

Literacy through Gaming: The Influence of Videogames on the Writings of High School Freshman Males

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Abstract

This article presents an analysis of narratives written in class by urban adolescent males at an urban high school, to demonstrate the influence of videogames on the thinking processes of these students. An in-depth Internet inquiry linked the students' narratives to different videogames, thus attesting to the role of digital gaming in the shaping of adolescents' written discourse. The findings of the inquiry foreshadow the urgency to rethink literacy and literature, and the way they are taught in today's classrooms. The discussion explores how "pre-digital" educators can best teach literacy to "digital natives," given the impact of videogame content on adolescents' cognitive processes. Pedagogical recommendations stress the potential role of video game literacy in effectively engaging today's generation of learners in literacy endeavors.

Key words: classical literature, digital natives, digital intelligence, game-based pedagogy, literacy, new literacies, pre-digital educators, young adult literature, video games, urban adolescents.

Introduction

While videogames often evoke concerns among parents, politicians, and educators, they pervade the lives of the youth in today's world and constitute a major component of the "new literacy studies" field (Gee, 2001; Street, 2003). In an era when young generations are digital-friendly (Prensky, 2001) and video game savvy, the role of video gaming in children and adolescents' cognitive development must not be overlooked. Educating today's generation of learners requires an understanding of the new digital environment into which they were born. To effectively communicate with these learners, "pre-digital" educators, whom Prensky (2001) refers to as "digital immigrants," may need become familiar with digital literacy. As they do so, they might come to notice the saliency of video/computer gaming stimuli in the development of students' literacy abilities (Sanford & Madil, 2007). This article presents a teacher-researcher's analysis of narratives produced by adolescent males at an urban high school in order to assess the impact of video game content on written discourse. As the paper unfolds, the following questions are explored:

- How can pre-digital educators negotiate literacy with digital natives?
- What does adolescent writing reveal about the influence of videogame content on adolescents' cognitive processes?
- What does adolescent writing suggest about teaching with and learning from video game story lines?

Need for a Paradigm Shift: Old versus new literacies

In today's world where technological, as well as other more fun, non-print forms of literacy permeate the lives of the youth, one of the major issues that confront educational leaders has been how to reconcile the old literacies (Meyer & Rose, 1999) with the emergent new literacies (Gee, 2001; Street, 2003).

New literacies: A definition. Although the most widespread definition of literacy associates the term with the ability to read and write (Goody, 1999), this notion has been seriously challenged throughout time. Studies of literacy and its practices, across time and cultures, have led to the observation that literacy is a "many-meaning thing" (Scribner, 1984, p. 9; Street, 1993). More and more literacy scholars in the new era of technology and global understanding have introduced the "old" versus "new" literacies dichotomy (Gee, 2001; Meyer & Rose, 1999; Street, 2003). According to Meyer and Rose's (1999) interpretation, the old concept of literacy has been based on the assumption that "print is the primary carrier of information in our culture and that the most important skills are those that enable students to understand and express themselves in text" (Myer & Rose, 1999, n.p.). The new definition of literacy, on the other hand, is based on the assumption that "digital technology is rapidly becoming a primary carrier of information and that the broader means of expression this technology makes possible are now critical for education" (Meyer & Rose, 1999, n.p.). The new literacy format requires the rethinking of the role and perception of print literacy, which for a long time has enjoyed prestige and exclusivity (Matusov & Julien, 2004). Accordingly, the significance of the old practices of literacy is being challenged by the pervasiveness of new forms, both digital and non-digital, which have emerged in the post-typographic era (Semali,

2001).

With the rapid expansion of new technologies and literacies in the world, a broader understanding of literacy is necessary to account for the incoming new forms of literacy. The umbrella term of “new literacies” provides room for “the plethora of communication media available today” (Kist, 2005, p. 12). Examples of new literacies include, but are not limited to: computer literacy, cultural literacy, diagrammatic literacy, document literacy, economic literacy, environmental literacy, film literacy, information literacy, mathematical literacy, media literacy, music literacy, political literacy, scientific literacy, technical literacy, television literacy, video literacy, and visual literacy (Semali, 2001). This paper explores the possibility that video games may constitute a new addition to new literacies and an alternative conduit to school literacies.

