

ҚАЗАҚСТАН РЕСПУБЛИКАСЫ ЖОҒАРЫ БІЛІМ ЖӘНЕ ҒЫЛЫМ МИНИСТРЛІГІ
ҚЕАҚ «Л. Н. Гумилев атындағы Еуразиялық ұлттық университеті»
Филология факультеті
Шетел тілдері кафедрасы



**II Spring International Scientific and Practical ONLINE
Conference “Innovative Approaches of Language Teaching:
Bridging Theory and Practice”**

**«Тілдерді оқытудың инновациялық тәсілдері: теория мен
практиканы ұштастыру» атты II көктемгі халықаралық
ғылыми-практикалық конференция**

**II весенняя международная научно-практическая
конференция «Инновационные подходы преподавания
языков: слияние теории и практики»**

PROCEEDINGS

Astana, Kazakhstan

April 4, 2026

УДК 80/81
ББК 81.2

Жалпы редакциясын басқарған: Дүйсенғазы С. М.
Редакция алқасы: Балхимбекова П.Ж., Тусупбекова М.Ж., Кызырова А.М.

Тілдерді оқытудың инновациялық тәсілдері: теория мен практиканы ұштастыру:
халықаралық ғылыми-практикалық конференция материалдары. 4 сәуір 2026 ж./ – Астана:
Л.Н. Гумилев атындағы ЕҰУ, 2026. – 454 бет.

ISBN 978-601-385-215-7

«Тілдерді оқытудың инновациялық тәсілдері: теория мен практиканы ұштастыру» атты ІІ көктемгі халықаралық ғылыми-практикалық конференция материалдар жинағында шетел тілдерін оқыту саласындағы озық тәжірибелермен алмасуға, мәдениетаралық қарым-қатынасты нығайтуға, цифрлық дәуір жағдайында шетел тілдерін оқытудағы инновациялық технологияларды таратуға, сондай-ақ халықаралық ғылыми-академиялық ынтымақтастықты кеңейтуге бағытталған ғылыми-практикалық зерттеулердің нәтижелері енгізілген. Материалдарда білім алушылар мен жас ғалымдардың осы бағыттағы зерттеулерге белсенді қатысуын ынталандыру мәселелері қарастырылған.

В сборник материалов ІІ весенней международной научно-практической конференции «Инновационные подходы преподавания языков: слияние теории и практики» включены результаты научно-практических исследований, направленных на обмен передовым опытом в области преподавания иностранных языков, укрепление межкультурной коммуникации, распространение инновационных технологий обучения в условиях цифровой эпохи, а также расширение международного научно-академического сотрудничества. В материалах рассматриваются вопросы стимулирования активного участия обучающихся и молодых ученых в исследованиях в данной области.

The proceedings of the ІІ Spring International Scientific and Practical ONLINE Conference “Innovative Approaches of Language Teaching: Bridging Theory and Practice” include the results of scientific and practical research aimed at sharing advanced experience in foreign language teaching, strengthening intercultural communication, disseminating innovative teaching technologies in the digital age, and expanding international scientific and academic cooperation. The materials also address issues related to encouraging the active participation of students and young researchers in this field.

УДК 80/81
ББК 81.2

ISBN 978-601-385-215-7

Бұл жинаққа енгізілген материалдарға авторлар жауапты.
За материалы, включённые в данный сборник, ответственность несут авторы. Authors
are responsible for the content of their materials



NJSC “The L.N. Gumilyov Eurasian National University”
Philological faculty
Foreign Languages Department

II Spring International Scientific and Practical ONLINE Conference “Innovative Approaches of Language Teaching: Bridging Theory and Practice”

**«Тілдерді оқытудың инновациялық тәсілдері: теория мен
практиканы ұштастыру» атты II көктемгі халықаралық
ғылыми-практикалық конференция**

**II весенняя международная научно-практическая конференция
«Инновационные подходы преподавания языков: слияние
теории и практики»**

The Main Themes of the Conference:

1. Teaching foreign languages for professional and interdisciplinary purposes.
2. Innovative technologies in foreign language teaching methodology.
3. Language training in the context of multilingualism and lifelong learning.
4. Language education based on digital technologies and artificial intelligence.

