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IMPACT OF MEANINGFUL GAMIFICATION ON COMMUNICATIVE COMPETENCE IN ENGLISH LANGUAGE TEACHING

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Abstract. This article explores the impact of meaningful gamification on the development of communicative competence among students learning English as a foreign language. The study is grounded in the RECIPE model developed by Scott Nicholson, which incorporates six core components: Reflection, Choice, Engagement (Participation), Information, Play, and Exposure. These elements are aimed at enhancing intrinsic motivation and fostering deeper educational involvement. The quasi-experimental study was conducted among 7th-grade school students in one of the secondary schools in Almaty, Kazakhstan. The participants were divided into two groups: a control group exposed to traditional gamification techniques and an experimental group engaged in activities designed according to the principles of meaningful gamification. The research methods included pre- and post-testing of communicative competence, student surveys, classroom observation, reflective diaries, and semi-structured interviews. Findings revealed that students in the experimental group demonstrated a notable improvement in communicative activity, confidence in using English, and sustained learning motivation compared to their peers in the control group. The article concludes that meaningful gamification, when applied thoughtfully and systematically, can serve as an effective pedagogical strategy to support the development of communicative competence and long-term engagement in language learning. Recommendations for educators and implications for further research are also discussed.

Keywords: meaningful gamification, foreign language learning, intrinsic motivation, communicative competence, RECIPE model, game-based learning, learner engagement, reflection, educational technologies

Introduction

Modern education is going through an era of transformation caused by digitalization, increasing global mobility and changing needs of a new generation of students. Traditional teaching methods are increasingly giving way to interactive and flexible formats, where personal involvement of the student, development of critical thinking and communicative competence come to the

fore. In the conditions of information overload and decreased concentration, the issue of increasing students' motivation for learning activities becomes especially acute [1, p. 30]. One of the most discussed approaches of the last decade has been gamification - the introduction of game elements into the educational process. Research confirms that it promotes learning motivation, increases activity and interest in the subject [2, p. 3032]. However, when superficially implemented - with an emphasis solely on external incentives (points, badges, ratings) - gamification demonstrates limited effectiveness and does not ensure sustainable skill development [3, p. 228]. This is especially relevant in the field of teaching foreign languages, where social interaction, speech activity and internal motivation to use the language in real situations are key.

Against this background, the concept of meaningful gamification developed by Scott Nicholson is becoming relevant. Unlike traditional gamification, this approach is aimed at creating learning conditions in which game elements do not simply decorate the lesson, but are integrated into the system of personally significant experience of the student. The focus is on internal motivation, reflection, freedom of choice, emotional involvement, connection with the real world.

Nicholson [4, p. 11] developed a meaningful gamification model under the acronym RECIPE, which includes six key components:

- Reflection is an understanding personal experience and goals;
- Exposition is correlating the game context with real life;
- Choice is the ability to make decisions in learning;
- Information is conscious acquisition of knowledge;
- Play is a creative experiment;
- Engagement is emotional and cognitive participation.

The theoretical basis of the model is the Self-Determination Theory by E. Deci and R. Ryan [5, p. 245], according to which satisfying the basic needs for autonomy, competence, and belonging increases intrinsic motivation and productivity of learning.

Interest in gamification is also growing in the CIS countries. Researchers emphasize that the integration of game approaches requires not just copying Western practices, but adapting them to the cultural and pedagogical context [6, p. 74]. Meaningful gamification in this sense offers a way to create a learning environment in which each student feels the significance of their participation, and the learning process ceases to be formal and acquires existential value [7, p. 59].

Thus, meaningful gamification is a promising strategy in the context of teaching English, capable of not only stimulating student activity, but also creating a basis for the formation of deep communicative and sociocultural competence. The aim of this study is to analyze the effectiveness of meaningful

gamification using the RECIPE model in teaching English to schoolchildren, as well as to identify its impact on the development of communicative competence in comparison with the traditional gamified approach.

