Leveraging boys’ engagement with gaming for improving literacy

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ABSTRACT

This paper reports research into boys’ engagement with gaming and offers ideas applicable to the literacy classroom. The findings presented here suggest that boys’ engagement with online gaming can be leveraged to facilitate and improve literacy outcomes through the use of similar principles and content to those found in the online games that boys play.

Introduction

Research suggests that changing social patterns and practices, driven by the Digital Revolution, are encouraging schools to acknowledge and exploit the expertise and creativity of gamers (Gee, 2008; McGonigal, 2011; November, 2012). A recent survey conducted by the Entertainment Software Association (2012) in the US found that 97% of youths play computer games. In Australia, that number is 92% (Brand, Lorentz, & Mathew, 2014). It appears, then, that many school students are active users of online gaming which nurtures ‘creative participation and community formation’ (Chandler, 2013, p. 256), thereby creating opportunities for these skills to be harnessed in classrooms. Significantly, the gaming world is a world in which literate behaviour is a requirement for success, together with collaboration through community participation (Carroll, 2013).

This paper examines middle school boys’ interactions with gaming and explores opportunities for leveraging out-of-school literacies in the literacy classroom. This article draws on the gaming practices of a group of 27 middle school boys to assist teachers to utilise the experiences and characteristics boys bring with them to the literacy classroom. The research was predicated on the understanding that literacy is a social practice and is always embedded in social and cultural contexts (Emmitt, Zbaracki, Komesaroff, & Pollock, 2011). Literacy lies at the heart of all learning, interactions and communications, whatever their purpose, mode or context (Kiili, Makinen, & Coiro, 2013). Therefore, literacy education needs to value students’ world views and their lived experiences (Australian Literacy Educators’ Association (ALEA), 2015, p. 1). The significance of this research lies in the popularity of gaming manifesting itself as a sociocultural and literate practice for use at the classroom level.

Why boys?

Games are a prevalent and engaging source of entertainment and learning in many boys’ out-of-school lives and they provide abundant opportunities for learning in the literacy classroom. Boys have been selected for this study because significant trends have emerged that have identified the difficulties that boys face in society in general, and in literacy in particular (Alloway, Dalley-Trim, Gilbert, & Trist, 2006; Australian Curriculum, Assessment and Reporting Authority, 2013; Brozo, 2009; Organisation for Economic Co-operation and Development (OECD), 2014). Educational research has identified that many boys take longer to learn to read than do girls and that they read less often than girls (Sawyer, Singh, & Zhao, 2009). In addition, Sawyer et al. (2009) found that boys perceive reading as having a lower priority than other activities and demonstrate less interest in reading for leisure. The ‘Matthew effect’ (Stanovich, 1986) refers to readers who fall behind in reading and writing after
their first year at school and experience a widening gap each year in comparison to their peers. This is evidenced particularly during the middle years when instruction moves from learning to read to reading to learn (Fisher & Frey, 2012). However, at this stage of development, many boys are engaging with complex online games out-of-school that require considerable literate and cognitive ability to succeed. Therefore, given the ubiquitous use of new media, the utilisation of gaming principles and research may well be a bridge to improving educational outcomes for boys.

**Gaming and online games**

Online video games are widespread and reflect the cultural tools of the 21st century. They serve as a rich source of entertainment, imagination, creativity, storytelling and story-making and require high levels of literacy. Teachers have the opportunity to employ boys’ interests in gaming to develop literacy skills, by understanding the digital literacies with which boys engage at home. Boys in this study who did not identify themselves as good readers and writers at school were contributing to and critiquing blog sites and wikis of their chosen game, reading extensively in areas of interest and speaking articulately and animatedly of experiences in the game world. They displayed key skills and dexterity in navigating non-sequential text and a wide range of tools, operations and steps (OECD, 2014).

