

Joint Conference: 20th PCSF and 12th CSIS-2020
20th conference Professional Culture of the Specialist of the Future
12th conference Communicative Strategies of Information Society

**USING EDUCATIONAL AND NON-EDUCATIONAL VIDEO
GAMES AT ENGLISH LESSONS**

Ivan S. Samokhin (a)*, Natalia L. Sokolova (b), Irina V. Dzhidzhavadze (c), Margarita V. Myltseva (d)

*Corresponding author

(a) Institute of Foreign Languages of Peoples' Friendship University of Russia (RUDN University), Miklukho-Maklaya Street, 7, Moscow, Russia, samokhin_is@rudn.university

(b) Institute of Foreign Languages of Peoples' Friendship University of Russia (RUDN University), Miklukho-Maklaya Street, 7, Moscow, Russia, sokolova-nl@rudn.university

(c) Institute of Foreign Languages of Peoples' Friendship University of Russia (RUDN University), Miklukho-Maklaya Street, 7, Moscow, Russia, dzhidzhavadze_iv@rudn.university

(d) Institute of Foreign Languages of Peoples' Friendship University of Russia (RUDN University), Miklukho-Maklaya Street, 7, Moscow, Russia, myltseva-mv@rudn.university

Abstract

The paper considers a relatively new type of polycode texts – computer games, the study of which seems not less relevant due to their high popularity among students and the active use of game methods and techniques in modern teaching practice. Along with films and songs, computer games form the content of the Polycode methodological complex, developed by Samokhin for use at English classes. Within this complex, the games are intended not so much for teaching and assessing knowledge as for methodological diversity and encouraging students at the end of a successful term or academic year. The authors proceed with classifying all video games used in the educational process into two large groups: educational and non-educational. The second group forms the basis of the proposed video game methodology, since these games are characterized by the dominance of the entertainment component over the educational one. However, an educator should consider their potential ineffectiveness in teaching grammar and the highly possible presence of violence, pornography, “toilet” humour and other factors incompatible with the requirements of pedagogical ethics. The authors advise English teachers to use video games not more than twice a year, which is due not only to the objective specifics of these programmes, but also to the peculiarities of their perception by the representatives of the older generation – parents and grandparents of today’s students.

2357-1330 © 2020 Published by European Publisher.

Keywords: Classification, computer games, entertainment, the English language, video games.



This is an Open Access article distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

1. Introduction

The multicode (creolized, compound) text is a connected and complete sequence of symbols consisting of two parts: verbal and non-verbal, i.e. belonging to any sign system, which is not a natural language (Anisimova, 2013; Sorokin & Tarasov, 1990). In this article we will pay attention to a relatively new type of polycode texts – computer games, the study of which seems not less relevant due to their high popularity among students and the active use of game methods and techniques in modern teaching practice. Along with films and songs, computer games form the content of the Polycode methodological complex, developed by our first author I.S. Samokhin for use at English classes (Samokhin et al., 2018; Samokhin et al., 2019).

Many works indicate the significant impact of computer games on the motivational sphere, the pleasure received from such methods by school and university students (Boryakova & Shtayura, 2015; Bylieva et al., 2018, Bylieva & Sastre, 2018; Franciosi, 2011; Kareva, 2010; Talan et al., 2020; Yevtyugina & Khusainova, 2018; Zaydullina & Koptyukh, 2017). Boryakova and Shtayura (2015) even make a digression on physiology, talking about endorphins (“hormones of happiness”), secreted by the brain in the process of game activity. It seems that a voyage through virtual reality can provide a young person with much more joy than listening to songs and watching video materials. This is probably due to the active nature of any game activity, continuous sense of co-creation, personal contribution (Juul, 2005; Kareva, 2010). A film watcher can interpret the content in different ways, but he/she is not able to change the plot, while a gamer is the master of the protagonist’s fate (within the limits provided by the developers).

There is a widespread opinion about the unpopularity of computer games among the female audience, which probably keeps many educators from using these polycode texts in the classroom. However, the reality does not provide for skepticism in this context. Girls were quite indifferent to video games in the early 80s (Kaplan, 1983), but then their interest in such pastime steadily increased (Grundberg & Hansegard, 2014). Nowadays the “gentle gender” is about half of gamers (people involved in the regular active consumption of video game products). This is probably due to the development of genres and subgenres that are not related to violence and pay increased attention to the plot, the relationship between the characters and the study of the surrounding space (Kelly, 2007; Yee, 2016).

