SOCIAL SCIENCES & HUMANITIES

Review Article

Massively Multiplayer Online Role Playing Game (MMORPG): An Alternative Medium in English Language Teaching (ELT)

Mohammad Romdhoni Prakoso*, Ngadiso and Sumardi

English Education, Sebelas Maret University, Jl. Ir. Sutami No. 36 A, Surakarta, (0271) 646994, Indonesia

ABSTRACT

Nowadays, students are no longer regarded as cyber immigrants, instead they are cyber natives who deserve technological use in many fields of study including learning English. In other words, the use of technological media is obligatory for English teachers. One of the newest, though not the most popular, forms of media applied in ELT is video game. Commonly, video game used in ELT is the offline ones, yet, today, online learning is also encouraged. Hence, MMORPG (Massively Multiplayer Online Role Playing Game) is seen as a promising medium to facilitate students in learning English online. In this plenary paper, the researchers conduct literature review of a fair amount of research about the implementation of MMORPG in ELT. The aims of this paper are to identify: (1) the advantages and disadvantages of MMORPG; (2) the procedures in implementing MMORPG; and (3) the obstacles in the implementation of MMORPG in ELT.

Keywords: ELT, MMORPG, technology

INTRODUCTION

Video game is a new form of popular culture which has potential in the future in the term of how it is used in diverse contexts (Gee, 2007). Video game itself is defined as a game played with the medium of computer or gaming consoles that uses some types of video output (Calvillo-Gámez, Cairns, & Cox, 2010). Video game offers free engagement of the players to result

in outcome through some competitions either with the other players or just by him/herself (Juul, 2005), with the main purpose to get some pleasure (Calvillo-Gámez, 2009). Furthermore, video game is defined as a game with interactive experiences which put focus on the gameplay (Lee, Karlova, Clarke, & Thornton, 2014) and the environment (Calvillo-Gámez et al., 2010).

The popularity of video game raises the attention and awareness of English teachers to research on the effects and implementation of video game as teaching and learning medium in ELT (deHaan, 2011). The effects of video game, either positive or negative (Alshawi, 2016; Melorose, Perroy, & Careas, 2015; Prot, Anderson, Gentile, Brown, & Swing, 2014) on the players as learners, is a very popular variable to be researched on. In implementing video game in the classroom, many researchers have used several genres of video game: music video game (deHaan, 2011), mobile video game (Whittaker, 2013), edutainment video game (Wallden & Soronen, 2004), and other genres. All of the stated genres of video games are commercial video games and offline; however, Lynch (2004) encourages learners to learn online since online learning provides a lot of benefits. Therefore, as an alternative genre of video game, massively multiplayer online role-playing game (MMORPG) can be implemented in ELT.

Massively multiplayer online role-playing game (MMORPG) is an online game genre developed to connect and engage many users (Reinders, 2009), in the form of avatars (characters inside a game), to interact both with the artificial world, as well as the other players as if they live in the real life. The interaction in MMORPG is repetitive and it allows each player to communicate and exchange information in a particular language, mostly English, (Bryant, 2007; Kongmee, Strachan, Montgomery, & Manninen, 2003; Pickard, 2010) and shape what is called as "affinity space" (Gee, 2003), in which the communal interest is able to create such an open and tolerant collaborative environment by fading away the interpersonal and inter-cultural barriers among the players (Godwin-Jones, 2014), yet at the same time they were exposed to cultural knowledge (Zheng, Newgarden, & Young, 2012). The immense communication in MMORPG is seen as an ideal setting to learn and practice English (Bryant, 2007; Crystal, 2001).

The artificial world inside MMORPG is what Kolbert (2001) called as "escapist fantasy", in which the players could escape themselves from the real world into a fun and mesmerising fantasy life; however, at the same time, MMORPG is regarded as a "social realism" (Kolbert, 2001). Similar to the single-player game, this genre also focuses on players carrying out quests with distinguishable goals. However, the most distinguishable factor differ from a single player video game is on the collaboration among users to accomplish a goal (Achterbosch, Pierce, & Simmons, 2008; Kongmee et al., 2010). Kongmee et al. (2010) added that within MMORPG, players are not only to accomplish a variety of quests and raise the individual level,

but they are also required to participate in teams or guilds to finish several missions. Thus, the players need to cooperate well with the other players, as well as exchange information among them.

