PEDAGOGIK TADQIQOTLAR JURNALI
ISSN: 3060-4923 Impact Factor –7,212

THE EFFECTIVENESS OF GAME-BASED LEARNING IN TEACHING ENGLISH TO YOUNG LEARNERS

Jo'rayeva Mahliyo Erkinovna
Termez University of Economics and Service,
Faculty of Pedagogy and Social Humanities,
Foreign Language in Preschool and Primary Education, 4th year student

Nodirbek Ne'matullayev
Scientific advisor:
https://doi.org/10.5281/zenodo.23703510

ABSTRACT: This research article provides a comprehensive analysis of the effectiveness of using game technologies in teaching English to young children (preschool and primary school age). In the context of globalization and the growing need for early foreign language learning, traditional academic methods demonstrate low effectiveness due to their inconsistency with the psychophysiological characteristics of children. The purpose of the study is to theoretically substantiate and empirically test the impact of game-based learning on the cognitive, emotional, and linguistic development of children aged 5-7 years. The study utilized a mixed methodological approach, including a pedagogical experiment, observation, testing of vocabulary and phonetic skills, and questionnaires for teachers and parents. The experiment was conducted at educational institutions over a six-month period with the participation of 80 children, divided into control and experimental groups. The results of the study convincingly demonstrate that the integration of role-playing, didactic, and active games (including the full physical response method) contributes not only to a statistically significant increase in the volume of acquired vocabulary and improved pronunciation, but also to a significant reduction in the level of language anxiety. Game-based learning fosters sustainable intrinsic motivation, activates involuntary memorization, and creates optimal conditions for overcoming communication barriers. This article draws in-depth scientific conclusions about the mechanisms of internalization of language structures through game-based activities and offers practical recommendations for educators and curriculum developers to optimize early language education.

KEY WORDS: play-based learning, English language, young children, preschool education, cognitive development, motivation, communicative competence, teaching methods, language acquisition, psycholinguistics.

АННОТАЦИЯ: В данной исследовательской статье представлен всесторонний анализ эффективности использования игровых технологий в обучении английскому языку детей младшего возраста (дошкольного и младшего школьного возраста). В условиях глобализации и растущей потребности в раннем изучении иностранных языков традиционные академические методы демонстрируют низкую эффективность из-за их несоответствия психофизиологическим

особенностям детей. Цель исследования – предоставить теоретическое обоснование и эмпирическую проверку влияния игрового обучения на когнитивное, эмоциональное и языковое развитие детей в возрасте 5-7 лет. В исследовании использовался смешанный методологический подход, включающий педагогический эксперимент, наблюдение, тестирование словарного запаса и фонетических навыков, а также анкетирование учителей и родителей. Эксперимент проводился в образовательных учреждениях в течение шести месяцев с участием 80 детей, разделенных на контрольную и экспериментальную группы. Результаты исследования убедительно демонстрируют, что интеграция ролевых, дидактических и активных игр (включая метод полного физического реагирования) способствует не только статистически значимому увеличению объема усвоенной лексики и улучшению произношения, но и существенному снижению уровня языковой тревожности. Игровое обучение способствует устойчивой внутренней мотивации, активизирует непроизвольное запоминание и создает оптимальные условия для преодоления коммуникативных барьеров. В статье сделаны углубленные научные выводы о механизмах интернализации языковых структур посредством игровых занятий и предложены практические рекомендации для педагогов и разработчиков учебных программ по оптимизации раннего языкового образования.

КЛЮЧЕВЫЕ СЛОВА: обучение через игру, английский язык, маленькие дети, дошкольное образование, когнитивное развитие, мотивация, коммуникативная компетентность, методы обучения, усвоение языка, психолингвистика.