Digital literacy, digital generation. Today’s generations of children are born in an environment that nurtures the development of digital intelligence (Adams, 2004; Solez, 2008). Through innate ability, practice, and hard work, digitally-intelligent individuals display a facility in processing digital information (Solez, 2008). Some of the salient characteristics of digital intelligence include “logical statements, a strong multitasking ability, and an ability to identify and take advantage of potential connections, to separate information into transformable chunks and reassemble them to new purposes” (Solez, 2008, n.p.). These features seem to characterize most of today’s youths, especially those who are born and raised in technologically-advanced parts of the world, interacting with the gamut of digital devices, such as computers, video games, digital music players, video cams, i-pods, and/or cell phones. It is no surprise that “digital literacies” scholars refer to today’s youths as “digital natives” (Hertzog et al., 2005; Prensky, 2001) or the “net generation” (Oblinger & Oblinger, 2005).

Lanham (1995) defines digital literacy, i.e., new literacy in the digital age, as a blend of

words with recorded sounds and images into a rich and volatile mixture. In contrast, he explains, “print literacy reflects fixity of the captured words, frozen on the page, thus, conferring authority and sometimes even timeless immortality” (1995, n. p.). Having evolved in a print-dominated world, pre-digital generations learned to value print and promote it as the major carrier of information (Meyer & Rose, 1999). On the other hand, today’s adolescents, being surrounded with new technology, have internalized digital technology as the primary carrier of information (Meyer & Rose, 1991; Prensky, 2002). As the “new literacy” advocates (Gee, 2001; Pahl, 2006; Prensky, 2002; Street, 2003) would explain, the millennials, as this new generation is called, have been born in a world where print literacy no longer determines the course of cultural, political, and economic development. They, therefore, require a new framework for literacy instruction, which acknowledges both the fluid and dynamic nature of literacy, whose meanings are subject to change according to the cultural context and societal needs (Bandura, 2002). Successful communication between print natives and digital natives requires compromises on both sides and, unfortunately, profound concessions from the pre-digital generation. For as Noam Chomsky’s (1972) nativist theory of language acquisition would predict, and the digital intelligence hypothesis has posited, digital natives were born pre-equipped to learn and communicate digitally, and schools need to respect nature’s law.

Through a literacy workshop, a small group of adolescent males provided evidence that video games are not just a means for diversion; rather, they play an important role in the youths’ construction of print literacy content.

Video game Stories: A New Literary Source for Today’s Children and Young Adults

While the label “Nintendo Generation” is known to designate the 1970-1980 generation, statistical reports indicate that video games have continued to be a significant part of the post-

Nintendo generation (Covi, 2000), also known as Generation M (Media-saturated generation) (Kaiser Foundation, 2005). In response to the 2003 Gallup poll, 69% of teenagers reported that they spent time playing video games each week, and 25% of those polled reported playing at least 11 or more hours per week (Gallup Poll, 2003).

Despite the fact that more entertainment gadgets, including MP3, i-pods, DVR's, have been added to the gaming devices, the 2004 Kaiser Family Foundation (KFF) study of media use among 8-18 year olds shows that the popularity of video games keeps rising. In KFF study, eighty-five percent (85%) of high school participants indicate that the videogame is the sole media device available in the home, whereas 49% reported that they owned their personal videogame console (2005, p. 13). The study further indicates a double increase, from 30% to 63%, among boys who owned a personal videogame between 1999 and 2004 (2005, p. 15). Video games also rank at the top among the activities that pre-teens and teenagers, especially boys, engage in daily for at least an average of 52 minutes (2005, p. 30). The study highlights the fact that pre-teens and teens spend a significant amount of their spare time interacting with screen media, whereas their engagement in reading print media shows a declining pattern. Of the 73% who report reading print daily for at least 5 minutes (and 30 minutes, at most) per each medium, 34% read news papers, 47% magazines, and 46% books.