Materials and methods

The study used a combination of theoretical and empirical methods to ensure scientific rigor. The theoretical framework included a review of existing literature, a comparative study of pedagogical approaches, and a content analysis of gamified educational materials. The empirical methods included a quasi-experimental design, such as pre- and post-testing, observation of student activity, questionnaires, semi-structured interviews, and analysis of written reflections, which provided quantitative and qualitative data on the impact of meaningful gamification on the development of communicative competence. This approach allowed us to assess the potential application of this concept in Kazakhstan, where it has not yet been used, and to lay the foundation for further development of this methodology.

The study involved 60 seventh-grade students from Gymnasium No. 34 in Almaty, Kazakhstan. All participants were 12–13 years old and studied in parallel classes according to the same curriculum, which ensured their comparability in terms of their level of preparation. According to the results of the entrance testing and school certification, the level of English proficiency of all participants corresponded to level A2 on the common European framework CEFR. The selection was carried out using the principle of cluster sampling, with an even distribution by gender and academic background.

The methodological basis is a quasi-experimental approach with preliminary and final testing namely pre-test and post-test design. Participants were randomly assigned to two groups:

- Control group (n = 30): training using traditional gamification elements: quizzes, badges for completing tasks, cumulative points and ranking by results. The main emphasis was on external stimulation of learning activity. - Experimental group (n = 30): training based on the principles of meaningful gamification according to the RECIPE model. The program included a variety of components designed to promote active engagement and meaningful learning. Reflective tasks such as reflection diaries and self-assessments encouraged students to critically evaluate their progress and develop metacognitive skills. Project-based activities centered around real-life contexts, for instance, organizing a global youth forum that provided opportunities to apply knowledge in authentic settings. Additionally, culturally oriented role-playing games and debates, such as simulating a UN youth assembly, fostered intercultural awareness and communication skills. The inclusion of variable tasks with options for creative expression, including essays, blog posts, and video messages, further supported learner autonomy and accommodated diverse learning styles.

During the experiment, both ready-made digital tools and original tasks developed taking into account age characteristics and the principles of meaningful gamification were used. The main platforms were *Wordwall* for creating game exercises on vocabulary and grammar; *Canva* for designing posters and blogs; *Nearpod* for interactive lessons with elements of choice; *Kahoot* for game quizzes to update knowledge.

All tasks were thematically related to real socio-cultural contexts and aimed at developing the practical use of language in intercultural communication.

To assess the effectiveness of the program, a combination of qualitative and quantitative methods was employed. These included pre- and post-testing of communicative competence, which comprised an oral monologue, a written assignment, and participation in a dialogue based on a proposed situation. Students also completed questionnaires measuring educational motivation, satisfaction, and perception of game elements using a Likert scale. Additionally, semi-structured interviews were conducted with a sample of 20 students, 10 from each group, to capture individual perspectives and impressions regarding their participation in the experiment. Pedagogical observation of students' behavior during classes provided further insights into engagement and interaction patterns. Finally, participants maintained reflective diaries, documenting their feelings, challenges, emotions, and understanding of the learning process throughout the study.

The data were subjected to descriptive statistics (calculation of mean values, standard deviations). To identify differences between groups, the Student's t-test for independent samples (comparison of results before and after the experiment) was used, with a significance level of $p < 0.05$. Qualitative data were analyzed using thematic coding of statements and correlation with the parameters of involvement and motivation.

Results and discussion

The analysis of the preliminary testing results demonstrated a comparable level of communicative competence in both groups before the experiment. The average scores for the criteria of 'vocabulary', 'grammatical accuracy', 'spontaneity' and 'participation in dialogue' fluctuated within 58–62 points out of 100, which indicates approximately the same initial preparation of the students.

After the completion of the four-week experimental program, significant differences in the dynamics of the development of communicative skills were observed between the control and experimental groups.

In the experimental group, studying according to the principles of meaningful gamification, an average increase of 22% was recorded for all key criteria. Particularly pronounced growth was observed in the components of spontaneous speech (by 27%) and proactive participation in dialogue (by 25%),

which indicates an increase in confidence and readiness for communication. In addition, the students' thematic vocabulary expanded, the coherence of statements improved, and the number of grammatical errors decreased.

