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THE INNOVATIVE METHODS OF TEACHING FOREIGN LANGUAGES IN VARIOUS FIELDS

Baxtiyorova Shaxnoza Kaxramon kizi

Email: bakhtiyorova.sh96@gmail.com

The Languages Department,teacher

The Military Security and Defense university of the Republic of Uzbekistan

Yuldoshev Umirbek Ergash ugli

Master's Degree Student in Konkuk University, South Korea

ANNOTATIONS:

In English: This article comprehensively examines innovative interdisciplinary methods of teaching foreign languages in the modern globalized context. Moving beyond traditional pedagogical approaches, the research analyzes cutting-edge methodologies that integrate language acquisition with professional, academic, and personal development spheres. Key areas of focus include Artificial Intelligence (AI) and adaptive learning, Virtual and Augmented Reality (VR/AR) immersion, project-based and task-based learning, Content and Language Integrated Learning (CLIL), and gamification strategies tailored for specific professional domains such as medicine, business, engineering, and the arts. The study evaluates the theoretical foundations, practical implementation, efficacy, and challenges of these approaches, concluding with evidence-based recommendations for educators, institutions, and policymakers. The article also explores future trajectories in technology-enhanced language learning.

Keywords: foreign language teaching, interdisciplinary methodologies, immersive learning, Artificial Intelligence (AI), Virtual Reality (VR), Content and Language Integrated Learning (CLIL), Language for Specific Purposes (LSP), project-based learning, gamification, professional domain adaptation.

In Uzbek: Ushbu maqola zamonaviy globallashgan kontekstda xorijiy tillarni o‘qitishning innovatsion fanlararo usullarini har tomonlama o‘rganadi. An’anaviy pedagogik yondashuvlardan tashqariga chiqqan holda, tadqiqot til o‘zlashtirishni kasbiy, akademik va shaxsiy rivojlanish sohalari bilan birlashtiruvchi zamonaviy metodologiyalarni tahli qiladi. Asosiy e’tibor sohalari: Sun’iy Intellekt (AI) va moslashuvchan o‘qitish, Virtual va Kengaytirilgan Reallik (VR/AR) immersiyasi, loyihaviy va vazifaga asoslangan o‘qitish, Mazmun va Til Integratsiyalashgan O‘qitish (CLIL), shuningdek, tibbiyot, biznes, muhandislik va san’at kabi aniq kasbiy sohalar uchun mo‘ljallangan o‘yinlashtirish strategiyalarini o‘z ichiga oladi. Tadqiqot ushbu yondashuvlarning nazariy asoslarini, amaliy joriy etilishini, samaradorligini va qiyinchiliklarini baholaydi, o‘qituvchilar, muassasalar va siyosatchilar uchun dalillarga asoslangan tavsiyalar bilan yakunlanadi. Maqola, shuningdek, texnologiya bilan boyitilgan til o‘rganishning kelajakdagi yo‘nalishlarini o‘rganadi.

Kalit so‘zlar: xorijiy til o‘qitish, fanlararo metodologiyalar, immersiv o‘qitish, Sun’iy Intellekt (AI), Virtual Reallik (VR), Mazmun va Til Integratsiyalashgan O‘qitish (CLIL), Maxsus Maqsadli Til (LSP), loyihaviy o‘qitish, o‘yinlashtirish, kasbiy sohaga moslashtirish.

In Russian: В данной статье всесторонне исследуются инновационные междисциплинарные методы преподавания иностранных языков в современном глобализированном контексте. Выходя за рамки традиционных педагогических подходов, исследование анализирует передовые методологии, которые интегрируют усвоение языка со сферами профессионального, академического и личностного развития. Ключевые области внимания включают: искусственный интеллект (ИИ) и адаптивное обучение, иммерсивное обучение с использованием виртуальной и дополненной реальности (VR/AR), проектное и задачное обучение, предметно-языковое интегрированное обучение (CLIL), а также стратегии геймификации, адаптированные для конкретных профессиональных областей, таких как медицина, бизнес, инженерия и искусство. В исследовании оцениваются теоретические основы, практическая реализация, эффективность и проблемы этих подходов, делаются выводы с научно обоснованными рекомендациями для педагогов, учреждений и политиков. Статья также рассматривает будущие траектории развития технологически расширенного изучения языков.

