<u>XIX Міжнародна науково-технічна конференція "ПРИЛАДОБУДУВАННЯ:</u> стан і перспективи", 13-14 травня 2020 року, КПІ ім. Ігоря Сікорського, Київ, Україна

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GAMIFICATION IN HIGHER EDUCATION

Kriukova Y. S., Ameridze O. S.

National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute», Kyiv, Ukraine E-mail: <u>ameridze@ukr.net</u>

Recent tendencies of our country towards European integration and the need to ensure the competitiveness of domestic specialists in the world, make specialists be able to use technically advanced equipment, use the latest technological advancements for organizing lessons.

The essence of the professional competence of university teachers is the professional and pedagogical knowledge and skills. It includes both substantive (knowledge) and procedural (ability) components and it has the main essential features: mobility of knowledge, flexibility of methods of professional activity and critical thinking. The high professional competence of the teacher is conditioned by the high quality of vocational training and determines the high level of the teacher's professional mobility, his competitiveness in the labor market. The priority of educational development is the introduction of innovative training technologies that ensure the improvement of the educational process, the accessibility and effectiveness of education, the formation of a sustainable interest in the profession.

Gamification is a technology that increases students' motivation to learn, is becoming more common and popular in education. The use of this technology contributes to the interest and effectiveness of learning. Gamification means the use of game elements in non-game situations. The leading methods of gamification can be considered like an educational game and game techniques for educational purposes [1].

It is necessary to overcome several stages in sequence: formulation of tasks and appropriate selection of already existing or creation of new information methods, experimental approbation by introduction into pedagogical process, analysis of the first results, correction of gamification, stable implementation, analysis of results, determining the value of gamification in the educational process.

In order to study the effectiveness of the use of gamification in the educational process, we conducted an experiment in which 43 students of the second year of the

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instrumental faculty of the National Technical University of Ukraine "Kyiv Polytechnic Institute of Igor Sikorsky" were participated. The students were divided into a control group (21 students) who studied the traditional program and an experimental group (22 students) who were taught through the Kahoot platform at ESP classes. The main methods of experimental work were:

- testing the students' language skills before and after using the Kahoot platform;

- observation that helped to gather information;
- questionnaire that included open-ended questions that students should answer.

The experiment consisted of two steps. First phase, which was designed to experimentally test the effectiveness of Kahoot, a diagnosis was made of the level of formation of certain language skills in the control and experimental groups before and after using this technology. In the experimental group, Kahoot was used to study lexical and grammatical topics. The control group used traditional methods that were not based on the Kahoot platform when studying the same topics. To test students' level of relevant lexical and grammatical skills, the same testing was performed before and after learning the above topics in the control and experimental groups. The second phase, aimed at determining students' attitudes toward using Kahoot platform, included student surveys. They had to answer two questions in written form:

- 1. What did you particularly like about using the Kahoot platform in ESP classes?
- 2. What were your difficulties in learning using this technology?

The data obtained from the test results showed that at the beginning of the experiment the levels of formation of the corresponding lexicon-grammatical skills in the control and experimental groups were almost the same. After the students of the experimental group completed the task using the Kahoot platform, their level of formation of these skills increased significantly compared to the students of the control group. Thus, the results of the experiment showed a better dynamics of development of relevant lexical and grammatical skills in the experimental group than in the control group, which, in our opinion, shows the efficiency and feasibility of using the Kahoot platform in ESP training for students of a technical university.

The second phase of the experiment showed that when answering the question "What did you enjoy about using the Kahoot platform in ESP classes?" All the respondents found some positives about this technology. Most (15) students indicated that they had a very good relationship with the teacher during the coursework. Some of them (9) enjoyed the spirit of competition, the music that was heard when they answered questions. Four students responded that learning to play was very enjoyable. The two students liked it because they could use the gadgets. One student noted that the interface was very good and the tasks were easily perceived visually since each shape had its own color. One student also noted that this type of activity made it possible to think in English. Students were also asked to prepare assignments independently on the Kahoot platform. Responding to questions about difficulties encountered in using Kahoot, seven students indicated that they were unable to complete some tasks because the time constraints were too short. Four students

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indicated that they were sometimes nervous about completing tasks because they were afraid of losing the competition. Five students reported having problems with their internet connection, which distracted them from work and sometimes prevented them from completing tasks. Two students responded that the tasks were not diverse enough. One student said he was sometimes confused by the photos on the monitor because they thought they did not answer the questions properly. It should also be noted that unexpectedly, the best results in Kahoot assignments have always been achieved by students who rarely showed initiative and did not have the highest performance scores during the lesson. In our view, this demonstrates the significant motivational impact of this technology and its effectiveness in actively engaging students in learning activities.

We can assume, based on our own experience that the successful implementation of gamification by the teacher is due to his personal and professional development, and socio-scientific motives for professional self-realization. Plasticity of thinking, creativity, development of new forms of interaction contribute to successful selfrealization in the implementation of gamification. However, only an adequate purpose to motivate the activities to implement the new can ensure its harmonious implementation.

If the teacher wants to improve the performance of his work through the introduction of innovation, it will facilitate successful implementation. However, if a teacher is generally focused on improving learning performance, he does not accept the innovation, even though his motivation is to improve learning performance, implementation will be slow and not produce the desired results. The main component in the implementation of gamification is the creative component. We believe that the teacher's creativity consists on his "panoramic" vision of the situation, the development of logical and abstract thinking, the ability to quickly perceive new information, not stereotypical thinking, the ability to work in a team, the willingness to create and implement new in pedagogical. The introduction of gamification in higher education requires the creation of an electronic database, the organization of research and experimental work, the study of theoretical and practical experience of other innovators, as well as the dissemination of their own experience through the organization of conferences, seminars, etc.

Keywords: gamification, Higher education. **References:**

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