Organizing Committee:

<i>Serikzat Duissengazy</i>	– Dean of the Faculty of Philology, candidate of philological sciences, professor
<i>Balkhimbekova Perizat Zhanatovna</i>	– Head of the Foreign Languages Department, PhD, assistant professor
<i>Mukhtarkhanova Ainagul Madiевна</i>	– candidate of pedagogical sciences, associate professor
<i>Tussupbekova Madina Zhanbyrbaevna</i>	– candidate of pedagogical sciences, associate professor
<i>Kurmanayeva Dina Kassymbekovna</i>	– PhD, associate professor
<i>Tazhitova Gulzhakhan Zarubaevna</i>	– PhD, assistant professor
<i>Kyzyrova Assem Manarbekovna</i>	– candidate of philological sciences, a senior teacher
<i>Sadykova Aigul Kudaibergenovna</i>	– PhD, assistant professor
<i>Mukanova Saltanat Kanatkhalievna</i>	– MSc, a senior teacher

CONTENTS

SECTION 1. TEACHING FOREIGN LANGUAGES FOR PROFESSIONAL AND INTERDISCIPLINARY PURPOSES

Navigating Cultural, Linguistic, and Contextual Challenges in English to Turkish Poetry Translation: A Study of Elizabeth Barrett Browning’s “Mother and Poet” and “The Cry of the Children”, and Alfred Lord Tennyson’s “The Lady of Shalott” and “Mariana” <i>Mustafa Canli</i>	15
Literary texts in Turkish language teaching: bridging literature and language acquisition <i>Asım Aydın</i>	23
Student attitudes toward flipgrid integration in online speaking tasks after the 2023 Turkiye earthquakes <i>Kübra Kırac Demiray</i>	29
The importance of differentiated instruction in the efl classroom: a teacher-researcher perspective <i>Toktosunova Z.R., Mamarasulova A.B.</i>	39
«Цифровой мост» в формировании языковой компетенции: эффективность онлайн-курса делового английского языка для студентов неязыковых специальностей <i>Гололобова О.А.</i>	45
Building the 21st-century student profile in higher education foreign language programs: a transdisciplinary competency-based framework, validity logic, and an AI-replicability stress test <i>Natalia Abdel Fattah</i>	54
Traditional methods and modern techniques of teaching and research: ELT in the AI era <i>Kalyana Chakravarthi Thirunagari</i>	62
Роль укрепления традиционных смыслов и ценностей в процессе преподавания дисциплины «иностраный язык» в ВУЗе <i>Витрук Л. Ю., Ларина Л.И.</i>	70
Магістранттарда кездесетін академиялық жазудың кейбір мәселелері <i>Мухтарханова А.М., Смагулова Б.Г.</i>	72
Обучение французскому языку на основе английского: методика, практика и перспективы развития <i>Жусупова Г.М., Нурбекова Г.Ж.</i>	77
Using podcasts and shadowing techniques to enhance english language learners’ fluency and native-like pronunciation <i>Ospanova F.A., Alzhanova A.O., Sadykova A.K.</i>	85

К вопросу мотивации на занятиях Немецкого языка в неязыковом ВУЗе <i>Тусупова Г.К., Аубакирова А.К., Дюсенгалиева А.А., Буркитбаева А.Г.</i>	90
Сәулет-құрылыс факультеті студенттеріне ағылшын тілі лексикасын оқытуда этимологиялық сөздікті пайдалану <i>Кемельбекова Э.А., Мусабаева Г.М., Нургалиева У.С.</i>	96
Developing language competencies in a multilingual and lifelong learning context: insights from Kazakhstan <i>Sarkulova Zh.K., Zhumaturatova B.B.</i>	100
Применение ИИ в самостоятельной работе по иностранному языку <i>Тазбулатова Г.К., Балтынова А.Ш., Тулекеева С.А., Рыскулова А.Ш.</i>	103
Интеграция цифровых технологий в процесс обучения иностранному языку студентов медицинского университета <i>Балтынова А.Ш., Мынбосынова Г.Е., Хамзина М.Б.</i>	114