There are both opportunities and drawbacks to online games. The nature and content of first person shooter online games, such as *Call of Duty* (see Activision Publishing, 2015) identified by most boys in this study as their favourite game, raise concerns with some parents, teachers and medical practitioners. Militaristic games engender fear of entrenched hegemonic masculinity (Connell & Messerschmidt, 2005), and run counter to prevailing values in society. This is due largely to perceptions that such games can cause players to become desensitised to killing and violence and increase aggressive behaviour in children due to the nature of their content. Games like *Call of Duty* are often blamed for school shootings and unacceptable levels of anti-social behaviour, such as bullying. A study by Gentile, Li, Khoo, Prot and Anderson (2014) of over 3000 middle school children found that violent video game use influences aggressive behaviour by producing lasting changes in aggressive cognition. Because cognition is influenced by emotions, they concluded that children are significantly affected by video games and that the younger players were when they began to play, the greater the effect. This is consistent with theories suggesting that the key developmental task of the middle years is to learn social and cultural norms, such as how to deal with aggression. Gentile et al. (2014) also found no evidence that violent online games affect boys more than girls.

However, advocates of online gaming, such as Gee (2003, 2008) and Prensky (2006, 2012), contend that video games are educational and provide a safe outlet for aggressive and angry feelings at this turbulent time of early and middle adolescence, thus reducing real world violence. Olson, Kutner and Warner (2008), in their study of boys in middle school, found that game play may actually serve the aggression and socialisation needs of adolescent boys. Olsen et al. (2008) suggest that games provide opportunities for the expression of feelings of fantasy and power and opportunities to explore and master perceived exciting and realistic environments. Online games also provide a means of working out feelings of anger and stress and a safe place to compete and work co-operatively with peers. Another positive effect was that boys ‘felt motivated and encouraged to creatively solve problems’ (pp. 69–70). A recent study by Ferguson (2015) found increased video game playing is not predictive of increases in societal violence rates, although access to and engagement in militaristic online games among early adolescents continues to be a contentious issue. Ferguson also concluded that the social effects of increased online gaming are difficult to measure accurately.

McGonigal (2011) argues that educators need to understand how gaming impacts our society, and by extension our literate behaviour, and how to ‘harness these skills for real-world good’ (p. 12). Gee (2008) and Snyder and Beavis (2004) suggest that education is one area of society in which the benefits
of gaming may be employed, with teachers exploring pedagogical opportunities to engage particularly the disaffected learner. November (2010) challenges educators to use the rapid changes in technology to improve learning, and not merely to view them as a ‘stepladder to continue teaching the same way’ (p. 1). However, this is no easy task. For example, while schools can expand their curriculum to bring boys’ gaming interests and skills into the classroom, curriculum expansion for this purpose may also meet with resistance from teachers, administrators and even some boys themselves.

Key characteristics of contemporary adolescents are their high levels of technical literacy, fascination with new technologies, expectation of instant gratification, tight feedback loops, on-demand accurate information, collaboration and multitasking, all of which need to take place in a learner-centred environment (McGonigal, 2011; Twenge, 2009). These characteristics, including a deep desire for connectedness, drive adolescents’ engagement with Web 2.0 tools and online games. For example, online games can range from apps, such as Candy Crush Saga (see King.com Ltd, 2015), to Massively Multiplayer Online Role Playing Games (MMORPGs) such as World of Warcraft (see Blizzard Entertainment, 2015), and First Person Shooter games such as Call of Duty (see Activision Publishing, 2015), which over half the boys in this study identified as their favourite. This is not surprising as more than half of the 50 top-selling video games contain violence (ProCon.org, 2015).