MMORPG has a significant role in affecting the learners' language learning. Based on Alqahtani's (2016) research, the game played in an MMORPG requires good awareness and active intelligence of the players. These requirements occasional improvement of the players' problem solving skill, imagination, and collaborative relationships (Peterson, 2012a). Furthermore, playing an MMORPG ensues the development of memory and speed thinking, planning skill, and initiative sense. Kongmee et al. (2012) found that MMORPG has successfully incorporated the students in a teamwork to do their assignments since their motivation rose and attitude changed. However, Gentile (2009, 2011) found that once the students started to spend a lot of time playing video games, they would find themselves addicted. Peterson (2012a), through the use of "NineRift", found that the learners actively involved in playing the MMORPG and they could use diverse types of interactional strategies. However, instead of shaping empathy, this interaction has to be monitored well since based on Kallunki's (2016) survey, MMORPG often contains informal, impolite, and harsh words (Thorne, Black, & Sykes, 2009) which are called "toxic language" or "trash language" which relate to negative social activities (Godwin-Jones, 2014).

Linguistically, MMORPG roles well in affecting the learners' English skills (Suh, Kim, & Kim, 2010). In this research, modified MMORPG is used. There are several stages the students were required to complete. Each unit contains different activities, such as reading stories, watching animations, and completing quizzes. Every stage aims the students to practice listening, reading, writing, and speaking skills by competing each other, either one on one or group to group. After each game, the students are provided with an instant feedback including answer confirmation, a tally of correct answers, and commentary on incorrect answers, which allow the learners to recognise their level of achievement. It was found that the students who learned using MMORPG would eventually show higher scores in listening, speaking, reading, and writing than those who studied in a traditional classroom setting. First of all, video game maintains the players' interest in learning English and it provides implicit learning similar to how the children learn which is effective for second and foreign language learning (Singhal & Rogers, 2002; Slater, 2002). Based on Peterson's (2012a) research, the communication system of MMORPG, both through written and oral communication, decreases the players' anxiety raises the players' risk-taking in using language at the same time. In playing any video game, the students are to deduce certain words by looking at the context and cotext (Alshawi, 2016; Godwin-Jones, 2014), while video game

provides vocabulary retention instead of memorisation (Alshawi, 2016). Based on the research by Rankin, Gold, and Gooch (2006), online game demonstrates improvement of the players' confidence, while giving them exposure to spoken language at the same time. Reinders (2009) stated that videogame offers a lot of potential to motivate students to write a wide range of text types since it provides an extensive amount of texts to be read (Purnomo, 2015). In addition, Kallunki's (2016) survey results showed that MMORPG is effective in teaching the students grammar and punctuation as the school supplement. He also added that reading a quest-text is far more interesting than in the classroom.

Based on the expounding about the nature of MMORPG and review of related literature above, MMORPG is seen as a promising tool to be implemented in teaching and learning language. However, there are several considerations the teacher should take into account before implementing MMORPG in ELT: (1) What are the advantages and disadvantage of MMORPG? (2) How should MMORPG be implemented? (3) What are the difficulties encountered in using MMORPG?

The Advantages and Disadvantages of MMORPG

According to Delwiche (2006), in the 1980s, the studies on video games were always related to the hazardous effects of video game toward the players' 'body and soul'. Video game was mostly regarded as a threatening machine with addictive effects.

As a result, the studies were used to warn people to avoid this machine. Delwiche (2006) then added that in the recent years, fortunately, studies on video game have begun to emphasise on the positive effects of video game including its educational benefits.

