636324>
- Macken-Horarik, M. (2014). Making productive use of four models of school English: A case study revisited. *English in Australia*, 49(3), 7-19.
- Marcon, N., & Faulkner, J. (2016). Exploring Minecraft as a pedagogy to motivate girls' literacy practices in the secondary English classroom. *English in Australia*, 51(1), 63-69.
- Marlatt, R. (2018). Get in the game: promoting justice through a digitised literature study. *Multicultural Perspectives*, 20(4), 222-228. <https://doi.org/10.1080/15210960.2018.1467769>
- Misson, R. (2006). Connecting with the world of texts. *Idiom*, 42. <https://doi.org/10.12968/sece.2006.5.628>
- Moje, E. B., & Luke, A. (2009). Literacy and identity: Examining the metaphors in history and contemporary research. *Reading Research Quarterly*, 44(4), 415-437. <https://doi.org/10.1598/RRQ.44.4.7>
- Novak, E. (2015). A critical review of digital storyline-enhanced learning. *Educational Technology Research Development*, 63(3), 431-453. <https://doi.org/10.1007/s11423-015-9372-y>
- Onwuegbuzie, A. J., & Frels, R. (2016). *Seven steps to a comprehensive literature review: A multimodal and cultural approach*. Sage.
- Partington, A. (2010). Game literacy, gaming cultures and media education. *English Teaching: Practice and Critique*, 9(1), 73-86.
- Perrotta, C., Featherstone, G., Aston, H., & Houghton, E. (2013). *Game-based learning: Latest evidence and future directions (NFER Research Programme: Innovation in Education)*. NFER.

- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9(5), 1-6. <https://doi.org/10.1108/10748120110424816>
- Purcell-Gates, V., Jacobson, E., & Degener, S. (2009). *Print literacy development: Uniting cognitive and social practice theories*. Harvard University Press.
- Rish, R. M. (2014). Students' transmedia storytelling: building fantasy fiction storyworlds in videogame design. In H. R. Gerber & S. S. Abrams (Eds.), *Bridging literacies with videogames* (pp. 29-52). Sense Publishers.
- Russell, J., & Beavis, C. (2012). English revisited: Sucker punch, Moffatt, avatars and forensic evidence. *English in Australia*, 47(2), 27-35.
- Salen, K. (2007). Gaming literacies: A game design study in action. *Journal of Educational Multimedia and Hypermedia*, 16(3), 301-322.
- Salen, K., & Zimmerman, E. (2004). *Rules of play: Game design fundamentals*. MIT press.
- Sawyer, W., & van de Ven, P. (2007). Starting points: Paradigms in mother tongue education. *L1-Educational Studies in Languages and Literature*, 7(1), 5-20. <https://doi.org/10.17239/L1ESLL-2007.07.01.06>
- Skolnick, E. (2014). *Video game storytelling*. Random House.
- Street, B. (1998). New literacies in theory and practice: What are the implications for Language in Education. *Linguistics and Education*, 10(1), 1-24. [https://doi.org/10.1016/S0898-5898\(99\)80103-X](https://doi.org/10.1016/S0898-5898(99)80103-X)
- Street, B. (2000). Literacy events and literacy practices: Theory and practice in the New Literacy Studies. In M. Martin-Jones & K. E. Jones (Eds.), *Multilingual literacies: Reading and writing different worlds* (pp. 17-29). John Benjamins Publishing.
- Thompson, J. (1998). Post-Dartmouth developments in English teaching in Australia. In W. Sawyer, K. Watson, & E. Gold (Eds.), *Re-viewing English* (pp. 2-17). St Clair Press.
- Toomey, M., & Kitson, L. (2017). Engaging the enemy: computer games in the English classroom. *Literacy Learning: The Middle Years*, 25(3), 38-49.
- Vogel, J. J., Vogel, D. S., Cannon-Bowers, J., Bowers, C. A., Muse, K., & Wright, M. (2006). Computer gaming and interactive simulations for learning: A meta-analysis. *Journal of educational computing research*, 34(3), 229-243. <https://doi.org/10.2190/FLHV-K4WA-WPVQ-HOYM>
- Walsh, C. (2010). Systems-based literacy practices: Digital games research, gameplay and design. *Australian Journal of Language & Literacy*, 33(1), 24-40.
- Williams, R. (1961). *The long revolution*. Chatto and Windus.
- Wolf, M. J. (Ed.) (2001). *The medium of the video game*. University of Texas Press.
- Wouters, P., Van Nimwegen, C., Van Oostendorp, H., & Van Der Spek, E. D. (2013). A meta-analysis of the cognitive and motivational effects of serious games. *Journal of Educational Psychology*, 105(2), 1-17. <https://doi.org/10.1037/a0031311>
- Young, M. F., Slota, S., Cutter, A. B., Jalette, G., Mullin, G., Lai, B., . . . Yukhymenko, M. (2012). Our princess is in another castle: A review of trends in serious gaming for education. *Review of Educational Research*, 82(1), 61-89. <https://doi.org/10.3102/0034654312436980>

