

**THE POTENTIAL OF VIDEO GAMES IN THE 21ST CENTURY CLASSROOM,
LITERACY AND SECOND LANGUAGE LEARNING**

JUAN SEBASTIÁN RAMÍREZ BUITRAGO

**UNIVERSIDAD PONTIFICIA BOLIVARIANA
ESCUELA DE EDUCACIÓN Y PEDAGOGÍA
FACULTAD DE EDUCACIÓN
LICENCIATURA INGLÉS – ESPAÑOL
MEDELLÍN**

2018

**THE POTENTIAL OF VIDEO GAMES IN THE 21ST CENTURY CLASSROOM,
LITERACY AND SECOND LANGUAGE LEARNING**

JUAN SEBASTIÁN RAMÍREZ BUITRAGO

Trabajo de grado para optar al título en Inglés – Español

Director

RAÚL ALBERTO MORA VÉLEZ

Doctor of Philosophy in Secondary and Continuing Education

UNIVERSIDAD PONTIFICIA BOLIVARIANA

ESCUELA DE EDUCACIÓN Y PEDAGOGÍA

FACULTAD DE EDUCACIÓN

LICENCIATURA INGLÉS – ESPAÑOL

MEDELLÍN

2018

Resumen

El mundo está más conectado que antes, y las tecnologías ocupan un rol importante en todos los aspectos de la vida de los seres humanos, en especial en las generaciones más jóvenes, ya que su realidad ha estado influenciada de una manera más significativa por ésta. A partir de esto, este trabajo de grado se va a enfocar en los video juegos, ya que es uno de los elementos tecnológicos que ha llamado la atención de las personas más jóvenes. Para empezar, se va a explicar las ideas equivocadas que ha habido acerca del uso de la tecnología, en especial los video juegos, en contextos educativos. Luego, se va a dar cuenta de cómo los jugadores están mejorando y adquiriendo habilidades del lenguaje (inglés) y otras como lo son la resolución de problemas, la creatividad, el pensamiento crítico y el trabajo en equipo, lo que los ayudará a cumplir con las necesidades del siglo XXI.

Para hacer esto, se va a analizar cuáles son los elementos clave que hacen de los video juegos una buena herramienta de aprendizaje y un espacio donde se promueve el uso del inglés. Esto es relevante ya que va a permitir que haya una mejor comprensión de cómo debería ser el uso correcto de estos en contextos educativos, puesto que la mayoría de los intentos hasta ahora han ignorado las características que hacen que las personas más jóvenes tengan interés por los video juegos, lo cual hace que no haya el mismo nivel de interés en jugarlos y como consecuencia el aprendizaje no va a ser efectivo. Por último, se va a proponer una posibilidad de explorar el tema a futuro, la literacidad visual, para así poder trabajar de manera apropiada con los video juegos en contextos educativos y en especial donde el inglés se aprende como una segunda lengua.

Abstract

The world is more connected than ever, and technologies have an important role in human's lives, especially with the younger generation, since their reality has been influenced in a more significant way by them. Taking this into account, this final work will be focused on video games, since it is one of the technological elements that has attracted the attention of younger people. The discussion will begin with the misconceptions about the use of technology, especially video games, in educational contexts. Then, it will be explained how players are improving and acquiring language skills (English) and other skills such as problem solving, creativity, critical thinking and collaboration, which will help them to be prepared to the needs of the 21st century.

To do this, this work analyzed the key elements that make video games a good learning tool and a space to promote the use of English. This is relevant because it will allow a better understanding of how video games should be used in educational contexts, since most of the attempts to do it so far have ignored the characteristics that make younger people interested in them. Finally, this paper will propose some considerations to further the topic in the future (visual literacy) and to have more possibilities to properly work with video games in educational contexts, especially in those where English is a second language.

Table of Contents

Introduction: Digital Natives, Digital Immigrants and Video Games in the ESL Classroom	1
The Role of Technologies in the 21st Century Classroom	2
Video Games as a Learning Tool for the 21st Century Classroom	6
Video Games, Literacies and English	15
Video Games and English as a Second language (ESL).....	17
Coda	20
References.....	21

Introduction: Digital Natives, Digital Immigrants and Video Games in the ESL Classroom

The world is more connected than ever; technology has an important role in people's lives. Consequently, the quality of life has improved, but at the same time it has created new challenges. Taking this into account and starting with the idea that school reflects society and everything that surrounds it, it is fair to express that technologies have had an impact in the ways of teaching for this century and it have also created the need of learning a specific set of skills; which are a requirement to be competent in today's world (21st century skills).

However, this change has created a generational gap between young and adult people. As Barlow (1996) argued, people born on the 21st century will only know a full-digitalized world, so that will make them "digital natives". Technology is part of today's people lives, including their interactions, their communication and learning styles. On the contrary, people who were born before the widespread of technology in humans' daily lives, usually referred to as "digital immigrants", had to make a transition and adapt to this change. This does not mean that adults cannot use properly the technologies of today; it has to be more with the idea that, consequently, both generations have different perspectives about technologies and their usefulness.

