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GAMIFICATION ELEMENTS IN THE PROCESS OF UKRAINIAN LANGUAGE TRAINING OF PEDAGOGY SPECIALISTS

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Abstract. The article studies the problem of using gamification elements in the process of training future preschool and primary school teachers on the example of the methodology of teaching Ukrainian Language for Professional Purposes. The necessity of improving the methodology of teaching the language to students of different age groups while taking into account the main educational trends and public demand has been substantiated. According to the goal, the essence of the “gamification” concept has been defined regarding the modern education sector. The peculiarities of using gamification, which have a great impact on the effectiveness of teaching students at pedagogical institutions of higher education, have been determined.

It is emphasized that the growth of the number of game means in the methodology of teaching Ukrainian Language for Professional Purposes is not always directly proportional to the increase of success. Since gamification is impossible without using information and communications technology, consideration of the factor of appropriate technological support is necessary. The age factor manifests itself rather in the information and technological skills and abilities of certain age groups than the effectiveness of completed tasks on the condition of unhindered mastery of the technology. In the process of gamification, the element of novelty has a significant impact, as well as the temporal and motivational dependence of the interest of the performers on the duration or algorithmization of the tasks. The psychological factor is manifested through gender, which substantiates the inefficiency of using gamification with elements of competition or open ranking of results for female audience. In the context of training pedagogy specialists, the process of gamification during the study of a certain discipline has a dual purpose: increasing the motivation and therefore the effectiveness of training, formation of necessary competencies of future teachers; mastering completed gamified tasks as possible ways and means of teaching the Ukrainian language in future professional activity.

Based on the analysis of the information space of the problem, a system of tasks with gamification elements has been developed and adapted to the content of the Ukrainian Language for Professional Purposes academic discipline.

Keywords: gamification, competency, teaching methodology, professional speech, pedagogical field, Ukrainian language, motivation, information and communications technology, digitalization.

1. INTRODUCTION

The high-quality training of pedagogy specialists is based on the modern competency paradigm and takes into account the main educational trends determined by public demand. Today, we can already see the increased need of educational institutions of various levels for

teachers who have not only a high level of command of the Ukrainian language but also an appropriate methodological base in order to efficiently form adequate competencies in pupils, students, trainees of advanced training courses, etc. The tendency to search for a “competent Ukrainian language teacher”, “professional Ukrainian language tutor”, “effective courses for improving Ukrainian”, etc., which, in our opinion, will intensify in the post-war Ukrainian society, is also becoming clearly established.

In this context, the issue of improving language learning methods for students of different age groups is becoming relevant, particularly finding the tools that permit combining the study process with the use of modern information and communications technology, creating a relaxed atmosphere, and increasing the motivation. It is the task of integrating the study and digital environment in which the majority of higher education students communicate, work and rest that necessitates turning to gamification as a means of intensifying the process of learning the state language of Ukraine.

2. RESULTS AND DISCUSSION

Research on gamification as one of the innovative educational tools has popularized it during the last decade. However, despite the indisputability of the general conclusions, we still have not received a thorough analysis of the narrow disciplinary application of this tool within the pedagogical field. In particular, the problem of using gamification elements in the process of mastering Ukrainian as the state language at pedagogical institutions of higher education remains understudied.

The purpose of our investigation is to reveal the features and potential of using gamification elements in the process of Ukrainian language training of future pedagogy specialists (on the example of the methodology of teaching Ukrainian Language for Professional Purposes to students of the Preschool Education and Primary Education specialties).

Achievement of the goal involves solving specific tasks:

- 1) finding out the essence of the “gamification” concept adapted to the educational field;
- 2) determining the features of using gamification in the process of training students of pedagogical institutions of higher education;
- 3) developing a system of tasks with gamification elements for the Ukrainian Language for Professional Purposes course.