Video game literarists (Gee, 2006; Robertson, 2004) have extended the notion of reading beyond print, and art beyond traditional film and literature. One type of video games which involves intense reading activity is serious games, such as history-based and classical literature-based games. Serious games require that the gamer have "the ability to not only see what [the] character is doing on the screen, figure out where [s/he] needs to go and how [s/he] could get there, but to actually read the text within different screen shots in order to learn how to play"

(Robertson, n.d., n.p.). As a video game connoisseur, Gee defines video gaming as a “proactive production of story elements, a visual-motoric-auditory-decision-making symphony, and a unique real-virtual story which produces a new form of performance art co-produced by players and designers” (2006, p. 61). Gee’s notion of videogame as art has enlisted the support of game enthusiasts, who have gone to the extent of treating video games as literature (Kevin G¹, 2008). For Kevin G., “games, like novels and films, rely on varying degrees of plot and narrative to make a point” (2008, n.p.). A close examination of videogames, films and novels seems to yield striking similarities between the three mediums both in form and content. Like mainstream literature and film, videogames represent different genres and subgenres. Just as an avid reader or a movie fan has several film genres to choose from, so does the videogamer.

A Wikipedia synthesis of classification systems proposed by different video game analysts (Apperly, 2006; Bateman, 2004; Crawford, 1982; Lindley, 2003; Wolf, 2001) identified a three-way videogame genre classification model: the interactivity/action, the game plot or content, and the longevity video games. Three major families – major genres, notable genres, and superseded genres – are described below.

Major genres include: action, fighting, role playing, platform game, simulation games, sports, and strategies. Action games are further subdivided into action-adventure and first-person shooter games. Fighting games include: “versus fighting” and “beat ’em up.” This major role-playing subgenre consists of massive multiplayer online games. Simulation games include simulators, god games, economic simulation games, and city-building games. Simulators are comprised of flight, military, space, and train games. The main subgenre listed under the sport genre is racing; however, the sport genre category encompasses all the major sports, such as

¹ The author did not provide his full name, and the APA manual does not provide guidelines for citing such a source.

cricket, baseball, soccer, American football, boxing, golf, basketball, skateboarding, ice hockey, tennis, bowling, and rugby. Under the strategy genre are strategy war games, real-time strategy and turn-based strategy games, and real-time tactical and turn-based tactical games. *Notable genres* include: adult, adventure, arcade, artillery, educational, maze, music, party, pinball, puzzle, stealth, survival, horror, and traditional and vehicular combat. *Superseded genres* include: interactive movies, light-gun games, and scrolling shooters.

An overlapping feature in newer videogames is their hybrid design. It is not unusual to find new games that combine features from more than one subgenre across genres. This hybrid feature, a model that should be adopted in diverse classrooms, may be necessary to maintain the challenge for more experienced gamers. To an educator interested in the educational value of digital gaming, a genre-based taxonomy of videogames can be instrumental in the recognition of games that have the most cognitive impact on gamers. By providing students with opportunities to convert videogame knowledge into school literacy, the following analysis came about, revealing the fact that videogame genres were compatible with school writing tasks.

Videogame Features in the Narratives of Urban Adolescent Males: The Inquiry

As a digital neoliterate who is still exploring the world of video/computer games, it took a first-hand experience for me to capture the magnitude of the impact of videogames in the lives of today's adolescents. An epiphany of sorts took place in a reading/writing workshop I implemented with reluctant adolescents at an urban high school.