APPENDIX A

Year	Author/s,	Title	Design information (methodology, location of study, age of students, # of cases/ partici- pants analysed ¹)	Research ques- tion	Game/s
2011	Apperley, T. & Beavis, C.	Literacy into action: digital games as ac- tion and text in the English and literacy classroom.	Qualitative Australia 12-16 years of age One student	How can video- games be used in English class- rooms and what issues arise from their integration?	<i>Assorted</i>
2018a	Bacalja	What critical literacy has to offer the study of video. games	Qualitative Australia 15-16 years of age Eight students, one teacher	How can critical literacies be used to play and study digital games in the English class- room?	Bully, Dungeon Siege III, Fable II and Forza Motor- sport IV
2018b	Bacalja	What Video- games have to Teach Us (Still) about Subject Eng- lish.	Qualitative Australia 15-16 years of age Eight students, one teacher	How can existing and new ap- proaches to sub- ject-English be leveraged to play and study digital games?	Bully, Dungeon Siege III, Fable II and Forza Motor- sport IV
2021	Bacalja & Clark	Playing with Digital Game Pedagogies.	Qualitative Australia 13-14 years of age Nine teachers	How can peda- gogies of play support school- based approach to studying digital games?	Never Alone
2007	Beavis, C	Writing, digi- tal culture and English curriculum.	Qualitative Melbourne, Australia 13-14 years of age One class, two teach- ers	How is writing stretched when called upon to ac- commodate rep- resentations of multimodal texts?	<i>The Age of Won- ders, The Age of My- thology, The Sims</i>

2005	Beavis, C. & Charles, C	Challenging notions of gendered game play: teenagers playing The Sims	Qualitative Melbourne, Australia 13-14 years of age One class, one teacher	How do gender differences manifest in engagement with gaming and representations within it, and how can this effect games as a textual resource in English?	<i>Sims Deluxe</i>
2013	Berger, R. & McDougall, J	Reading videogames as (authorless) literature	Qualitative United Kingdom 17-18 years of age At least ten students, at least four teachers	How are videogames positioned as cultural texts and what are the educational affordances of these texts?	<i>L.A Noire</i>
2003	Burn, A	Poets, skaters and avatars—performance, identity and new media	Qualitative United Kingdom 12-13 years of age One class, one teacher	How can teachers make proper use of video games in the classroom, and what concessions or specialisations does this require?	<i>Harry Potter and the Chamber of Secrets</i>
2014	Gerber, H. R., Abrams, S. S., Onwuegbuzie, A. J., & Benge, C. L	From Mario to FIFA: what qualitative case study research suggests about games-based learning in a US classroom	Qualitative Mid-southwest, USA 15-16 years of age One class with twenty-seven students	How can a games-based curriculum that is rooted in connected learning and social constructionism promote equitable and cross-literate experiences?	<i>Video-game library provided, inc Mario Kart, and over 40 other titles.</i>
2009	Glover-Adams, M	Engaging 21st century adolescents: video games in the reading classroom	Qualitative Georgia, USA Senior years Two students, one teacher	How can videogames help increase the literacy levels of low-achieving or reluctant students?	<i>Never Winter Nights</i>
2016	Marcon, N. & Faulkner, J	Exploring Minecraft as a pedagogy to motivate girls' literacy practices in the secondary English classroom	Qualitative Melbourne, Australia 12-13 years of age One class with twenty-six students	How can Minecraft be used to motivate girls' literacy practices?	<i>Minecraft</i>

2018	Marlatt, R	Get in the game: promoting justice through a digitised literature study	Qualitative Mid-west, USA Senior High School One class	How can Minecraft be used to engage reluctant readers and disengaged students in a literary analysis of a novel?	<i>Minecraft</i>
2014	Rish, R. M	Students' transmedia storytelling: building fantasy fiction storyworlds in videogame design	Qualitative Mid-west, USA Age of participants unknown One class with twenty-two students, one teacher	How can world building be used to comprehend and compose science fiction and fantasy storyworlds?	<i>RPG Maker XP</i>
2012	Russell, J., & Beavis, C	English Revisited: Sucker Punch, Moffatt, Avatars and Forensic Evidence	Qualitative Adelaide, Australia 15-16 years of age One class, one teacher	How can the digital games in English support a curriculum that is literary and multimodal, analytic and creative?	<i>Minecraft, Runescape</i>
2017	Toomey, M. & Kitson, L	Engaging the enemy: computer games in the English classroom	Qualitative Not Stated 14-15 years of age One group of three students, one teacher	What literate practices are associated with the use of video games in the English classroom?	<i>The Elder Scrolls: Arena and Daggerfall, Myst, Riven</i>
2010	Walsh, C	Systems-based literacy practices: digital games research, gameplay and design	Qualitative Victoria, Australia, 12-13 years of age Two classes, two teachers	How can video games be used in valuable meaning-making activities in English?	<i>Elder Scrolls IV: Oblivion Range of unnamed indie games</i>

¹ Only participants which fit this review's inclusion criteria are referenced here.