The advantages of MMORPG use in the English classroom are mainly derived from the nature of MMORPG that are fun and interactive, as well as rich in linguistic knowledge (Zheng et al., 2012). First of all, the students are the centre of the teaching and learning processes; they are the players, and the ones who do the interactions (Prensky, 2001; Suh et al., 2010). This opportunity enables the students to fully engage in the linguistics richness and cognitively challenging environments of MMORPG (Sylvén & Sundqvist, 2012). MMORPG, with its specially designed environments, characteristics, and features, increases the learners' motivation and confidence, lessens their anxiety, creates relaxed and low stress atmosphere to use the language (Gee, 2003; Reinders & Watana, 2015); thus, the engagement of the students becomes greater. Other factors that increases learners' engagement are their psychological needs and wants to identify themselves through their avatars by virtualising and constumising it, and construct their own second life as they please (Bers 2001; Lee & Hoadley 2007). In addition, according to Krashen's notion of language acquisition, the lower the barrier, the higher the input the students could get. In other words, MMORPG can enhance the

students' language acquisition. MMORPG, at certain degree, requires the players' critical thinking to solve the problems which usually is done in a short period of time. As the nature of MMORPG which is repetitive, the students will use their critical thinking constantly, and hence MMORPG increases the students' critical thinking and problem solving skills. At a certain degree, MMORPG also improves the students' leadership skills (Bonk & Dennen, 2005; Childress & Braswell, 2006).

MMORPG provides the learners with opportunities to learn and use the language. The players also engage in a diverse forms of interaction, whether it is direct or indirect. In other words, MMORPG also improves the students' pragmatic competence. Moreover, if the students play game with the native speakers, they will soon find their communicative competence increases (Reinders & Watana, 2015). MMORPG, with a certain complexity, also supports the cognitive processing and the development of strategic skills (Mitchell & Savill-Smith, 2004). The repetitive trait of MMORPG should be taken into account because it provides the students with overlearning which will lead to the automatisation and consolidation of knowledge and skills in the memory. Hence, the students can focus on understanding and practising the new knowledge and skills (Gentile & Gentile, 2008) as the nature of MMORPG is well-sequenced in levels of increasing difficulty, complexity, or pace (Paraskeva, Mysirlaki, & Papagiann, 2010). Finally, MMORPG gives an instant feedback to the players'

decision, action, and experimentation (Dickey, 2005), by which the students can instantly notice their errors and mistakes and revise them instantly without any fear due to the fact that MMORPG is accessed in a distance and with no face-to-face interaction (Gee, 2003).

In addition, the interaction will not just end as the players stop to play, for they will discuss and once again interact to the other players or communities outside the game regarding the game they play on. They usually share their problems and solutions with the other players, negotiate to make an arrangement inside the game, and other forms of social interaction in a worldwide online forum (Gee, 2003). Some gamers even create and consume game-related texts outside their playing such as tutorials, video game guide (walkthrough), fan fiction, and fan art (Chik, 2014) which are termed by (Apperley & Walsh, 2012; Consalvo, 2007) as "paratexts" or "attendant discourse" (Sykes & Reinhardt, 2013). As a result, the gamers can gain literacy experience since these kinds of texts are rich in the lexical items use and structures, and are of many genres, and practical for learning and practicing English, other than being imaginative and creative (Gee & Hayes, 2011).

Video game researchers are usually gamers who gain a lot of benefits from their play, especially in learning a language. In other words, the researchers may possess subjectivity in conducting the research for they believe that video game is an absolutely effective learning tool for learning language.

Although at certain degree, subjectivity can be used to draw the researcher's inner experience by which the researcher can understand better the subject they research on (Schneider, 1999), controlling the researcher's subjectivity is clearly needed (Gilbert, 1998).

In order to control the researcher's subjectivity, video game researchers should at least understand the disadvantages of video game in ELT. Playing games in a classroom is not suitable for those who do not put interest in it (Eskelinen, 2012) and may fill the classroom a great noise (Talak-Kyrik, 2010). Once the players get overused in playing video game, it can consume their time to work individually. At certain degree, the use of video game in ELT results in an atmosphere that it is not a real learning for video game takes away much the concentration of the students. In more specific, the students tend to concentrate more on the gaming progress rather than on the learning progress (Reinders, 2009). MMORPG may also make the students do not concentrate on a more serious matter like exams. Additionally, video game will be not effective anymore when the students feel bored with the game play (Palanova, 2010).