SECTION 2. INNOVATIVE TECHNOLOGIES IN FOREIGN LANGUAGE TEACHING METHODOLOGY

Влияние инновационных технологий на изучение английского языка <i>Загоруля О.Л., Абуова А., Али М.</i>	125
The role of art-based activities in vocabulary acquisition among young learners <i>Gelimova A., Alzhanova A. O.</i>	132
Egrating artificial intelligence tools into foreign language teaching <i>Zhanibekkyzy A., Balkhimbekova P.Zh.</i>	137
Формирование межкультурной компетенции студентов программы «зарубежное регионоведение» через аутентичные тексты и реалии повседневной жизни <i>Кириллова А.А., Balkhimbekova P.Zh.</i>	143
CLIL as an interdisciplinary approach: learning biology through English <i>Kanash L., Кузырова А.</i>	148
Роль английского языка в сфере гостеприимства <i>Абеева Д.Т., Ким И.С., Оспанова Ф.А.</i>	156
Английский язык как средство профессиональной коммуникации в области инженерной инфраструктуры <i>Койшубекова Ф.А., Оспанова Ф.А.</i>	163
Teaching academic writing for professional communication in ESP courses <i>Tauyekel Zh., Sadykova A.K.</i>	168
Innovative approaches to teaching academic writing in English for university students <i>Pervez Sh., Sadykova A.K.</i>	175
How artificial intelligence improves foreign language learning <i>Muratbek I., Muratkyzy A., Kuzar Zh.</i>	180
Using AI-supported genetics simulators in a bilingual learning environment: the	186

opportunities of academic English for STEM learners <i>Yeltay Zh., Kuzyrova A.</i>	
Туризм саласында ағылшын тілін меңгерудегі инновациялық технологиялар <i>Төлеген Ә., Елеусіз Ж., Оспанова Ф.А.</i>	196
Роль геймификации в повышении мотивации учащихся и их коммуникативной активности на уроках английского языка <i>Сандыбаева М., Берикболова А., Альжанова А.О.</i>	202
Promoting autopsychological competence of future teachers through English language learning <i>Karimtayeva A., Kurmanayeva D.K.</i>	212
The role of innovative technologies in foreign language teaching: a comparative analysis of traditional and online approaches <i>Khavalkhan Y., Kurmanayeva D.K.</i>	219
Innovative methods of teaching English in the digital age <i>Toleukhan A.B., Tlepova D.A., Alzhanova A.O.</i>	227
The use of English poems and songs for the development of lexical skills at the senior stage of learning <i>Tnysh tikova U.A., Yesengaliyeva A.M.</i>	232
Шет тілін оқытудың жоғары сатысында сөйлесу дағдыларын дамыту үшін TED TALKS платформасын пайдалану <i>Сисембаева К.Е.</i>	243
Assessing the effectiveness of a critical thinking curriculum on junior students' decision making skills <i>Yergazy A.E., Yessengaliyeva A.M.</i>	252

SECTION 3. LANGUAGE TRAINING IN THE CONTEXT OF MULTILINGUALISM AND LIFELONG LEARNING

Fostering language proficiency in a multilingual educational context through the image of the mother-woman in Gabit Musrepov's prose: linguodidactic and cross-cultural aspects <i>Sharapiden A.T., Kurmanayeva D.K.</i>	263
Қазақ тілді жарнама дискурсындағы тұтынушы санасын манипуляциялаудың когнитивті-прагматикалық механизмдері <i>Асхатова Ф.Е.</i>	271
From blueprints to bilingualism: language integration in civil engineering education <i>Atarbekova A.T., Ustelimova N.</i>	279
AI tools in educational media: linguistic and cultural implications <i>Abay K.N.</i>	285
Заманауи студенттердің көптілділікке ұмтылысы: себептері мен басымдықтары <i>Сабырбай Н., Қонысбай Д., Төлеу А.</i>	292
Stress resilience of first-year students: an analysis of personal and academic challenges and coping strategies	299