In the control group, where traditional gamification elements were used (quizzes, points, leaderboards), the increase was less pronounced and amounted to 8-10%, mainly due to an increase in vocabulary. However, the improvement in grammar and spontaneous speech was insignificant, which may indicate the insufficiency of external motivation as the only factor of engagement.

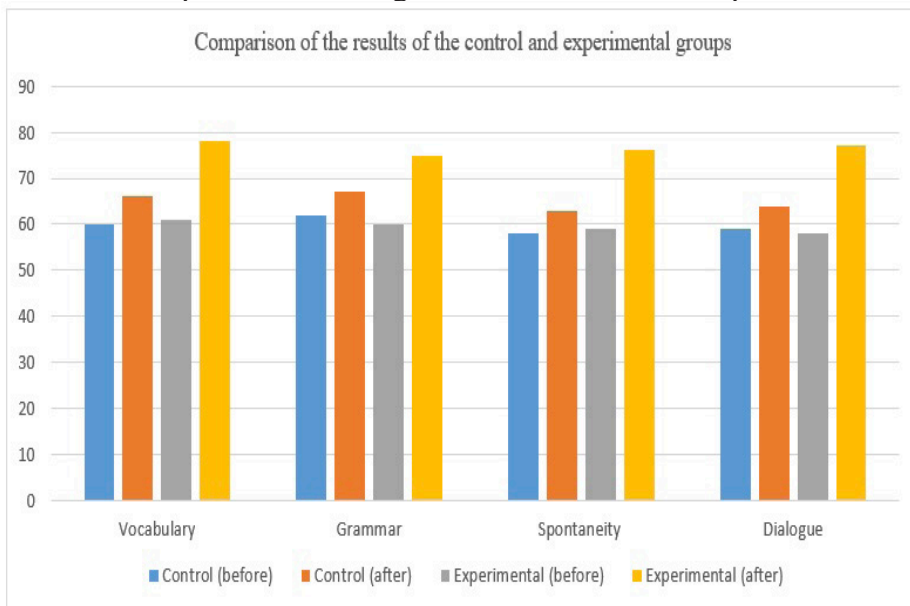
According to the final questionnaire, 86% of students in the experimental group noted that they 'like using English in real-life situations', while in the control group this figure was only 53%. Moreover, participants in the experimental group indicated an increase in interest in English-speaking cultures, a desire to learn more about foreign peers, and to participate in international projects.

Reflective diaries filled out by students weekly confirmed these data. The entries included statements such as 'now English is perceived as a personal resource', 'I am no longer afraid of making mistakes', 'I felt that I could influence the course of the lesson', which reflects the formation of internal learning motivation and a meaningful attitude toward language as an instrument of self-expression and communication. Statistical processing of the results using the Student criterion showed the presence of reliable differences ($p < 0.05$) between the two groups in the following indicators: spontaneity of speech, initiative in dialogue, flexibility of language response. This confirms the hypothesis that meaningful gamification has a higher developmental potential in the context of the formation of communicative competence in adolescents (see Table 1).

Table 1. Comparative results of experimental and control groups on communicative competence and motivation indicators

Indicator	Experimental Group	Control Group
Students who enjoy using English in real-life situations	86%	53%
Interest in English-speaking cultures	Increased	Not mentioned
Desire to learn about foreign peers and join international projects	Increased	Not mentioned
Reflection: English as a personal resource	Observed	Not observed
Reflection: Not afraid of making mistakes	Observed	Not observed
Reflection: Feeling of influencing the lesson	Observed	Not observed
Statistical difference ($p < 0.05$): Spontaneity of speech	Significant	Not significant
Statistical difference ($p < 0.05$): Initiative in dialogue	Significant	Not significant
Statistical difference ($p < 0.05$): Flexibility of language response	Significant	Not significant

The presented data are visualized in a diagram (see Picture 1), which clearly demonstrates the quantitative changes before and after the experiment.