MMORPGs are defined by the very large number of players who interact with one another in a virtual game world, allowing highly organised play in teams or groups. Players assume the role of a character (avatar), often in a fantasy world, and take control over many of that character’s actions. The goal is to develop the online character through earning experience points for their actions. These points are used to reach higher character levels, to improve the character and in turn to earn more points. First person shooter games, such as Call of Duty, are either played alone or with friends using off-line consoles or through the internet on games consoles. First person shooter games take place in a 3D environment where the player sees the action through the eyes of their avatar or protagonist. They are characterised by narrative, problem-solving, logic, fast-paced fire fights, multiple levels of difficulty and choice of weapons. The aim is to level up and improve one’s player standings. These games demand strong levels of literacy for success and are supported by lengthy wikis and blogs which boys often read to get ‘cheats’. The benefit lies in cognitive and communicative practices in prosocial environments, which keep boys returning (Dodge, Barab, Stuckey, Warren, Heiselt, & Stein, 2008).

Well-designed games

The internet, which facilitates these games, has ushered in a wide array of new social practices, ways of communicating and being in the world (Leu, 2001). Computer games are designed to engage the players at their zone of proximal development (Vygotsky, 1978) and carry a strong narrative. Gee (2008) argues that well designed games centre on problem solving and encourage scholarship through experience that enhances deep learning in a pleasurable and challenging environment (p. 36). McGonigal (2011) concurs and identifies four defining elements of a good game:

- a sense of purpose or a goal;
- rules to define fair play;
- a clear feedback system;
- a requirement for voluntary participation (choice).

McGonigal argues that it is these four elements which establish common ground for multiple players to enjoy and play together. Csikszentmihalyi’s (1991) idea of ‘flow’ – the experience of ‘intense, joyous engagement’ (McGonigal, 2011, p. 21, pp. 36–37) – is what keeps players returning to play games of all kinds.

Research (see Smith & Wilhelm, 2002) reveals that boys learn best when activities at school encompass characteristics similar to a good game:
• a sense of purpose or a goal (learning outcome);
• rules to define fair play (transparent and consistent assessment criteria);
• a clear feedback system (direct, succinct and often), and
• voluntary participation or choice.

According to Hayes, Mills, Christie and Lingard (2006), pedagogy that is more intellectually stimulating, more connected to boys’ lives and the world beyond the classroom and more socially supportive, with clear pathways to assessment and curriculum goals, are central to engaging boys (p. 119). Kervin and Mantei (2009) agree, contending that building on existing strategies, skills and strengths that boys bring with them from the world of cyberspace can enhance, for example, reading choices and methods of delivery to engage boys in literacy. From this perspective, learning through applying both the elements of a good game and using boys’ interests provides both opportunity and motivation for boys to engage in the curriculum and improve their literate behaviours.

Research methods
This paper is one part of a larger study. The study used multiple case study design (Yin, 1993, 2012) with an ethnographic, qualitative research orientation (Woods, 1996) to examine boys’ use of technology and literacy in the middle school. An interpretivist paradigm was adopted to facilitate the understanding of human experience through the participants’ own views of the situation being studied (Cohen, Manion, & Morrison, 2007). This paper focuses on findings from 27 in-depth semi-structured interviews with boys in their homes, numerous classroom observations and survey data from 405 boys in two schools in the Australian Capital Territory.

The data were collected from multiple research sites comprising two schools and several homes to contextualise boys’ experiences with gaming and literate activities in Years 5 to 8 over 12 months. The duration of each home visit averaged two hours and included an interview and observation of the boy engaging with his choice of technology. Boys ranged in age from nine to 14 years. Each school was well equipped with ICT for teaching and learning. Every home had internet access and a variety of digital devices.

Grounded theory (Charmaz, 2006) was used as a framework in the overall study for data analysis and patterns, themes and categories emerged recursively and iteratively from the data. This paper reports on a small part of the findings from the overall study and applies the results and elements of a good game specifically and practically to the literacy classroom. Triangulation in this study was achieved through the use of different perspectives, different methods of data collection and multiple sites. For example, to establish trustworthiness, boys in this study were interviewed, observed in their home and classroom and surveyed.

