

## Computer Games: Leisure or Stimulus to Learning

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### Abstract

*Computer games have become an integral part of the social and educative environment, and the diversity of games and mobile devices has increased greatly. Consequently the issue how to apply computer games in educational process has become topical. One of the technologies that helps to engage students in more efficient foreign language learning is Games-Based Learning. The potential of computer games for language learning is great. Computer games can help to incorporate the reality of the world and online challenges. In language learning and teaching computer games are often used to enhance motivation and communicative practices. Game-based approach integrated in the course of learning a foreign language at a non-linguistic University makes the development of foreign language communicative competences more efficient and motivated, it also has a significant effect on the way learners think and learn. One of the most essential reasons to promote educational computer games in foreign language learning and teaching is their potential for learning a foreign language for specific purposes (LSP). The interaction of computer games in traditional learning can assist in solving some language learning problems such as enhancing motivation to learning a foreign language. Some theoretical issues and the application of computer games in practice of learning and teaching English for specific purposes are considered. The examples of computer games for lawyers-to-be are set.*

### 1. Introduction

Over the previous few years, the way in which education and training are delivered has changed considerably with the wide application of new technologies. Such new technologies make great effect and promote considerable development and improvement of the learning environment. As Don Thompson, assistant director, Education and Human Resources, National Science Foundation mentioned on the Summit on Educational Games we teach "young people the science of the 19th century rather than letting them play a 21st century scientist" [7].

Contemporary learners prefer getting information from multiple multimedia sources very quickly, almost simultaneously; working with images, sounds and videos but not with texts; having access to multimedia information; interacting with others, being immediately assessed; learning something relevant and instantly useful; having fun while learning [7].

Nowadays the majority of people especially young ones cannot imagine their lives without videogames, cell phones, and the internet. Computer games have become an integral part of their social and educative environment, and the diversity of games and mobile devices has increased greatly.

### 2. Game-based learning

One of the technologies that helps to engage students in more efficient foreign language learning is Game-Based Learning (GBL). This approach is also described as the application of serious games or online games for learning [2]. The Game-Based Learning approach has been studied since 2003 when James Gee started to describe the cognitive development of learners as a result of their playing computer games [3].

Succeeding in a game a player tries to understand a new system, to achieve specific goals and to practice problem-solving skills. He chooses definite actions, learns and practices the right way to accomplish the task. Attention, persistence, training and the will to win are very important in game competition, but all these qualities are also important in many learning activities. The advantages of delivering game experiences for education and training are enormous. Firstly, game-based learning environment keeps us highly engaged in practicing behavior and thinking processes that we can easily transfer from the simulated environment to real life. Besides, learners can repeat a precise set of circumstances multiple times; they are highly motivated by in-game scores and tend to play again and again to achieve the perfect score. In the process they learn how to operate properly within the game

environment, experiment and learn how to accomplish their task. As learners are absorbed in playing they are not disappointed in the necessity of repeating the same operations or steps several times.

In traditional approach a learner can be drilled on certain procedures, he evaluates his knowledge and memory of what he was told. In game-based environment he learns not only the facts, but also the important ways how to perform effectively even in unknown and unexpected situations. If the knowledge obtained by a learner was wrong, it can cause a lot of potential mistakes, but with game-based learning any mistakes could be quickly corrected to move on [8].

Primarily, computer games for educational purposes were applied in aviation and military areas, then health care organizations and medical schools have encouraged game-based environment to simulate specific training. Nowadays game-based learning can become more accessible in many different fields of training.

### **3. Application of computer games in foreign language learning and teaching**

The potential of computer games for language learning is great. Computer games can help to incorporate the reality of the world and online challenges. First computer games did not contain any language utterances, but text-based computer games were constantly created. The progress of the game story was explained verbally, the game characters started "to talk". Besides, the content of the game was sometimes told by a narrator. So without understanding the language the players could not proceed and succeed in a game. Consequently learners must develop their skills in listening comprehension.

Now gaming concepts can be incorporated in the classroom practice and will enlarge a wide selection of activities that can be used while learning a foreign language. For the purpose of learning and teaching English as a foreign language (EFL), educational games for different grades, ages and subjects can be found at some sites. Here learners can be taught spelling and reading skills, synonyms and antonyms, they can learn colors, animals and other things [<http://www.knowledgeadventure.com/games/battleship.aspx>; [http://www.abcya.com/fifth\\_grade\\_computers.htm](http://www.abcya.com/fifth_grade_computers.htm)]. They can revise rules of word formation and parts of speech.

The games from these sites might seem to be very primitive, especially for University students, but they are very good as a warming up activity at the beginning of the classes or as some kind of relaxation in the middle. Besides such computer games can be used as a tool which helps new students to feel at ease in a new educational environment.

