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APPLICATION OF INNOVATIVE TECHNOLOGIES IN THE PROCESS OF FOREIGN LANGUAGE TEACHING WITHIN LANGUAGE EDUCATION PROGRAMS

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This article explores the application of innovative technologies in foreign language education within the framework of language education programs. It presents the theoretical foundations of innovation in education, modern teaching approaches (such as communicative, competency-based, CLIL, and blended learning), and the role of digitalization in developing language competencies. Particular attention is given to the practical implementation of innovations in Kazakhstani educational institutions, including the use of LMS Moodle, mobile applications, VR/AR technologies, and AI-based tools such as ChatGPT and Grammarly and etc. The empirical part of the study involved surveys, classroom observations, and a pedagogical experiment with students from language faculties. The findings confirmed that integrating innovative technologies enhances motivation, engagement, and the quality of language acquisition. The article offers recommendations for further implementation of innovations in language education, discusses methodological aspects of adapting them to the national context, outlines prospects for the digital transformation of language didactics in Kazakhstan amid global educational shifts, and emphasizes the need to improve teachers' digital literacy and develop sustainable strategies for integrating innovative tools into the learning process. Thus, the results of the study confirm that innovative technologies are becoming a key factor in modernizing language education and increasing its competitiveness in the contemporary world.

Keywords: *foreign languages, innovative technologies, digitalization of education, artificial intelligence, VR/AR, LMS Moodle, language competence.*

ТІЛДІК БІЛІМ БЕРУ БАҒДАРЛАМАЛАРЫНЫҢ АЯСЫНДА ШЕТ ТІЛДЕРДІ ОҚЫТУ ПРОЦЕСІНДЕ ИННОВАЦИЯЛЫҚ ТЕХНОЛОГИЯЛАРДЫ ҚОЛДАНУ

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Бұл мақала шет тілдерін оқыту саласында инновациялық технологияларды қолдануды тілдік білім беру бағдарламалары аясында қарастырады. Онда білім берудегі инновациялардың теориялық негіздері, қазіргі заманғы оқыту тәсілдері (коммуникативтік, құзыреттілікке бағытталған, CLIL және аралас оқыту) және тілдік құзыреттілікті дамытудағы цифрландырудың рөлі таныстырылады. Қазақстандық білім беру мекемелерінде LMS Moodle, мобильді қосымшалар, VR/AR технологиялары және ChatGPT, Grammarly сияқты жасанды интеллект құралдарын қолдану тәжірибесіне ерекше назар аударылады. Зерттеудің эмпирикалық бөліміне тіл факультеттерінің студенттері арасында сауалнама жүргізу, аудиториялық бақылау және педагогикалық эксперимент енгізілді. Нәтижелер инновациялық технологияларды енгізу оқушылардың мотивациясын, белсенділігін және тіл меңгеру сапасын арттыратынын растады. Мақала тіл оқытуда инновацияларды әрі қарай енгізу бойынша ұсыныстар береді, оларды ұлттық контекске бейімдеу әдістемелік аспектілерін талқылайды, Қазақстандағы тілдік дидактиканың цифрлық трансформациясының перспективаларын көрсетеді және мұғалімдердің цифрлық сауаттылығын арттыру мен инновациялық құралдарды оқу процесіне тұрақты интеграциялау стратегияларын әзірлеу қажеттілігін атап көрсетеді. Осылайша, зерттеу нәтижелері инновациялық технологиялардың тіл білімін жаң-

ғыртуда және оның қазіргі заманғы әлемдегі бәсекеге қабілеттілігін арттыруда негізгі факторға айналып жатқанын дәлелдейді.