We can also find the generational gap in schools with the imminent arrival of technologies to the 21st century classroom, which has created mixed reactions and misconceptions about the use of technologies with pedagogical purposes (Gee, 2005; Abrams, 2009). Having said that, this paper will focus on one the most controversial incursions of the digital era in the classroom: video games; although video games have

potential as a learning and teaching tool, teachers have been limited by their interests, knowledge, innovation, and experiences.

Primarily, there has been efforts (Prensky, 2001; Gee, 2005, 2007; Squire, 2005; Steinkuehler, 2007; Lacasa, Méndez, & Martínez, 2008; Abrams, 2009; Adams, 2009; Alexander, 2009; Pauschenwein, Goldgruber, & Sfiri, 2013; Ranker & Mills, 2014; Hewett, 2016) to prove the potential of video games as a learning tool. Taking this into consideration, the purpose of this final work is to explore how commercial games can be brought to the language classroom, so there is a balance between motivation and learning. To do it so, I will explore the key factors that make video games a good learning tool that teachers can bring to the 21st century classroom and how we can further the topic with the notions of multimodality and visual literacy.

The Role of Technologies in the 21st Century Classroom

The world is media-saturated, technology-driven, and globally-connected, as a result, today's students are surrounded with all kinds of media and technology. Consequently, people's interactions are heavily influenced by different devices (Barlow, 1996; Mollan-Moscoso; 2017) creating new challenges for the 21st century classroom.

One of those changes has to do with the idea of literacy, which technologies have reshaped creating new conceptions about the way the language is being used in today's world, especially its multimodal nature (Kress, 2009; Mejía-Vélez & Salazar Patiño, 2014). As acknowledged by The New London Group (1996): "the increasing multiplicity and integration of significant modes of meaning-making, where the textual is also related to the visual, the audio, the spatial, the behavioral, and so on" (p. 64). In that sense, literacy

nowadays refers to the ability to make sense of the information that we are constantly receiving from different media, within a multimodal and socially situated environment (Steinkuehler, 2007), in which the information is received from six different meaning-making systems: linguistic, visual, audio, gesture, space, and its combinations.

Additionally, technology has made boundaries almost non-existent. Humanity is connected and the necessity of being able to interact in an always connected world have created an idea of a set of skills that everyone should have in order to be successful and interact with others in the 21st century. These skills are often referred as the “21st century skills”. Although there is not a consensus about them and its conception usually change according to the context’s needs, there is a general idea about what those skills should be. For this final work, the ones proposed by the National Education Association (2012) called the “Four Cs” will be taken into consideration. Said skills include: critical thinking, creativity, communication, and collaboration.

Critical thinking. This refers to the ability of analyzing how parts of a whole interact with each other to have a better overall understanding of complex situations. To do so, people should effectively analyze and evaluate evidence, arguments, claims, and belief to synthesize and make connections between information and arguments, reflect upon them and finally, reach a conclusion/solution to a situation.

Creativity. Refers to the ability of being able to elaborate, refine, analyze, and evaluate ideas to improve and create new and worthwhile ideas. To do it so, people should be open and responsive to new and diverse perspectives and to collaborate with others.

Communication. Refers to the ability of being able to articulate and understand thoughts and ideas effectively using oral, written, and nonverbal communication skills in a variety of forms and contexts.

Collaboration. Refers to the ability of being able to work effectively and respectfully with diverse teams to accomplish a common goal, valuing the individual contributions made by others.

It is important to note that students are active users of the technology outside and inside of the schools, so their realities are already highly influenced by technologies and multimodal interactions. This means that, to some extent, they are already familiarized with some of the skills and situations previously mentioned. Thus, schools and teachers should work to ensure that all students have access to the experiences that foster the learning and use of the skills needed to become full participants of a multimodal and always connected world. In other words, it is highly important that the 21st century classroom guarantees an appropriated educational environment in which students can develop the ability to access, analyze, evaluate, and produce messages across a variety of contexts and media (Jenkins, Purushotma, Weigel, Clinton, & Robison, 2009; Mollan-Moscoso; 2017).

Technologies have changed society in a fast way; however, schools have been slow to react to its arrival in the classroom and have struggled to effectively understand, create, and promote a proper environment in which students can use the technologies to foster and improve their 21st century skills (Jenkins et al., 2009; Herro, 2015). Thus, the main opportunity for students to put into practice and improve said skills is still being found outside of the school and in informal learning communities. As Pilgrim, Bledsoe & Reily (2012) explained, plenty of technologies are already available to use, but the main problem

is that schools and teachers are not doing much to integrate them successfully into the different classroom practices.

This issue was furthered by White (2016), who said that “teachers have a strong desire to integrate technologies into education, teachers lack confidence in using technologies and teachers often have limited access to resources.” (p. 33). As a result, the main usage of technologies in the classroom is still related for low-level tasks, which do not go beyond the ability to use devices and programs, such as video projectors or PowerPoint to display information, presentations and websites. While this is not necessarily something bad, a proper learning process for the 21st century will not be very effective if technologies are being used in a passive way in the classroom and not as potential learning enhancers.