Picture 1 - Comparative indicators of four criteria of communicative competence in the control and experimental groups (before and after the experiment)

The obtained results of the empirical study allow us to conclude that meaningful gamification is highly effective as a tool for developing internal learning motivation and forming communicative competence in school education. The significant difference between the experimental group and the control group in terms of speech activity, initiative, and readiness for interaction indicates a profound influence not only on the cognitive but also on the affective components of learning activities.

The identified effects are fully consistent with the Self-Determination Theory by E. Deci and R. Ryan [5, p. 256], which emphasizes that motivation develops sustainably when a learner feels autonomy, task significance, and involvement in the learning process. Meaningful gamification according to the RECIPE model implements these principles, providing space for reflection, freedom of choice, social and emotional involvement. Unlike the traditional model focused on external control and reward, meaningful gamification turns the learning process into a path of personal growth and self-awareness. Our interpretation of the results is also consistent with the findings of Scott Nicholson [4, p. 17], who argues that meaningful gamification allows us to move away from 'manipulative' approaches to learners and move on to creating a sustainable educational experience centered on the learner's subjectivity. This approach is

becoming especially relevant in the context of modern education, where the most important tasks are not so much memorizing information as developing critical thinking, initiative, and the ability to interact interculturally.

In the works of Khusainova and Gabbasova [8, p. 103], meaningful gamification also demonstrates high efficiency, especially in the context of blended and distance learning, where natural motivation is reduced and support for engagement is needed. The authors emphasize that elements of choice, project activities and emotional engagement help to retain students' attention, deepen their understanding of the material and develop linguistic flexibility. It is important to note that meaningful gamification does not simply add game elements to the lesson, but reorganizes the educational space itself, transferring it from the category of a 'controlling environment' to a 'supportive and developing one'. This shift allows the student to feel like an active participant in the process, rather than a passive executor of instructions. It is this quality, according to modern educators and psychologists, that is key to the formation of motivation for lifelong learning.

Thus, meaningful gamification can be characterized as a methodologically verified, theoretically substantiated and practically effective approach to organizing the educational process, especially in the field of teaching foreign languages, where the importance of motivation, emotional involvement and cultural awareness is of paramount importance.

Conclusion

The conducted study confirmed that meaningful gamification, implemented on the basis of the RECIPE model, is an effective pedagogical technology that promotes the development of communicative competence of schoolchildren in the process of learning English. Unlike traditional forms of gamification, based mainly on external motivation, meaningful gamification focuses on the deep personal involvement of students, the meaningfulness of educational activities and their connection with real life.

The results of the experiment demonstrated that the use of meaningful gamification activates spontaneous speech practice, contributes to the growth of confidence in communicating in a foreign language, forms a stable internal motivation for learning, strengthens critical thinking skills and socio-cultural awareness.

Thus, meaningful gamification can be not only an additional resource, but also a key element of the strategy for modernizing school language education, especially in the context of the transition to a competency-based learning model. The introduction of this approach makes the educational process more flexible, individualized and focused on the values of the 21st century.

In this regard, it seems appropriate to broaden the application of meaningful gamification to other age groups and subject areas, thereby exploring its wider pedagogical potential. It is also essential to develop methodological recommendations and teaching materials that reflect the specific features of this approach and support its effective implementation in diverse educational contexts. Furthermore, continued scientific research involving a larger and more representative sample is necessary to validate the findings and examine the long-term effects of meaningful gamification in foreign language instruction.

REFERENCES

[1] Kapp K. M. The gamification of learning and instruction: Game-based methods and strategies for training and education. Pfeiffer. – 2021. – pp.34.

[2] Hamari J., Koivisto J., Sarsa H. Does gamification work? A literature review of empirical studies on gamification. Proceedings of the 47th Hawaii International Conference on System Sciences. – 2019. – pp.3025–3034.

[3] Nicholson S. A user-centered theoretical framework for meaningful gamification. Proceedings of Games+Learning+Society 8.0. – 2012. – pp.223–230.