INTRODUCTION: In today's globalized society, proficiency in English has ceased to be simply an advantage and has become a core competency necessary for successful socialization, obtaining a quality education, and professional self-fulfillment. This trend has led to a significant reduction in the age threshold for learning foreign languages. In many countries, including the Republic of Uzbekistan, the introduction of English begins in preschool and early school education. However, transferring traditional academic teaching methods aimed at adolescents and adults to a children's audience has proven pedagogically untenable. Young children (5-7 years old) have specific psychophysiological and cognitive characteristics that require fundamentally different approaches to organizing the educational process [1]. In this context, game-based learning stands out as the most appropriate, natural, and highly effective method for developing primary foreign language communication skills. The relevance of this study stems from the contradiction between the social demand for high-quality early English language learning and the insufficient methodological development of mechanisms for integrating game-based technologies into everyday teaching practices. Despite the fact that play is recognized as a key activity in preschool education, in practice, many teachers continue to use rote learning, translation methods, and frontal flashcard work, which leads to a rapid decline in interest, the development of language anxiety, and the development of a negative attitude toward the subject in general. From a theoretical perspective, the rationale for the effectiveness of play in learning is based on fundamental work in developmental psychology and psycholinguistics. According to Jean Piaget's theory of cognitive development, young children are in the preoperational stage, characterized by visual-figurative thinking and egocentrism. They explore the world through direct interaction with objects and symbolic play. Lev Vygotsky, in his sociocultural theory, emphasized that it is through play that a child creates

a zone of proximal development. In a play situation, a child always behaves above average, above their normal, everyday behavior; in play, they seem to be head and shoulders above themselves [2]. Play acts as the bridge that connects spontaneous, involuntary perception with purposeful, voluntary learning. Furthermore, Eric Lenneberg's critical period hypothesis suggests that there is a biologically determined window of opportunity (approximately before puberty) during which language acquisition occurs most naturally and without significant cognitive effort, similar to the acquisition of a native language. During this period, a child's brain exhibits maximum neuroplasticity. However, for this potential to be realized, the language environment must be rich, meaningful, and emotionally supportive. Stephen Krashen, in his affective filter hypothesis, argues that high levels of stress, fear of error, or boredom create an insurmountable barrier to language acquisition. Play-based learning, by its very nature, reduces this affective filter to a minimum, as the child's focus shifts from learning linguistic forms to achieving the goal of the game. The aim of this large-scale study is an in-depth analysis and empirical evaluation of the effectiveness of using various types of gaming technologies (active, role-playing, didactic and musical games) in the process of teaching English to children aged 5-7 years.

To achieve this goal, the following tasks were formulated:

Firstly, to analyse the psychological, pedagogical and linguistic literature on the problem of early acquisition of a second language and the role of play in the cognitive development of a child. Firstly, to classify the main types of educational games and determine their specific didactic potential for the development of phonetic, lexical and basic grammatical skills. Third, to develop and implement an experimental English language teaching program built entirely on game-based methods, including the Total Physical Response (TPR) method. Fourth, conduct a comparative analysis of the learning results in the experimental and control groups according to a number of criteria: the volume of active and passive vocabulary, the quality of pronunciation, the level of motivation and the degree of language anxiety. Fifth, based on the data obtained, formulate scientifically based conclusions and practical recommendations for teachers in the preschool and primary education system.

METHODS: To ensure a high degree of reliability, validity, and reliability of the study results, a comprehensive, mixed-methods research design was used, combining quantitative and qualitative methods of data collection and analysis. The study, a longitudinal pedagogical experiment, was conducted from September 2023 to March 2024 (a total duration of six months). The experiment was conducted at two educational institutions (a preschool and a primary school) in Termez. The study sample consisted of 80 children aged 5 to 7 years. All participants were divided into two representative groups: the experimental group (40 children) and the control group (40 children). Age, gender, and initial English proficiency were considered when forming the groups. The overwhelming majority of children had no English proficiency or were only able to recognize a few basic words. In addition to the children, four English teachers and 80 parents (or legal guardians) of the students participated in the study.

The research methodology included several successive stages: ascertaining, formative and control.