The term “gamification” is most often interpreted by foreign scientists as a process that makes an activity seem like a game (Werbach, 2014, p. 266), a process of introducing game principles into the educational environment (Dichev & Dicheva, 2017, p. 25). In their works, Ukrainian researchers rely on the understanding of gamification as “integration of game elements and game thinking into an activity other than a game” (Pereiaslavskaya & Smahina, 2019, p. 251), taking into account the primary definitions of this concept in the fields of marketing, management, psychology, health care, mechanical engineering, etc. At the same time, the transfer of this process to the education field has influenced the formulation of the definition of “gamification in education”: “the process of spreading the game to various areas of education, which permits considering the game as a method of learning and upbringing, a form of educational work, and a means of organizing a holistic educational process” (Pereiaslavskaya & Smahina, 2019, p. 251). In a narrower sense, “using game mechanics in non-game situations to achieve a certain goal” (Zelenska & Kovinko, 2019, p. 23).

Considering the subject of our research, the potential of gamification for the study of Ukrainian Language for Professional Purposes by students of pedagogical institutions of higher education, it is advisable to pay attention to certain features that affect the effectiveness of the learning process.

1. Despite the proven positive impact of gamification on students' motivation and interest in learning, the growth of the number of game means in the methodology applied is not always directly proportional to the increase in success. This is due to several factors, which are described below.

2. As pointed out by Zelenska and Kovinko (2019, p. 24), the difference between gamification and other game-based learning methods is that gamification is impossible without the use of information and communications technology. Accordingly, its basis includes the availability of appropriate technological support and free access to the Internet. While during traditional education such support is available in the educational institution, in the conditions of distance education it is entirely the responsibility of the student. It is obviously wrong to make learning results dependent on the financial capabilities of students, having formed a full academic discipline course based on gamification.

3. The effectiveness of gamified learning is partially influenced by the age factor, which is more evident in the information technology skills and abilities of certain age groups than in the completed tasks under the condition of unhindered mastery of the technology. This factor needs to be taken into account while working with students of correspondence courses and in adult education.

4. The existing research confirms the importance of the novelty element in the gamification process. Koivisto and Hamari (2014) emphasizes the temporal and motivational dependence, i. e. a decrease in the interest of performers in long-term tasks or those that are done according to a well-known algorithm.

5. The formation of students' competencies in the process of studying a discipline with the use of gamification is significantly influenced by the psychological factor, particularly in the gender sphere. Ortiz et al. (2014) say that the psychological pressure in competition has a more negative effect on women than on men. Obviously, it is not desirable to use gamification with elements of competition or open ranking of results to teach groups of women, as this could hypothetically have the opposite result to the desired one.

6. Regarding the training of future teachers, the process of gamification in the study of a certain discipline has a dual purpose: a) increasing the motivation and therefore the effectiveness of studying (in our case, Ukrainian Language for Professional Purposes), formation of necessary competencies of future teachers; b) mastering completed gamified tasks as possible ways and means of teaching the Ukrainian language in future professional activity.

So, taking into account all the factors considered above, we focus on using gamification elements in the methodology of teaching Ukrainian Language for Professional Purposes, i. e. offering students 1-2 tasks that have a certain coefficient of novelty and digitalization within each topic.

The study of the information space of the problem in a narrow disciplinary context has shown that during the existence of the course (1989–2022) the scientific description of gamification elements in the process of teaching Ukrainian Language for Professional Purposes was limited to consideration of the abilities of remote platforms for conducting testing and recording its results (Humenuk, 2021). A common belief among researchers is that the very process of performing test tasks via digital media, as well as the automatic calculation of points, always introduces the gamification element (Humenuk et al., 2022; Yanenko, 2020). At the same time, the repetition of testing as a gamified action (thematic, control, examination tests) significantly reduces its effectiveness in terms of forming the necessary competencies of students, as the effect of novelty is lost. In order to avoid this, we offer students the “reverse” option: practice tests that are one of the types of independent work and involve the development of one original test task for each topic by the students themselves. The set of developed test tasks needs to be uploaded to Google Forms and made available to other students and the teacher. This type of work, in addition to the elements of

gamification, has a clear professional orientation, as it involves preliminary familiarization with the requirements for creating test tasks, the features of their placement on Google Forms, and sharing with audience, and therefore reveals the opportunities for applying the acquired skills in future pedagogical activity.

Electronic tests with gamification elements can be used at any stage of studying the course, but the content of each topic requires creation or adaptation of specific tasks with introduction of game mechanics, i. e. actions performed with the help of digital technology. We propose a developed system of such tasks, integrated into the Ukrainian Language for Professional Purposes academic discipline (Tab. 1).

