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USE OF INNOVATIVE TECHNOLOGIES IN TEACHING MORPHEMICS

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Abstract. This article examines the theoretical and practical aspects of using innovative technologies in teaching morphemics. The study analyzes the impact of digital learning tools, multimodal approaches, gamification, and artificial intelligence-based platforms on the educational process. The findings indicate that innovative technologies enhance students’ morphemic analysis skills, increase their motivation, and expand opportunities for autonomous learning. The paper also highlights the effectiveness of modern pedagogical approaches such as flipped classroom, project-based learning, and interactive teaching methods. Additionally, the study identifies several challenges, including limited technical resources and insufficient digital competence among teachers. The results of the research can serve as a basis for developing practical recommendations for integrating innovative technologies into morphemics instruction and improving overall teaching effectiveness.

Keywords: morphemics, innovative technologies, digital education, multimodal approach, gamification, artificial intelligence, language teaching, interactive methods, flipped classroom, autonomous learning.

Introduction. In the modern education system, the process of teaching linguistic disciplines, particularly the native language and one of its important branches—morphemics—is undergoing fundamental transformation. Globalization, the rapid development of digital technologies, and the increasing flow of information necessitate the introduction of innovative approaches to teaching methods. Morphemics, as a branch of linguistics that studies the smallest meaningful units of a word, namely morphemes, plays an important role in helping learners understand word formation, word structure, and their functional characteristics. Therefore, the effective teaching of this subject should contribute not only to theoretical knowledge but also to the development of practical skills. Traditional teaching methods are often based on the passive participation of learners, where knowledge is presented in a ready-made form. As a result, students face difficulties in deeply analyzing morphemic units, thinking independently, and using them in speech. From this perspective, the introduction of innovative technologies into the educational process is considered one of the most urgent issues. Innovative technologies help organize the learning process in an interactive, engaging, and effective way, increasing students’ activity and enabling instruction that takes individual characteristics into account.

In recent years, pedagogical and methodological research has widely explored the effectiveness of digital educational tools, multimedia technologies, artificial intelligence-based platforms, and distance learning systems. In particular, teaching morphemic analysis using electronic textbooks, interactive exercises, online testing systems, and visual models helps students to understand the topic more quickly and easily. Research shows that multimodal learning (i.e., the integration of textual, audio, and visual materials) significantly increases students’ ability to retain knowledge. Another important aspect of using innovative technologies in teaching morphemics is the development of students’ independent learning skills. For example, through online platforms, students can independently complete exercises, analyze their mistakes, and assess their own level of knowledge. In addition, when gamification elements (game-based technologies) are applied, students’ interest in the lesson increases, and they are able to master even complex topics more easily. Furthermore, modern methods such as problem-based learning, project-based learning, the “flipped classroom” model, and collaborative learning approaches have proven effective in teaching morphemics. Through these methods, students become not only recipients of knowledge but also creators of knowledge. They independently analyze the morphemic structure of words, form new words, and justify their ideas.

According to scientific literature, the use of innovative technologies not only improves students' knowledge level but also develops the teacher's pedagogical skills. By mastering modern technologies, the teacher can organize lessons more effectively, adapt to students' needs and interests, and ensure an individual approach. This leads to an overall improvement in the quality of education. Today, in international practice, innovative approaches to teaching morphemics and general linguistics are widely used. Digital platforms, artificial intelligence-based analytical tools, and interactive applications are taking language learning to a new level. At the same time, adapting these technologies to the national education system and developing effective methodologies for their use remain important tasks. The use of innovative technologies in teaching morphemics is an important factor in improving educational effectiveness and serves to develop students' knowledge, skills, and competencies. This article analyzes the theoretical foundations and practical possibilities of modern innovative approaches to teaching morphemics and examines effective ways of implementing them in the educational process.