Many of these quests, simulation games, RPG (role-playing games) and even some strategies are quite consistent with the above-mentioned criteria and based on the English language. Sulgina and Vyukhina (2016) note that role-playing games use a large number of words denoting personal qualities (“strength”, “willpower”, “dexterity”, etc.), while strategies commonly resort to such words as “diplomacy”, “resources” and “unit”. In some quests you can see or hear the name of an object or phenomenon by simply “clicking” on it with a cursor, which allows remembering a variety of nouns – from “a table” and “a lamp” to “a nebula” and “a constellation”. Simulation games tend to include special vocabulary, linked to certain spheres: construction, medicine, sports, cooking, etc. Therefore, the mentioned genres can be considered the most promising when teaching English. The authors of the article recommend not to use games with a lot of cruelty and / or poor intellectual and linguistic content: shooters, slashers, fighting games, etc. The application of such products at the lesson contradicts not only the above-listed criteria, but also the entire pedagogical ethics (and possibly the current legislation).

2. Problem Statement

The “hedonistic” function of computer games is regarded as the main one. Within the Polycode complex they are intended not so much for teaching and assessing knowledge as for methodological diversity and encouraging students at the end of a successful term or academic year. Therefore, we do not attach much importance to the competitiveness factor, which is mentioned in some works related to the topic of our study (Galkin, 2007; Vorderer et al., 2003). Nowadays the computer entertainment industry does not just allow rivalry, but actually provokes it. There are many MMOG (massively multiplayer online games) based on popular game series: Ultima Online, World of Warcraft, etc. Besides, people can demonstrate their skills at continental and world championships that may bring them professional recognition and impressive money prizes. In some countries (for example, in Russia and the USA) “e-sport” is officially recognized, along with football, swimming, boxing, etc. Nevertheless, we believe that video games should not lead to competition among students. In our opinion, it requires traditional tasks, which play a more important role in teaching a foreign language and do not have such significant entertainment potential.

3. Research Questions

The research questions are the functional orientation of video games and their specific aspects in the educational process.

3.1. The functional orientation of video games

Using a computer game at English classes requires, above all, the consideration of the programme’s initial target – whether it was created for learning or entertainment. Both types may be helpful when used within a correct methodology and with a relevant purpose

3.2. The specific aspects of video games in the educational process

The functional orientation of a computer game determines its specific aspects, which should be considered by an English teacher. They are associated with the game’s ethics and its linguistic resources at different language levels (phonetic, morphological, lexical and syntactic) and within various modes of speech activity (speaking, listening, reading and writing).

4. Purpose of the Study

The purpose of the study is to classify video games according to their functional orientation and define their difference at the level of specific aspects. This differentiation seems important in the context of using such programmes within the educational process, especially when teaching the English language.

5. Research Methods

We classify all video games used in the educational process into two large groups: educational and non-educational. The first group includes products that were originally intended for use in schools and universities in order to form, develop and consolidate various educational skills. The second group

consists of “ordinary” video games, i.e. those developed for commercial or creative reasons within the computer entertainment industry. This classification may be applied to any multicode texts.

It was decided to focus on the methods and techniques proposed by other authors. The novelty of the study lies in the classification of gaming programmes and the expression of ideas related to their use for expanding vocabulary and developing listening skills.

6. Findings

6.1. Use of educational video games

Educational video games are mostly ignored by our methodology due to their insufficiently expressed entertaining potential, too obvious focus on learning. As already mentioned, the Polycode complex uses the virtual reality as an incentive rather than a means of improving this or that competence. However, such programmes can be very effective within a more traditional approach.