Ключевые слова: преподавание иностранных языков, междисциплинарные методики, иммерсивное обучение, искусственный интеллект (ИИ), виртуальная реальность (VR), предметно-языковое интегрированное обучение (CLIL), язык для специальных целей (LSP), проектное обучение, геймификация, адаптация к профессиональной сфере.

Introduction

The Paradigm Shift in Foreign Language Education: The contemporary landscape of foreign language education is undergoing a profound and necessary transformation. In an era defined by globalization, digital interconnectedness, and the blurring of professional and geographical boundaries, proficiency in a foreign language has evolved from a valuable asset to a critical competency for academic success, career advancement, and engaged global citizenship. Traditional language teaching methodologies, often characterized by a rigid focus on grammatical structures, decontextualized vocabulary drills, and a separation of language from meaningful content, are increasingly recognized as inadequate for preparing learners to function effectively in real-world, domain-specific contexts. The resultant gap between classroom instruction and practical application has catalyzed a significant pedagogical shift towards innovative, interdisciplinary, and technology-enhanced approaches.

This article aims to provide a comprehensive analysis of these novel methods for teaching foreign languages across diverse professional and academic fields. Its primary objective is to systematically explore, categorize, and evaluate the theoretical underpinnings, practical applications, and empirical efficacy of cutting-edge methodologies. The research question guiding this inquiry is: How can innovative, interdisciplinary approaches to foreign language teaching be effectively designed and implemented to meet the specific communicative needs of learners in various professional domains?

The significance of this investigation lies in its potential to inform and reshape pedagogical practice. By synthesizing current research and trends, the article offers a roadmap for educators, curriculum developers, and institutional leaders seeking to modernize language programs, enhance learner motivation and outcomes, and align language instruction with the demands of the 21st-century workforce and academia. The scope encompasses methodologies that integrate language with content (CLIL), leverage emerging technologies (AI, VR/AR), promote active and collaborative learning (PBL, TBLT), and tailor instruction to specific purposes (LSP). The structure of the article proceeds as follows: First, it establishes the theoretical framework by

examining core interdisciplinary concepts such as CLIL and LSP. Second, it delves into the technological revolution in language learning, analyzing AI-driven personalization and immersive virtual environments. Third, it explores interactive pedagogical methodologies, including project-based and gamified learning. Fourth, it presents a detailed cross-sectoral analysis, demonstrating the application and adaptation of these methods in fields like medicine, business, engineering, and the arts. The article concludes with a synthesis of findings, practical recommendations for stakeholders, and a forward-looking perspective on the future trajectory of foreign language education.

Theoretical Foundations: Interdisciplinary and Contextual Approaches

The move towards innovative language teaching is firmly rooted in established and evolving theories of second language acquisition (SLA) that emphasize meaningful communication, contextual learning, and cognitive engagement. The following conceptual frameworks provide the backbone for modern interdisciplinary practices. Content and Language Integrated Learning (CLIL)

CLIL represents a dual-focused educational approach where a foreign language is used as a medium for teaching and learning both content(e.g., science, history, business) and language.

Originating in Europe, CLIL is underpinned by the 4Cs Framework: Content (subject matter), Communication (language learning and using), Cognition (developing thinking skills), and Culture (building intercultural awareness).

· Pedagogical Principles: CLIL moves beyond treating language as a separate subject. Language is acquired naturally through exposure and necessity as learners engage with challenging subject matter. The focus is on using language to learn rather than learning to use language in isolation.

· Cognitive Benefits: Engaging with academic content in a foreign language promotes higher-order thinking skills such as analysis, synthesis, and evaluation (Bloom's Taxonomy). Learners must process information at a deeper cognitive level, which can enhance both content mastery and language proficiency.

· Implementation Models: CLIL can be implemented with varying degrees of intensity, from short-term modules (Soft CLIL) to full immersion in subject courses taught entirely in the target language (Hard CLIL). Successful implementation requires careful lesson planning, scaffolding (linguistic and cognitive support), and collaboration between language teachers and subject specialists.

Language for Specific Purposes (LSP) and English for Specific Purposes (ESP): LSP/ESP is a learner-centered approach to language teaching that targets the specific linguistic skills,registers, and genres required by a particular professional, academic, or occupational group. It is fundamentally driven by a needs analysis.

· The Needs Analysis Process: This critical first step involves identifying:

· Target Needs: What the learner needs to do in the language (e.g., write patient reports, negotiate contracts, understand engineering specifications).

· Learning Needs: The learner's current proficiency, motivations, and preferred learning styles.