Түйінді сөздер: *шет тілдері; инновациялық технологиялар; білім беруді цифрландыру; жасанды интеллект; VR/AR; LMS Moodle; тілдік құзыреттілік.*

ПРИМЕНЕНИЕ ИННОВАЦИОННЫХ ТЕХНОЛОГИЙ В ПРОЦЕССЕ ОБУЧЕНИЯ ИНОСТРАННЫМ ЯЗЫКАМ В РАМКАХ ЯЗЫКОВЫХ ОБРАЗОВАТЕЛЬНЫХ ПРОГРАММ

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В статье рассматривается применение инновационных технологий в процессе обучения иностранным языкам в рамках языковых образовательных программ. Представлены теоретические основы инновационных технологий, современные подходы к обучению (коммуникативный, компетентностный, CLIL, blended learning), а также роль цифровизации в формировании языковых компетенций. Особое внимание уделено практической реализации инноваций в образовательных учреждениях Казахстана, включая использование LMS Moodle, мобильных приложений, VR/AR-технологий и инструментов искусственного интеллекта (ChatGPT, Grammarly и др.). Эмпирическая часть исследования включала анкетирование, наблюдение и педагогический эксперимент со студентами языковых факультетов. Полученные результаты подтвердили, что интеграция инновационных технологий способствует повышению мотивации, вовлечённости и качества владения иностранным языком. В статье представлены рекомендации по дальнейшему внедрению инноваций в языковое образование, раскрыты методические аспекты их адаптации к национальному контексту, обозначены перспективы цифровой трансформации лингводидактики в Казахстане в условиях глобальных образовательных изменений, а также акцентирована необходимость повышения цифровой грамотности преподавателей и разработки устойчивых стратегий интеграции инновационных инструментов в образовательный процесс. Таким образом, результаты исследования подтверждают, что инновационные технологии становятся ключевым фактором модернизации языкового образования и повышения его конкурентоспособности в современном мире.

Ключевые слова: *иностранные языки, инновационные технологии, цифровизация образования, искусственный интеллект, VR/AR, LMS Moodle, языковая компетенция.*

Introduction. In recent years, language education has been reshaped by the growing influence of digital technologies and the rapid pace of innovation. Knowledge of foreign languages today is viewed not only as an element of professional qualification but also as a vital skill for effective interaction in a global environment. As a result, teachers are increasingly turning to interactive and student-centered approaches that focus on practical communication outcomes.

Digital tools, artificial intelligence applications, online platforms, and mobile resources are now becoming integral components of the language-learning process. Nevertheless, many traditional, memorization-based methods still dominate in some contexts, which limits students' communicative competence, reduces their interest, and slows the development of real-life speaking abilities. This contrast points to the importance of introducing more adaptable, learner-focused, and practice-oriented teaching strategies.

The aim of this study is to analyze and synthesize contemporary innovative technologies used in foreign language teaching, as well as to assess their potential for enhancing the effectiveness of language education programs.

To achieve this aim, the following objectives were set:

- To examine the theoretical foundations of applying innovative technologies in language education;
- To classify modern forms and tools of digital foreign language learning;
- To review the experience of implementing innovations in language education practices;
- To identify the advantages, limitations, and prospects of using innovative technologies in foreign language instruction.

The object of the study is the process of foreign language teaching within the framework of contemporary educational programs.

The subject of the study comprises innovative technologies and pedagogical approaches that contribute to enhancing the effectiveness and motivation in foreign language learning.

The scientific novelty of the research lies in the comprehensive analysis of innovative technologies in the context of language education programs, as well as in defining their role in developing learners' digital competence.

The practical significance of the work consists in the potential application of the findings to improve foreign language teaching methodologies, increase student motivation, and integrate innovative tools into the educational process.

Materials and Methods. Innovative technologies refer to a set of new or significantly improved methods, tools, forms, and techniques of teaching that introduce qualitative changes into educational practice, ensure the achievement of higher educational outcomes, and contribute to personal development [1, p.14].