[4] Nicholson S. A RECIPE for meaningful gamification. In: Reiners T., Wood L. C. (Eds.). Gamification in education and business. Springer. – 2015. – pp.1–20.

[5] Deci E. L. & Ryan R. M. The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. Psychological Inquiry. – 2000. – V.11(4). – pp.227–268.

[6] Беленкова Н. А. Зарубежные лингводидактические подходы к обучению английскому языку. Вестник МГПУ. Серия: Филология. Теория языка. Языковое образование. – 2021. – №1(39). – С.70–76.

[7] Сүлейменова Г., Турарова Г. Оқу үдерісіне геймификацияны енгізу мүмкіндіктері мен қиындықтары. Қазақстан Республикасының Білім беру журналы. – 2022. – №5(127). – Б. 56–60.

[8] Хусаинова Л. Р., Габбасова Л. Г. Осмысленная геймификация в условиях смешанного обучения: новые практики для развития языковой компетенции. Образование и наука. – 2023. – №25(1). – С. 102–120.

REFERENCES

[1] Kapp K. M. The gamification of learning and instruction: Game-based methods and strategies for training and education. Pfeiffer. – 2021. – pp.34.

[2] Hamari J., Koivisto J., & Sarsa H. Does gamification work? A literature review of empirical studies on gamification. Proceedings of the 47th Hawaii International Conference on System Sciences. – 2019. – pp.3025-3034.

[3] Nicholson S. A user-centered theoretical framework for meaningful gamification. Proceedings of Games+Learning+Society 8.0. – 2012. – pp.223–230.

[4] Nicholson S. A RECIPE for meaningful gamification. In T. Reiners & L. C. Wood (Eds.). Gamification in education and business. Springer. – 2015. – pp.1-20.

[5] Deci E.L. & Ryan R. M. The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. Psychological Inquiry. – 2000. – V.11(4). – pp.227–268.

[6] Belenkova N. A. Zarubezhnye lingvodidakticheskie podkhody k obucheniyu angliyskomu yazyku (Foreign linguodidactic approaches to teaching English). Vestnik MGPU. Seriya: Filologiya. Teoriya yazyka. Yazykovoe obrazovanie. 2021. – No 1(39). – pp.70–76. [in Rus.]

[7] Süleimenova G., & Turarova G. Oqu uderisine gamifikaciyanı engizu mumkindikteri men qındıqtary (Possibilities and difficulties of implementing gamification in the educational process). Qazaqstan Respublikasynyn Bılım beru jurnaly. – 2022. – No 5(127). – pp.56–60. [in Kaz.]

[8] Khusainova L. R., & Gabbasova L. G. Osmyslennaya geimifikatsiya v usloviyakh smeshannogo obucheniya: novye praktiki dlya razvitiya yazykovoy kompetentsii (Meaningful gamification in blended learning: New practices for developing language competence). Obrazovanie i Nauka. – 2023. – No 25(1). – pp.102–120. [In Rus.]

МАҒЫНАЛЫ ГЕЙМИФИКАЦИЯНЫҢ АҒЫЛШЫН ТІЛІН ОҚЫТУДА КОММУНИКАТИВТІК ҚҰЗЫРЕТТІЛІКKE ӘСЕРІ

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Аңдатпа. Бұл мақалада шетел тілі ретінде ағылшын тілін меңгеру барысында оқушылардың коммуникативтік құзыреттілігін дамытуға мазмұнды (осмысленная) геймификацияның ықпалы жан-жақты талданады. Зерттеу Скотт Николсон ұсынған RECIPE моделіне сүйенеді. Аталған модель рефлексия, таңдау, қатысу, ақпарат, ойын және экспозиция сияқты алты негізгі компоненттен тұрады. Бұл компоненттердің әрқайсысы оқу үдерісін тереңірек түсінуді, оқушылардың жауапкершілігін арттыруды және олардың ішкі мотивациясын қолдауды көздейді. Модельдің басты мақсаты оқушылардың пәнге деген табиғи қызығушылығын оятып, олардың оқу әрекетіне саналы, мақсатты түрде қатысуын ынталандыру болып табылады. Квазиэксперименттік зерттеу Алматы қаласындағы №34 гимназияның 7-сынып оқушылары арасында жүргізілді. Зерттеу дизайны екі топты қамтыды: бақылау тобы дәстүрлі геймификация әдістерімен жұмыс істесе, эксперименттік топта мазмұнды геймификация элементтері енгізілді. Зерттеу барысында түрлі әдістер қолданылды: коммуникативтік құзыреттілікті

