VIDEO GAMES AS OPPORTUNITY FOR INFORMAL ENGLISH LANGUAGE LEARNING: THEORETICAL CONSIDERATIONS

Vídeo games como oportunidade para o aprendizado informal de língua inglesa: Considerações teóricas

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ABSTRACT

Playing video games is one of the most common leisure activities in current days worldwide (STANLEY and MAWER, 2008). Nevertheless, this article seeks to discuss how video games may contribute to informal English language learning. For that purpose, I use Halliday's (2003) theorizations on the seven functions of the language for children as well as Jenkins' (2006) concept of participatory culture. This article also draws on examples from existing literature in the field (e. g. REINDERS and WATTANA, 2011; RYU, 2013), debating how video games may promote learning in general, in addition to the development of receptive and expressive skills in the English language.

Key-words: *English language learning, Computer-assisted language learning, Participatory culture; Video games.*

RESUMO

Jogar vídeo games é uma das atividades de lazer mais comuns no mundo hoje em dia (STANLEY e MAWER, 2008). Sendo assim, este artigo visa discutir como vídeo games podem contribuir para o aprendizado informal de língua inglesa, baseando-me das teorizações de Halliday (2003) sobre as sete funções da linguagem para crianças, bem como no conceito de cultura participativa de Jenkins (2006) e utilizando exemplos da literatura existente no campo (e. g. REINDERS e WATTANA, 2011; RYU, 2013). Este artigo debate como vídeo games podem promover o aprendizado em geral, além do desenvolvimento de habilidades receptivas e expressivas em língua inglesa.

Palavras-chave: *Aprendizado de língua inglesa; Aprendizado de línguas assistido por computador; Cultura participativa; Vídeo games.*

1. Introduction

It is vital to discuss the role of video games in the process of learning within the present context. According to Stanley & Mauer (2008, p.3), "Trends show that people are spending more time playing computer games in their leisure time, at the expense of television viewing and cinema attendance." This brings new possibilities to rethink what we know about learning, trying to use this phenomenon for our own benefit. In this article, I aim to discuss possibilities for language learning within video games.

Video game players can learn in an informal setting a wide range of content such as mathematics, geography and history. It is also possible to raise awareness of social issues. I say "informal setting" because my aim here is to discuss how video games can teach content – and language – outside learning spheres such as schools. Informal learning, according to Sefton-Green (2004, p.9) "[…] takes place in many locations and in many interactions", one of these locations being, this paper will argue, the virtual world of video games.

Narrowing the focus to second language learning, Cornillie et al. (2012, p. 244) argue:

> The rise of online PC games beginning in the mid-1990s and the more recent development of massively multiplayer online games (MMOs) have expanded the possibilities for players to interact in and with foreign languages, sometimes involving multiple languages […]

In other words, video games went from being merely entertainment to a social environment where possibilities for interaction are available. That said, taking such previous theorizations into consideration, my objective in this article is to demonstrate opportunities for informal learning which video games provide, focusing on Halliday's (2003) seven functions of language and the concepts of *transmedia* and participatory culture of Jenkins (2006) as a means of evidencing claims for the benefits of using video games in English learning.

The structure for this article is as follows: first, I present a general overview of learning possibilities fostered by video games; then, I move on to describe how playing

video games may lead to the development of receptive skills in a second (or foreign) language; and finally, I discuss how video games provide opportunities for active language use and immersion.

2. Video games: Tools for learning

I remember playing the game *Breath of Fire IV* on my Playstation one console as a child. As a native speaker of Portuguese, I did not have the linguistic abilities to decipher the action on the screen; as a result, I assumed that every box of written language was important for understanding in order to proceed in the game. This assumption did not last long, for the very opening sequence of *Breath of Fire IV* proved my theory wrong.