Key characteristics of innovative technologies:

- Novelty — these technologies are based on fresh ideas, developments, and new teaching tools; they differ from traditional methods [2].
- Systematic nature — innovative technologies encompass interconnected components: goals, content, methods, tools, and organizational forms of instruction [3, p. 263].
- Outcome-oriented — focused on achieving specific educational, personal, and cross-disciplinary results (e.g., communication skills, critical thinking, self-directed learning) [2].
- Adaptability and flexibility — the ability to consider individual learner characteristics, diverse learning styles, and changing educational conditions [2].
- Interactivity and engagement — technologies where learners actively participate in the process; the teacher's role shifts from dictator to facilitator, mentor, and partner [2].

Scholars provide varied but closely related definitions. I.V. Plaksinaand K.V. Drozdviews innovative technologies as a set of pedagogical and organizational-methodological solutions aimed at developing learners' skills in self-directed learning, critical thinking, and digital competence, with an emphasis on integrating new tools and forms into the educational process [4, p. 6]. S.S. Demcura and et.al. emphasizes that innovative educational technologies should be understood as a collection of innovations in content, methods, and organizational forms of instruction focused on achieving specific educational and personal outcomes [5, p.59].

It is also important to distinguish between the concepts of "innovation / novelty" and "innovative technology." In M. S. Fabrikov's textbook Innovative Pedagogy, a "novelty" (innovation) is considered a tool–such as a new method, methodology, technology, program, etc. while innovation refers to the process of mastering and implementing this tool [6, p. 9]. According to the source Innovative Economy, in economic practice, innovation is the result of innovative activity: a new or improved product, service, technological process, solution, and so on [7].

Innovative technologies can be classified according to various criteria (see Table 1).

Table 1 – Classification of innovative technologies in education

Classification	Examples of Types / Groups of Technologies	Comments
By the level of innovativeness (degree of novelty)	Radical (basic) innovations that implement discoveries and major inventions and become the basis for the formation of new generations and directions of development of technology and engineering [3, p. 262].	Radical innovations involve higher risk but potentially greater impact.
By area of application / functional purpose	Methodological technologies (new teaching methods), Didactic technologies, Organizational forms (e.g., project-based learning, group-based, modular), Technological tools (digital platforms, multimedia resources), Communicative and interactive technologies, Learner-centered (personality-oriented) technologies	Types often overlap; classification based on this criterion is useful for practical planning of the educational process.
By the role of the teacher and learner	Passive-reproductive technologies, Active-research, problem-based, and project-based research technologies, Partnership and cooperative technologies (group learning, collaboration), Technologies for self-education and learner self-regulation.	These reflect the shift in participant roles–toward greater autonomy and responsibility for students.
By the tools used / technological support	Digital and information and communication technologies (ICT); Multimedia, audio/video tools; Virtual and augmented reality (VR/AR); Mobile technologies; Distance / online learning technologies; Blended learning [6, p. 129].	This depends on the technical and infrastructural readiness of the educational institution.
By scale of implementation	Local innovations (at the level of a lesson or individual teacher), Institutional (within a school or university); Systemic / regional / national innovations; International transnational educational technologies (comparative education, exchange programs, etc.) [8, p. 13].	The scale affects the sustainability, resources, and complexity of innovation management.

To provide a clearer understanding, here are several examples of technologies corresponding to these classifications:

- Problem-based learning – a method where learners are presented with problems that require independent efforts to solve. This is an active, inquiry-based technology.
- Group learning / cooperative learning – interaction among learners aimed at developing communication skills and teamwork.
- Learner-centered technologies – focus on individual learner characteristics such as pace, interests, and learning styles.
- Information and communication technologies (ICT) – use of digital tools, online resources and platforms, and multimedia content.

Recent research emphasizes that innovative educational technologies are not limited to technical tools; they encompass an integrated set of methods, instructional formats, and digital resources aimed at enhancing both teaching effectiveness and learners' personal development. In our study, future primary school teachers engaged with these technologies through practical tasks, learning to design lessons that incorporate interactive materials, digital platforms, and adaptable learning paths. This approach enabled students to use the principles of activity-based and student-centered learning, developing skills in critical thinking, problem-solving, and effective communication.