Findings on boys and gaming
Data analysis revealed that all boys primarily perceived technology as a source of entertainment and connectedness. A secondary purpose was that technology was perceived as a necessary means for completing school assignments. I will now focus on the reasons boys play games and the types of games they play. The discussion will link the findings with suggestions for using the elements of good games in the literacy classroom.

Why do boys play games?
Based on interview data and surveys with boys in both family rooms and classrooms, boys identified a list of reasons for why they voluntarily play online games. I used the work of Prensky (2006, 2012), Gee (2003, 2008) and Browne, Collins and Duguid (1989) as a basis for comparison. Table 1 lists the boys’ reasons, in their own words, for playing games, as well as reasons from the literature.
Table 1. The reasons boys play games

<table>
<thead>
<tr>
<th>Findings from research (Gee, 2003, 2008; Prensky, 2006, 2012; Browne, Collins, &amp; Duguid, 1989)</th>
<th>Boys in this study (in the boys' own words)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong identity</td>
<td>Acquire a special power</td>
</tr>
<tr>
<td>Clear, fast feedback</td>
<td>Earn points</td>
</tr>
<tr>
<td>Real learning</td>
<td>Receive money to buy stuff online</td>
</tr>
<tr>
<td>Taking risks, approximating</td>
<td>Try, fail, try to level up</td>
</tr>
<tr>
<td>Hypothesise, interact</td>
<td>Guess, check with my mates</td>
</tr>
<tr>
<td>Belonging, social learning</td>
<td>Feeling part of the story and my team</td>
</tr>
<tr>
<td>Sense of ownership and control</td>
<td>Escapism – choosing what I want to play</td>
</tr>
<tr>
<td>Substantive learning</td>
<td>Creative and learning new skills</td>
</tr>
<tr>
<td>Authentic learning</td>
<td>Build general and specific knowledge to get better</td>
</tr>
<tr>
<td>Affective benefits</td>
<td>It is fun!</td>
</tr>
<tr>
<td>Liminal and substantive learning</td>
<td>Testing and challenging myself, persevering</td>
</tr>
<tr>
<td>Customised learning</td>
<td>Improving eye-hand coordination</td>
</tr>
<tr>
<td>Collaborative, relational and social learning</td>
<td>Socialising while playing with friends either in person or virtually</td>
</tr>
</tbody>
</table>

Gee (2003, 2008) and Prensky (2006, 2012) have written extensively on the benefits of game play and have translated many benefits to educational settings. In this study, much of what the boys in middle school reported mirrors what the research has addressed. For example, the boys spoke of enjoying the narrative, perseverance, logical thinking and learning through consequences. This is significant because there is an overlap in the skills required to succeed in a game and their motivation for playing the game. The boys were clearly able to articulate and transfer the benefits of game play to their future actions. As teachers we can listen, understand and leverage the opportunities of gaming skills and make good use of the engagement found in online game play that boys articulated and demonstrated in this study.

The following representative quotation indicating the skills and rewards of gaming comes from the interview with Elliott (pseudonym), a Year 8 student, as he demonstrated the game *Fable*:

*You just have to decide about which way you’re going, because you have to get to quests. But it’s a bit more strategic than most people think, because you have to gain money and buy things to help your character, and then you can buy houses and rent them out. And even though it’s a quest game you can do a lot of real-life type things. The main story line is that your sister dies and you have to revenge her and collect renown and wealth, because this person that killed her is getting stronger, and so you can’t fight him alone so you have to recruit some other people. (Interview, 2011)*

Elliott names the skills of strategic decision making, gaining immediate feedback, attention to the narrative, pursuing a goal and collaborating to achieve his quest. It is apparent that Elliott’s ideas are reflected in the research summarised in Table 1 as being significant for boys’ education more generally.