The game starts with a scene of a flying ship on the sand, and two of the main characters – Cray, a tiger-looking humanoid and Nina, a small blonde-haired fairy – interacting. After spotting a shooting star in the sky, Nina simply states: "Look, Cray! A shooting star!" An innocent boy, I painstakingly looked up all the words in the dictionary, just to find out that the message did not make any sense if translated word-for-word. The words "shooting" and "star" did not seem related. However, the *expression* "shooting star" existed. This was, perhaps, my first realization that language should be analyzed, as well as translated, within its specific context, and that expressions could convey one or more meanings – all of which I learned by playing video games.

This is a practical example of what Paul Gee discusses in his book, *What Video Games Have to Teach us about Learning and Literacy* (2003). Although the complexity of video games increases day after day, and Gee's book was written ten years ago and thus can be considered outdated, as far as technology is concerned, his work raises some important questions related to learning and the misconceptions about video games that currently persist. The author introduces the idea of video games as *semiotic domains*, which are "any set of practices that recruits one or more modalities (e.g., oral or written language, images, equations, symbols, sounds, gestures, graphs, artifacts, etc.) to communicate distinctive types of meanings" (GEE, 2003, p. 18), or, what others would

call, multimodal texts (KRESS and VAN LEEUWEN, 2006). As a result, video game development involves a wide range of professionals, such as “designers, programmers, artists, and others” (LIMING; VILORIO, 2011). In this sense, video games are a semiotic domain similar to other texts that circulate in society, mainly in virtual environments, such as websites. Roughly speaking, it can be said that playing such games contributes to virtual literacy. Moreover, video games excel where many schools do not – in the use of learned content in action. Video games involve *doing* something. Here, it is possible to re-use the *Breath of Fire IV* example.

Breath of Fire IV was released in 2001 by Capcom, a company known for making fighting games. This game, however, is actually a role-playing game (RPG). RPGs, as the name conveys, involve incorporating one virtual character (or several characters) in an adventure through an invented world. As Gee (2003) highlights, it involves assuming a virtual identity. It is possible to create and develop a character completely unlike yourself, who will encounter different personalities in-game unlike the ones you are likely to meet face-to-face. That said, role-playing games (and other video games) are social environments where it is necessary to complete certain objectives in order to succeed. It is also paramount that the player interacts with other characters, even if they are completely fictional.

Sefton-Green (2004, p. 12) also adds relevant arguments to this discussion. Based on the Vygotskyan concept of “scaffolding”, the author suggests that, “it is productive to explore how software in general, and games in particular, might be written to ‘scaffold’ or support inexperienced users/learners”. According to Gee (2003), good video games present different levels of difficulty in order to allow the learner to progress at his/her own pace and move to the next level when they are comfortable to do so. In other words, the act of playing video games itself can be considered a learning process. Role-playing games, for instance, start with easier missions, and as the player progresses, they become more challenging; the character has to develop in order to be able to face such challenges.

3. Video games and English Language Acquisition

Video games offer opportunities for the development of receptive skills (namely reading and listening) and expressive skills (writing and speaking). In this section, I aim to bring practical examples, as well as existing evidence from technical literature, to discuss such skills.

3.1. Receptive Skills

In video games, even in the interaction with non-playable characters (NPCs), players are exposed to new vocabulary. Rankin et al. (2006), for instance, in their study centered on the game *Everquest II*, argue that the more NPCs use new vocabulary, the easier it is for learners to internalize the new words to which they are exposed. As Stanley & Mawer (2008, p.7) state, "[e]ven the interaction between non-player characters and the players in these games can be sophisticated". Meanwhile, Gee (2008a, p. 36) argues:

> Video games are good at putting language into the context of dialogue, experience, images, and actions. They are not textbooks full of words and definitions. They allow language to be situated. Furthermore, good video games give verbal information "just in time"—near the time it can actually be used—or "on demand," when the player feels a need for it and is ready for it. They don't give players lots and lots of words out of context before they can be used and experienced or before they are needed or useful.