There is a large number of English-language and Russian-language sites for playing online: funbrain.com, digitaldialects.com, weekenglish.ru, english-grammar.biz, learnenglish.britishcouncil.org and many others. Most programmes offer vocabulary or grammar assignments. For example, in the game “Knoword” (playknoword.com) you need to guess the word by its definition, and in “Word Confusion” (funbrain.com) the student is given a sentence with one missing word and two answer options – the similar lexical units which are often confused (“Their” and “there”, “accept” and “except” “advice” and “advise”, etc.). Engmaster.ru hosted a game inspired by Tetris, the masterpiece of the Soviet programmer Alexey Leonidovich Pazhitnov. Users compose English words from figures with letters moving from bottom to top (in the original from top to bottom). In the game “AmIsAre”, presented on the grammargames.ru portal, you need to knock down “asteroid” pronouns with the properly chosen projectiles – the appropriate forms of the verb “to be”. In the second part the task is more complicated: it is necessary to shoot pronouns and nouns. Another grammar game is “Grammar Gorillas” from funbrain.com, which helps to understand parts of speech. With your correct answer, the gorilla shown on the screen receives the desired banana, and if the answer is wrong, it remains hungry (this game can be especially useful in the elementary school, contributing to the development of such qualities as altruism and responsibility). There are other types of programmes, more advanced, related to specific types of speech activity. For example, the FluentU training application (fluentu.com) offers a wide selection of authentic video materials with listening exercises.

6.2. Use of non-educational video games

Non-educational (“ordinary”) video games form the basis of our video game methodology, which is the part of the Polycode methodological complex. Most of these programmes are best used to consolidate the vocabulary related to the topics being studied. Above all, this applies to economic simulators – games that simulate construction and management. The game’s subject can usually be determined by its name. Among the most captivating and suitable for use are well-known simulation programmes “SimCity”, “Theme Park”, “Theme Hospital”, etc.

Sulgina and Vyukhina (2016) draw attention to the pedagogical potential of the video game “Minecraft”, where the player not only builds, but also tries to survive in an unfamiliar territory hostile to

humans. If one chooses the easy playing regime, hostility will be replaced by indifference: it will only be possible to build and extract resources, without being distracted by the attacks of monsters. The teacher demonstrates to the students the basic game principles and teaches them to create the tools necessary for survival in the conditions proposed by the developers. The students record voiced instructions and use words indicating the shown materials: “leather”, “wool”, etc. Then one of the students plays before the virtual night (the day lasts about 10 minutes), and his/her classmates comment on the process or record their thoughts in a notebook. After that everyone is invited to tell about what they saw and share their impressions (the player must do this on behalf of the game hero). The homework includes remembering instructions and names of materials.

Another suitable genre is quest (adventure game). The article by Yevtyugina and Khusainova (2018) describes the advantages of the modern quest “Firewatch”, the action of which takes place in the woods. Numerous inscriptions (letters, memos, schemes, etc.) help to memorize the spelling of English words related to forests and the nature in general. Knowing appropriate vocabulary allows the student to put his/her own notes on the game card. The programme also includes versatile audio material, since the characters use a lot of colloquial expressions and simple grammatical constructions.

Sometimes the teacher has the wish and opportunity to pay special attention to a non-standard topic: astronomy, animation, weapons, insects, precious stones, etc. For example, a successful series of turn-based strategy games “Might & Magic Heroes” (previously known as “Heroes of Might and Magic”) can be used when studying the names of fictional creatures: gnomes, elves, fairies and various evil spirits. We would recommend the middle parts – the third or the fourth. They are not always placed higher than the previous ones, but objectively surpass them in terms of graphics and creatures variety (and, therefore, the number of new nouns). As for the later parts, from the fifth to the seventh, their technological flamboyance seems able to subdue the educational component. When compiling a set of tasks, it is possible to use the ideas of Sulgina and Vyukhina (2016), proposed for the simulation game “Minecraft” (which are described two paragraphs above).

7. Conclusion

The classification of video games into educational and non-educational ones emphasizes not only their functional orientation, but also some substantial aspects. Non-educational gaming programmes are characterized by the following features that distinguish them from the products of the first type: 1) the dominance of the entertainment component over the educational; 2) the supposedly low effectiveness in teaching grammar, including the basic one (due to possible violations of the morphological and syntactic norms; non-visualized spoken phrases and the abundance of non-standard vocabulary (terms, professionalisms, slangisms, etc.), the use of which is considered undesirable when fixing grammar rules); 3) the highly possible presence of violence, pornography, “toilet” humour and other factors incompatible with the requirements of pedagogical ethics.