During their foreign language studies, students completed assignments that combined digital tools and pedagogical strategies aimed at developing communicative, cognitive, and intercultural competencies. Methods such as content-language integrated learning (CLIL), blended learning, and a competency-based approach were used, enabling students to develop interactive lessons focused on specific outcomes. Particular attention was paid to maintaining a balance between free communicative expression and systematic teaching of grammar and pronunciation, which provided students with the opportunity to develop meaningful and interesting lesson plans [9, p. 100].

Through the integration of digital tools and principles of instructional design, students not only mastered modern teaching methods but also developed intercultural awareness and collaborative communication skills – competencies that Kazakhstani educators increasingly prioritize in digital language education [10, p. 252].

In recent decades, the competency-based approach has gained prominence, focusing on developing a complete set of skills, including linguistic, communicative, socio-cultural, and cognitive abilities. According to studies by Kazakhstani educators [11, p. 75], this approach emphasizes not only the transmission of knowledge but also the ability to use language effectively to solve real-world and professional tasks. The competency-based approach is closely aligned with principles of learner-centered and activity-based education, making it a cornerstone of contemporary educational standards. It fosters autonomy, critical thinking, self-assessment, and reflective skills in students–qualities that are increasingly essential in the context of globalization and the digitalization of education.

A special place in the system of modern methodologies is occupied by the CLIL (Content and Language Integrated Learning) approach, proposed by David Marsh in the 1990s. Its essence lies in the simultaneous study of subject content and a foreign language, meaning that disciplines (such as biology, history, economics) are taught in a foreign language. This approach promotes deeper acquisition of vocabulary and grammar through context, fosters academic thinking, and increases student motivation. Research by Darío Luis Banegas and Marta del Pozo Beamud (2020) has shown that CLIL contributes to the development of bilingual competence and cognitive flexibility; however, it requires highly qualified teachers proficient in both the subject matter and the language [12, p. 152]. For Kazakhstan specifically, where the trilingual education policy requires proficiency in Kazakh, Russian, and English, CLIL is especially relevant. It gives students a reason to use the foreign language beyond the language classroom itself, which traditional methods rarely provide.

Blended learning represents another significant innovation in language education, integrating traditional classroom instruction with digital tools. As noted by Xuan Teng and Ying Zeng (2022), combining online platforms, interactive materials, and live engagement provides a more adaptable learning environment that can improve the effectiveness of language acquisition [13, p. 289]. This approach enables individualized pacing, better management of workload, and continuous feedback for students. In the Kazakhstani context, blended learning is particularly relevant given the gap between urban universities and regional campuses. Fully online instruction is not always viable due to connectivity issues, while purely traditional methods leave students in remote areas with fewer qualified teachers. A blended model addresses both problems at once.

Digitalization also contributes to the development of immersive learning environments that go beyond the traditional classroom. Platforms such as Moodle, Google Classroom, and Canvas, video conferencing tools like Zoom and Microsoft Teams, as well as specialized language-learning applications -Duolingo, Busuu, Rosetta Stone, and BBC Learning English- enable students to engage with the target language anytime and anywhere.

According to Holovatska (2023), using such digital platforms increases students' opportunities for language practice, which positively influences both vocabulary and grammar development, while also sustaining motivation for continued learning [14, p. 32].

Digitalization also facilitates the shift from passive information reception to active digital interaction. Virtual classrooms, online discussions, and project work in a blended format help develop learners' communicative and sociocultural competencies, bringing them closer to real intercultural communication contexts. As noted by D. Banegas (2020), the use of multimedia tools, video projects, and online collaborations stimulates critical thinking, creativity, and the ability to express thoughts in a foreign language across various contexts [12, p. 152].

Additionally, as part of their training, students developed multimodal literacy skills by creating and analyzing materials in text, audiovisual, and interactive formats. This process not only improved their language proficiency but also developed their ability to critically evaluate information and interact effectively in the digital environment. These skills proved essential when developing lessons aimed at developing both communicative skills and intercultural competence.