In order to exemplify this discussion, consider the following two images taken from *Breath of Fire IV*:

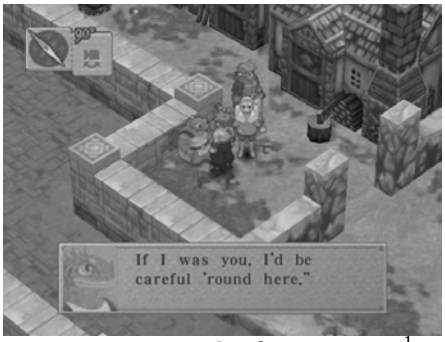

Figure 1. Breath of Fire IV – I.[1]

[1] All *Breath of Fire IV* images are copyrighted by CAPCOM.

The first scene portrays the interaction between three of the main characters (Ryu, Nina and Cray), and a fish-looking villager. The transmitted message is an advice, which may interfere with the progression of the game in case the player does not take it seriously. This discourse leads, then, to action. Not understanding this message may result in negative consequences, as far as the game is concerned. Even beginner video game players are usually aware of this, and, as a result, will be motivated to understand the message (or stop playing altogether).

It is not only motivation which may help in language acquisition. By looking at the discourse produced by the villager, it is possible to notice some features of oral language, such as informal and ungrammatical speech (*If I was you…)* as well as accent (*'round here*). Presenting a speech characterized by such particularities, the fish-looking villager conveys an individual identity. However, if the video game takes place only within a specific context, the learner may not be able to perceive differences in speech.

Breath of Fire IV does, however, offer such differences.

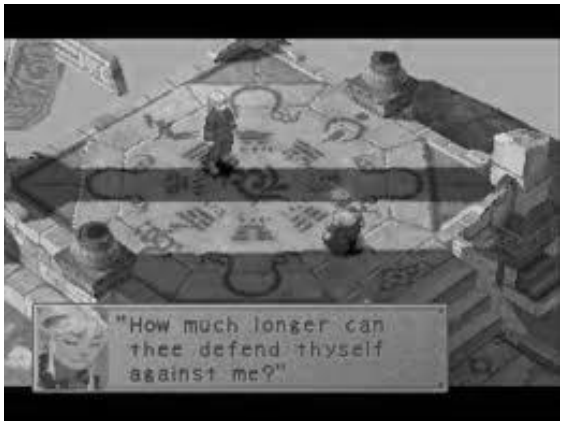

Figure 2. Breath of Fire IV – II.

The moment portrayed in the second figure is a battle between two archenemies in the game, Fou-lu (a dragon emperor) and Ryu, the protagonist. This scene, as opposed to the first, presents some formal language.

By looking at these two examples, it is possible to draw this discussion back to Gee's arguments. In both occasions, language is situated – which means that the

meaning conveyed by the characters cannot be separated from its context of production or the speaker. Furthermore, they are time-bound, following a specific coherent order.

However, not only the social nature of the messages is important. As video games usually involve acting in an invented world, understanding what other characters have said is crucial to proceed in the adventure. Reinders & Wattana (2011) carried out a study to identify the possibility of English language learning and development using a modification of the massively multiplayer online role-playing game (or simply MMORPG) *Ragnarok Online* in Thailand. One of the subjects of this study reported that understanding quest assignments, as well as NPC's dialogues, was crucial for game tasks' completion. This relates to what was discussed earlier. Making sense of NPC discourse led to actions, and not simply verbal comprehension.

3.2. Expressive Skills

Video games allow the player to perform a wide range of actions, and not only mechanical actions such as defeating enemies, overcoming challenges and solving puzzles. They also provide opportunities to engage in linguistic action and community development. In this section, I seek to discuss such opportunities, based on Halliday's (2003) concept of language and Jenkins' concepts of *transmedia* and participatory culture.

First, however, it is necessary to define what I understand by "language" in this article. Gee (2008b, p.3) calls for a need to consider discourses as developed in social practices; discourses, in this sense, are "ways of behaving, interacting, valuing, thinking, believing, speaking, and often reading and writing". For Gee (2008b), we can use distinct "social languages" in different situations. It is also necessary to consider the ideologies that underlie such discourses. Using language is, thus, not merely saying words or sentences to peers or groups, but participating in social and historically situated practices. Language needs to be embedded in discourse, otherwise it is meaningless.