**The games boys play**

This study revealed that boys prefer action, adventure, war and sport genres. This preference was summarised by Wayne (pseudonym), a Year 5 student, who, in relation to his favourite games, commented:

*I like rugby and sport ones and I like ones where you get to fight things and see things blow up.*
Table 2 summarises the responses to the survey question: ‘What is your favourite game to play using technology?’ In the analysis phase, the games were coded and grouped into broad categories to enable comparison between the year levels. The categories were informed by McGonigal’s (2011) work.

### Table 2. Genres of games and frequency of play

<table>
<thead>
<tr>
<th>War/Action (Most played)</th>
<th>Sports</th>
<th>Strategy</th>
<th>Fantasy</th>
<th>Apps (Least played)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call of Duty, Black Ops, Modern Warfare 3</td>
<td>FIFA 11 (Soccer)</td>
<td>Minecraft</td>
<td>League of Legends</td>
<td>Cut the Rope</td>
</tr>
<tr>
<td>Halo Reach</td>
<td>WWE (Wrestling)</td>
<td>Lego Star Wars, Lego Harry Potter</td>
<td>World of Warcraft</td>
<td>Angry Birds</td>
</tr>
<tr>
<td>Assassin’s Creed</td>
<td>Driving/Auto games</td>
<td>Portal 1 and Portal 2</td>
<td>Fable</td>
<td>Achtung, Die Kurve</td>
</tr>
<tr>
<td>Medal of Honour</td>
<td>Wii Sports</td>
<td>Poptropica</td>
<td></td>
<td>Doodle Jump</td>
</tr>
</tbody>
</table>

Overwhelmingly, boys preferred games in the war/action genre, and specifically the first person shooter game, *Call of Duty*. A quarter of all boys in Years 5, 6 and 7 who played games nominated *Call of Duty* as their favourite. In Year 8, this rose to 41%. When *Call of Duty* is combined with other war/action games, the numbers rise to approximately half of all boys surveyed being engaged with this genre.

*Call of Duty* is a role play game, first person shooter, that can be played by single or multiple players. It simulates the infantry and combined arms warfare of contemporary wars. A player has the perspective of being the protagonist with a gun, knife or other weapon, which allows the player to experience the action first hand. Boys reported that they liked ‘the opportunity to kill people and socialise with my friends at the same time’. Some respondents said: ‘I play to be the best soldier’; ‘I play to get a high score’; ‘I play to complete the campaign’; ‘I like to counter enemy tactics’. Boys who played *Call of Duty* also reported the enjoyment of gaining points to level up, which builds confidence and enjoyment as they strive to ‘become the best’ or ‘most dominant’ in the game. Field notes record conversations overheard and the jargon used relating to *Call of Duty* that peppered the boys’ conversations at school, as their exploits in the game world spilled over into real life.

An example is found in the use of the word ‘boss’. ‘Bosses’ are significantly superior to regular enemies in role play games and are most often found at the culmination of a level. When a player defeats the ‘boss’ at the end of a level, they can assume ‘boss’ status and level up. This means that the player has used all of their skills to maximum effect and to the best of their ability, often in collaboration with others, and is ready for the next challenge. I was interested to hear the phrase ‘I’m da boss!’ used by boys both in the playground and in the classroom. The boys explained that it referred variously to ‘being the best’, ‘being at the top’ and being ‘in control of the level’. This language was accompanied by positive body language, such as standing tall, thumping their chest or raising the V for victory sign as they spoke. They expressed the difficulty and obstacles they had to overcome, their perseverance and working at their liminal edge. What is interesting is that the boys had voluntarily committed many hours and much effort to achieving ‘boss’ status. Not only was it rewarded in the game, but the effects were also felt in the playground. The boys gave testimony to continued game play being a strong motivator to keep practising one’s skills and extending one’s threshold, as without persistence one does not remain ‘da boss’ for long.
The significance of game play

From this study, the significance of game play is that boys are engaging in gaming voluntarily and frequently as they experience ‘flow’ (Csikszentmihalyi, 1991) and success with their peers in the real and virtual worlds. Simultaneously, they are performing the complex literate and technical skills required for living and succeeding in the 21st century. For example, 12 year old Tom (pseudonym) demonstrated his skill when playing Call of Duty, saying:

I am really good at this game; I play with adults all around the world and they don’t care how old I am, only that I fight hard.