· Situational Context: The environment in which the language will be used (e.g., hospital ward, boardroom, construction site).

· Characteristics of LSP:

· Use of Authentic Materials: Course content is derived from real-world texts, audio, and video from the target field (research papers, manuals, meetings, presentations).

· Genre Analysis: Learners study the conventional structure, style, and language features of specific text types relevant to their field (e.g., a business proposal, a scientific abstract, a legal brief).

· Task-Based Orientation: Instruction is organized around simulations of real-world tasks, fostering pragmatic competence.

Task-Based Language Teaching (TBLT): TBLT is a methodological framework that organizes learning around the completion of meaningful,real-world tasks. A "task" is defined as an activity where the target language is used by the learner for a communicative purpose to achieve an outcome (e.g., planning a trip, solving a problem, creating a product).

· The TBLT Framework: A typical lesson cycle includes:

1. Pre-task: Introduction to the topic and task, activation of useful language.

2. Task Cycle: Students perform the task in pairs/groups, then plan and deliver a report on their outcome.

3. Language Focus: Analysis and practice of linguistic forms that emerged as necessary during the task.

· Rationale: This approach mirrors natural language acquisition, promotes fluency, and increases learner motivation by focusing on meaning first and form second. It is highly compatible with both CLIL and LSP, as tasks can be easily designed around domain-specific objectives.

These theoretical approaches collectively advocate for a departure from decontextualized grammar-translation methods towards a more holistic, communicative, and purpose-driven model of language education, setting the stage for the integration of advanced technologies. The Technological Vanguard: AI, Immersion, and Personalization. Digital technology is not merely a supplement to modern language education; it is a transformative force that enables personalized, immersive, and scalable learning experiences previously unimaginable.

Artificial Intelligence (AI) and Adaptive Learning Systems

AI is revolutionizing language learning through hyper-personalization,intelligent feedback, and 24/7 accessibility.

· Intelligent Tutoring Systems (ITS) and Chatbots: Advanced AI-powered platforms like ChatGPT, Duolingo Max, and personalized tutoring bots can engage learners in open-ended dialogue, simulate conversations on endless topics, provide context-aware grammatical

explanations, and offer writing assistance. They serve as infinitely patient practice partners, reducing anxiety and providing a safe space for experimentation.

· Speech Recognition and Pronunciation Analysis: Sophisticated AI algorithms provide detailed, instantaneous feedback on pronunciation, intonation, and fluency. Tools like Elsa Speak, Speechling, and integrated features in platforms like Rosetta Stone use spectrograms and phonetic analysis to pinpoint errors and guide learners toward more native-like speech.

· Adaptive Learning Engines: These systems use machine learning to create a dynamic, personalized learning path. By continuously analyzing a learner's performance (response time, error patterns, quiz results), the algorithm adjusts the difficulty, reviews troublesome items, and suggests next-step content. This ensures optimal challenge and efficiency, preventing boredom and frustration.

Virtual Reality (VR) and Augmented Reality (AR) for Immersive Learning: VR and AR create powerful simulated environments that address a core challenge of language learning:the lack of access to authentic, immersive contexts.

· Virtual Reality (Full Immersion): VR headsets transport learners to digitally recreated environments—a Parisian café, a Tokyo subway station, a German corporate office, or an English-language medical conference. Within these spaces, learners can:

· Practice transactional dialogues (ordering food, asking for directions).

· Engage in complex professional role-plays (job interviews, patient consultations).

· Explore cultural landmarks and historical sites.

· Experience presence and embodied cognition, leading to stronger emotional connection and memory encoding.

· Augmented Reality (Contextual Overlay): AR superimposes digital information onto the real world via smartphones or smart glasses. Language learning applications include:

· Object Labeling: Pointing a device at an object to see its name and hear its pronunciation in the target language.

· Interactive Texts: Scanning a page from a book to trigger audio readings, vocabulary definitions, or cultural notes.

· Situational Learning: Using AR to navigate a real city with foreign language prompts and challenges. Mobile-Assisted Language Learning (MALL) and Microlearning

The ubiquity of smartphones has made learning truly portable and integrated into daily life.

· App-Based Learning Platforms: Apps like Duolingo, Babbel, and Memrise utilize gamification, spaced repetition systems (SRS), and bite-sized lessons to promote daily habit formation. They democratize access to language learning.

· Microlearning Principles: This strategy involves delivering content in small, focused units (3-7 minutes) that can be consumed during a commute or break. It aligns with modern attention spans and supports just-in-time learning (e.g., quickly reviewing key phrases before a meeting).