Background. One particular afternoon, the 18 freshman students (12 males and 6 girls), who had been assigned to my reading/writing enhancement workshop, refused to read from award winning young adult fiction writer, Robert Cormier. Since Cormier's fiction was "mad boring" to my audience, I was left with no option but to ask them to write their own stories. To

my surprise, my rather punitive instructions; requiring them to “write stories that would not be boring to read, stories that would have a clear story line, with an identifiable plot, a dynamic conflict with the exposition, the rising action, the falling action, and the resolution;” met no opposition.

I was impressed with the diligence with which all the students wrote non-stop from imagination until the bell rang. The experience left me curious to read their writings. A quick perusal of the drafts revealed surprising facts. The girls’ writings showed a common tendency to write about their personal experiences, while the boys’ stories showed very little connection to their daily encounters. Instead, the names of the characters and, in some cases, the titles of their stories hinted to some association with either video game stories or action movies. This new discovery placed me in a serious dilemma, as a literacy educator. Was I going to join the videogame literacy club (Norton-Meier, 2005), or was I going to dismiss the students’ videogame-inspired work as trivial writing? My first responsibility as a literacy instructor was to respond to the student writings. Whether I liked their topics or not, in order to adequately guide the young men’s writing processes, I was obliged to educate myself about the sources and the nature of their “alien” stories.

Procedure: The first information source that came to mind was the Internet. Internet inquiry revealed that nine of the twelve male students, who fully engaged in the narrative writing task, drew most of their ideas from popular videogames. This was confirmed through an in-depth web search for information related to iconic expressions featured in the students’ narratives and the literature on the video games from which they originated. A keyword search for names and places featured in the stories was about to launch me on a new path of literacy inquiry, to explore the effect of video gaming on the literacy practices of today’s youths. After

obtaining the approval from the Internal Review Board at my institution, I carried out an anonymous analysis of the students' writings.

Discovery. The nine stories that were identified as adaptations from videogames included: "The Boy with the Magic Finger," "The Legend of Link," "The Noblest Mission," "The Legend of Caliny the Invincible," "The Twist of the Mysterious Glass Bowl (sic)²," "Final Fantasy II, Tales of Destiny," "The Chains of Horror," and "First Flight Last Sight." Table 1 identifies the students' stories and the original games from which they were derived.

Table 1.

A summarizing chart of "student story" / "source videogame" correspondence

Student Story Title	Word Clue from Student Story	Source Video game
1. Boy with Magic Touch	Magic Powers	<i>Legend of Zelda</i>
2. Legend of Link	Legend of Link	<i>Legend of Link</i>
3. Legend of Caliny	Caliny and Karina	<i>The Story of Ocarina</i>
4. Twist of Mysterious Glass	Trapped in a ball	<i>Link's Awakening DX</i>
5. Last Flight Last Sight	Crash on an island	<i>Link's Awakening DX</i>
6. The Noble Mission	Necromancer	<i>Knight's Quest</i>
7. Final Fantasy II	Final Fantasy	<i>Final Fantasy II</i>
8. Tales of Destiny	Tales of destiny	<i>Tales of Destiny</i>
9. Chains of Horror	Evil Horror	<i>Resident Evil</i>

Based on the Wikipedia genre classification format previously described, eight of the stories combined action-adventure and role playing characteristics, and one was exclusively modeled after a horror game. Five out of the nine stories ("The boy with the Magic Finger,"

² The common expression in videogame literature is "ball", as in "crystal ball".

“The Legend of Link,” “The Legend of Caliny the Invincible,” “The Twist of the Mysterious Glass Bowl”, and “Last Flight, Last Sight”) had features traceable to *The Legend of Zelda Series*.

“The Boy with Magic Touch” featured a story of a boy whose sister, like Princess Zelda, had magic powers that enabled him to restore dead lives. “The Legend of Link,” a direct adaptation from *The Legend of Zelda*, focused on the exploits of Link in his mission to rescue the princess from deadly monsters.