Specifically, video game also influences players toward learning English in many ways. The effectiveness of video game in making the players learn English is still difficult to measure since it happens in such unconscious condition (Alshawi, 2016; Eskelinen, 2012). Video game also gives influences in a deeper part of learning language. Based on Eskelinen's research, video game contains a great number of video-game-based vocabularies. Moreover, the content of a video game is often in the form of informal language which may bring bad social communication (Thorne et al., 2009). The vast number of texts included in video game often makes the players exhausted and frustrated instead of making it effective for the players to learn (Eskelinen, 2012). Table 1 below summarises the advantages and disadvantages of MMORPG:

Table 1
Advantages and Disadvantages of MMORPG

Advantages	Disadvantages
Student-centred learning	Noisy learning
Enhancing motivation and confidence	Waste of time
Improving language acquisition	Not a real learning
Shaping critical-thinking and problem-solving skill	Disregarding serious educational-matter
Sharpening leadership skill	Hard to measure
Providing a real-life context to learn and practice language	Containing *toxic language*
Automatizing knowledge and skill through repetitive learning and practice	Resulting bad social communication
Giving instant feedback	Containing exhausting and frustrating texts
Triggering extra learning through *paratexts*	

The Procedure of MMORPG Implementation

Based on the aforementioned research, the procedure to implement MMORPG inside the classroom is not clearly stated yet. According to Felicia (2011), conducting a video game requires three phases: briefing, playing, and debriefing.

Briefing. Before the implementation of video game, in this context is MMORPG; the teacher should make a clear learning objective and purpose (Talak-Kyrik, 2010), an apt game should be chosen based on the students' level and characteristics (whether they are old or young, serious-minded or light-hearted, and highly motivated to learn or not), the teacher should make apt activities and materials. The teacher should know the appropriate time to implement the game, and teachers need to link them up with the syllabus and text book (Musbalat, 2012).

Playing. In this phase, the teacher has to explain all the necessary procedures and rules clearly and slowly (Talak-Kyrik, 2010); the teacher should gain students' attention (e.g., cut scenes, music, or character speech), assign students into teams (Talak-Kyrik, 2010), and while the students play the game and the teacher monitors using a tool called *Elephant* which can save chat logs and record other game information (Godwin-Jones, 2014); when the teacher facilitates the students, guidance should be provided to thems (e.g., cut-scenes, NPC speech, hint books, cheats and walkthrough), and the teacher should be consistent. If necessary, use a timer to make sure that everyone has the same amount of time to answer (Talak-Kyrik, 2010) a list of questions that students will need to answer using the information provided in the game; all standard classroom rules and procedures should be observed when playing games (Talak-Kyrik, 2010).

Classroom Activity. Albeit the fact that gaming is a part of learning constellation (Sykes, Osko, & Thorne, 2008), if it is implemented inside the classroom, certain activities have to be chosen in order to raise the effectiveness of the MMORPG. Hence, teacher should incorporate face-to-face teaching and learning and online media through blended learning (Gleason, 2013). Sykes (2013) suggests creating "wrap-around" activities for a game such as oral or written report on gaming experience, discussion based on the game either in certain theme or in general, journaling, quizzes or exercises based on game terminologies or vocabularies, or skits based on characters.

If teacher desires deeper and/or more effective learning, one (if it is allowed by the game developer) can modify or extend an MMORPG (Godwin-Jones, 2014) for a particular linguistics purpose. The modification can be done in both *gameplay* elements, such as creating additional tools to the game, writing all-new scenarios, providing more detailed feedback, adding chat log, or creating new items (Calvillo-Gámez et al., 2010; Mitchell & Savill-Smith, 2004; Prensky, 2001), and

environment elements such as adding voice chat, modifying the voice recordings and sound effects, lip-syncing, and creating 3D animation (Calvillo-Gámez et al., 2010), with either extensive professional help or individually by game-authoring template or tool (Godwin-Jones, 2014).