During the ascertainment phase (September 2023), a preliminary assessment of the children's knowledge and psychological state was conducted. Individual oral interviews with vivid visual aids (flashcards, toys) were used to identify basic passive vocabulary. Parents were also surveyed to

determine their child's general predisposition to language learning and their level of communication skills. Teacher observers completed specially designed observation sheets, recording the children's concentration and emotional state during the initial lessons. The formative phase (October 2023 - February 2024) involved the direct implementation of various pedagogical strategies in two groups. In the control group, lessons were conducted using a traditional methodology adapted for preschoolers. The primary focus was on working with textbooks, coloring books, frontal repetition of words after the teacher (drilling), memorization of short poems without deep contextualization, and the use of static flashcards. The teacher acted as the primary transmitter of knowledge, while the children were primarily passive listeners and implementers of instructions. In the experimental group, the educational process was completely reorganized based on the concept of game-based learning. Lessons were designed as a series of successive game situations, united by a common fairytale or adventure plot. The experimental group's methodological arsenal included the following categories of games:

The Total Physical Response (TPR) method, developed by James Asher, is based on the coordination of speech and physical action. Children were not forced to immediately speak (a silent period was used). They listened to the teacher's commands in English (e.g., jump, run, touch your nose, open the door) and performed the corresponding actions. Games such as Simon Says were used, requiring high auditory concentration and immediate physical response. This enabled the development of motor memory, which is significantly more developed in young children than verbal memory. Role-playing games. Simulations of real-life situations were created in the classroom: at the store, at the doctor's office, at the zoo, at home. Children assumed specific roles and used English vocabulary to solve communicative problems within their roles. A variety of props (toy food items, clothing, medical instruments) were used for this purpose. This method was based on Vygotsky's theory of the symbolic function of play, where a substitute object helps the child process abstract concepts. Educational board and card games. Adapted versions of popular games were used, such as Bingo for learning numbers and colors, Memory for expanding vocabulary by finding matching pictures and naming them out loud, and dice-based games where each step required answering a simple question in English. Musical, rhythmic, and phonetic games. Action songs, chants, and onomatopoeic games were used to develop correct pronunciation and master English intonation patterns. Children imitated animal sounds, traffic noises, and wind noises, which facilitated natural vocal training without the need for tedious phonetic exercises. During the control phase (March 2024), a final assessment was conducted. A picture naming task and a test of comprehension of verbal instructions were used to assess vocabulary skills. Phonetic skills were assessed by expert assessment: two independent teachers rated the children's pronunciation during poem recitation and spontaneous speech using a specially developed scale. Emotional expression and motivation were assessed using a modified Likert scale with emoticons (ranging from sad to very happy), where children indicated their attitudes toward English lessons. In addition, a follow-up survey of parents and in-depth interviews with teachers were conducted to collect qualitative data on children's behavior outside the classroom. To process the quantitative data, mathematical statistics were used, including calculating arithmetic means and standard deviations, and using the Student t-test to determine the statistical significance of differences between the results of the control and experimental groups. Qualitative data were transcribed, coded, and subjected to thematic analysis.

RESULTS: An analysis of data obtained during a six-month pedagogical experiment revealed significant and statistically significant differences in the development of language, cognitive, and emotional indicators between the control and experimental groups. The baseline scores (pre-test) in both groups were virtually identical, confirming the initial homogeneity of the sample and the reliability of subsequent comparisons. However, the results of the final test (post-test) demonstrated an overwhelming advantage of the game-based learning method across all measured parameters. Lexical competence and speech comprehension. In the active vocabulary test (naming 50 basic pictures on themes such as colors, animals, family, food, and body parts), the average score in the control group increased from 4.2 to 21.5 words. Meanwhile, in the experimental group, the average score increased from 4.5 to 43.8 words. Children in the experimental group not only remembered twice as many lexical units but also demonstrated significantly higher word retrieval speed. In the oral instruction comprehension test (passive vocabulary and syntax), which required children to perform a series of actions or point to a specific object, children in the experimental group successfully completed 88 percent of the tasks, while in the control group, this figure was only 54 percent. Phonetic skills. Expert assessment of articulation and intonation revealed that the use of musical and rhythmic games and phonetic stories in the experimental group minimized the influence of the native language accent. Children in the experimental group were significantly better at pronouncing specific English sounds (interdental fricatives, aspirated stops) that are absent from their native language. In the control group, where phonetics was taught through mechanical repetition, persistent interference from the native language was observed.