· Social and Collaborative Learning: Many platforms incorporate community features, allowing learners to compete with friends, join clubs, or have their exercises reviewed by peers, adding a social dimension to independent study.

MOOCs, OERs, and Global Online Collaboration

The internet has broken down the walls of the classroom,connecting learners with global resources and communities.

· Massive Open Online Courses (MOOCs): Platforms like Coursera, edX, and FutureLearn offer university-level courses from institutions worldwide. Learners can simultaneously acquire subject-specific knowledge (e.g., "Introduction to Marketing," "Python for Everybody") and academic language skills by taking courses taught in the target language.

· Open Educational Resources (OERs): A vast array of free, high-quality teaching and learning materials (podcasts, videos, lesson plans) are available online, allowing educators to build rich, customized curricula.

· Telecollaboration and Virtual Exchange: Projects like eTwinning (in Europe) or the UN's iEARN network connect classrooms across borders. Students collaborate on joint projects (e.g., a comparative environmental study, a digital storytelling magazine), using the target language for authentic, purposeful communication to achieve shared goals.

Interactive Pedagogical Methodologies: Beyond the Textbook

Innovation also resides in the redesign of instructional activities and classroom dynamics to foster active engagement, collaboration, and real-world skill development. Project-Based Learning (PBL) in Language Education: PBL is an extended,inquiry-based process where students investigate a complex question, problem, or challenge and create a tangible product or presentation. In a language context, the target language is the primary tool for research, collaboration, and presentation.

· Key Elements of PBL:

· Driving Question: A provocative, open-ended question that frames the project

(e.g., "How can our school reduce its carbon footprint?" "How would we market a local artisan's product to an international audience?").

· Student Voice and Choice: Learners have autonomy in how they approach the project and design the final product.

· Critique and Revision: Students give and receive feedback to improve their work iteratively.

· Public Product: The work is presented to an audience beyond the classroom, adding authenticity and stakes.

· Linguistic and 21st-Century Skill Development: PBL naturally integrates all four language skills (reading, writing, listening, speaking) and develops critical thinking, creativity, communication, and collaboration—the essential "4Cs" of modern education.

Flipped Classroom Model: This pedagogical model inverts the traditional structure:direct instruction is moved from the group learning space (classroom) to the individual learning space (home), transforming class time into a dynamic, interactive workshop.

· Application to Language Learning:

· At Home: Students watch video lectures on a grammatical point, listen to podcasts, read authentic texts, or prepare vocabulary.

· In Class: Time is dedicated to communicative activities: practicing the grammar in dialogues, discussing the podcast content, analyzing the text in groups, or using the vocabulary in problem-solving tasks. The teacher's role shifts from "sage on the stage" to "guide on the side," providing individualized support and facilitating interaction.

· Benefits: Maximizes valuable face-to-face time for speaking and interaction, allows learners to consume content at their own pace, and promotes learner autonomy.

Gamification and Game-Based Learning (GBL). While related,these are distinct concepts:

· Gamification: Applying game-design elements (points, badges, leaderboards, levels, challenges) in non-game contexts to motivate and engage learners.

· Game-Based Learning (GBL): Using actual games (digital or analog) for educational purposes, where the game itself is the primary learning vehicle.

· Motivational Psychology: Gamification taps into intrinsic motivators like mastery, autonomy, and relatedness, as well as extrinsic rewards. It can make repetitive practice (e.g., vocabulary drills) more engaging.

· Examples: Platforms like Classcraft or Kahoot! turn classroom activities into collaborative adventures or competitive quizzes. Language learning apps are inherently gamified. Simulation games (e.g., role-playing games set in historical periods) can provide rich narrative contexts for language use.

Creating Immersive Environments Without High Tech

Full immersion can be fostered through pedagogical design,even without expensive technology.

· Language Pledges/Oaths: Establishing periods where only the target language is spoken in the classroom.

· Simulated Environments: Transforming the classroom into a specific setting (airport, market, newsroom) for a day or week.

· Cultural Projects: Organizing film festivals, cooking classes, or music presentations centered on the target culture, with all research and presentation conducted in the foreign language.

Cross-Sectoral Application: Tailoring Methods to Professional Domains

The true test of these innovative methods lies in their effective adaptation to the specific linguistic, pragmatic, and cultural demands of different fields. The following analysis provides a sector-by-sector breakdown.