The “Legend of Caliny, The Invincible,” featured the story of an invincible female warrior with supernatural abilities that enabled her to shoot magical orbs, teleport, move things, and transform into an animal. The character name search for Caliny and Karina linked Caliny’s legend to *The Story of Ocarina of Time*, third in *The Legend of Zelda* series. “First Flight, Last Sight,” seemed to be an adaptation from *The Legend of Zelda: Link’s Awakening DX*. Both stories feature protagonists who incur problems while on a trip and both end up trapped on an island. In *Link’s awakening DX*, Link is shipwrecked in a storm and remains trapped in scary nightmares while on an unknown island. In “First Flight, Last Sight” Maria’s flight to Egypt turned out to be the last sight by her children, when her plane crashed and she found herself on a desert island away from home.

The tale of “The Twist of The Mysterious Golden Glass Bowl reflected the magic power and the chivalrous attributes invoked in *Link’s Awakening DX*, as well. In a dream, Johnson imagined the J-team of five boys using several magical scrolls to defeat his captors, Bubweiser, the evil god, and Dr. Scarface, his evil crime lord. The J-team successfully freed Johnson, captured Dr. Scarface and left Bubweiser trapped in a golden glass bowl for several years. Like Link, Bubweiser had to defeat nightmares to get out of the golden glass bowl trap back into the waking world.

In the “Noble Mission,” a warlock used magic powers to teleport himself to a remote place and overcome all the obstacles while on a mission to find out about the secret of his parents. A keyword search for main terms like Necromancer and warlock connected the story with *Knight’s Quest*. Both “The Noble Mission” story and *Knight Quest* revolve around the exploits and magic powers of knights and warlocks. The story titled “Final Fantasy II” was self revealing; it was a recreation of the plot in *Final Fantasy*, from the perspective of the student author. Like in “Final Fantasy II,” the author of “Tales of Destiny,” narrated the adventures described in the actual videogame, *Tales of Destiny*. The recreated tale was a layman’s version of a country-boy-turned-adventurer, Stahn Aileron, who sought fame and adventure by sneaking aboard the flying ship Draconis as a stowaway, eventually managing to free himself through the use of a magic sword.

Finally, “The Chains of Horror,” a horror story of an evil priest who was caught raping and mutilating his female victims, was traced to the *Resident Evil* videogame revolving around a series of cannibalistic homicides that occurred in the Arklay Mountains region. In the original game, the local police's Special Tactics and Rescue Service (S.T.A.R.S.), who were commissioned to investigate the sources of these murders, found mutilated bodies. This original story version is somewhat less horrifying than the student’s story, which featured body parts of women victims that were found in the evil priest’s cave.

The results of the internet inquiry as well as the matching made between the video games and the students’ writings seem to support the conclusion that the student authors were influenced by video games characters and plots. Another observation that was derived from the analysis was the literary equivalence between videogames and traditional literature, as discussed below. What this suggests for teachers as well as curriculum development experts is that

classroom instruction, especially in literacy and literature, needs to be bridged by this popular medium.

Discussion: Gaming Insights for Literature and Literacy Educators

The more one analyzes the content and composition of action-adventure and horror videogames, such as *Resident Evil*, *Legend of Zelda*, *Tales of destiny*, the more one realizes that the plot and characterization in action-adventure and horror games share the same literary features with some popular classical epics like *Beowulf* or *the Odyssey*, and other ancient canonical works like Chaucer's *Canterbury Tales* or other Greek mythologies, or even more philosophical works like Plato's *Allegory of the Caves*. The nine novice authors of the narratives considered in this article have confirmed Bart Simon's (As cited in Comeau, 2004) and James Gee's (2004) argument that videogames are a form of literature.