Tab. 1

System of Tasks with Gamification Elements Adapted to the Content of the Ukrainian Language for Professional purposes Course

№ з/п	Topic	Testing	Task
1.	Determining the initial level of students' knowledge before studying the course	Introductory	Familiarization with the structure of the course and prospective types of independent work on the distance learning platform of the university
2.	State Language: the Language of Professional Communication	Thematic	Working with mobile applications: "Phraseological Dictionary of the Ukrainian Language", "Explanatory Dictionary of the Ukrainian Language", "Ukrainian Spelling", "Dictionary Dictations"
3.	Styles of the Modern Ukrainian Literary Language in Professional Communication	Thematic	Creation and maintenance of weblogs "Professional Speech of a Primary School Teacher" or "Professional Speech of a Preschool Teacher", "How NOT to Write (Photo Fixation)" by students
4.	Business Papers as a Means of Written Professional Communication	Thematic	Creating a qualified electronic signature (QES) online (information project "Requisite 'Signature'")
5.	Documentation on Personnel and Contract Issues	Thematic	Synchronous use of Zoom tools for editing documents
6.	Reference and Informational Documents	Thematic	Synchronous use of Zoom tools for structuring documents
7.	Scientific Style and Its Tools in Professional Communication	Thematic	Working with the university repository (search and placement of works)
8.	Editing of Official and Scientific Texts	Thematic	Editing Ukrainian-Russian translation and mastering certain aspects of related topics in the "Business Communication" mobile application
9.	All topics	Control	Using QR codes in the process of preparing information projects
10	All topics	Practice tests	Taking online courses on the educational platforms Prometheus and Coursera

Source: author's work

As can be seen in Table 1, the gamification elements in the tasks for each topic have a single-vector technological purpose: acquiring the necessary skills in using modern digital technology, which minimizes the influence of the age factor as much as possible. In particular, preliminary familiarization with the structure of the course and prospective types of independent work involves mastering the principles of action on the distance learning platform of the university (authorization, registration for the course, navigation between available functions). Deepening and systematization of the norms of the Ukrainian literary language within the topic "State Language: the Language of Professional Communication" also involves improvement of the lexicographic competence, including expansion of the toolkit (searching, studying and evaluating relevant mobile applications), diversification of the types of work on orthographic literacy (application "Dictionary Dictations"), etc. The formation of the stylistic competency of future teachers is expanded due to the capabilities of weblogs in active status: working in groups involves creating and maintaining one blog from the list. We expand the boundaries of the documentary competency by creating a qualified electronic signature (QES) online, as well as algorithmizing the necessary actions in the information project. At the same time, Zoom tools, in particular screen sharing and opportunities for editing, bring an element of gamification into the process of structuring documents and correcting flaws in their design. The study of the scientific style as one of the main ones in the future professional activity of students includes working with network resources, among which the repository performs a double function: searching for scientific works using available markers and placing students' publications as the results of their own research. The effectiveness of editing official and scientific texts increases if the work material is part of active resources. For example, the mobile application "Business Communication" informs about certain aspects of verbal professional communication. Meanwhile, the texts posted in this application require significant linguistic and technological editing, as they are often unsuccessful (or computer) translations. Therefore, working with the application can be used as an option for the purpose of forming students' editorial competence.

There is no thematic restriction on the use of QR codes both during lectures and practical classes (students master QR code reading tools) and in the process of preparing information projects (students master QR code generation resources). In both cases, the available elements of gamification, which intensify cognitive activity, increase the educational motivation of learners, regardless of whether they study online or offline.

We use the educational platforms Prometheus and Coursera as additional means of teaching Ukrainian Language for Professional Purposes with elements of gamification. Today, none of them includes a full course that would ensure the formation of the necessary competencies. Therefore, we emphasize the optionality of their use. At the same time, in order to improve certain aspects of the professional speech of future teachers, the above-mentioned educational platforms offer interesting courses: Prometheus—"Oratory Art: Start Speaking Now", "Learning How to Learn: Powerful Mental Tools to Help You Master Tough Subjects", "Think the Opposite: Break the Obstacles on the Way to Learning and Unlock Hidden Potential", "How to Effectively Plan and Conduct a Dialogue" modules 1-3, "Digital Communications in the Global Space", "Information Hygiene: How to Spot Lies on Social Networks, the Internet and Television", "Academic Integrity: Online Course for Teachers"; Coursera—"Learning How to Learn: Powerful Mental Tools to Help You Master Tough Subjects", "Introduction to Communication Science", "Get Organized: How to Be a Together Teacher". The policy of the Ukrainian Language for Professional Purposes discipline includes selective completion of two courses from the proposed list with appropriate evaluation.