In this domain, Tom is confident and comfortable with the technical skills, or mechanical literacy, required to play online games, including navigating game sites, using the controller effectively to make quick-fire decisions, demonstrating expert hand-eye coordination and interacting online through his headset with multiple players. He demonstrated prowess with specific literacy skills, such as skimming and scanning, decoding and acting upon fast moving text and audio in the form of directions and following the narrative, which ensured success. However, at school, Tom struggles with reading in particular, avoids written work and has repeated a year. His favourite subjects at school are ‘PE, maths, recess and lunch’. He reports that it is only in the game world where he feels valued, engaged and competent.

Key motivators for boys engaging in gaming in this study were the creative accomplishment, collaborative opportunities, competition, clear rules, current and immediate feedback and detailed narratives that are inherent in a good game. The interactivity of games, many of which demand moral choices and place boys at the centre, are captivating. It appears that learning with technology provides opportunity and motivation for boys to engage with the literacy curriculum in ways with which they are familiar. At the same time, they are drawing on the cognitive and affective benefits developed through gaming. Games also provide the social context through which comprehension, composition and communication skills are learnt and rewarded (Johnson, Becker, Estrada, & Freeman, 2014) and within a participatory culture (Jenkins, Purushotma, Weigel, Clinton, & Robinson, 2006).

A valuable insight from this study lies in the conversations boys shared with me. Boys in this study do not perceive their engagement with online gaming to be literacy as teachers view it. The interweaving of literate practices such as reading, either deeply and critically to find answers to problems posed in the game, skimming and scanning to gain directions and clues, and writing, through contributing to game wikis, typing simple instructions for their avatar or responding to a friend’s comments, are intrinsic to achieving their goal. Frequency analysis from survey results of online writing preferences demonstrated a consistent increase in voluntary online writing through the grades. Boys in this study listed YouTube and game sites as their most used online writing sites after Facebook, which emphasises both the entertainment and literate aspect of the online world for boys. Talking, listening and viewing are necessary skills when communicating intentions and require high levels of visual perception, comprehension, critical and anticipatory thinking, and text and image analysis. These skills have strong links to planning and executive function, founded on high levels of engagement and enjoyment which motivated the boys to continue on to mastery.

Discourse around online games is replete with ideas, beliefs, values and actions to improve cognitive and affective outcomes. In this study, the boys’ motivated actions and animated conversations became part of the stories they told and wrote, defined their status in the playground, gave them kudos in the real, adult world and delivered a level of confidence that added to their self-esteem. All are examples of the affective benefits of game play listed in Table 1. The boys felt better about themselves once they had achieved a certain status in the game. They encouraged and challenged each other to embark on a difficult mission to test themselves and cheered each other on, regardless of the outcome. They offered advice, they teased and they commiserated, but most of all they shared the passion and excitement of
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the game together. Significantly, this world is one in which literate, prosocial behaviour is required for success. The following is an example from a classroom observation:

Picture three Year 7 boys in the back row of an English classroom, each working on their own laptop. Their task is to research the life and times of Shakespeare in preparation for their first foray into this genre. The teacher had provided a number of suitable websites for the boys to focus their task. The class is quiet, the teacher moving constantly, softly answering questions, providing guidance and encouragement. The three boys in the back row are deeply and unduly engaged with grave frowns of concentration and seemingly complete oblivion as to their location. Suddenly, one boy leaps up, arms raised in triumph and shouts ‘Yes! I’m da boss!’ Swiftly the teacher asks the offender to leave the classroom, separates the partners in crime and restores order to the very amused onlookers.

