

СЕКЦІЯ № 1

ПЕДАГОГІКА ВИЩОЇ ШКОЛИ В КОНТЕКСТІ ЄВРОІНТЕГРАЦІЇ

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GAMIFICATION IN HIGHER EDUCATION AS A MODERN PEDAGOGIC APPROACH

In this article, the author is considering the possibility of combining gaming technologies with the learning process in higher education. Gaming is considered as a process of involving students in scientific activities and improving their motivation. The main elements of gamification, game mechanics and successful examples of embedding of gamification into the classroom are described.

Keywords: *gamification, higher education, motivation, learning process, students' engagement.*

В даній статті автор розглядає можливість поєднання ігрових технологій з процесом навчання у вищих навчальних закладах. Гейміфікація розглядається як процес залучення студентів до наукової діяльності та покращення мотивації. Описуються основні елементи гейміфікації, ігрові механіки та успішні приклади впровадження у вищих навчальних закладах.

Ключові слова: *гейміфікація, вища освіта, мотивація, процес навчання, залучення студентів.*

Motivation is the main driving force in the activity and behavior of a person, including the process of forming a future professional. The question «How to motivate the student for scientific and cognitive activities?» still remains important nowadays. Unfortunately, this is the fact that students in higher education are more

guided by assessments and achievements, but not by the learning process itself. Higher education extremely requires the embedding of the new approaches and methods to improve students' engagement in the classroom, as well as to achieve greater depth of learning.

Gamification is a novel pedagogic approach that is widely discussed in the context of teaching in the recent years. The use of such technology in higher education has enormous potential, increasing motivation and providing a simulation of learning environment.

Many scientists devoted their works to the approaches of integrating gamification into the higher education system. There are Dr. Lee Sheldon, Andrew Stott, Wendy Huang, Darina Dicheva, Dilip Soman, Gabriela Kiryakova, Nadezhda Angelova, Lina Yordanova, Carman Neustaedter, Clifford Lampe, Jonna Koivisto, Karl M. Kapp among them. Therefore, this problem is considered to be actual today.

The main purpose of article is considering the gamification as an alternative approach in higher education.

The tasks of the article are to consider:

- gamification as a process for motivation and encouraging students;
- the elements of gamification;
- game mechanics which can be used in higher education;
- successful experience of mixing game with work.

Gamification, «the use of game mechanics and game elements, in a non-game context», has long been a reality even in higher education. Its aim is to improve motivation and engagement of students. And there are already evidences that games can improve learner performance. In spite of these facts, many educators and students are still frightened of the concept of mixing games with work [1].

There are four important game elements that can help to engage and motivate learners in Universities: narrative, progression, challenge and feedback [2].

Narrative means using of stories in learning, for example, real-word situation or case study. It can be also used to link real-word and theories.

A challenge means using of a task that must be fun and challenging at the same time.

Progression is a sequence of activities that attract students' attention and maintain their motivation in a learning activity. It can be provided by presenting learners with progressive learning objectives that become more difficult every next step.

Feedback is a using of targeted and frequent feedback that encourages young people to learn [3].

Also, there are eight game mechanics that are widely applied in higher education:

- Points are used to measure learner achievements.
- Levels and Stages – students observe their progress. It's a kind of rewards for completing «mission», in our case educational task or section.
- Badges – a sign of completion of a task or achievement of a certain stage.
- Leaderboards – good motivation factor and competition reason between students in order to achieve better results.
- Prizes and Rewards are also motivating.
- Progress bars – visual successfulness representation.
- Storylines (narratives) provide interest to reach finish point.
- Feedback – has to be immediate and clear to cause immersion in educational activity [4].

Successful embedding of gamification into the classroom can be introduced by the work of L. Sheldon. He created the model of education in the university in a form of multiplayer online game. Students could choose their avatars, create guilds with friends. Together they had to complete different educational tasks (quests) to get experience points. Also, Sheldon gave students the possibility of choice. If they reached level 12 by the end of they would get a mark. According to his book the average score of learners has increased from C to B, the attendance also increased cardinally [5].

Cliff Lampe has also provided students with possibility of forming of the guilds, choosing how to achieve learning goals. In addition, there was a system of monitoring that gave quick feedback. It was managed by assistants. Students had positive reaction on such approach.

Purdue University developed its own platform called Passport. The rewards for good results and achievements were digital badges that can be shared in social networks such as Facebook and LinkedIn [6].

However, not all the attempts of embedding gamification into learning process were successful and effective. The enthusiasm of people by games is based on excitement and the effect of competition, and the educational process is based on cognitive motivation. If the competitive component becomes the only one, this negatively affects the educational results. First, the students' eyes light up, however, this doesn't last for a long, and if the desire for knowledge doesn't come to replace passion, interest disappears. To avoid this, gamification should be used only as a tool for the development of cognitive motivation and not contradict the main goals of the educational process [7].

Many questions related to the process of gamification in higher education have not yet been answered by researchers. For example: Are there any fields where gamification is contraindicated? How does it influence the psychological aspects of individual? And others. That's why this opens new horizons for further researches.

I came to conclusion that gamification can be a good practice in modern higher education system. It can be one of the mix of pedagogic approaches. To increase the effectiveness, gamification must be supported by institution where it is provided, not only by a particular professor.

References

1. Hand B. Designing Successful Gamification Practices in Higher Education. 2016. Available at: URL: <http://www.gettingsmart.com/2016/12/gamification-successes-and-failures-higher-education/>. (Accessed 15 November 2017).
2. Langendahl P. A., Cook M., Mark-Herbert C. Gamification in Higher Education – toward a pedagogy to engage and motivate students. 2016. Available at: URL: https://pub.epsilon.slu.se/13429/7/langendahl_p_a_et al_160602.pdf. (Accessed 15 November 2017).
3. Kapp K. M. The Gamification of Learning and Instruction: Game-based Methods and Strategies for Training and Education. Published by Pfeiffer & Co and Association for Talent Development (ASTD), 2012.

4. Nah F. F., Zeng Q., Telaprolu V. R., Ayyappa A. P., Eschenbrenner B. Gamification of Education: A review of literature. 2014.
5. Sheldon L. The Multiplayer Classroom: Designing Coursework as a Game. Boston, MA, Cengage Learning. 2012.
6. Jackson M. Gamification in Education: A Literature Review. NY, 2016. Available at: URL: https://www.usma.edu/cfe/Literature/MJackson_16.pdf. (Accessed 15 November 2017).
7. Stolbova A. Geimifikatsiia v obuchenii [Gamification in Education]. 2016. Available at: <http://ponedelnikmag.com/post/geymifikaciya-v-obuchenii>. [\(in Russian\)](#) (Accessed 15 November 2017).