Another point that comes across on this topic is that teachers are not willing to use technologies in the classroom because it goes against their traditional beliefs, which are usually opposite to the students’ reality. Teachers are used to teach certain topics in a predefined way and using only one medium (usually textual). In contrast, students’ experiences in this century are not confined only to one medium; young people use a broad range of exposure to many different media to manage their learning processes (Mackey, 2003). In this order of ideas, the information and knowledge that the students are managing are transmedial and this should be taken advantage of to enhance the student’s learning processes. As Klastrup & Tosca (2005) stated, “narrative is a certain type of mental image, or cognitive construct which can be isolated from the stimuli that trigger its construction. Therefore, narrative is independent of the medium in which it is represented” (p. 2). In other words, assuming that there is only one way to present information (usually textual) is outdated.

However, it is plausible to declare that teachers are ignoring this strong characteristic of the contemporary culture: young people are used to being able to step in and out of a source material and to put it in contrast or complement it with other sources; sometimes presented in a different media. As a consequence, students are not very interested in the materials assigned in the classroom because the information that is being presented to them does not go beyond the traditional methods. They only “identify discrete and isolated facts, bits of information which would enable them to score high on reading comprehension tests” (Mackey, 2003, p. 613). In other words, students are not learning in a meaningful way and usually do it with the motivation to do well on tests.

It is clear the need for a different approach when introducing technologies to the classroom, due to most of these attempts so far do not exploit the full potential of it. Adapting the traditional approaches of education to the new digital context does not live up to the expectations and demands of the century (Pauschenwein et al., 2013). It is extremely important to recognize the opportunities that technologies provide to the school context. To do it so, it is necessary to look at how teachers can work with technology and integrate it in a meaningful way with pedagogy, so students can enhance higher-level thinking and problem-solving skills at school and be prepared for the needs of this century. A good start is considering the use of technologies which are frequented by the students in their daily lives, such as video games.

Video Games as a Learning Tool for the 21st Century Classroom

Video games are not the exception when it comes to technologies that are influencing the life in the 21st century, so it is not surprise that there has been rising interest

and concern about their impact in the children's performance at school and even more discussed, their usefulness as a tool for teaching inside and outside the classroom.

Nowadays, video games have become one of the main forms of media consumption and therefore, video games are now part of the student's realities, who are spending plenty of time outside of the school in this kind of activities (Mackey; 2003, Gee, 2007). However, schools and teachers are skeptical about whether video games can be used to improve the student's learning processes inside the classroom. Research has shown (Mackey, 2003; Sardone, & Devlin-Scherer, 2010; Hewett; 2016) that even teachers and pre-service teachers who had close experiences with technologies in their lives are unsure to use them inside the classroom and that, for the most part, video games are still seen as a leisure time activity with no pedagogical potential; or even more harshly, "a waste of time".

Although video games may impact classrooms, teachers have been held back by their interests, knowledge and experiences. There have been efforts (Prensky, 2001; Gee, 2005 & 2007; Squire, 2005; Steinkuehler, 2007; Lacasa et al., 2008; Abrams, 2009; Adams, 2009; Alexander, 2009; Pauschenwein, Goldgruber, & Sfiri, 2013; Ranker & Mills, 2014; Hewett, 2016) to prove the potential of video games as a learning tool. The main premise that most authors have in common is that video games require compromise and dedication from the player and that students are willing to deliver. In contrast, students do not have the same level of motivation when doing activities related to the school. In that sense, video games can engage students in learning processes inside the school because most video games already foster learning even if it is just learning to be competent in the game and win.

In this regard, most of the attempts to bring video games to the classroom have tried to do it from the idea of creating a new genre of video games known as serious games. (Wolf, Mark, & Perron, 2003; Rankin, McNeal, Shute, & Gooch, 2008; Pauschenwein et al. 2013; AlShaiji, 2015). As opposed to commercial games, serious games' focus is not entertainment. They are created with the purpose of teaching traditional classroom topics (e.g. chemistry, math, and, of course, languages). This approach for creating games is not unrealistic at all, but there have been doubts about whether the creators of serious games are capable of capturing the key factors that make a commercial game engaging and motivating to the players (Prensky, 2003; Gee, 2005 & 2007; Simons, 2007).

Another issue with serious games is that they tend to be easy, short and are usually forced on students. As Thomas and Brown (2009) pointed out, "creating games with clear content-based learning objectives (i.e. games that are tied to discourses with strong institutional content and an underlying pedagogy, which presumes a model of direct transfer) achieves their goals at the expense of player agency" (p. 44). This is contradictory with what really occurs within the gaming community; gamers want to choose their games (playing a game is a choice not an obligation) and expect games to be somewhat challenging. In other words, there has not been an interest in making sure that games serve as a motivator for students and the focus has been only the content of the game itself, ignoring completely the players and their nature.

In that sense, "the theory of learning in good video games fits better with the modern, high-tech, global world today's children and teens live in than the theories (and practices) of learning that they see in school" (Gee, 2007, p.7). Considering this, I will

analyze what should be the key factors that make commercial video games a good learning tool and that should not be ignored when trying to bring them to the classroom.

Identity. The different social groups which people belong to play an important role in the process of building identities and they become a source of pride and self-esteem for individuals. Since birth, people ascribe to certain cultural and social groups (e.g. nationality, family, religion, social class), which will influence their early views about the world (Tajfel & Turner, 1986; Tajfel, 1974). Nonetheless, as people grow older, interaction serves as a way to give sense to the world by choosing to join other social groups.