Medicine and Healthcare

· Core Needs: Precise terminology, patient-centered communication (empathy, clarity, informed consent), understanding of medical literature, interdisciplinary team communication.

· Innovative Applications:

· VR Medical Simulations: Platforms like Oxford Medical Simulation or SimX allow trainee doctors and nurses to interact with virtual patients, taking histories, explaining procedures, and delivering difficult news in a safe, repeatable environment. This builds both clinical and linguistic confidence.

· AI for Terminology & Documentation: Using AI-powered tools to practice translating complex medical jargon into layperson's terms or to learn the standardized format for patient history and physical (H&P) reports.

· Standardized Patient Encounters (with language focus): Trained actors portraying patients with specific conditions, with scenarios conducted entirely in the target language.

· Journal Club in L2: Regularly analyzing and presenting recent medical research articles in the foreign language.

Business, Finance, and International Relations.

· Core Needs: Negotiation, presentation, report-writing, email etiquette, intercultural awareness, understanding economic and financial terminology.

· Innovative Applications:

· Business Simulation Games: Tools like Capsim or Marketplace simulate running a company in a competitive global market. Student teams must make strategic decisions, analyze markets, and present results—all in the target language.

· Authentic Case Study Analysis: Using real-world business cases from Harvard Business Review or the Economist, followed by role-playing board meetings or investor pitches.

· Virtual MUN (Model United Nations): Participating in online MUN conferences where delegates debate global issues according to formal diplomatic protocol in English or another official UN language.

· Corpus Linguistics for Genre Analysis: Using tools like Sketch Engine to analyze large collections of business emails, reports, or contracts to identify frequently used collocations and rhetorical patterns.

Engineering, IT, and Technical Fields.

· Core Needs: Understanding technical manuals and specifications, writing clear documentation, collaborating on international projects, presenting technical data.

· Innovative Applications:

· Technical Documentation Sprints: Collaborative projects where students must write, translate, or localize a user manual or software documentation for a specific product.

· Global Virtual Design Teams: Using platforms like GitHub (for code) or collaborative CAD software, engineering students from different countries work together on a design project, using English (or another lingua franca) for all project communication.

· "Explain It To Me" Presentations: Students must explain a complex technical process (e.g., how a blockchain works, the principles of aerodynamics) to a non-specialist audience in clear, simple language.

· Patent Analysis: Studying patents in the target language to understand technical language and the structure of legal-technical documents.

.Arts, Humanities, and Social Sciences.

· Core Needs: Analytical and critical discourse, narrative skills, cultural interpretation, debating abstract concepts, academic writing.

· Innovative Applications:

· Digital Storytelling and Film Projects: Creating short films, documentaries, or podcasts in the target language on a social or cultural topic.

· Virtual Museum Curation: Using digital archives, students curate a virtual exhibition on a theme, writing all labels, descriptions, and catalog entries in the foreign language.

· Literary or Philosophical Salon: Hosting moderated discussions on a piece of literature, film, or philosophical text, encouraging persuasive argumentation and nuanced expression.

· Community-Based Participatory Research: Engaging with local immigrant communities to conduct interviews or oral history projects in their native language.

This sectoral adaptation demonstrates that the "one-size-fits-all" language course is obsolete. Effective programming requires deep collaboration between language instructors and subject-matter experts to design contexts that are simultaneously linguistically rich and professionally relevant.

Conclusion and Future Trajectories

The exploration of innovative methods for teaching foreign languages across various fields reveals a clear and compelling consensus: the future of language education is integrated, personalized, technologically empowered, and purpose-driven. The dichotomy between "language" and "content" is dissolving in favor of a holistic model where language is the vehicle for meaningful action, knowledge construction, and professional identity formation.

Key Syntheses:

1. The Primacy of Context: Language learning is most effective when embedded within authentic, meaningful contexts, whether through CLIL, LSP, or immersive simulations. This bridges the motivation gap and ensures transferable skills.

2. Technology as an Enabler, Not a Panacea: AI, VR, and adaptive platforms offer unprecedented opportunities for personalization, practice, and access. However, their success depends on sound pedagogical design and the guiding role of a skilled educator who fosters human connection and intercultural understanding.

3. The Shift in Educator Roles: The teacher transforms from a knowledge dispenser to a facilitator, curriculum designer, tech integrator, and coach. This requires ongoing professional development and institutional support.

