

## GAMIFICATION OF THE EDUCATIONAL PROCESS AT ENGLISH CLASSES FOR STUDENTS OF TECHNICAL SPECIALTIES IN HIGHER EDUCATIONAL INSTITUTIONS

### ГЕЙМИФКАЦІЯ ОСВІТЬОГО ПРОЦЕСУ НА ЗАНЯТТЯХ З АНГЛІЙСЬКОЇ МОВИ СТУДЕНТІВ ТЕХНІЧНИХ СПЕЦІАЛЬНОСТЕЙ У ВИЩИХ НАВЧАЛЬНИХ ЗАКЛАДАХ

*The rapid development of information and communication technologies has had a huge impact on the learning process in higher education. If before the teacher was almost a unique tracer of information accumulated by mankind, in modern society the teacher's ability to create an environment in which information received by students can be transformed into knowledge and experience becomes more relevant.*

*In the conditions of information accessibility of completely different and from time to time unpredictable content, the student must learn to critically evaluate and choose those sources of knowledge that are relevant to solving a particular problem.*

*Such tasks can be confidently and effectively solved by activity and communicative approaches in learning. However, these approaches are not able to solve the problem of the motive for student entry into a particular educational activity. Currently, this problem is relevant in connection with the widespread use of social networks that meet one of the main needs of modern students – the need for communication. Pedagogical society emphasizes the following trends: general demotivation, lack of desire to work with information, ignorance of the principles and methods of efficient use of time resources and dependence on gadgets.*

*Nevertheless, the description of this problem contains practically the key to its solution, which means that it is necessary to give the student the opportunity to learn with the help of game technologies.*

*The use of game technologies in the educational process is not something new, but it is a well-developed issue by both domestic and foreign scientists.*

*Due to the development of technology and computer networks, game theory has been enriched with new ideas and more technological.*

**Key words:** gamification, higher education, students of technical specialties.

*Стрімкий розвиток інформаційних та комунікаційних технологій чинить величезний вплив на навчальний процес у вищих навчальних закладах. Якщо раніше викладач являвся майже унікальним транслятором накопиченої людством інформації, то в сучасному суспільстві більш актуальною стає здатність викладача створити середовище, в котрому*

*інформація, яку отримують студенти може бути перетворена в знання та досвід.*

*В умовах інформаційної доступності цілком різного та час від часу непередбачуваного контенту студент повинен навчитись критично оцінювати та вибирати ті джерела знань, котрі є актуальними для вирішення певної задачі.*

*Такі задачі впевнено та ефективно може вирішити діяльніший та комунікативний підходи у навчанні. Та все ж, дані підходи не в змозі вирішити проблеми виникнення мотиву вступу студента в ту чи іншу навчальну діяльність. В даний час ця проблема актуалізується в зв'язку з широким розповсюдженням соціальних мереж, які реалізують одну з основних потреб сучасних студентів – потребу в комунікації. Педагогічне суспільством підкреслює наступні тенденції: загальну демотивацію, відсутність бажання працювати з інформацією, незнання принципів та методів ефективного використання ресурсів часу та залежність від гаджетів.*

*Тим не менше в описі даної проблеми практично і міститься ключ до її рішення, що означає, що треба дати можливість студентів навчатися за допомогою ігрових технологій.*

*Використання ігрових технологій в навчальному процесі не є чимось новим, натомість це добре опрацьоване питання як вітчизняними, так і зарубіжними науковцями.*

*На відміну від ігор у педагогічній грі є суттєва ознака – чітко окреслена мета навчання та відповідний їй педагогічний результат, а ігрові прийоми виступають як засіб стимуляції студентів до навчальної діяльності.*

*В зв'язку з розвитком техніки та комп'ютерних мереж, теорія гри збагатилась новими ідеями та стала більш технологічною.*

*Так, з'явився новий термін «гейміфікація» – використання елементів, характерних для дизайну відеоігор в інших контекстах, характерних для дизайну відеоігор в інших контекстах.*

**Ключові слова:** гейміфікація, вищий навчальний заклад, студенти технічних спеціальностей.

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**Formulation of the problem.** In the days of highly advanced technologies, gamification extends to all spheres of life and becomes a new reality nowadays.