Debriefing. Debriefing is the post-activity in the implementation of video game which is as essential as the main activity. In this phase, a connection should be made between the curriculum and the game after play, the teacher provides feedback, and assessment should be conducted after play. Assessment can be done, as suggested by Collentine (2011), with video recording of game players or eye-tracking methods. However, this method is time-consuming (Godwin-Jones, 2014).
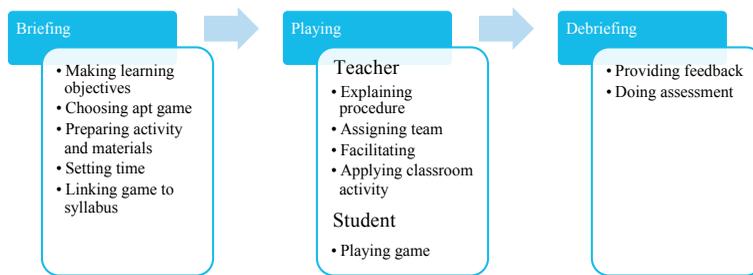

Figure 1. Three Phases in Implementing MMORPG in Classroom

MMORPG Implementation Obstacles

Despite the effectiveness of video game and MMORPG in the classroom, the teachers have to take into account the obstacles that may make the ELT fail. There are several obstacles involved in using video game in the classroom (Wastiau, Kearnet, & Van den Berghe, 2009):

Cost. Video game is often expensive.

Play Time. An MMORPG requires a great amount of play time which is hard for the teachers to adjust the play time based on the school timetable.

Exclusivity. Most of the MMORPGs are not specially developed to be used for educational purpose (Kirriemuir & McFarlane, 2003) as most of them are used for commercial purposes. Since MMORPG is not exclusively designed for teaching and learning language, it contains a lot of inappropriate contents.

Assumption. Some other teachers still regard MMORPG as a video game that is a hazardous machine that can spread "mischief" for the students.

Credibility. Not many talk about the use of video game yet (Campos, de Oliveira & Brawerman-Albini, 2013). Consequently, some people still doubt the credibility of its use.

Hard to Master. Teachers spend more time in mastering MMORPG (Kirriemuir & McFarlane, 2003).

Hard to Assess. Teaching and learning with MMORPG is too complex.

Technical Problems. Technological tools require complex interrelated utilities.

Although there are many researchers who have found the obstacles of video game implementation in ELT, no researchers have conducted studies to solve the aforementioned obstacles.

CONCLUSION

This library research was conducted to inspire English teachers about an alternative medium they could use in their English language teaching in order to grasp modernity, adapt with cyber native students, as well as create a good and effective ELT class. This medium is termed massively multiplayer online role-playing game (MMORPG), which is part of broad teaching and learning media called video games. Here, MMORPG is termed as *alternative* since it is not too good and not too bad medium, yet it has applicability in ELT. In other words, MMORPG has so many advantages as well as disadvantages which require teacher to apply it wisely as otherwise, the class may become ineffective. Most of the advantages and disadvantages of MMORPG are derived from the fun nature of MMORPG. It can make the players learn and practice English on their own in a real-life context and in a motivating atmosphere,

in which the players can acquire language better. However, the fun factor of MMORPG also makes the learners addicted, which will further trigger them to imitate anything in the game including the toxic languages used. This will eventually result in bad social communication. Hence, one of the wisest choices teachers can opt for is to follow a certain procedure which comprises of briefing, playing, and debriefing.

Briefing process requires the teacher to make preparation before the students play the MMORPG in the playing process. In the playing process, the students also do the classroom activities that had been designed by the teacher based on the MMORPG played. Afterwards, in the debriefing process, the teacher provides feedback for the students and assesses them. However, the teacher needs to overcome the obstacles in implementing MMORPG in ELT in order to maximise its effectiveness.