алдын ала және кейіннен диагностикалау, оқушыларға сауалнама жүргізу, сабақ барысын жүйелі бақылау, оқушылардың рефлексиялық күнделіктерін талдау және жартылай құрылымдалған сұхбаттар алу.

Алынған нәтижелер эксперименттік топтың оқушылары ағылшын тілінде қарым-қатынас жасау белсенділігінің, өзіне деген сенімділіктің және ішкі оқу мотивациясының айтарлықтай артқанын көрсетті. Зерттеу мазмұнды геймификацияның тілдік құзыреттілікті дамытуда, сондай-ақ тілді ұзақ мерзімді үйренуге қызығушылық пен тұрақты қатысуды қалыптастыруда тиімді педагогикалық стратегия екенін дәлелдейді. Мақалада мұғалімдерге практикалық ұсыныстар ұсынылып, болашақ зерттеулерге арналған бағыттар айқындалады.

Тірек сөздер: мазмұнды геймификация, шетел тілін меңгеру, ішкі мотивация, коммуникативтік құзыреттілік, RECIPE моделі, ойын арқылы оқыту, оқушының белсенділігі, рефлексия, білім беру технологиялары

ВЛИЯНИЕ ОСМЫСЛЕННОЙ ГЕЙМИФИКАЦИИ НА КОММУНИКАТИВНУЮ КОМПЕТЕНЦИЮ В ПРЕПОДАВАНИИ АНГЛИЙСКОГО ЯЗЫКА

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Аннотация. В статье подробно исследуется влияние осмысленной геймификации на развитие коммуникативной компетенции учащихся при изучении английского языка как иностранного в условиях среднего образования. В основе исследования лежит модель RECIPE, предложенная Скоттом Николсоном, включающая шесть ключевых компонентов: рефлексия, выбор, участие, информация, игра и экспозиция. Эти элементы направлены на усиление внутренней мотивации учащихся, формирование устойчивого интереса к изучению языка и создание более глубокого эмоционального и познавательного вовлечения в учебный процесс. Особое внимание уделяется тому, как каждый компонент модели способствует развитию навыков общения, самостоятельности и ответственности за собственное обучение.

Квазиэкспериментальное исследование проводилось среди семиклассников Гимназии №34 города Алматы, Казахстан. Участники были разделены на контрольную группу, где применялась традиционная геймификация, и экспериментальную группу, в которой использовались принципы осмысленной геймификации. В ходе исследования применялись разнообразные методы сбора данных: предварительное и итоговое

тестирование коммуникативной компетенции, анкетирование учащихся, систематическое педагогическое наблюдение, анализ рефлексивных дневников и проведение полуструктурированных интервью.

Результаты показали, что учащиеся экспериментальной группы продемонстрировали более высокий уровень коммуникативной активности, улучшение уверенности в использовании английского языка, а также формирование устойчивой учебной мотивации. В статье обоснована эффективность осмысленной геймификации как современной педагогической стратегии, способствующей развитию языковой компетенции и повышению долгосрочной вовлечённости учащихся. Кроме того, представлены практические рекомендации для учителей и обозначены перспективные направления дальнейших исследований в данной области.

Ключевые слова: осмысленная геймификация, обучение иностранным языкам, внутренняя мотивация, коммуникативная компетенция, модель RECIPE, игровое обучение, вовлеченность учащихся, рефлексия, образовательные технологии

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