4. Evidence of Efficacy: Growing research indicates that these methods can lead to higher levels of learner engagement, improved pragmatic competence, greater retention of both language and content knowledge, and better preparation for global professional environments.

Recommendations for Stakeholders:

· For Educators: Embrace a mindset of lifelong learning. Develop dual competencies in language pedagogy and a content area (or collaborate closely with colleagues). Experiment with one new technology or method at a time, starting with small-scale implementations.

· For Curriculum Designers and Institutions: Invest in needs analyses before program development. Create flexible, modular curricula that allow for domain-specific pathways. Allocate resources for teacher training, technological infrastructure (VR labs, software licenses), and the creation of high-quality authentic teaching materials.

· For Policymakers: Support national and international frameworks that promote bilingual and CLIL education. Fund research into the long-term outcomes of innovative language programs. Foster partnerships between universities, vocational schools, and industry to ensure language education aligns with economic and social needs.

· For Learners: Take ownership of your learning journey. Seek out opportunities for authentic language use beyond the classroom. Be proactive in communicating your specific professional or academic goals to instructors.

Future Directions:

The trajectory points towards even greater integration and sophistication:

· Advanced AI Tutors: More nuanced, emotionally intelligent AI that can coach learners on pragmatics and intercultural communication subtleties.

· The Metaverse for Language Learning: Persistent, shared virtual worlds dedicated to language and cultural exchange, offering continuous immersion.

· Neuroeducation and SLA: Insights from neuroscience may lead to methods optimized for memory consolidation and cognitive load management during language learning.

· Hybrid and Hyflex Models: The post-pandemic world will see a permanent shift towards blended learning models that seamlessly combine the best of online and in-person interaction.

In conclusion, the ultimate goal of these innovative methods is not merely linguistic accuracy, but communicative empowerment. It is about equipping individuals with the language skills to heal, build, negotiate, create, and connect across borders. By embracing these interdisciplinary,

technology-enhanced, and context-rich approaches, we move closer to a world where language education is a dynamic, relevant, and transformative force for every learner.

References

1. Coyle, D., Hood, P., & Marsh, D. (2010). CLIL: Content and Language Integrated Learning. Cambridge University Press.

2. Dudley-Evans, T., & St John, M. J. (1998). Developments in English for Specific Purposes: A multi-disciplinary approach. Cambridge University Press.

3. Godwin-Jones, R. (2021). Emerging technologies: Language learning and teaching in the digital age. Language Learning & Technology, 25(3), 6–28.

4. Krashen, S. D. (1982). Principles and Practice in Second Language Acquisition. Pergamon Press.

5. Levy, M., & Stockwell, G. (2006). CALL Dimensions: Options and Issues in Computer-Assisted Language Learning. Lawrence Erlbaum Associates.

6. Marsh, D. (2002). CLIL/EMILE – The European Dimension: Actions, Trends and Foresight Potential. European Commission.

7. Nunan, D. (2004). Task-Based Language Teaching. Cambridge University Press.

8. Richards, J. C., & Rodgers, T. S. (2014). Approaches and Methods in Language Teaching (3rd ed.). Cambridge University Press.

9. Shadiev, R., & Yang, M. (2020). Review of studies on technology-enhanced language learning and teaching. Sustainability, 12(2), 524.

10. Thorne, S. L., & Hellermann, J. (2022). Collaborative projects in technology-mediated language learning. In The Routledge Handbook of Language Learning and Teaching Beyond the Classroom. Routledge.

11. Warschauer, M., & Healey, D. (1998). Computers and language learning: An overview. Language Teaching, 31(2), 57-71.

12. Zawacki-Richter, O., et al. (2019). Systematic review of research on artificial intelligence applications in higher education – where are the educators? International Journal of Educational Technology in Higher Education, 16(1), 39.

13. “Chet tillarni o‘qitishning zamonaviy texnologiyalari” Respublika ilmiy-amaliy konferensiyasi materiallari. Toshkent, 2022.

14. “Xorijiy tillar: nazariya va amaliyot” ilmiy jurnali. Toshkent davlat chet tillari instituti.

15. Blended Learning in English for Specific Purposes (ESP) Courses: A Systematic Review (2021). International Journal of Emerging Technologies in Learning (iJET).

16.https://www.academicpublishers.org/journals/index.php/ijai/article/view/5011

17. https://ijmri.de/index.php/ijpse/article/view/1008

18. https://lingvospektr.uz/index.php/lngsp/issue/view/11