Finally, this literature review can be used for other researchers to find the gaps in the previous studies in relation to the use of MMORPG in ELT. First of all, a comparison between the effectiveness of video game and other teaching and learning media is needed for teachers to determine the effective of MMORPG. Psychologically, in relation to MMORPG, researchers can study to what extent the subjectivity affects their research. Pedagogically, the effectiveness of ELT methods that can be implemented together with MMORPG is still unclear. Finally, the obstacles found by other researchers are still left unsolved, and this opens up a big opportunity for any researcher to seek

for the best solutions and maximise the implementation of MMORPG in ELT.

REFERENCES

Achterbosch, L., Pierce, R., & Simmons, G. (2008). Massively multiplayer online role-playing games: The past, present, and future. *Computers in Entertainment, 5*(4), 1-33. doi: 10.1145/1324198.1324207

Alqahtani, S. S. (2016). Saudi EFL students' attitudes towards communicating in English while immersed in virtual platforms. *Arab World English Journal (AWEJ), 7*(4), 329-349.

Alshawi, W. (2016). *Using video games to increase motivation of Saudi students learning English* (Unpublished doctoral dissertation, Wayne State University). Retrieved from https://search.proquest.com/docview

Apperley, T., & Walsh, C. (2012). What digital games and literacy have in common: A heuristic for understanding pupils' gaming literacy. *Literacy, 46*(3), 1-8. Retrieved from http://web.b.ebscohost.com.libproxy.unm.edu/ehost

Bers, M. V. (2001). Identity construction environments: developing personal and moral values through the design of a virtual city. *Journal of the Learning Sciences, 10*(4), 365–415. doi: 10.1207/S15327809JLS1004new_1

Bonk, C. & Dennen, V. (2005 March). Massive multiplayer online gaming: A research framework for military training and education (Technical Report No. 2005-1). Retrieved from http://web.science.mq.edu.au/~isvr/Documents/pdf%20files/game-master/GameReport_Bonk_final.pdf

Bryant, T. (2007). Games as an ideal learning environment. *Nitle Transformations, 1*(2). 1-8.

Calvillo-Gámez, E. (2009 August). On the core elements of the experience of playing video games. *Measurement*, 1-208.

Calvillo-Gámez, E. H., Cairns, P., & Cox, A. L. (2010). *Evaluating user experience in games, human-computer interaction series*. London: Springer-Verlag.

Campos, M. S. F., de Oliveira, K. S., & Brawerman-Albini, A. (2013). The use of video games in the teaching-learning process of English as a foreign language. *International Conference on Interactive Computer Aided Blended Learning*, 218-233.

Chik, A. (2014). Digital gaming and language learning: autonomy and community. *Language Learning and Technology, 18*(182), 85-100. Retrieved from http://llt.msu.edu/issues/june2014/chik.pdf

Childress, M.D. & Braswell, R. (2006). Using massively multiplayer online role-playing games for online learning. *Distance Education, 27*(2), 187–196. doi: 10.1080/01587910600789522

Collentine, K. (2011). Learner autonomy in a task-based 3D world and production. *Language Learning and Technology, 15*(3), 50-67.

Consalvo, M. (2007). *Cheating: Gaining advantage in video games.* Cambridge, MA: MIT Press.

Crystal, D. (2001). *Language and the internet*. Cambridge: Cambridge University Press.

deHaan, J. (2011). Teaching and learning English through digital game projects. *Digital Culture and Education, 3*(1), 46-55.

Delwiche, A. (2006). Massively multiplayer online games (MMOs) in the new media classroom. *Educational Technology and Society, 9*(3), 160-172. doi: 10.1093/cvr/cvn266

Dickey, M. D. (2005). Engaging by design: How engagement strategies in popular computer and video games and inform instructional design. *Educational Technology Research and Development, 53*(2), 67–83. doi: 10.1007/BF02504866

Eskelinen, S. (2012). *Applying video games in language learning and teaching the learner perspective: A case study*, master's thesis, University of Jyväskylä, English.