The modern education system corresponds to technological progress. Among the top five educational trends, cited by Forbes magazine – distance education, personalization, gamification, interactive textbooks, learning through video games – these four belong to gamification [3].

For the past few years, gamification has been on the list of the ultimate trends in the learning process of different categories of students. It is being investigated by the specialists in academic and corporate trainings and is studied by some educational institutions. Therefore, we believe that we should take a closer look at this technology, identify its features and differences from related categories.

Gamification is the use of game mechanics in non-games situations to encourage certain behaviors [2, p. 54–55]. In the context of the concept of the “New Higher Education”, the information society equips the Higher Institution with quite important functions, namely developmental and social. The educational process in higher institution growingly promotes the introduction of information technology that radically changes the process of mastering knowledge and practical skills of the 1<sup>st</sup> and 2<sup>nd</sup> year students. The younger student is the subject to social relations and is determined by socially meaningful behavior and responsibilities. Appropriate social situation should promote and provide all the conditions for the organization of special activities in which students could freely feel, be realized and confidently overcome new trials. Thus, the game activity is a universal and effective factor of establishing a stable and effective learning process [5, p. 138].

Unlike games, pedagogical games have an essential feature – a clearly defined purpose of learning and the corresponding pedagogical result, and game techniques act as a means of stimulating students to learning activities.

Thus, there is a new term “gamification” – the use of elements specific to the design of video games in other contexts, typical of the design of video games in other contexts.

**The purpose of the article.** Therefore, the topical issue today is the use of gamification at the English lessons for students of technical specialties, which will help to organize an active educational environment, provide various forms of integrated learning, implement monitoring the development of students in accordance with the Concept of the New Ukrainian Education.

The purpose of this work is to expand the content of the concept of gamification of the educational process; identifying contributing features of the development of learning motivation, consideration of the position of the gamified lesson.

**Analysis of recent research and publications.** The theoretical basis of the study consisted of the work of scientists who studied deeply the issue of gamification, namely: Akchelov E.O., Astafieva I.A., Isaeva Z.K., Krasnova T.I., etc.

**Presentation of the main material.** The process of attracting the game as one of the most effective ways to increase efficiency in various fields of activity is not a new trend of learning for highly developed countries.

This phenomenon is called “gamification”. The appearance of this term is associated with the name British video game developer Nick Pelling, who used it in 2002 in his own developments. At the same time involving elements games in the composition of educational technologies in the West universities began in 2008, gaining wide popularity since 2010.

Gamification is spreading in all spheres of life – from professional activities to the education system [6, p. 23–25].

The fact that modern youth was born in the era also testifies in favor of gamification total computerization, where the Internet, along with all electronic devices and games is an integral part of life. Therefore, it would be logical and expedient to use this fact in educational process. Moreover, it should be noted that the scope of game technology is in fact unlimited to date.

However, it should be remembered that only the introduction of game elements in foreign classes languages are difficult to call the process of gamification. First of all, the teacher must orient students to achieve a clear goal, and then, if possible, to personify game content, given its four main components [8, p. 140]: interaction (a wide range of techniques that provide social interaction between users), the dynamics of the use of an exciting scenario that would attract users and stimulate their appropriate response in real-time), mechanics (use of virtual rewards, statuses, points, levels) and other elements characteristic of the gameplay) and aesthetics (creating a common gameplay) atmosphere that promotes emotional excitement).

Growing interest in the introduction of gamification in the educational process also explained by the fact that gamification is one of the didactic properties digital technologies along with multimedia, interactivity, nonlinearity text submission and informativeness [8, p. 127]. Moreover, gamification contributes optimization of the educational process, implementing the following didactic principles:

- consciousness and activity of students (instant feedback and opportunity evaluation and self-evaluation);
  - clarity (multimedia-dynamic form of material presentation);
  - consistency and systematicity (gradual complication of game conditions and game material);
  - individualization of learning (the possibility of choosing an individual trajectories);
  - availability and affordability (possibility to choose independently complexity of educational material);
  - strength (involvement of students’ emotions)
- [5, p. 128].