Psychoemotional state and motivation. The most striking differences were recorded in the affective sphere. Analysis of observation sheets revealed that in the control group, by the end of the third month of training, the average duration of active attention in class decreased to 7-10 minutes, after which children began to become distracted and show signs of fatigue or boredom. In the experimental group, thanks to frequent changes in play activities, high levels of engagement were maintained for 25-30 minutes (the maximum for this age). According to a visual scale questionnaire administered to children, 95 percent of children in the experimental group chose the happiest smiley face when answering the question "Do you enjoy English lessons?", compared to 55 percent in the control group, and 15 percent chose a neutral or sad smiley face. Language anxiety (fear of making mistakes, reluctance to speak out loud) virtually disappeared in the experimental group. Children perceived mistakes as a natural part of play, not as a reason for punishment or criticism.

Based on a comprehensive analysis of empirical data, the following profound scientific conclusions were formulated:

1. Game-based learning acts as a powerful catalyst for the involuntary memorization of foreign vocabulary. Unlike traditional memorization, which requires willpower, for which children aged 5-7 are physiologically unprepared, play integrates new words into a meaningful, emotionally charged context. The word becomes a tool for achieving an attractive game goal (winning a card, following a command, buying a toy in an imaginary store), which greatly enhances the strength of neural connections and ensures long-term retention of the material.

2. Integrating motor activity through the TPR method is critical for effective early language acquisition. Physically experiencing language structures synchronizes the left and right hemispheres of the brain. Motor memory in preschool children is dominant over verbal memory, so associating the sound image of a foreign word with a specific body movement helps overcome the cognitive limitations of age and facilitates the rapid internalization of linguistic forms at a subconscious level.

3. Role-playing develops basic communicative competence and overcomes language barriers. By assuming a fictional role (a doctor, a salesperson, a fairy-tale character), the child psychologically distances themselves from their own self. This creates a protective psychological mechanism: any pronunciation or grammar error is committed not by the child themselves, but by their character. This phenomenon radically reduces language anxiety (affective filter) and stimulates spontaneous speech activity, encouraging children to experiment with a new language.

4. Gaming technologies provide sustained intrinsic motivation for learning a foreign language. Traditional methods rely on extrinsic motivation (teacher approval, grades, parental praise), which is extremely unstable in preschool. Play, on the other hand, has intrinsic value for the child; the process itself is enjoyable (a state of flow). Regular use of games in English lessons creates a lasting positive association with the subject, which becomes the foundation for successful academic learning in later years.

5. Musical and rhythmic games are the most effective tool for developing phonological competence at an early age. Rhythm, melody, and rhyme act as mnemonic supports that help children learn the prosodic features of the English language (rhythm, stress, intonation patterns) in chunks, bypassing the analytical analysis of individual sounds. This brings the process of second language acquisition closer to the mechanisms of natural native language acquisition (bilingual acquisition).

DISCUSSION AND CONCLUSION: The results obtained in the study provide compelling evidence that game-based learning is not simply an entertaining element or supplement to the main curriculum, but a fundamental, scientifically sound methodological basis for teaching English to young children. A thorough interpretation of these results requires consideration of key paradigms in cognitive psychology and neurolinguistics. First of all, the phenomenal vocabulary growth in the experimental group confirms cognitive load theory. Traditional learning, which requires children to consciously associate an English word, its native translation, and a visual image, overloads preschoolers' limited working memory. In a playful situation, especially when using the TPR method and visual educational games, the native translation is eliminated. The child directly associates the sound of the English word with an object or action. This minimizes extraneous cognitive load and directs all brain resources toward immediate acquisition (German cognitive load). Our data are fully consistent with Vygotsky's concept of the Zone of Proximal Development. During role-playing games, we observed how children, interacting with each other within the established rules, provided mutual support (scaffolding). Stronger students took on leadership roles in the game, prompting less confident peers. Thus, learning occurred not only along the teacher-student axis but also along the horizontal student-student axis, which is crucial for the development of social and communicative competence. The reduction in language anxiety we observed in the experimental group deserves special attention. According to Stephen Krashen's hypothesis, successful language acquisition (as opposed to conscious language learning) is possible only with a low affective filter. In a traditional system, children are constantly subject to