People join social groups which reflect their own identity, but these groups can, the same time, reconfigure it. Gaming communities are not exempt from this. There is a vast diversity of video games and genres; this allows gamers to choose the games and characters that they want, giving them the opportunity to experiment with their own personal identity in creative ways (Hewett, 2016). By doing it so, the decision and motivation of playing certain games becomes intrinsic. People play video games because they can relate to them to some extent and that makes their experience enjoyable.

However, it is important to mention that identifying oneself as a gamer is not just linked to playing video games, but how oneself makes sense of the world through the experience of playing a video game and interacting with other members of that community. In this sense, identity in video games refers to the combination of the reality of the gamer, which includes their cultural background, emotions and views about the world; and the connections they make with certain characteristics of a video game (the design, characters, story, gameplay, etc.) and its community. Therefore, the identity of video games becomes

the reflection of the identity of the gamer and this relationship is what keeps the players engaged (Ramírez & Gaviria, 2017).

From an educational perspective, it is clear that different styles of learning work better for different people (Gardner, 1983). People cannot be active agents of their own learning if they cannot make decisions about how their learning will work. As it has already been mentioned, video games allow to do this by giving players the opportunity to choose the games, characters and game styles that fit better with their own style and identity. Meaningful learning requires commitment, and this can only occur when people assume their learning processes as something that is part of themselves. Out of the context of identity, it is hard to learn in a meaningful, long-lasting way.

Player Agency. Players have an active role in video games. As Gee (2005) expressed, “players feel that their actions and decisions – and not just the designers’ actions and decisions – are co-creating the world they are in and the experiences they are having” (p. 6). From an educational perspective, this is not far from what pedagogues like Dewey (1903, 1938) had thought. In the classroom, students should take an active role in their education and learn through a social and interactive process. Video games do this by giving players the opportunity to make their own decisions. In order to play a video game successfully, you should be able to be active; no one wants to play a game in which nothing can be done. Furthermore, video games allow players to feel that their actions are impactful and are also contributing to achieving the ultimate goal.

Worldness. Just like people have an identity, video games have one too. There are different genres and play styles, but what exactly differentiates a video game from the rest? And what is that makes them appealing to players? Klastrop (2003) referred to this as the

concept of *worldness*, which is “a measurement of the particular traits that constitute the experience of a virtual world” (p. 100). Some of these traits include an exciting narrative, interesting characters and missions (Langhoff, Cowan-Sharp, Dodson, Damer, Ketner, Minafra, & Reese, 2009). Thanks to this, video games are more than just games and they have become a full experience.

World creating is one of the most important features of recent video games. Developers carefully craft extensive worlds with a recognizable background, offering players the opportunity to inhabit them (Krzywinska, 2008). If a game has a recognizable background, then it will be more appealing to players. Gee (2005) complemented this,

Some games offer a character so intriguing that players want to inhabit the character and can readily project their own fantasies, desires, and pleasures onto the character. Other games offer a relatively empty character whose traits the player must determine, but in such a way that the player can create a deep and consequential life history in the game world for the character. (p. 7)

Worldness, in all its facets, plays an important role in enriching the game as a text and the player’s experience inside the game. This means that the game should have an history. It is important to mention that this history goes beyond the game itself, because video games are transmedial worlds, or “Abstract content systems from which a repertoire of fictional stories and characters can be actualized or derived across a variety of media forms” (Klastrup, & Tosca, 2005, p.1). In that sense, worldness promotes close-reading and in-depth personal engagement with the game and it helps to locate the player meaningfully in the video game world.

As a result, this will encourage fan-type consumption by using consciously deployed intertexts and players will be constantly interacting with the transmedial world in any of its forms, inside and outside of the game. In other words, gamers will not be playing for leisure; gamers will be playing because most video games have a history that can be developed and experienced by the player; this creates a sense of attachment and belongingness to the history and to the video game. From the point of view of education, this raises the question of how students can feel that the contents that they are being taught at school are part of their lives and not something that comes from the outside?

Immersion. Video games have redefined the way interaction and learning works; gamers have the opportunity to interact with the video game's world and its community through characters and avatars. This creates a sense of place, space, and embodiment (Marie-Laure, 2001; Thomas & Brown, 2009). In other words, video games are more than just virtual worlds with no importance and gamers feel like inhabitants of those spaces; they learn to be part of the game and what are the implications to be part of it.

From an educational position, Thomas & Brown (2009) explained the implication of video games and the process of immersion in them:

Most traditional models of learning suggest a twostep process in the movement from learning about to learning to be. Initially, people learn the basics or fundamentals about a topic or context through "scaffolding," or acquiring enough information to make sense of the languages, ideas, and practices that constitute a specific domain of knowledge. As one becomes immersed within the culture or sets of practices one starts down the path of "learning to be," engaging in the practices

and absorbing the tacit knowledge that forms the cultural and social underpinnings for a community. (p. 40)

Although video games have both stages (learning about and learning to be), the process is contrary to the one that students find in the classroom. If gamers want to completely immerse in a video game, they must play the game first, or in other words, they must learn to be in the game; this is the most productive way to learn and the easiest in games. After that, they will have an idea of what is like to be in the game and then, they will likely seek to fill in the gaps in knowledge or expand their understanding about the game and related topics from other sources (learning about).