That said, according to Halliday (2003), language has seven functions for children learning their first language: (i) instrumental; (ii) personal; (iii) regulatory; (iv) interactional; (v) representational; (vi) heuristic; and (vii) imaginative. Even though Halliday centers his discussion on first language acquisition, it is possible to consider such functions for second language acquisition as well. Video games – as well as gaming culture – may employ all of these functions.

The following table summarizes Halliday's functions. The examples were also provided by the source.

Halliday's function	Description	Example
Instrumental: I want	– getting things done – satisfying material needs	"I want a banana!" "Excuse me Mrs H, can you help me with the computer?"
Regulatory: Do as I tell you	– influencing the behaviour, feelings or attitudes of others – includes the language of rules and instructions	"You mustn't take things that don't belong to you." "First I … you need a rake and you have to build over the rake."
Interactional: Me and you	– getting along with others – to include or exclude	"Can I please have a go after you?" "Do you like cricket too Henry?"
Personal: Here I come	– expressing individuality and personal feelings – making public his/her own individuality	"I know that song 'cause we sang it at Kindergarten." "And … I've got a dog!"
Heuristic: Tell me why	– seeking and learning – using language to explore his/her environment – a way of learning about things	"We could make a water thing to tell how much rain we got." "Why?"
Imaginative: Let's pretend	– creating stories, games and new worlds – linguistic play including poems, rhymes and riddles – not necessarily 'about' anything at all	"Does this hurt when I bend it? You have fractured your leg really bad girl!" "Alice the camel has one hump, one hump, one hump."
Representational: I've got something to tell you	– communicating information – conveying a message with specific reference to the processes, persons, objects, abstractions, qualities, states and relations of the real world around him/her	"I made these earrings with pink and purple beads!" "It is raining really heavy and heavy all day."

Table 1. Adapted from HALLIDAY (2003) 'Relevant models of Language'. In *The Language of Early Childhood*, London: Continuum, 2003. (Queensland, 20--?)

Reinders and Wattana (2011), as mentioned previously, carried out a study in Thailand to discover possible language learning outcomes in the MMORPG *Ragnarok Online*. MMORPGs involve a multitude of players who create their characters, which will be developed in fictional worlds. Moreover, players sometimes create groups (or guilds) in order to overcome more difficult challenges or quests, such as defeating a strong monster of finding a specific rare item.

As it is possible to observe in examples provided in the aforementioned study, two functions of language can be highlighted in this study: **heuristic** and **representational**. The heuristic function is related to language used to get information about what is happening in the environment, whereas the representational function is the ability to inform and talk about facts. Two examples from Reinders and Wattana's (2011, p. 17) study may be provided:

Example of voice-based chat:

PzMaxGate: West is lift yes or no?
Badly AG: Eh?
PzMaxGate: Sorry.
West is left or right?
Badly AG: Left

Example of text-based chat:

[16:34:58] Burn Zero: find another NPC
[16:35:02] where in NPC?
[16:35:05] where is* NPC?
[16:35:39] Zerotz: north of town

Although slightly ungrammatical, in both situations there is a player who expresses the need to know something (heuristic function) and an interlocutor who provides information (representational function). MMORPGs facilitate this kind of interaction, as there are frequently more experienced players and others who are just learning how to survive in the new environment.

Moreover, Chen & Duh (2007, p. 22) argue that, in MMORPGs, interaction takes place in sociohistorical contexts and is "a dynamic process of meaning-making". Encounters between players can be categorized in two forms: "other-reinforcing encounters and labeling encounters" (p. 23). The former includes compliments or emotional support, while the latter refers to encounters of significance, where examples might include competition, exclusion and whistle-blowing. More importantly, in MMORPGs, as mentioned previously, players are capable of seeing themselves as part of a bigger community (a Guild, or a Party) which aim at

common goals, such as destroying a common enemy, getting better weapons or advancing levels – what Chen & Duh (2007, p. 23) refer to as the "view of the collective other".