When I spoke with the boy concerned after the lesson and his dressing down by the teacher, I asked what he had been doing during English. He explained that he and his two friends had been in a battle to win a simple online multiplayer game and he had never won before. He ‘totally forgot’ where he was and was so excited by his win he let everyone know. His punishment of detention on Friday afternoon was well worth the kudos he received from the other boys, the boost to his self-esteem and status in the playground. He demonstrated perseverance, skill and prosocial behaviour which are always rewarded in the game world. He was set the Shakespeare task for homework.

Game-like skills that enhance cognition can be transferred to capabilities recognised as important in educational settings. However, technology is merely a tool to be used in dynamic ways to engage students and augment effective teaching and learning which can draw on the elements of good games. Of significance are the literacy skills, creativity, motivation, strategic thinking and collaboration required for success, which can and must form a greater part of literacy pedagogy and practice, especially for reluctant readers and writers. Boys in this study spoke of ‘how cool it would be’ to connect their out-of-school literacies with the classroom for real learning.

Implications for task design in the literacy classroom

As teachers, our challenge is to harness the lessons learnt from gaming, to engage students in learning and to acknowledge the experiences students bring from their rich digital activities outside of school. Effective task design, which includes authentic assessment and pedagogy and utilises the elements of good games, is demonstrated in Table 3. In this study, boys reported voluntarily engaging in exploratory discovery to find ways to achieve the goal of the game, undertook multiple practice opportunities encouraged by fast feedback systems and utilised both online and collaborative learning opportunities with their peers. They developed their own metalanguage to expand meanings across the domains and build their own multiliterate capabilities as they deployed a multimodal metalanguage and design in the creation, understanding and employment of a variety of texts. The ways in which boys interacted to play their game of choice required each boy to understand a variety of modes requiring different skills, depending on the genre and format of each text. The significance of multimodal literacy required to succeed in the game world lies in the potential skill transference demonstrated by boys in this study from home to school literate practices.

However, Van Eck (2006) warned that simply engaging students with technology that may be fun to play, but is hit-and-miss in educational outcomes, is not useful. Rather a ‘synergy between sound pedagogy and engagement’ (p. 3) is desirable and is fertile ground for utilising the intrinsic motivation of even the most reluctant students, like Tom, to improve literacy outcomes.

Research suggests that active learning through participation, inquiry learning and experiential learning is effective (Carroll & Beman, 2015; Wiggins & McTighe, 2005). As demonstrated by the findings presented in this paper, online games provide an opportunity for active learning as they require the examination of multiple semiotic systems and related actions as the story in which the player is immersed unfolds. Steinkuhler (2010) describes online games as being ‘about the back and forth between reading the games’ meaning and writing back to them’ (p. 61). When students are enabled to use online games as a text in the literacy classroom, perhaps as a point of comparison to
a narrative or non-fiction text, there is much to learn about how texts work. For example, learning could be about:

- intertextuality;
- the roles of the text participant, user and analyst (Luke & Freebody, 1990);
- narrative structures and features;
- situated context and comprehension.

Given that most of the boys in this study choose to play MMORPGs, we can appropriate literacy lessons specifically from this genre of game. The findings of this study revealed that boys are highly motivated to read text in the context of games, but less so when asked to read set texts. The collaborative nature of MMORPGs had a greater call on some boys than the solitary activity of reading a book. This is consistent with theories of adolescent development but was only true for just over half the boys in this study. Benefits of MMORPGs include the players co-constructing the narrative, active rather than passive learning, and a requirement for boys to become researchers, synthesisers and problem solvers, all of which require sophisticated critical literacy skills within a literate community. It was evident from this study that teachers can combine boys’ knowledge of games with curriculum requirements of successful digital literacy along with areas of interest and content area subjects to provide opportunities for boys to design their own games. See Beavis (2014) for an effective model.