Challenges. Although games can demand plenty of time and are difficult, they are designed to motivate gamers and engage them in long learning processes. This seems a bit contradictory, but this is actually what makes video games successful. No one wants to play an easy video game. As Peterson (2010) pointed out, “games are successful, in part, because of their complexity and difficulty, not because of their simplicity or capacity to satiate the needs of the so-called attention-deficit generation” (p. 810). At school, explanations are usually short and simple to facilitate simpler learning process, but with video games is the opposite (Gee, 2007). Thus, this raises the question of why young people are willing to take the time to learn and play a complex video game and enjoy it, but the same situation cannot be seen in school-related tasks.

In video games, players must learn a set of skills and strategies in order to do well; this takes plenty of time and analysis of the different situations. However, the video game itself helps the gamer to understand how the things that they are learning and doing contribute to the overall development of the game. In other words, the learning is situated,

and gamers can instantly see its purpose. Furthermore, even if the process of learning is long, that does not mean it cannot be fun and motivating. On the other hand, the idea of having fun is something that it is usually not well received in educational contexts (Prensky, 2001), but this is something that makes learning in virtual worlds a motivating and engaging activity.

Fairness. Video games are hard to master, but this does not mean that it is impossible to do it. As Prensky (2001) pointed out, “games don’t kill you off without giving you a chance and they don’t require resources you cannot get (although surviving or finding the resources may not be easy” (p. 30). Thus, video games usually give tasks and missions that are within the gamer’s current level of development and when a task or mission goes beyond this level, the game provides the gamer with the tools and information to achieve it.

As a result, learning becomes “pleasantly frustrating in the sense of being felt by learners to be at the outer edge of, but within, their regime of competence” (Gee, 2005, p. 10). More importantly, video games give the player clear evidence that their effort is giving results, even when they fail, because they can keep track of their progress. This is in line with what Vygotsky (1980) proposed with the Zone of Proximal Development (ZPD), which consists of the actions that the learner is able to perform alone and with the help of others. In this case, the help is provided by the game itself.

Trial, error and feedback. Video games give the players the opportunity to learn with almost no consequences; this creates a sense of security and it will make the game “friendly” and appealing to new players. For example, most games offer sandboxes or tutorials, in which the player can basically experience the game, but without any risks.

Furthermore, in the real game, players are exposed to certain risks, but there are check points available. The game records the progress of the player, so it is not necessary to start from the beginning in case something happens. In that sense, video games value what the player has learned, even if they fail at some point.

Additionally, video games give almost instant feedback to the player, so they “either get rewarded for mastering something, or they get word they have failed at something, and have to try again or seek help, until they can do it” (Prensky, 2001, p. 13). This allows the players to reflect upon their performance and improve. In the case of education, school can be risky and punishing (Gee, 2007), so students are afraid of failing.

Finally, this list is based on the work that the authors mentioned have done about the topic. Thus, this is not a final list of what video games should have; there can be other key factors that influence the learning processes inside the world of video games. Subsequently, it is important that schools and teachers strive away from the misconception that video games are not an environment in which learning processes are fostered. Instead, video games should be seen as an opportunity to take something that engages young people in their daily lives and apply it to the classroom.

Video Games, Literacies and English

Now that we have identified how video games can foster learning, this section will focus on how to consider video games as a possibility to foster literacy practices in English and more importantly, how contributes to the development of the 21st century skills. Both are important factors to interact and be competent in an ever-connected world. To begin with, there have been claims about how video games are replacing literacy practices in

students. However, this is based on unclear definitions of the terms “video games” and “literacy”, and misconceptions about what players are really doing when they play video games (Steinkuehler, 2007; Alberti; 2008, Beavis, 2014). The latter has already been explored and it was found that video games foster learning through some of its key characteristics, so the former will now be analyzed.

Accordingly, the main issue is that some schools and teachers are still conceiving the idea of literacy as just the ability to read and write texts, especially in its print form (Steinkuehler, 2007). However, even if only consider this definition of literacy, different literacy practices can still be found in video games. On this topic, Steinkuehler (2007) explained: “gamers routinely participate in literacy practices, both within the game’s virtual world (e.g. social interaction, in-game letters and orally delivered narratives) and beyond (e.g. asynchronous discussion on online game forums, the creation of fan sites and fan fiction)” (p. 299). However, this is not enough, and it is far from the reality; it is important to consider video games as multimodal environments to have a better understanding of the literacy practices in video games.

Abrams (2009) described that “acknowledging multimodalities inherently validates students’ digital literacies, such as video gaming, and reinforces how critical thinking is equally important in traditional and virtual learning environments” (p. 13). Gamers are constantly receiving and producing meaning in various forms (text, images, sounds, colors, etc.) when playing a video game. Consequently, they must learn to understand and make sense out of this series of images, bar graphs, texts, icons, sounds, and symbols, if they want to successfully play the video game (Steinkuehler, 2007).