That said, in-game interactions within communities may also lead to the development of **personal** and **interactional** functions of the language. While the first refers to the projected identity of an individual and his opinions and preferences, the second is related to the development of social bonds. One specific quality of MMORPGs is the opportunity to interact with an international community, which allows non-native speakers of English to interact with native-speakers. Rankin et al. (2008), in two observational studies, found that such interactions may lead to a more effective language development.

In-game communities may also be organized within certain rules, which may be expressed linguistically to new members – hence the **regulatory** function of language. Even though a player might not have the linguistic capacity of the new peer, he/she may be a more experienced player and, thus, be able to dictate how one should behave in a community. For instance, Zheng et al. (2012), in their study with English learners using a quest in the MMORPG *World of Warcraft*, found that coordination is a frequent communicative activity in a gaming community.

Even though, as literature shows, online games offer more learning opportunities as far as language is concerned, offline games may also prove effective. They also pose certain rules, so that players can learn how to behave in the game, performing certain actions in order to proceed in their journeys. Gravity Rush, for Sony's handheld device Playstation Vita may exemplify this concept. The game poses rules and teaches the player how to behave in the game through help screens where images and other commands are shown. For instance, in one of the help screens, it is informed that "Certain citizens may be willing to offer useful information if you talk to them. Tap the dialogue icon on the map screen to set the Navigation Point to their location." It is possible to identify, in this example, a command (*tap the dialogue icon*) and the purpose of such command (*certain citizens […] offer useful information*).

Moreover, as Thompson (2013) points out, digital games have become increasingly difficult over time. Video games with hidden missions and difficult puzzles were difficult to figure out alone – a collective intelligence, which aimed towards overcoming these challenges, seemed a more viable idea. As the Internet became more widespread, the growth of these gaming communities became more visible.

Thompson's arguments resonate with Jenkins' (2006) concepts of *transmedia* and participatory culture. Video games are *transmedia* in the sense that they overcome boundaries; players might discuss the game in media other than the video game itself. The motivation to understand its mechanics may lead to actions and the production of other discourses in order to fully grasp the narrative which is conveyed through the game. As Jenkins (2006, p.16) says

> fans of a popular television series may sample dialogue, summarize episodes, debate subtexts, create original fan fiction, record their own soundtracks, make their own movies – and distribute all of this worldwide via the Internet.

The same is true for video game fans: players are constantly discussing in-game facts, quests and hidden puzzles in forums, chat rooms and wikis. Sometimes, even something close to the scientific method is carried out: in order to discover enemies' weaknesses, players sometimes create a hypothesis which is confirmed or discarded after enough evidence is gathered, as observed by Constance Steinkuhler (THOMPSON, 2013).

That said, it is possible to identify several language functions in other places in gaming culture, such as online forums. According to Cyprus (201?), online forums allow asynchronous and multiple discussions in which members of a community participate. People use forums for various reasons – and discussing games is one of them. They are not, however, free of rules; there usually are moderators and administrators that monitor what is being posted (RYU, 2013).

Gaming culture can be used to exemplify **instrumental** and **imaginative** functions. In online forums, for instance, players might ask for help from their peers and talk about their in-game journeys. The following picture was taken from a thread in an online forum dedicated to the game *Gravity Rush*.