By integrating AI-based tools with pedagogical strategies, students engaged in designing adaptive, interactive, and learner-centered lesson plans. This experience emphasized the potential of modern educational technologies to enhance learners' motivation, autonomy, and overall language learning outcomes. It also demonstrated how contemporary instructional models – such as communicative, competency-based, CLIL (Content and Language Integrated Learning), and blended learning –can be effectively implemented in practice.

Table 2 – Innovative technologies in foreign language teaching: application forms, pedagogical potential, and limitations

Technology /Tool	Examples/Studies	Effects on Language Learning	Limitations/Challenges
Online platforms and LMS (Moodle, Google Classroom, Edmodo, Duolingo, etc.)	The study showed that the use of the LMS Moodle positively influences the acquisition of grammatical structures and reading comprehension among students learning English as a foreign language. The authors also noted an increase in engagement and motivation due to the interactive environment of Moodle [15, p. 122].	Improved access to materials; flexibility; opportunity for independent work; assignments available anytime; convenience of feedback.	Requires stable internet and technical infrastructure; student motivation must be sufficiently high; lack of face-to-face contact may reduce engagement; instructors need skills to create high-quality digital materials.
VR/AR (Virtual and Augmented Reality)	Systematic reviews show that AR/VR aid vocabulary acquisition, increase motivation, and foster higher student engagement. For example, the review "A Systematic Review of AR and VR Enhanced Language Learning" (Xinyi Huang et al.) highlights that VR/AR environments enable immersive learning, improve learning outcomes, and reduce anxiety [16, p. 14].	Increased motivation and interest; higher engagement and retention; practical language use; improvement in listening and pronunciation skills; reduced anxiety barriers during speaking practice.	High costs for equipment/ software; technical implementtation challenges; need for teacher training in VR/AR; possible sensory overload; sometimes limited control over task completion; not all language skills develop equally effectively (e.g., grammar and listening are less studied).
Mobile learning and microlearning	Many AR/VR reviews highlight the frequent use of mobile devices in AR applications (see Frontiers review on AR) – smartphones, tablets. Additionally, LMS studies often mention access via mobile apps, especially in LMS-supported blended learning environments [16, p. 15, 17, p. 944].	Convenience of learning anytime and anywhere; short lessons reduce fatigue; continuous exposure to the language; the ability to repeat small segments (micro-lessons) enhances retention.	Concentration may be disrupted due to numerous distractions; deep topic exploration is not always possible; dependency on devices and battery life; limited screen space can restrict task.
Interactive simulations, gamification, project-based	The study "Immersive and Gamified Approaches: VR/AR in Language Learning" (Sadigzade) demonstrates that combining VR/AR with game	Increased engagement, emotional involvement, and enjoyment of learning; stimulation of competition and collaborati-	Risk of superficial engagement (more entertainment, less depth); potential distractions; need to balance gamification with language accuracy; pos-

methods	elements increases effectiveness, leading to more active student participation. Reviews of AR/VR also highlight that games and gamification enhance motivation and information retention [18, p. 21].	on; improvement in speaking and oral communication; development of creativity and project skills.	sibly high costs for developing quality game-based materials.
Application of Artificial Intelligence (ChatGPT, Grammarly, Replika, etc.)	The study "AI-powered Language Learning: Developing the ChatGPT Usage Scale for Foreign Language Learners" (2025) developed a scale to measure students' use of ChatGPT. It found that many actively use chatbots for language practice, highlighting the importance of user-friendly interfaces and educational value [19, p. 12519].	Personalization; instant feedback; variety of exercises; high level of practice; opportunity to develop writing skills; reduces fear of making mistakes; convenient for independent study.	Possibility of errors and inaccuracies; lack of authentic speech, accent, or intonation in some cases; risk of overestimating AI capabilities; ethical issues (responsibility, authenticity of work); need for human oversight; digital divide.