Gamification is the use of individuals elements of games in non-game practices. For K. Salen and E. Zimmerman, gamification differs from other game formats in that its participants are focused on the purpose of their real activities, rather than game as such, where game elements are integrated into real situations to motivate specific forms behavior in specific conditions. The main components of the game are:

– action – the first steps to search and specific activities;

– task completion – students feel satisfaction from overcoming social challenges. It is this innate desire that is used by the game developers, challenging players at every turn;

– risk – encouraging students to certain actions related to risk and finding the right solutions;

– uncertainty – the creation of the winner's moment as a magical moment;

– emotional content – the formation of emotions of emotion, embarrassment, happiness or disappointment, satisfaction of success as a confirmation of one's own value [7].

Let us consider the structural elements of gamification in the form of a pyramid at the following levels:

1) components of gamification: external attributes: awards, badges, symbols, rating points, etc.);

2) principles of work (competition and interaction) with game participants, expectation of victory, reverse communication);

3) the dynamics of the game, the progress of the player, the relationship between participants in the game, emotions) [3, p. 29–31].

Elements of gamification can be applied at different stages of educational activities such as holistic lesson, structural element of the lesson, reusable.

A distinctive feature of gamification is permission of making mistakes. So, students may not be afraid of condemnation and punishment for mistakes, feel themselves freely, that is, the fear of wrongdoing disappears, and it is replaced by initiative and confidence. Students can independently choose options for action that encourages them to be active at completing tasks and forms a sense of responsibility for their own actions [1, p. 120–122].

Using the system of points, badges (which note achievements) and student ratings (leaderboards); adding the plot and atmosphere of the game, delivering training information in a gradual mode, a noticeable complication of the content from lesson to lesson – all of these encourages students to make a huge leap forward. This also includes opportunities such as intrasystem interaction between users, possibility of the instant feedback and interactive educational videos where the plot differs depending on the actions of the student; development of full-fledged educational games that combine knowledge and entertainment [10].

The advantages of gamification in the educational process are obvious – genuine students' interest, their involvement in the process. Unlike traditional forms of learning, the game contains a very important component – entertainment nature. It is important to note that gamification is not an immersion in three-dimensional virtual world, not games during the educational process [1, p. 131]. It's just auxiliary tool to increase cognitive activity and motivation.

Basic principles on which gamified education is based:

**Autonomy.** In gamified education, as in the game, the next step depends on the choice of the participant. Involvement of students in the educational process and focus on the result increases when everyone feels their importance, responsibility for the end result.

**Value.** When building a game design, keep in mind that education with game elements is radically different from the game. Its purpose is the development of the student, the acquisition of new knowledge and skills useful in real life, professional activities.

**Gradual increase of competence.** The training course is divided into several levels – from simple to complex. The better the student copes with the current part of the task, the more willing to continue working on it. Upon completion of the next level, the student receives an objective view of their own progress and an incentive to move forward.

**Freedom to fail.** Students should have a risk, but lower than in regular games. At the same time, everyone is given the opportunity to make several attempts to succeed. It encourages experimentation, creation, risk, but does not lead to disappointment, does not distract from learning.

**Operational feedback.** Instant feedback in 24/7 mode helps you make game decisions quickly. This speeds up the process of education, helps the student to consolidate the material well.

**Visual representation of progress,** while performing a competitive function. Various virtual rewards generate excitement, interest in the result, encourage diligent learning.

**Conclusions.** Thus, gamification technology is based on basic needs and desires of individuals. Every person involved in the “game” – student, user – feels part of a community.

Game forms make the educational process exciting and interesting, and competition and reward for achievement allow participants not only to raise their status and get another form of self-disclosure, but also get an incentive to show perseverance, the development of creative abilities of a student.

If we talk about the conclusions of researchers in general terms, the advantages of games are as follows: the gameplay has cognitive benefits, because, as it turned out, games improve attention, ability to focus and reaction time. Games have a positive effect on motivation, because development through games is part of the theory of “increasing intelligence”, which speaks of the benefits of gradual learning and building achievement. Games have emotional benefits because they elevate mood and strengthen a positive emotional state. With the help of educational computer games you can get interested, activate the cognitive activity of the student, to involve in the study of a subject.

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