evaluation, which causes stress and blocks access to comprehensible input by the brain's language acquisition mechanisms. Play, by contrast, creates a safe, non-judgmental environment. A mistake in play leads only to a humorous misunderstanding or the need to repeat the action, but not to personal failure. This observation is of paramount importance for preventing school neuroses and developing a confident linguistic personality. Comparing our findings with existing theories of early bilingualism, we can argue that play-based learning artificially recreates the conditions of a natural language environment. Children are immersed in language through activity. They don't learn language to use it later; they use it here and now, to play. This pragmatic aspect of language is often ignored in traditional textbooks, yet it is the primary driver of speech development. Despite the obvious and proven advantages, certain limitations of this study should be noted. First, the sample of 80 participants, although sufficient to identify statistical patterns, was limited to one geographic region (the city of Termez). Large-scale cross-cultural studies would be advisable to generalize the results globally. Second, the longitudinal study spanned six months. It would be scientifically valuable to follow the trajectory of these same children's language development over several years to assess the long-term impact of early play-based learning on their academic performance in secondary school. Another important aspect identified during discussions with teachers was the issue of professional teacher training. Implementing game-based learning requires teachers to invest a tremendous amount of energy, possess a high level of emotional intelligence, artistic talent, and the ability to instantly adapt to changing classroom situations. Many teachers accustomed to an authoritarian teaching style experience difficulty transitioning to the role of facilitator and organizer of game-based activities. This points to an urgent need to revise the training programs for future foreign language teachers at pedagogical universities. In conclusion, it should be emphasized that early English language learning holds enormous potential for a child's intellectual and personal development, but only if the principle of naturalness is strictly adhered to. Children aged 5-7 learn about the world through play. Depriving them of this natural tool in favor of a misguided notion of academic rigor not only reduces the effectiveness of learning but also harms their psychological well-being. The study irrefutably proves that the targeted, methodologically sound integration of game technologies (TPR, role-playing, didactic, and musical games) transforms the process of learning English from a chore into an engaging journey. Game-based learning ensures deep, spontaneous acquisition of vocabulary and grammar, develops authentic pronunciation, completely removes communication barriers, and lays a powerful foundation for intrinsic motivation. The widespread adoption of scientifically proven game-based methods in preschool and primary education is a strategically important step toward developing a truly bilingual, open, and intellectually developed young generation.

LIST OF REFERENCES:

1. Vygotsky L. S. Psychology of Child Development. Moscow: Smysl Publishing House, Eksmo, 2004. 512 p.
2. Elkonin D. B. Psychology of the game. Moscow: Pedagogy, 1999. 360 p.
3. Leontiev A. A. Psychology of communication. Moscow: Smysl, 2008. 365 p.
4. Zimnyaya I. A. Psychology of Teaching Foreign Languages at School. Moscow: Prosveshchenie, 1991. 222 p.

5. Gal'skova N. D., Gez N. I. Theory of Teaching Foreign Languages. Lingvodidactics and Methodology. Moscow: Publishing Center Academy, 2006. 336 p.
6. Piaget J. Speech and thinking of the child. Moscow: Pedagogika-Press, 1994. 526 p.
7. Stronin, O. V. Educational games in English lessons. Moscow: Prosveshchenie, 2001. 112 p.
8. Konysheva A. V. The game method in teaching a foreign language. St. Petersburg: KARO, Minsk: Four Quarters, 2006. 192 p.
9. Passova E. I. Communicative method of teaching foreign language speaking. Moscow: Prosveshchenie, 1991. 223 p.
10. Artamonova L. N. Games in English lessons and in extracurricular activities. English at school, 2008, no. 4, pp. 36-39.
11. Ivanova E. V. The role of play activities in teaching foreign languages to preschoolers. Bulletin of Preschool Education, 2015, No. 2, pp. 45-51.
12. Smirnova E. O. Child psychology: textbook for universities. Moscow: Piter, 2009. 304 p.
13. Krashen S. D. Principles and Practice of Second Language Acquisition. Moscow: Languages of Slavic Cultures, 2011. 240 p.
14. Asher, J. Learning another language through action: Total physical response. Journal of Applied Linguistics, 2003, no. 5, pp. 12–25.
15. Makhmutova A. A. Formation of communicative competence of primary school students in English lessons through a didactic game. Pedagogical education in Russia, 2018, no. 6, pp. 112-118.