Moreover, we must consider how the texts are being delivered, both in video games and in educational contexts. As Gee (2007) said “humans are not good at learning through hearing or reading lots of words out of contexts of application that give these words situated or experiential meanings” (p. 11), which is something that schools usually do. However, in video games, all the information that the player constantly receives is delivered when and where they really need it and it gives them the opportunity to see how it is actually pertinent in the bigger context of the game. By doing this, video games are preventing an overflow of information with no relevance or meaning to the current level of development of the player.

Besides, video games promote interaction; most of them have a community that surrounds them, and this requires that the players communicate and work together with others. Since English is the most used language in video games, players are acquiring literacy skills in the language and are learning very specific vocabulary (Adams, 2009; Rankin et al., 2008; Thorne, Black, & Sykes; 2009; Peterson, 2010). Taking all of this into account, video games are not replacing literacy practices, but are fostering them, because playing itself is a literacy practice.

Video Games and English as a Second Language (ESL)

It has been mentioned that English is the most used language in the internet and in video games. As a result, it is fair to say that video games enhance the learning of English as second language in contexts which the primary tongue is one different from English, because players must learn to communicate to interact and understand the game and other players, if they want to perform well on the game. In this regard, Mora and colleagues

(Mora, Castaño, Orrego, Hernandez, & Ramírez, 2016) explained that “gamers are learning very particular vocabulary in order to be successful in their games. Without the communication skills they are picking up while playing online, they would not be able to be victorious in their gameplay” (p.1). Likewise, it is important to mention that some of these gamers have never been in touch with the English language or have practiced it in a formal educational context, and the only place where they can interact with the language is the game and its communities (Hernandez & Castaño, 2015; Mora, 2017). Taking this into account, we are going to explore how can the perception of English as a tool to be successful in a video game can be used to foster the learning of the language in a more formal context.

Some video games include and require social interactions as part of the game play experience and become social spaces for people with different cultural backgrounds. In other words, video games give players the opportunity to meet and communicate with others, who in some cases are native English speakers or are at least proficient in the language. As a result, this gives L2 students accessibility to speakers in the target language, which is something that schools sometimes do not do (Rankin et al. 2008). Additionally, research has shown (Beauvois & Eledge, 1995; Payne & Whitney, 2002) that the interactions that technologies and video games make possible, accelerate students’ reading, thinking and writing skills in English, and it also provide them with opportunities to practice it in a non-threatening environment.

Some considerations and visual literacy. As previously stated, most attempts to bring video games to the classroom have been doing it with the idea of preserving traditional teaching methods (serious games), consequently, the factors that make video

games a good learning tool are being ignored (Chen, Siau & Nah, 2012). As a result, there has been little research about the implications of bringing actual commercial video games to ESL classroom, even if there have already been results that show that video games promote ESL in an informal way.

To go further on this topic and to explore the possibilities to work with commercial games in the classroom, Gee (2005) mentioned that,

Meaning as action image is the heart and soul of computer and video games (though it is amazing how many educational games violate this principle). Even barely adequate games make the meanings of words and concepts clear through experiences the player has and activities the player carries out, not through lectures, talking heads, or generalities. Good games can achieve marvelous effects here, making even philosophical points concretely realized in image and action. (p. 14)

Taking this into consideration, it is clear that video games are a multimodal environment. In that sense, since most of the information and interactions are mediated by English, players should be able to interpret what they see in the screen to fill in and complement the gaps of knowledge about the language, so they can have a complete understanding of what is happening in the game and be successful, both in terms of performance and communication.

The ability of interpreting and understanding what is on the screen to do well in a video game will be referred as visual literacy in video games (Ramírez, 2017). To further explain, visual literacy describes the ability to make sense of visual images to foster the communication; this occurs from the process of creating meaning from a multimodal setting, which combines visual images, written text, sounds and other elements that give the

observer important information about a certain context (Serafini, 2017). To illustrate it, research has shown that “students understood the implications and applications of what they saw on the screen; as members of the gaming community, they developed a visual literacy that may have been game specific, but it was indicative of a general literacy skill” (Abrams, 2009, p. 7). In this order of ideas, even if a player still has not reached a good level of proficiency in English, visual literacy will mediate the interaction processes inside the game, so there will be a successful communication and eventually, the player’s English literacy skills will improve as well.

Having said that, there should be more interest in working with the visual literacy aspect of video games in the ESL classroom, because it can lead to an improvement and deeper understanding of the process of learning English in more formal contexts; which will result in more prepared students for the 21st century needs. The younger generation are motivated by video games and are already used to work with information that comes from different media and that complements each other, so schools should take advantage of this and bring it to the classrooms.

Coda

Video games have caught the interest of the younger generation and now are an important part of their daily lives, both inside and outside schools. Hewett (2016) claimed that “based on the quantitative and qualitative findings, gamers who have been playing video games from an early age will bring into the classroom a certain skill set of multiliteracies unique to technology and the 21st century” (p. 199). Students are interacting with and are producing different texts from their experience playing video games (Lacasa et

al., 2008; López-Ladino, 2016). Then, video games are helping and motivating students to get engaged with literacy practices in an informal environment. Based on this, schools and teachers should be encouraged to implement strategies to promote the use of commercial video games in the classroom, so students can get involved in processes that have more affinity with the dynamics of the new century (critical thinking, creativity, communication and collaboration) in educational spaces and with a defined pedagogical approach. This is important because the attempts to do it so far have done from the perspective of using serious games, which most of the time ignore the characteristics that make commercial games a good engagement and learning tool.