Felicia, P. (2011). *Digital games in schools: A handbook for teachers*. Belgium: EUN Partnership AISBL.

Gee, J. P. (2003). What video games have to teach us about learning and literacy. *Journal of Chemical Information and Modeling, 53*(9), 1689-1699. doi: 10.1017/CBO9781107415324.004

Gee, J. P., & Hayes, E. R. (2011). *Language and learning in the digital age*. London, UK: Routledge.

Gentile, D. (2009). Pathological video game use among youth 8 to 18: A national study. *Psychological Science, 2*, 594-602. doi: 10.1111/j.1467-9280.2009.02340.x

Gentile, D. (2011). The multiple dimensions of video game effects. *Medical News Today, 5*(2), 75-81. doi: 10.1111/j.1750-8606.2011.00159.x

Gentile, D., & Gentile, J. (2008). Violent games as exemplary teachers: A conceptual analysis. *Journal of Youth and Adolescence, 37*(2), 127-141. doi: 10.1007/s10964-007-9206-2

Gilbert, S. (1998). L'idéal de l'objectivité et objectivité idéale. *Revue de l'association pour la recherche qualitative, 18*, 43-170.

Gleason, J. (2013). Dillemas of blended language learning. *CALICO Journal, 30*(3), 323-341. doi: 10.11139/cj.30.3.323-341

Godwin-Jones, R. (2014). Games in language learning: opportunities and challenges. *Language Learning and Technology, 18*(2), 9-19. Retrieved from http://llt.msu.edu/issues/june2014/emerging.pdf

Juul, J. (2005). *Half–Real: Video games between real rules and fictional worlds*. Cambridge, MA: MIT Press.

Kallunki, K. (2016). *Learning English in world of warcraft: Perspectives from the players* (Unpiblished master's thesis, University of Oulu).

Kirriemuir, J. K. & McFarlane, A. (2003). Use of computer and video games in the classroom. *Proceedings of the Level up Digital Games Research Conference*, Universiteit Utrecht, Netherlands. Retrieved from http://www.silversprite.com/

Kolbert, E. (2001, May 28). *Pimps and dragons*. New York.

Kongmee, I., Strachan, R., Montgomery, C., & Pickard, A. (2010 June). Using massively multiplayer online role playing games (mmorpgs) to support second language learning: Action research in the real and virtual world. *International Virtual Environments Research Group (iVERG)*, 1-11.

Lee, J. H., Karlova, N., Clarke, R. I., Thornton, K., & Perti, A. (2014). Facet analysis of video game genres. *iConference*, 125-139. doi: 10.9776/14057

Lee J. & Hoadley C. (2007). Leveraging identity to make learning fun: Possible selves and experiential learning in massively multiplayer online games (MMOGs). *Innovate: Journal of Online Education, 3*(6), 9.

Lynch, M. M. (2004). *Learning online: A guide to success in the virtual classroom*. New York: Routledge Falmer.

Manninen, T. (2003). Interaction forms and communicative actions in multiplayer games. In game studies. *The International Journal of Computer Game Research, 3*(1), 5–10.

Melorose, J., Perroy, R., & Careas, S. (2015). Adolescent decision making and the prevention of underage smoking. *Statewide Agricultural Land Use Baseline 2015, 1*, 1-98.

Mitchell, A., & Savill-Smith, C. (2004). *The use of computer and video games for learning: A review of the literature.* London: M Learning.

Palanova, K. (2010). *Use of games in English language teaching* (Unpublished bachelor's thesis, Masaryk University, Brno).

Paraskeva, F., Mysirlaki, S., & Papagianni, A. (2010). Multiplayer online games as educational tools: Facing new challenges in learning. *Computers and Education, 54*(2), 498–505. doi: 10.1016/j.compedu.2009.09.001

Peterson, M. (2012a). Learner interaction in a massively multiplayer online role playing game (MMORPG): A sociocultural discourse analysis. *ReCALL, 24*(3), 361–380. doi: 10.1017/S0958344012000195

Peterson, M. (2012b). Language learner interaction in a massively multiplayer online role-playing games. In H. Reinders (Ed.), *Digital games in language learning and teaching* (pp. 70–92). Basingstoke: Palgrave Macmillan.