Literature educators who are also video-game savvy have engaged in drawing parallels between classical literature and video games stories (Brinckerhoff, 2007; Hidey, 2006). Professor Roger Travis from the University of Connecticut is said to have found many analogies between the game *Halo* and Virgil's *Aeneid*. According to Travis's interpretation, "Both *Halo* and the *Aeneid* tell a story about a more-than-human hero defeating enemies who would be too much for ordinary people like us – enemies who nevertheless bear an important resemblance to the ones we and the Romans face in our respective presents" (As quoted in Brinckerhoff, 2007, n.d., n.p.). Travis's emerging approach was further reinforced by the recent trend in the videogame making industry to emulate classical literature characters. In March 2008, FunBox pundits speculated that the next big trend would be more videogames based on classical literature, such as *E. Bronte's Wuthering Heights: Heathcliff's Revenge*; *Huckleberry Finn's Xtreme Rafting*; and A. Miller's *To Kill a Mockingbird: Furor Excessum*. In Japan, *Kurayami*

inspired by Kafka's *The Castle*, is viewed as the precursor of the dawn of literary videogames (Kotaku, 2008). In defense of the literariness of videogames, Derek Hidey (2006), editor of the *Bittersweet Art and Literary Magazine*; argues, "You can apply all those classic themes we have come to love in the English department: gender roles, class struggle, treatment of children, guest-host relationships, etc., to any video game story" (2006, n.p.).

Finally, the narratives of the digital natives analyzed in this study provide strong hints as to which video game genre is more teachable. It seems that the students had more facility to write about role-playing games. That this type of games was appealing to most writers could be due to the dynamic interactivity they allowed, thus making the plot reconstruction process less challenging. During the writing process, the young authors tended to place remarkable emphasis on the plot development, the highlighting of heroic virtues and the determination of main characters' outcome.

Conclusion/Pedagogical Recommendation

The content of the writings of the nine adolescents discussed in this article provides evidence of videogame influence in the cognitive processes of digital generation learners. Literacy instruction needs to provide students with the latitude to draw from their prior knowledge to develop school literacy. Teacher education programs need to prepare future teachers of Nintendo and Post Nintendo generation learners to adequately address pedagogical situations that involve digital intelligence.

Playing the doubting game by net searching the names and titles featured in the students' stories "teleported" me to the world of teachable treasures concealed within videogames. By tackling the writing task without asking for prompts, the students demonstrated that they could write independently and that, if given an opportunity, they are capable of thinking for

themselves. The complexity of the students' story lines demonstrated their ability to apply video game skills to perform a cognitively challenging task. It certainly took wit and craft to recollect the countless moves that must be performed in a videogame sequence and condense them into a coherent story.

There seems to be an unquestionable consensus among scholar-gamers on the literary equivalence between classic literature heroes, such as Odysseus and Aeneas, and contemporary videogame characters, such as Link or Stahn Aileron. Moreover, the expanding list of classical literature-inspired games³ is an indication that the public, young and old, show interest in them. Gamers, as seen in this analysis, can achieve a deep knowledge of the videogame plots to the point of inferring their own fan fiction narratives from game story lines. It can be inferred that this knowledge can help in the understanding of equivalent literary works. Perhaps, supporting the teaching of classical works with videogame scaffolds could be a more rewarding experience for adolescents than using the not-so popular, Cormier-type fiction. We need to take advantage of this unique form which "has the potential to integrate pleasure, learning, reflection" (Gee, 2006, p. 61) to incorporate the fun that male adolescents may reluctantly leave behind when they have to go to school. Otherwise, issues of student disengagement may remain.

Suggestions for Research Considerations

While the workshop that led to this article was not intended to be the subject of research, the prevalence of videogame features in the narratives of participating male students highlighted the need for further exploration of ways in which videogame-based pedagogy could increase learning engagement among adolescent males. Suggested areas of research could include:

³ A comprehensive list of literature-inspired games since 1982 can be accessed at: <http://www.mobygames.com/game-group/literature-inspired-games>.

- The impact of a videogame-based pedagogy on male student retention;
- The effect of multiplayer gaming on co-construction of knowledge;
- Relevance of videogame knowledge across the disciplines; and
- Videogame practice and gamers' attitude toward learning instructions.

Each of these areas of study is likely to provide educators with insights they need to prepare students who are adept at dealing with the ubiquity of information technology in today's world.

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