The analysis of the presented data shows that the introduction of innovative technologies in the process of teaching foreign languages significantly increases the effectiveness of the educational process, promotes the growth of motivation, the development of autonomy and communicative competencies of students. The use of online platforms and LMS ensures the flexibility and accessibility of learning, VR/ AR technologies create the effect of full immersion in the language environment, mobile learning and microlearning form the habit of constant practice, and gamification enhances the interest and involvement of students.

One important area of innovation has been the use of artificial intelligence tools (e.g., ChatGPT, Grammarly), which enable personalized learning and provide instant feedback. However, the analysis also revealed a number of limitations: technical difficulties, the need for high levels of digital literacy among instructors, a potential decrease in student motivation due to reduced face-to-face interaction, and ethical issues associated with the use of AI.

Thus, innovative technologies represent a powerful tool for enhancing the quality of language education, provided their implementation in the learning process is methodically grounded, balanced, and pedagogically sound.

In Kazakhstan, the CLIL (Content and Language Integrated Learning) approach is being successfully implemented at Abai Kazakh National Pedagogical University and S. Amanzholov East Kazakhstan University, where professional disciplines are taught in English. According to a study by Bakirova and Tuktassinova (2020), this methodology contributes to increased motivation, the development of terminological competence, and the formation of academic bilingualism among students in pedagogical fields [20, p. 31].

Digitalization of language education in Kazakhstan is also associated with the integration of artificial intelligence and augmented reality. For instance, Iskakova (2023) conducted a meta-analytical study demonstrating that the use of AR technologies in foreign language learning enhances students' attention, engagement, and the quality of lexical and grammatical material acquisition [21, p. 210].

At the International Information Technologies University (IITU), Sharshova (2025) studied the impact of AI assistants–specifically ChatGPT and Grammarly–on the development of academic writing skills among students in technical fields. The results showed that using these tools increases lexical diversity, reduces the number of grammatical errors, and promotes the development of self-editing skills [22, p. 262].

Innovative technologies not only change teaching methodologies but also transform the role of the instructor. In the digital environment, the teacher becomes a facilitator and mediator of the learning process. However, the process of digital transformation is accompanied by several challenges. These include uneven technical infrastructure across universities, limited access to high-speed internet in regional areas, a shortage of adapted educational resources and methodological materials, as well as the psychological unpreparedness of educators to shift their professional paradigm. Experience in Kazakhstan confirms that the successful implementation of innovative technologies is possible through the systematic integration of digital tools, support for teachers, and a focus on developing students' autonomy and critical thinking. The experience of domestic universities demonstrates that digital transformation does not replace face-to-face interaction and methodological work but rather enhances their effectiveness, creating a new educational ecosystem in which teachers and learners act as partners in the process of knowledge acquisition.

Results and Discussion. The empirical part of the study focused on examining the effectiveness of implementing innovative technologies in foreign language teaching within language education programs at Kazakhstani universities.

The study involved 120 second- and third-year students from the Faculty of Languages at Abai Kazakh National Pedagogical University (Almaty), divided into two equal groups of 60 students each. Participants' ages ranged from 18 to 22 years.

The following methods were used to analyze the effectiveness of the integration of innovative technologies:

- Questionnaire survey (to identify students' attitudes toward digital tools and self-assess their language proficiency);
- Observation (during in-person and online classes using LMS Moodle, Duolingo, Quizlet, ChatGPT);
- Pedagogical experiment conducted during the spring semester of the 2023–2024 academic year (18 weeks). The control group continued with the standard curriculum: textbook exercises, grammar-focused instruction, and traditional written assignments. In the experimental group, the same topics were covered using a combination of LMS Moodle for course materials, Duolingo and Quizlet for vocabulary, and ChatGPT for written feedback;
- Academic performance analysis (based on results of written and oral exams, as well as midterm tests).