More importantly, English has become a powerful tool for being capable of inhabiting an always connected world. It was just explored how video games foster an environment in which English is used, even among people whose first language is not English. However, language is just a mean to an end (victory) and not the end itself in the context of video games. To conclude, it would be interesting if schools and teachers shifted the focus and used video games within the classroom with the intention of fostering learning and teaching processes of English as a second language; a practice that would motivate and engage students to learn in educational contexts with the help of something that it is already present in their realities (video games).

References

Abrams, S. S. (2009). Keeping an eye on the game: Video gaming, visual literacy and cultural identity. In *Third Global Conference: Visual Literacies, Oxford, England*.

- Adams, M. G. (2009). Engaging 21st-century adolescents: Video games in the reading classroom. *English Journal*, 98(6), 56-59.
- Alberti, J. (2008). The game of reading and writing: How video games reframe our understanding of literacy. *Computers and Composition*, 25(3), 258-269.
- Alexander, J. (2009). Gaming, student literacies, and the composition classroom: Some possibilities for transformation. *College Composition and Communication*, 61(1), 35-63.
- AlShaiji, O. A. (2015). Video games promote Saudi children's English vocabulary retention. *Education*, 136(2), 123-132.
- Barlow, J. P. (1996). A Declaration of the Independence of Cyberspace. *The Humanist*, 56(3), 18.
- Beauvois, M. H., & Eledge, J. (1995). Personality types and megabytes: Student attitudes toward computer mediated communication (CMC) in the language classroom. *CALICO Journal*, 13(2/3), 27-45.
- Beavis, C. (2014). Games as Text, Games as Action: Video Games in the English Classroom. *Journal of Adolescent & Adult Literacy*, 57(6), 433-439.
- Chen, X., Siau, K., & Nah, F. F. H. (2012). Empirical comparison of 3-D virtual world and face-to-face classroom for higher education. *Journal of Database Management (JDM)*, 23(3), 30-49.
- Dewey, J. (1903). Democracy in education. *The Elementary School Teacher*, 4(4), 193-204.
- Dewey, J. (1938). *Experience and education: The Kappa Delta Phi lecture series*. New York, NY: Kappa Delta Pi.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. Hachette UK.

- Gee, J. P. (2005). Learning by design: Good video games as learning machines. *E-learning and Digital Media*, 2(1), 5-16
- Gee, J. P. (2003). What video games have to teach us about learning and literacy. *Computers in Entertainment (CIE)*, 1(1), 20-20.
- Hernandez, M. & Castaño, S. (2015). Language-as-Victory. *LSP Micro-Papers*, 32.
Retrieved from <http://www.literaciesinl2project.org/uploads/3/8/9/7/38976989/lslp-micro-paper-32-language-as-victory.pdf>
- Herro, D. (2015). Sustainable innovations: Bringing digital media and emerging technologies to the classroom. *Theory into Practice*, 54(2), 117-127.
- Hewett, K. J. E. (2016). *The Minecraft project: Predictors for academic success and 21 st century skills gamers are learning through video game experiences* (Doctoral dissertation, Texas A&M University-Corpus Christi).
- Jenkins, H., Purushotma, R., Weigel, M., Clinton, K., & Robison, A. J. (2009). *Confronting the challenges of participatory culture: Media education for the 21st century*. MIT Press.
- Klastrup, L. (2003). *Towards a poetics of virtual worlds – Multi-user textuality and the emergence of story*. Copenhagen: IT University of Copenhagen.
- Klastrup, L., & Tosca, S. (2004, November). Transmedial worlds-rethinking cyberworld design. In *2004 International Conference on Cyberworlds*, 409-416.
- Kress, G. (2009). *Multimodality: A social semiotic approach to contemporary communication*. Routledge.
- Krzywinska, T. (2008). World creation and lore: World of Warcraft as rich text. *Digital culture, play, and identity: A World of Warcraft reader*, 123-141.