It should be noted that most computer games, both educational and non-educational, do not contribute to the development of speaking skills. An encouraging exception are the programmes equipped with their own voice chat or allowing the use of general services: “Discord”, “TeamSpeak”, “Ventrilo”, etc. Students will be able to discuss the course of the game, joke, communicate on abstract topics,

improve their informal English. It is difficult to overestimate the advantages associated with listening: students will adapt themselves to perceiving fast and slow speech, various accents. For use at the lesson we can recommend the role-playing programmes “League of Legends” and “VRChat”, especially the latter. However, it is better to ignore the famous “Call of Duty” shooters, which are equipped with the most convenient voice chat, but are based on violence.

We emphasize that computer entertainment does not occupy the leading position in the structure of our methodological complex. We advise teachers to use video games not more than twice a year. This is connected not only with the objective specifics of these programmes, but also with the peculiarities of their perception by the representatives of the older generation – parents and grandparents of today's students. Frequent resort to games can turn many adults against the teacher. Probably in such a situation the truth will not be on the educator's side, but in order to save face, he/she can quote from the article by Karaulybayev (2012): “It may seem that the intensification of mental activity is achieved through volitional efforts and the involvement of other mental activity areas (attention, perception, memory, thinking, and even higher creative functions). However, it was empirically and experimentally established that the opposite phenomenon, relaxation (physical and mental) causes an immeasurably greater release of reserves” (p. 159).

References

- Anisimova, E. E. (2013). *Lingvistika teksta i mezhkul'turnaja kommunikacija (na primere kreolizovannyh tekstov)* [Text linguistics and intercultural communication (based on creolized texts)]. Tezaurus. [in Rus].
- Boryakova, E. E., & Shtayura, O. V. (2015). Gejmifikacija v obrazovatel'nom processe i ejo ispol'zovanie pri obuchenii anglijskomu jazyku [Gamification in the educational process and its use when teaching the English language]. *Aktual'nye problemy gumanitarnykh i estestvennykh nauk*, 10, 6–10. [in Rus].
- Bylieva, D., & Sastre, M. (2018). Classification Of Educational Games According To Their Complexity And The Player's Skills. *The European Proceedings of Social & Behavioural Sciences*, LI, 438-446. <https://dx.doi.org/10.15405/epsbs.2018.12.02.47>
- Bylieva, D., Lobatyuk, V., & Rubtsova, A. (2018). Serious Games As A Recruitment Tool In Educational Projects. *The European Proceedings of Social & Behavioural Sciences*, LI, 1922-1929. <https://dx.doi.org/10.15405/epsbs.2018.12.02.203>
- Franciosi, S. J. (2011). A Comparison of Computer Game and Language-Learning Task Design Using Flow Theory. *CALL-EJ*, 12(1), 11–25. http://callej.org/journal/12-1/Franciosi_2011.pdf
- Galkin, D. V. (2007). Komp'yuternye igry kak fenomen sovremennoj kul'tury: opyt mezhdisciplinarnogo issledovanija [Computer games as a phenomenon of the modern culture: the experience of interdisciplinary study]. *Gumanitarnaja informatika*, 3, 54–72. [in Rus]
- Grundberg, S., & Hansegard, J. (2014, August 20). Women Now Make Up Almost Half of Gamers. *The Wall Street Journal*. <https://www.wsj.com/articles/gaming-no-longer-a-mans-world-1408464249>
- Juul, J. (2005). *Half-Real Video Games Between Real Rules and Fictional Worlds*. MIT Press.
- Kaplan, S. J. (1983). The Image of Amusement Arcades and Differences in Male and Female Video Game Playing. *The Journal of Popular Culture*, 17, 93–98.
- Karaulybayev, S. K. (2012). Komp'yuternye uchebno-delovye igry kak metod podgotovki budushhih specialistov [Computer educational and business games as a method of training the future specialists]. In V. V. Apanasovich (Ed.), *The 4th International Scientific and Practical Conference “Innovational Processes and Corporative Management”* (pp. 159–163). Belarusian State University. https://www.sbmt.bsu.by/Data_RUS/ContBlocks/01116/Karaulybaev.pdf [in Rus]