<i>Zagorulya O.L., Kasymova A.</i>	
English language learning in a multilingual world <i>Bakytbekkyzy L., Biakhmetova M., Duishonaliyeva B.T.</i>	306
Mythopoetics and cultural identity in modern Kazakh poetry <i>Bektur M., Mukhtarkhanova A., Tazhitova G.</i>	312
Қазақ тіліндегі англицизмдер <i>Альнур А.Е., Нұргелді С.Ж., Нурбекова Г.Ж.</i>	318
The influence of English on modern Chinese vocabulary: A study of loanwords <i>Daren Nuerbahati, Gulizat Nurbekova</i>	325
Analysis of implementing CLIL in technical education: insights from a Kazakhstani case study for developing internationally competitive specialists <i>Dinassil S., Alzhanova A.</i>	327
Anglo-americanisms in Kazakh and Chinese languages <i>Zhanat A., Nurbekova G.</i>	333
Trilingual education system in Kazakhstan: challenges and prospects <i>Toksanbayeva B., Ustelimova N.</i>	336

SECTION 4. LANGUAGE EDUCATION BASED ON DIGITAL TECHNOLOGIES AND ARTIFICIAL INTELLIGENCE

Цифрлық технологиялар және жасанды интеллект негізіндегі тілдік білім беру <i>Нұрадин А.Б.</i>	346
AI in education: help or obstacle for learning? <i>Aidarkhan A., Bektemir A., Niyazbekova A.</i>	355
The use of artificial intelligence in first-year students' learning: impact of independence and academic performance <i>Zagorulya O.L., Boyaubay A., Kabdullin D.</i>	361
English for transportation engineers: exploring the impact of artificial intelligence integration <i>Igizbay A., Aubakirova A.K.</i>	366
Жасанды интеллект арқылы ағылшын тілін тиімді үйрену <i>Қамбар М.А., Иса Б.О., Дүйшоналиева Б.Т.</i>	372
Интеграция ИИ-ассистентов в контексте живого общения <i>Абдрасилова Ж., Наурызбай Е., Кайдаров Р.</i>	380
Comparison of traditional and digital approaches in learning English <i>Асылгазы А., Жеңіс А., Бұғыбай Ұ., Дүйшоналиева Б.Т.</i>	387
Transformation of the educational system in Kazakhstan: impact of AI <i>Shakirbekova D.A., Smagulova B.G.</i>	394
The use of artificial intelligence in developing speaking and writing skills for language tests: a systematic review <i>Bazarbek M., Shakhputova Z.Kh.</i>	400

Digital Interactive Platforms as a Tool for Enhancing English Language Learning <i>Makhambetova Zh.</i>	409
Artificial intelligence and digital technologies in foreign language education: a critical review of opportunities and challenges in the post-chatgpt era <i>Koshenov D., Alzhanova A.O.</i>	415
Цифрлық технологиялар және жасанды интеллект негізіндегі тілдік білім беру <i>Тұрсынбек Л., Тусупова Г.К.</i>	422
Features of foreign language acquisition through digital platforms in the context of lifelong learning <i>Zarkeshova K., Alzhanova A.O.</i>	426
Innovative methods of teaching chemistry using artificial intelligence: combining theory and practice <i>Kusmanova K.E., Amangeldy D.T., Mukanova S.K.</i>	433
Инновационные подходы к формированию лексической компетенции у студентов языковых вузов посредством мобильных приложений <i>Мелдешова А., Ораз Ә., Шотанова Ж., Жорабекова Д.М.</i>	442
Language education based on digital technologies and artificial intelligence <i>Saparaliyeva A., Kemelbekova E.A.</i>	449

8. Alharbi S. Using CALL in Teaching Writing: An Explicatory Study on Its Efficacy for ESL/EFL Learners // Arab World English Journal. 2018. Special Issue No. 4.

IRSTI 16.21.47

HOW ARTIFICIAL INTELLIGENCE IMPROVES FOREIGN LANGUAGE LEARNING

Muratbek Inkar, Muratkyzy Aida, Kuzar Zhanna

L.N. Gumilyov Eurasian National University,
Foreign Philology, Astana, Kazakhstan

Abstract

Artificial intelligence (AI) has a huge impact on foreign language education. The use of AI in language learning has opened up a broader range of resources and methods, making it easier for teachers to teach and improve students' skills, making instruction more effective, engaging, and accessible. This article looks at how AI impacts foreign language learning, focusing on vocabulary, grammar, speaking, listening, writing abilities, and learner motivation. Through recent literature analysis, the paper describes the advantages, drawbacks, and the limits of this research applying AI in language acquisition. It also addresses issues of ethics and culture related to teaching based on AI, highlighting the need for careful and responsible use. AI is significantly supporting personalized learning while giving instant feedback, and provides interactive activities to help develop language skills and learner independence. However, technology, privacy, and digital divide issues need to be solved to make learning fair and successful. Finally, the paper looks at pathways AI-driven platforms can take into the future to evolve foreign language education with advanced adaptive learning, gamification, and immersive technologies like virtual and augmented reality.