It is worth noting that the use of tasks with gamification elements must correlate with the purpose of studying a specific topic, the aim and tasks of the educational discipline, its competency paradigm, the list of competencies in the educational program of the specialty, and program learning results. Tasks successfully completed by a student comprehensively form his vision of the

opportunities for transferring the acquired experience from the educational environment to the professional one.

3. CONCLUSIONS

Modern educational trends, in particular the strengthening of motivation, the use of information and communications technology, and the implementation of active learning, lead to the search for tools and means of integrating education with the environment familiar to the modern digital generation. Since the problem of professionally oriented learning of Ukrainian as the state language has become particularly acute, the need for partial gamification of this process has also increased. Applying gamification elements rather than complete game mechanics makes it possible to neutralize the negative impact of the factors discussed above: technological, psychological, age related, temporal and motivational. In the context of language training of pedagogy specialists, it is important to take into account the specificity of the perception of gamified tasks by students (from the perspective of the student and from the perspective of the future teacher). Based on the single-vector technological direction, the proposed system of tasks with gamification elements for the Ukrainian Language for Professional Purposes course will provide an opportunity to cover the main competencies, the formation of which is the goal and result of this academic discipline.

Prospects for further research are aimed at improving the methodology of teaching Ukrainian Language for Professional Purposes, as well as the accompanying special courses, taking into account the capabilities of gamification at various educational levels.

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Гуменюк Ірина. Елементи гейміфікації у процесі україномовної підготовки фахівців педагогічної галузі. *Журнал Прикарпатського університету імені Василя Стефаника*, 10 (1) (2023), 126–132.

Стаття присвячена дослідженню проблеми застосування елементів гейміфікації у процесі підготовки майбутніх учителів початкових класів і вихователів закладів дошкільної освіти на прикладі методики навчання української мови за професійним спрямуванням. Обґрунтовано необхідність удосконалення методики навчання мови здобувачів освіти різних вікових категорій з урахуванням основних освітніх тенденцій і суспільних запитів. Відповідно до поставленої мети з'ясовано сутність поняття «гейміфікація» стосовно сучасної галузі освіти. Визначено особливості застосування гейміфікації у процесі підготовки студентів педагогічних закладів вищої освіти, що суттєво впливають на результативність навчання.

Акцентовано, що зростання кількості ігрових засобів у методиці навчання української мови за професійним спрямуванням не завжди прямо пропорційне зростанню успішності. Оскільки гейміфікація неможлива без застосування інформаційно-комунікаційних технологій, необхідно враховувати чинник належного технологічного забезпечення. Віковий чинник виявляється більше в інформаційно-технологічних навиках і можливостях певних вікових груп, ніж у результативності виконаних завдань за умови безперешкодного володіння технологією. У процесі гейміфікації вагомий вплив має елемент новизни, темпорально-мотиваційна залежність інтересу виконавців від тривалості чи алгоритмізованості завдань. Психологічний чинник виявляється у гендерній площині, чим обґрунтовано неефективність застосування для жіночої аудиторії гейміфікації з елементами конкуренції або відкритим ранжуванням результатів. У контексті підготовки фахівців педагогічної галузі процес гейміфікації у вивченні певної дисципліни отримує двояке спрямування: підвищення мотивації, а отже, результативності навчання, формування необхідних компетентностей майбутніх педагогів; засвоєння виконаних гейміфікованих завдань як можливих способів і засобів навчання української мови для застосування у майбутній професійній діяльності.

На основі аналізу інформаційного простору піднятої проблеми розроблено систему завдань з елементами гейміфікації, адаптовану до змісту навчальної дисципліни «Українська мова за професійним спрямуванням».

Ключові слова: гейміфікація, компетентність, методика навчання, професійне мовлення, педагогічна галузь, українська мова, мотивація, інформаційно-комунікаційні технології, діджиталізація.