The following forms of language computer games are identified: (a) primarily focused on the form but not on the meaning of the language; (b) focused on the meaning of the language units; (c) concentrated on the level of understanding i.e. meta-linguistic level [<http://www.soi.city.ac.uk/~zaphiri/Papers/call-book-chapter.pdf>].

In language learning and teaching computer games are often used to enhance motivation and communicative practices. In addition to this computer games are considered as an element of authentic setting simulation. As Birgitte Holm Sørensen and Bente Meyer from Danish University of Education suppose, language teaching and learning computer games represent more communicative based contexts where task-based, project based and content-based approaches are integrated with technologies [6].

### **4. Learning language for specific purposes and computer games**

The curriculum of foreign language learning in a non-linguistic university usually is of two stages namely learning General English and Language for Specific Purposes (LSP). The development of LSP competences at a non-linguistic University is of utmost importance. The game-based approach integrated in the course of LSP learning makes this development more efficient and motivated, it also has a significant effect on the way learners think and learn.

One of the most essential reasons to integrate educational computer games in LSP learning is to encourage students to unite knowledge and skills of the special subjects in the foreign language environment simulated with the help of computer games which are connected with the future profession of the students. Such games can provide a virtual simulation of the real world while the game-based activity can promote the transformation of drill-based to context-based acquisition. Moreover computer games can represent and describe the situations which can be further applied to the particular events of real life.

At Law faculty People's Friendship University of Russia for the purpose of LSP learning of lawyers-to-be such computer games as "The Objection! Series" is used. The series was designed and produced



by TransMedia Productions Inc. (Louisiana, the USA) and is currently recognized throughout the USA as a lawyer training device. The setting of the game is a courtroom; the participants are the judge, prosecutors, witnesses, plaintiffs, defendants, experts, laypersons etc. The Windows Demo Version of "The Objection! Series" is available and can be downloaded at site [<http://www.objection.com/windowsdownload.html>].

Another example of an on-line game which informs students about the USA legislature is "iCivics" [<http://www.icivics.org/>]. Playing the games learners get acquainted with different areas of life in the US: an understanding of management on some levels; personal and political rights and social responsibilities and personal duties; the structures and functions of state and local government, the powers of executive, judicial and legislative branches of government. The site also contains notes for teachers.

Such computer games as "The Mystery PI series" [<http://www.free-mystery-detective-games.com/2010/01/investigation-games-bundle-download-2.html>] and "Detective Games based on Popular Crime Fiction" [<http://www.squidoo.com/detectivegames>] also provide great opportunities for learning English as LSP for lawyers-to-be. Some "Detective Games" are based upon the novels written by such detective writers as Agatha Christie, Arthur Conan Doyle, James Patterson, some just use the main characters of the novels but both develop the skills of fast reading and listening as well as detection, deduction and puzzle solving. Moreover the games based on the detective stories are often used for further discussion, students compare the images of the main characters in the game and their ideas of the main characters, they think of their own continuations of the story

## 5. Conclusion

The potential of the application of computer games in English as a Foreign Language (EFL) learning and teaching (both General English and Language for Specific Purposes) is widely discussed by researchers in linguistics and by foreign language instructors. Computer games can be used in and after classes; they can encourage reading, listening and speaking skills of the learners, improve their spelling and writing, assist in practicing vocabulary and grammar. Regular use of computer games in educational and training process can encourage students' professional development [<http://tlg.wikispaces.com/>].

Our practical experience proves that game-based learning in EFL learning and teaching supports collaboration and cooperation between learners, promote their problem-solving abilities and develop their foreign language communicative competences. Playing computer games simulates different professional environment, helps to explore the unknown and to gain the ability of overcoming failures. While playing learners try to achieve the goal and to succeed in the game, consequently they should solve a problem sometimes socializing and cooperating with others, as a result skills in decision-making, problem-solving and innovation are enhanced. To achieve personally meaningful goals players are eager to learn and discover something new and interesting. Specific gaming content encourages students to get topical information in an innovative way. In addition, reading and listening comprehension is expected to be increased with an each new repetition of the game [6].

Nowadays serious computer games intended for learning do not exist in a vacuum; they are parts of large learning environment. The main problem for contemporary researchers and instructors in EFL is to develop easy and natural integration of a serious game into learning. Traditional learning should have an ability of almost instant transference into computer games and back. The interaction of computer games in traditional learning can assist in solving some language learning problems such as enhancing motivation and generating pleasure to learning a foreign language. If learning and the application of computer games are integrated, the most engaging encouraging and effective foreign language learning will be provided.

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