Prensky, M. (2001). *Digital game-based learning*. New York: McGraw-Hill.

Prot, S., Anderson, C. A., Gentile, D. A., Brown, S. C., & Swing, E. L. (2014). The positive and negative effects of video game play. *Media and the Well-being of Children and Adolescents*, 109-128.

Purnomo, S. F. L. A. (2015). *Edu-games X edutainment games: The designs.* Sukoharjo: Fataba Press.

Rankin, Y., Gold, R., & Gooch, B. (2006). Evaluating interactive gaming as a language learning tool. *ACM SIGGRAPH 2006 Educators Program*, 1-6. doi: 10.1145/1179295.1179340

Reinders, H. (2009). Game on! Using computer games to teach writing. *English Teaching Professional, 63*, 56-58.

Reinders, H., & Wattana, S. (2015). Affect and willingness to communicate in digital game-based learning. *ReCALL, 27*(1), 38–57. doi: 10.1017/S0958344014000226

Schneider, K. J. (1999). Multiple-case depth research. *Journal of Clinical Psychology, 55*(12), 1531-1540. doi: 10.1002/(SICI)1097-4679(199912)55:12<1531::AID-JCLP10>3.0.CO;2-F

Singhal, A., & Rogers, E. M. (2002). A theoretical agenda for entertainment–education. *Communication Theory, 2*,117–135. doi: 10.1111/j.1468-2885.2002.tb00262.x

Slater, M. (2002). Entertainment education and the persuasive impact of narratives. *Communication Theory, 12*(2), 173-191. doi: 10.1111/j.1468-2885.2002.tb00265.x

Suh, S., Kim, S.W., & Kim, N. J. (2010). Effectiveness of MMORPG-based instruction in elementary English education in Korea. *Journal of Computer Assisted Learning, 26*(5), 370–378. doi: 10.1111/j.1365-2729.2010.00353.x

Sykes, J. (2013), Technology – "Just" playing games? A look at the use of digital games for language learning. *The Language Educator*, 32-35. Retrieved from https://www.actfl.org/sites/default/files/pdfs/TLE_pdf/TLE_Oct13_Article.pdf

Sykes, J., & Reinhardt, J. (2013). *Language at play: Digital games in second and foreign language teaching and learning.* Boston, MA: Pearson.

Sykes, J., Oskoz, A. & Thorne, S. (2008). Web 2.0, synthetic immersive environments, and mobile resources for language education. *CALICO Journal 25*(3), 528-546.

Sylvén, L. K. & Sundqvist, P. (2012). Gaming as extramural English L2 learning and L2 proficiency among young learners. *ReCALL, 24*(3), 302–321.

Talak-Kiryk, A. (2010). Using games in a foreign language classroom. *MA TESOL Collection, 1*(1), 53. Retrieved from http://digitalcollections.sit.edu/ipp_collection

Thorne, S., Black, R. & Sykes, J. (2009). Second language use, socialization, and learning in internet interest communities and online gaming. *Modern Language Journal, 93*, 802–821. doi: 10.1111/j.1540-4781.2009.00974.x

Wallden S., & Soronen A. (2004 May). Edutainment from television and computers to digital television. *University of Tampere Hypermedia Laboratory.*

Wastiau, P., Kearney, C. & Van den Berghe, W. (2009). *Synthesis report: How are digital games used in schools?* Belgium: EUN Partnership AISBL.

Whittaker, S. (2013 December). Educational use of video games in the ESL classroom. *UAE Journal of Educational Technology and Learning*, 6-15. Retrieved from http://ejournal.hct.ac.ae/wp-content/uploads/2013_Article01.pdf

Zheng, D., Newgarden, K. & Young, M. (2012). Multimodal analysis of language learning in World of Warcraft play: Languaging as values-realizing. *ReCALL, 24*(3), 339–360.