- Kareva, G. V. (2010). Komp'juternye igry kak sredstvo razvitiya gnosticheskikh sposobnostej studentov v vuze [Computer games as a means of developing gnostic abilities of university students]. *Vestnik Brjanskogo gosudarstvennogo universiteta*, 1, 71–75. [in Rus]
- Kelly, K. (2007, March 21). SXSW: Getting Girls Into The Game: Designing and Marketing Games for Female Players. *Engadget*. <https://www.engadget.com/2007/03/21/sxsw-getting-girls-into-the-game-designing-and-marketing-games>
- Samokhin, I. S., Karavanova, L. Zh., & Myltseva, M. V. (2019). Ispol'zovanie hudozhestvennyh fil'mov na zanjatijah po anglijskomu jazyku v shkole I vuze [Using fiction films at English lessons in schools and universities]. *Koncept*, 8, 40–49. <https://e-koncept.ru/2019/191055.htm> [in Rus]
- Samokhin, I. S., Sokolova, N. L., & Sergeeva, M. G. (2018). Muzykal'nye proizvedenija na zanjatijah po anglijskomu jazyku: specifika i funkciia ispol'zovaniya [Pieces of music at English lessons: specifics and functions of usage]. *Kazanskij pedagogicheskiy zhurnal*, 3, 99–105. [in Rus]
- Sorokin, Ju. A., & Tarasov, E. F. (1990). Kreolizovannyje teksty i ih kommunikativnaja funkcija [Creolized texts and their communicative function]. In R. G. Kotov (Ed.), *Optimizacija rechevogo vozdejstvija* [Optimization of speech influence] (pp. 180–186). Institute of Linguistics of the Russian Academy of Sciences. [in Rus]
- Sulgina, E. G., & Vyukhina A. K. (2016). Komp'juternye igry kak instrument obuchenija, ih rol' v samorazvitii uchashhegosja [Computer games as a teaching instrument, their role in the student's self-development]. *Vestnik nauki i obrazovaniya*, 6(18), 102–105. <http://scientificjournal.ru/images/PDF/2016/VNO-18/kompyuternye-igry-kak-instrument.pdf> [in Rus]
- Talan, T., Doğan, Y., & Batdi, V. (2020). Efficiency of digital and non-digital educational games: A comparative meta-analysis and a meta-thematic analysis. *Journal of Research on Technology in Education*, 1–41. <https://doi.org/10.1080/15391523.2020.1743798>
- Vorderer, P., Hartmann, T., & Klimmt, C. (2003). Explaining the enjoyment of playing video games: The role of competition. In T. Connolly, M. Stansfield, & L. Boyle (Eds.). *Proceedings of the Second International Conference on Entertainment Computing*. Pittsburgh, the USA. (pp. 1–9). ACM. https://www.researchgate.net/publication/220851167_Explaining_the_enjoyment_of_playing_video_games_The_role_of_competition
- Yee, N. (2016, December 15). 7 Things We Learned About Primary Gaming Motivations From Over 250,000 Gamers. *Quantic Foundry*. <https://quanticfoundry.com/2016/12/15/primary-motivations>
- Yevtyugina, A. A., & Khusainova, A. N. (2018). Komp'juternye igry v obuchenii inostrannomu jazyku [Computer games in teaching a foreign language]. In L. G. Dorosinskiy & V. V. Marchenkov (Eds.), *Science. Informatization. Technologies. Education: The Proceedings of the 11th International Scientific and Practical Conference* (pp. 194–201). Russian State Vocational Pedagogical University. http://elar.rsvpu.ru/bitstream/123456789/25453/1/nito_2018_026.pdf [in Rus]
- Zaydullina, S. G., & Koptyukh, A. G. (2017). Ispol'zovanie igrovyh prilozhenij v obuchenii kak sredstvo povyshenija motivacii uchashhihsja [Using game applications in teaching as a means of increasing the students' motivation]. In E. V. Korshunova (Ed.), *EDCRUNCH Ural: new educational technologies in the higher education institution: The Proceedings of the International Scientific and Methodic Conference (NOTV-2017)* (pp. 193–197). The Ural State University. <http://hdl.handle.net/10995/54273> [in Rus]