To assess effectiveness, the following tools were used:

- Standardized tests to determine foreign language proficiency levels (based on the CEFR scale);
- Analytical rubrics for evaluating speaking, writing, and listening skills;
- A custom 15-item questionnaire including questions on perception of digital tools, motivation levels, and self-assessment of progress.

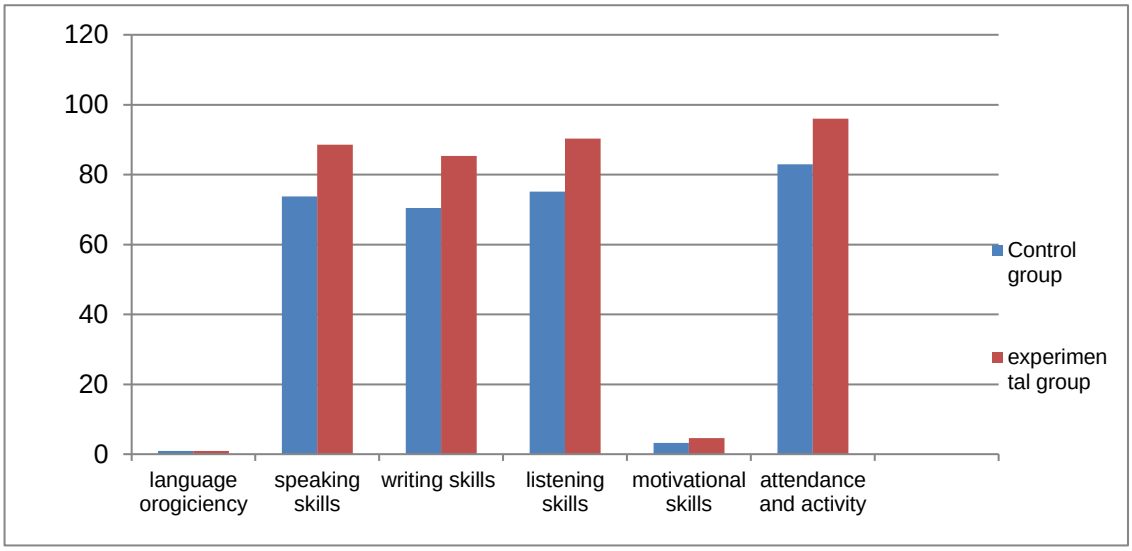
The statistical data analysis was conducted using comparative methods (Student's t-test) and correlation analysis between engagement levels and academic performance indicators.

The results of the pedagogical experiment are presented in Table 3.

Table 3 – Dynamics of foreign language proficiency indicators (CEFR, %)

Indicator	Control Group	Experimental Group	Gain	t(58)	p	r (engagement ↔ result)
Language Proficiency Level (CEFR)	B1 → B1+	B1 → B2	+17,5 %	4.12	<0.01	0.68
Speaking Skills	73.8 %	88.6 %	+14.8	3.95	<0.01	0.72
Writing Skills	70.5 %	85.4 %	+14.9	3.81	<0.01	0.70
Listening Skills	75.2 %	90.3 %	+15.1	4.25	<0.01	0.66
Motivation Index	3.3	4.6	+1.3	5.10	<0.001	0.74
Attendance and Participation	83 %	96 %	+13	4.00	<0.01	0.71

Note: All differences are statistically significant at the $p < 0.01$ level, and the correlation coefficients indicate a moderately strong positive relationship between student engagement and learning outcomes.



The data obtained showed that the students of the experimental group demonstrated a higher level of language competence formation compared to the control group. The differences between the indicators turned out to be statistically significant ($t(58) = 4.12$; $p < 0.01$), which confirms the positive impact of innovative technologies on the effectiveness of teaching foreign languages. The observed gains can be

explained by several factors working together. AI tools such as ChatGPT and Grammarly gave students immediate feedback on their writing, which lowered anxiety around making mistakes. Students in the experimental group also noted that the competitive elements of Quizlet Live made vocabulary practice more memorable. Additionally, Moodle allowed weaker students to revisit materials at their own pace – something that is simply not possible in a traditional classroom format.