Literature Review. The issue of using innovative technologies in teaching morphemics has recently become one of the actively researched areas at the intersection of pedagogy, linguistics, and educational technologies. In particular, the necessity of modernizing language teaching methodology in the context of digital transformation is widely discussed in scientific literature. Contemporary studies show that the use of interactive and technological tools in the process of teaching morphemics plays an important role in developing students' linguistic competence. Among recent scientific works, studies devoted to the integration of digital pedagogy and language teaching occupy a significant place. In particular, scholars such as Zeynep Tufekci and Neil Selwyn have analyzed the impact of digital technologies on education, highlighting both their positive and negative aspects. According to them, technologies expand learners' opportunities for independent study; however, an effective methodological framework is necessary for their proper application. This approach is also highly relevant in teaching morphemics, as this branch includes abstract concepts and requires visual and interactive tools.

In the study of innovative approaches in language teaching methodology, the works of Michael Thomas and Hayo Reinders are noteworthy. They investigated the effectiveness of language learning in digital environments and emphasized the importance of mobile applications, online platforms, and artificial intelligence-based tools. In their research, it is particularly noted that adaptive systems in learning linguistic units, including morphemes, allow instruction to be tailored to students' individual needs. The use of multimodal approaches in teaching morphemics is also widely discussed in modern literature. According to Gunther Kress's theory of multimodality, learning becomes more effective when knowledge is transmitted through different channels. Research based on this theory shows that teaching morphemic analysis through visual diagrams, audio explanations, and interactive exercises significantly improves students' level of understanding. In recent years, the role of gamification elements in education has also been widely studied. Karl Kapp scientifically justified that gamification can increase students' motivation. The use of game-based elements in teaching morphemics—for example, interactive word-formation games or tests focused on identifying morphemes—increases students' interest in the lesson and ensures their active participation.

The introduction of artificial intelligence technologies into education has also opened new research directions. The works of Rose Luckin highlight the potential of AI-based educational systems. According to her research, AI tools can automatically detect students' mistakes, provide individualized recommendations, and adapt the learning process. This is particularly useful in learning morphemics, as students often make errors in analyzing word structure. A number of studies have also been conducted by scholars from Uzbekistan and CIS countries in this field. These works are mainly focused on the implementation of innovative pedagogical technologies in national education systems. Local studies emphasize the effectiveness of interactive methods, cluster techniques, brainstorming, and project-based

learning in teaching morphemics. At the same time, the use of electronic textbooks and distance learning platforms has also been widely analyzed. The widespread implementation of distance learning during the pandemic has further intensified research in this field. The experience of teaching morphemics through online platforms has been discussed in many scientific articles. Studies show that video lessons, interactive tests, and virtual laboratories have improved students' academic performance compared to traditional methods.

In addition, constructivist approaches have received special attention in recent research. According to this approach, students construct knowledge independently rather than receiving it in a ready-made form. Innovative technologies support this process by providing interactive platforms that allow students to analyze, form words, and discuss results independently in the process of learning morphemics. Cognitive linguistic studies also serve as an important theoretical foundation for teaching morphemics. Research in this field demonstrates the interconnection between semantic and cognitive processes in the study of morphemes. Innovative technologies enable these processes to be presented in visual and interactive forms, which facilitates students' understanding. Modern scientific literature confirms that the use of innovative technologies in teaching morphemics has a high level of effectiveness. Digital tools, multimodal approaches, gamification, and artificial intelligence-based systems are elevating the learning process to a qualitatively new level.

In addition, recent studies have increasingly focused on learner-centered education, emphasizing that students should not be passive recipients of knowledge but active participants in the learning process. This shift has further strengthened the role of technology in language education. Researchers also highlight the importance of blended learning models, where traditional classroom instruction is combined with digital platforms. Such integration ensures continuity of learning and allows students to access educational materials anytime and anywhere. Moreover, professional development of teachers is identified as a crucial factor in successfully implementing innovative technologies. Without sufficient digital literacy and pedagogical training, even the most advanced tools may not produce expected outcomes. Furthermore, comparative studies between developed and developing educational systems reveal that countries with strong digital infrastructure achieve higher effectiveness in technology-enhanced language teaching. These findings suggest that investment in educational technologies must be accompanied by systematic teacher training programs and curriculum redesign. At the same time, ethical and psychological aspects of digital learning are also being explored, including issues such as screen time, cognitive overload, and digital dependency. These concerns indicate that while innovative technologies offer significant advantages, their implementation must be balanced and pedagogically justified. Overall, the reviewed literature clearly demonstrates that integrating innovative technologies into morphemics teaching is not only beneficial but also necessary for modern education systems, provided that methodological, technical, and human factors are carefully addressed.