- Lacasa, P., Méndez, L., & Martínez, R. (2008). Bringing commercial games into the classroom. *Computers and Composition*, 25(3), 341-358.
- Langhoff, S., Cowan-Sharp, J., Dodson, E., Damer, B., Ketner, B., Minafra, J., & Reese, D. D. (2009). *Workshop Report on Virtual Worlds and Immersive Environments*. NASA Ames Research Center.
- López-Ladino, M. (2016). Storytelling. *LSLP Micro-Papers*, 42. Retrieved from <http://www.literaciesinl2project.org/uploads/3/8/9/7/38976989/lslp-micro-paper-42-storytelling.pdf>
- Mackey, M. (2003). At play on the borders of the diegetic: Story boundaries and narrative interpretation. *Journal of Literacy Research*, 35(1), 591–632.
- Mejía-Vélez, M. C. & Salazar Patiño, T. (2014). Multimodality. *LSLP Micro-Papers*, 4. Retrieved from <http://www.literaciesinl2project.org/uploads/3/8/9/7/38976989/lslp-micro-paper-4-multimodality.pdf>
- Mollan-Moscoco, M. (2017). Critical Media Literacy. *LSLP Micro-Papers*, 46. Retrieved from <http://www.literaciesinl2project.org/uploads/3/8/9/7/38976989/lslp-micro-paper-46-critical-media-literacy.pdf>
- Mora, R. A. (2017). Literacies in Second Languages. *LSLP Micro-Papers*, 45. Retrieved from <http://www.literaciesinl2project.org/uploads/3/8/9/7/38976989/lslp-micro-paper-45-literacies-in-second-languages.pdf>
- Mora, R. A., Castaño, S., Orrego, T. S., Hernandez, M., & Ramírez, D. (2016). Language-as-victory: a study of gaming literacy practices in second-language contexts. *INTED2016 Proceedings*, 2823-2831.

- National Education Association. (2012). *Preparing 21st century students for a global society: An educator's guide to the "Four Cs"*. Alexandria, VA: National Education Association.
- Pauschenwein, J., Goldgruber, E., & Sfiri, A. (2013). The Identification of the Potential of Game-based Learning in Vocational Education within the Context of the Project "Play the Learning Game". *International Journal of Emerging Technologies in Learning*, 8(1).
- Peterson, M. (2010). Massively multiplayer online role-playing games as arenas for second language learning. *Computer Assisted Language Learning*, 23(5), 429-439.
- Payne, J. S., & Whitney, P. J. (2002). Developing L2 oral proficiency through synchronous CMC: Output, working memory, and interlanguage development. *CALICO Journal* 20(1), 7-32.
- Pilgrim, J., Bledsoe, C., & Reily, S. (2012). New technologies in the classroom. *Delta Kappa Gamma Bulletin*, 78(4), 16-22.
- Prensky, M. (2001). Fun, play and games: What makes games engaging. *Digital Game-based Learning*, 5(1), 5-31.
- Prensky, M. (2003). Digital game-based learning. *Computers in Entertainment (CIE)*, 1(1), 21-21.
- Ramírez, S. & Gaviria, C. A. (2017). Identity in Video Games. *LSLP Micro-Papers*, 50.
- Retrieved from <http://www.literaciesinl2project.org/uploads/3/8/9/7/38976989/lslp-micro-paper-50-identity-in-video-games.pdf>

- Ramírez, S. (2017). Visual Literacy in Video Games. *LSLP Micro-Papers*, 49. Retrieved from <http://www.literaciesinl2project.org/uploads/3/8/9/7/38976989/lslp-micro-paper-49-visual-literacy-in-video-games.pdf>
- Ranker, J., & Mills, K. (2014). Games as Text, Games as Action Video Games in the English Classroom. *Journal of Adolescent & Adult Literacy*, 57(6), 440-443.
- Rankin, Y. A., McNeal, M., Shute, M. W., & Gooch, B. (2008, August). User centered game design: evaluating massive multiplayer online role-playing games for second language acquisition. In *Proceedings of the 2008 ACM SIGGRAPH symposium on Video games* (pp. 43-49). ACM.
- Ryan, M. L. (2001). *Narrative as virtual reality: Immersion and interactivity in literature and electronic media*. Johns Hopkins University Press.
- Sardone, N. B., & Devlin-Scherer, R. (2010). Teacher candidate responses to digital games: 21st-century skills development. *Journal of Research on Technology in Education*, 42(4), 409-425.
- Serafini, F. (2017). Visual literacy. *Oxford Research Encyclopedia of Education, Curriculum and Pedagogy*. Retrieved from <http://education.oxfordre.com/view/10.1093/acrefore/9780190264093.001.0001/acrefore-9780190264093-e-19>
- Simons, J. (2007). Narrative, games, and theory. *Game studies*, 7(1), 1-21.
- Squire, K. (2005). Changing the game: What happens when video games enter the classroom? *Innovate: Journal of online education*, 1(6), 5.
- Steinkuehler, C. (2007). Massively multiplayer online gaming as a constellation of literacy practices. *E-learning and Digital Media*, 4(3), 297-318.

- Tajfel, H. (1974). Social identity and intergroup behaviour. *Information (International Social Science Council)*, 13(2), 65-93.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup Behavior. *Psychology of intergroup relations*, 7-24.
- The New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard educational review*, 66(1), 60-93.
- Thomas, D., & Brown, J. S. (2009). Why virtual worlds can matter. *International Journal of Logistics Management*, 1(1), 37-49.
- Thorne, S. L., Black, R. W., & Sykes, J. M. (2009). Second language use, socialization, and learning in Internet interest communities and online gaming. *The modern language journal*, 93(s1), 802-821.
- Vygotsky, L. S. (1980). *Mind in society: The development of higher psychological processes*. Harvard university press.
- White, A. (2016). Effective use of Technologies in the Classroom. *Journal of Initial Teacher Inquiry*, 2, 32.
- Wolf, M. J., & Perron, B. (2004). The video game theory reader. *Computing Reviews*, 45(12), 781.