An analysis of the survey results showed that 81% of the students in the experimental group noted an increase in interest and motivation in learning the language when using interactive and mobile platforms. This approach makes learning more flexible and engaging, which is consistent with the findings of Teng and Zeng (2022), who claim that the blended learning model enhances intrinsic motivation and increases student activity. The use of artificial intelligence tools such as ChatGPT and Grammarly has contributed to the development of communicative confidence, especially in oral and written communication. Students noted that communication with AI helps to overcome the language barrier, helps expand vocabulary and increases awareness in choosing language tools.

Platforms like Moodle and Duolingo allowed learners to organize their study routines independently, monitor progress, and revisit materials at a self-directed pace. These findings echo Banegas (2020), who emphasized that digital platforms are crucial for cultivating learner autonomy. During the experimental phase, the instructor's role evolved from that of a traditional supervisor to that of a facilitator and mentor, guiding students toward self-regulated language acquisition and reflective error analysis. This transformation fostered collaboration and heightened student engagement in the learning process.

Observations showed that the students of the experimental group participated more often in discussions and actively used a foreign language in an extracurricular environment – in online forums, chat rooms, and project assignments. They showed more initiative and creativity when preparing presentations and performing group projects, which indicates the formation of stable internal motivation and confidence in the use of language.

The results of the experiment generally confirm the hypothesis put forward about the positive impact of innovative technologies on the quality of language education. Interactive platforms and AI tools that provide instant feedback and personalization of the learning process proved to be the most effective. At the same time, the study revealed a number of limitations related to technical and pedagogical factors: dependence on a stable Internet connection, the need to increase the digital competence of teachers, and the risk of reducing critical thinking by relying excessively on AI prompts.

Despite the difficulties noted, the overall dynamics shows that the integration of innovative technologies contributes to the growth of academic motivation, the formation of autonomy and the development of students' communicative confidence. Consequently, the introduction of digital tools and artificial intelligence elements into the process of teaching foreign languages provides a significant increase in academic results, stimulates independent work and critical thinking of students. The effectiveness of innovative methods, however, is largely determined by the level of digital literacy of teachers and the quality of pedagogical design of training courses.

Conclusion. Modern language education is undergoing a stage of active digital transformation, which is conditioned by the need to increase the effectiveness of learning, develop student autonomy and integrate into the global educational space. The study found that innovative technologies – online platforms, LMS systems, mobile applications, virtual and augmented reality, as well as artificial intelligence tools – significantly expand the didactic capabilities of teachers and create conditions for personalized, interactive and motivating learning. The analysis of empirical data has shown that the introduction of innovative technologies contributes to the growth of educational motivation, communicative activity and confidence of students when using a foreign language. Mixed and mobile learning models demonstrate particularly high results, where digital tools are harmoniously combined with traditional methods.

At the same time, the effectiveness of innovation depends on the level of digital competence of the teacher, methodological readiness and infrastructural support. It is important to emphasize that technology does not replace the teacher, but rather enhances his role as a facilitator, mentor and designer of educational trajectories.

The practical significance of the research lies in the possibility of adapting the results obtained in the system of higher and secondary language education in Kazakhstan, as well as in developing national strategies for the digitalization of language programs. The prospects for further research are related to the analysis of the impact of artificial intelligence and virtual environments on the development of students' creative and critical abilities, as well as the creation of effective methodological models for integrating technology into the learning process.

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DEVELOPING RESEARCH SKILLS IN PRIMARY SCHOOL STUDENTS USING STEM TECHNOLOGIES

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This article focuses on developing research skills in primary school students amid the digital transformation of education. The objective is to evaluate the effectiveness of STEM (Science, Technology, Engineering, and Mathematics) technologies as a tool for developing research competence. The theoretical