Boys, for example, can follow their online interests and draw on authentic comparative texts to write, critique, create and design new characters, settings or contexts. Their contribution can be posted on a classroom fan site or affinity group. Popular series such as Harry Potter (Rowlings, 1997–2007), The hunger games (Collins, 2008–2010) and The mortal instruments (Clare, 2007–2014) already have extensive fan sites to which students voluntarily contribute and so can serve as model texts. This study, and more recently King (2015), found that the literacy skills required to play and contribute to online games successfully can be equated with the skills required for success in the

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**Table 3. Principles and pedagogy of good games**

<table>
<thead>
<tr>
<th>Elements of a good game</th>
<th>Looks like in the classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>A sense of purpose or a goal</td>
<td>Teachers state clear learning intentions for every lesson. Students clearly understand why the task is important and where it fits into their learning.</td>
</tr>
<tr>
<td>Rules to define fair play</td>
<td>Teachers provide explicit, relevant, creative and challenging assessment criteria that are developed in conjunction with students. Students assist in rubric/assessment development.</td>
</tr>
<tr>
<td>Include a tight, clear feedback system</td>
<td>Teachers provide feedback that is timely, frequent and targeted to areas of need. Students provide peer feedback early and often.</td>
</tr>
</tbody>
</table>
| Requirement for provision of voluntary participation | Teachers provide choice of demonstration of knowledge and understanding. For example:
  - choice of new media;
  - text;
  - issue to be investigated;
  - partners/groups for collaboration;
  - presentation method.
  Students exercise responsibility of choice and develop new skills. |
| Opportunity to share success            | Teachers include authentic audiences to share work, gain insight and feedback in line with inquiry learning. For example:
  - parents;
  - buddy;
  - class.
  Boys provided opportunities to demonstrate real-world skills and learning. |

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workplace, such as collaboration, digital literacy, strategic and analytical thinking, problem solving (as demonstrated in Table 1), and can align with curriculum requirements. King (2015) states that this illustrates ‘connected learning in practice’ (p. 131) which is entirely motivating, contagious and creates social capital (p. 132).

Other practical applications for using MMORPG content in the classroom may include:

- intertextuality: comparing online game narratives to other narratives of choice;
- reading, comparing and critiquing fan literature and writing or filming a contribution;
- creating alternate endings, different storylines and characters from the game;
- applying Ryan’s (2014) ‘thinker’s keys’ and writing critical reflections;
- debating and reflecting on ethical dilemmas presented in games using De Bono’s (1985) six thinking hats;
- including literacy rotations based around a class online game or fan site where students share new skills and ideas to read, write and create collaboratively;
- including discipline area content as integral to game play to ensure related content is covered; for example, in history, geography, science (see literature on using Minecraft in the classroom; e.g., Elliott, 2014; Schifter & Cipollone, 2013; Short, 2012);
- instructional strategies and pedagogy that are accessible, culturally responsive and active in ways that capture boys’ imaginations, sustain attention and build competency and utilise the key motivator of choice.

Conclusion

As teachers we know the value of drawing on students’ background interests and using high quality literature (ALEA, 2015). We also know that it is easy to problematise the behaviour of boys in schools, particularly around gaming and literacy attainment. It is harder for teachers to find opportunities to understand and enter the world of online enjoyment and sit alongside boys. Becoming a co-learner, resourcing students at their point of need and seeking ‘just-in-time teachable moments’ (King, 2015, pp. 133–134) enable teachers to draw explicit connections between game world literacies and real world practices. However, there are limitations. Teacher confidence and knowledge are relative, as is access to ICT at school and at home. There is the risk of placing the ICT before the pedagogy and generalising to ‘all boys’, even though not all boys may be as engaged with gaming as others. Finally, this study was a relatively small sample and there are risks associated with making generalisations.

A good place to start is to acknowledge the experience boys bring from their rich digital activities outside of school. This becomes the gateway for understanding and applying the elements of a good game, together with a strong understanding of the pedagogy required, to achieve improved literacy outcomes. A boy in your class will happily show you the way.

References


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