Research discussion. The results of the research conducted on the use of innovative technologies in teaching morphemics demonstrate the high effectiveness of this approach. During the study, lessons organized on the basis of traditional and innovative methods were compared, and students' knowledge level, activity, and independent thinking skills were analyzed. The results showed that students in the group taught using interactive and technological tools mastered morphemic analysis more quickly and in greater depth. In particular, multimodal learning tools—i.e., the integration of textual, audio, and visual materials—significantly increased students' level of understanding of the topic. This finding practically confirms Gunther Kress's theory of multimodality. Students began to better understand the function of morphemic units not only through text but also through diagrams, animations, and interactive exercises. The use of gamification elements also produced positive results. Game-based tasks increased students' interest in the lesson and ensured their active participation. These

results are consistent with Karl Kapp's research, further confirming the motivational significance of game technologies. In particular, interactive games focused on identifying morphemes and forming new words contributed to the development of students' practical skills.

The use of artificial intelligence-based platforms also played an important role in the study. Such systems made it possible to automatically detect students' mistakes and provide individualized recommendations. As a result, students began to independently monitor their level of knowledge. This confirms Rose Luckin's ideas on adaptive learning. Another important finding of the research is that innovative technologies contribute to the development of students' independent learning skills. Tasks provided through online platforms enabled students to reinforce their knowledge outside classroom hours. At the same time, lessons organized based on the "flipped classroom" model increased students' activity during class, as they came prepared and devoted more time to practical activities. However, the research also revealed some challenges. In particular, not all students had equal access to technological tools, and some teachers lacked sufficient skills in using innovative technologies. This issue corresponds to Neil Selwyn's concept of digital inequality. Therefore, special attention should be paid to infrastructure development and teacher training when implementing innovative technologies. The results of the study show that the use of innovative technologies in teaching morphemics significantly improves students' knowledge level, interest, and practical skills. At the same time, to effectively organize this process, it is important to improve methodological approaches, retrain teachers, and expand technical capabilities.

In addition, the research findings indicate that the effectiveness of innovative technologies largely depends on their systematic and pedagogically grounded implementation rather than mere technological availability. It was observed that when digital tools are integrated purposefully into lesson planning, learning outcomes become more stable and long-lasting. Students not only memorize theoretical rules but also apply them in practical language tasks, which is especially important in morphemic analysis. Furthermore, qualitative observations during the experiment showed that collaborative learning environments supported by digital platforms increased peer interaction and academic communication among students. Group-based tasks encouraged discussion, argumentation, and collective problem-solving, which are essential components of linguistic competence development. This also contributed to improving students' communication skills and academic confidence. Another noteworthy aspect is that innovative technologies allowed for continuous assessment rather than traditional final evaluation. Through online quizzes, interactive exercises, and automated feedback systems, students received immediate evaluation of their performance. This helped them identify their weaknesses in real time and work on them independently, thereby enhancing self-regulated learning. Moreover, teachers reported that lesson preparation became more dynamic and flexible when using digital resources. However, it also required additional time and continuous professional development. This highlights the necessity of ongoing training programs for educators to ensure effective integration of technology into language teaching practices The research confirms that innovative technologies not only enhance cognitive outcomes in morphemics learning but also transform the overall educational environment into a more interactive, student-centered, and competency-oriented system.

Conclusion. The research results confirm that the use of innovative technologies in teaching morphemics is one of the key factors in improving the effectiveness of education. Interactive tools, multimodal approaches, gamification, and artificial intelligence-based systems significantly enhance students' level of knowledge acquisition and develop their independent thinking and analytical skills. At the same time, innovative technologies make it possible to organize the teaching process based on an individualized approach, which helps take into account each learner's needs and abilities. However, for the effective implementation of these technologies, it is necessary to improve teachers' digital competencies, develop educational

infrastructure, and enhance methodological support.In the future, conducting more in-depth research on the use of innovative technologies in teaching morphemics, analyzing their effectiveness at different levels of education, and developing methodologies adapted to the national education system remain important tasks.

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