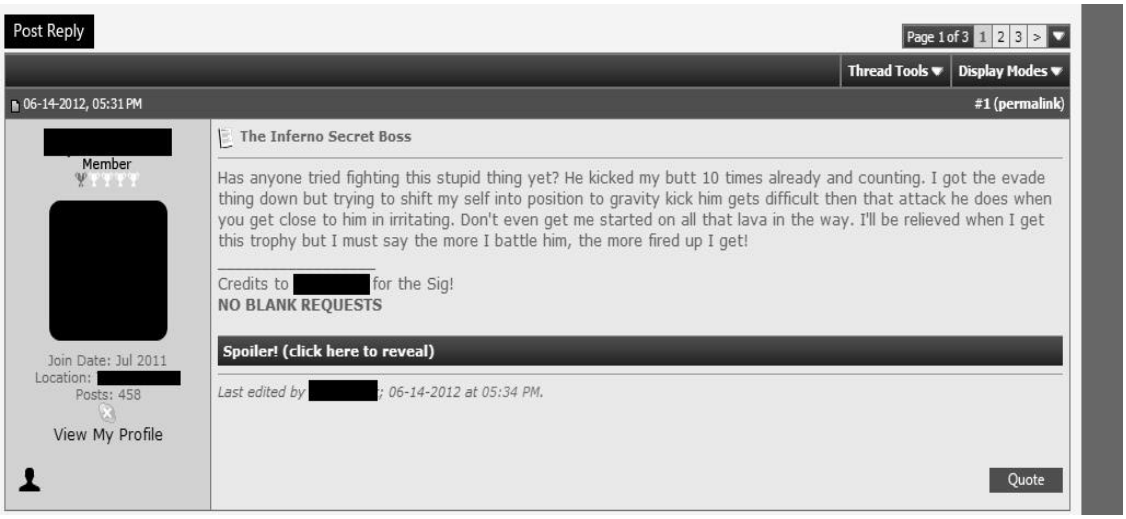

Figure 3. Online forum.

In this case, both the instrumental and imaginative functions are used: the user (and *Gravity Rush* player) asks for help and, at the same time, talks about his difficulty in defeating the enemy, adding personal emotions to his account. Online forums, as Ryu (2013) argues, allows users to develop their language capacities without being aware of it or having language development as a main concern. According to this author, one of the advantages of this type of media is its division of labor: users alternate between the roles of writer and reader, sharing their knowledge whilst acquiring knowledge related to a common interest.

4. Concluding Remarks

In this article, I endeavored to discuss how video games can aid in the development of informal English language literacy according to Halliday's (2003) seven functions of language. What this study has found is that Massive Multiplayer Online RPGs (or simply MMORPGs) offer opportunities for the improvement of heuristic and representational functions (REINDERS and WATTANA, 2011), as well as personal and interactional functions (CHEN and DUH, 2007). Moreover, the regulatory function could be identified within communities crafted in MMORPGs, such as *World of Warcraft* (ZHENG et al., 2012), and offline role-playing games, such as *Gravity Rush*.

In order to discuss instrumental and imaginative functions, the concept of gaming culture was introduced. Gaming culture refers to other media where players may discuss

(producing discourses about) issues related to video games, thus engaging in a participatory activity (JENKINS, 2006). Online forums, for example, are platforms where players can expose issues which they have encountered in a game, searching for solutions from other peers.

Debating English language learning within video games is, along these lines, relevant in our postmodern culture. Regarding its relevance, I see two ways in which this discussion may benefit English teachers:

(1) Students bring their own personal backgrounds to the classroom. Such backgrounds are not only related to their family and traditions, but also to the media they interact with in their everyday lives. Video games, as well as television shows, movies, and comic books offer both formal (see JENKINS; KELLEY, 2013) and informal language-learning opportunities, and this has to be taken into consideration with regards to English classes.

(2) Game design may be implemented in classrooms. This is not to say that every class has to be built around video games, but some characteristics that are present in such media, i.e. language understanding that consequently leads to predetermined actions can be transferred to the English class setting. This approach is called *gamification* (DETERDING et al., 2011, p. 1).

Video games are not to be demonized as they once were (see KENT, 2001 for examples in the history of video games). The possibilities for learning language that derive from them have to be further explored, so that such games may be someday widely used in classrooms. We do not have to fight game play anymore – rather it should be used to enrich the experience of teacher instruction and student learning.

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