Keywords: AI, learning a foreign language, adaptive learning, speech recognition, generative AI, personalized learning, language skills development.

AI has appeared recently as a transformative influence on foreign language education. The use of advanced technologies, including machine learning, natural language processing, and generative language models. These are the kinds of innovations that allow highly personalized, adaptive, and interactive learning experiences. Unlike traditional systems based on fixed content and uniform pacing, AI dynamically personalizes instruction to each student's individual learner profile, tracks progress on-the-fly, and provides targeted feedback. These capabilities affect learners of all ages and levels — especially in vocabulary, grammar, speaking, listening, and writing. The use of AI in language education in general has been supported by the wide

use of digital platforms and mobile devices, providing flexible and autonomous study. AI-driven analytics find learners' strengths and weaknesses, helping create personal learning ways. Tools, including chatbots, speech recognition software, and generative models, help with real communicative practice outside formal classroom contexts. However, while there are such advantages to using AI, it also creates problems such as data privacy, academic honesty, and fair access. While AI can significantly aid in the development of skills, it does not replace the teaching skills, cultural insight, and emotional support from human teachers. Understanding how to employ these technologies efficiently is crucial. This article investigates AI's role in foreign language acquisition by integrating its strengths, applications, challenges, and prospects. Based on current research and real deployments, the discussion focuses on learner engagement, personalized instruction, and skill enhancement, organized into four major thematic areas: (1) Vocabulary and Grammar, (2) Speaking and Listening, (3) Writing and Motivation, and (4) Ethical Issues and Intercultural Communication. Each theme is related to subtopics concerning AI's role, potential, tools, challenges, and future directions. By incorporating theory and practice, the paper provides an overview of AI-supported language learning and practical recommendations relevant to its effective uptake. The analysis in this study uses a qualitative method paired with a systematic literature review examining AI's impact on foreign language learning. The materials are recent peer-reviewed journal articles, conference proceedings, and reports covering AI applications in language education. Three stages were followed in the investigation:

1) Literature Selection: Based on chosen criteria, six sources were used for this study about relevance, authority, and contemporary insights. These are about AI use in writing, speaking, listening, gamified learning, ethical issues, and intercultural communication.

2) Data Analysis: Each source was examined to extract information relating to AI tools, advantages, limitations, learner motivation, and cultural aspects. Emergent patterns and thematic categories were identified with the aim of understanding AI's contribution to language acquisition.

3) Synthesis: The findings were categorized and organized according to thematic areas reflecting key language competencies: Vocabulary and Grammar; Speaking and Listening; Writing and Motivation; and Ethical and Intercultural Issues. This structure allows for a comprehensive discussion about AI's implications across a variety of skills and learner experiences.

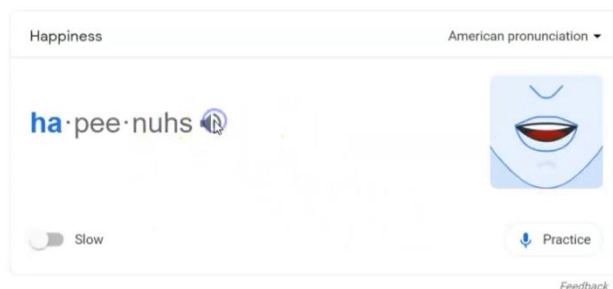
The primary purpose of this study is descriptive and exploratory, aiming to join current understanding of AI-facilitated practices, challenges, and potential trajectories in language education.

The method also supports conclusions based on empirical evidence and demonstrates the applications of AI in varied contexts. AI has a significant effect on learners' learning vocabulary and grammar in foreign languages. Old methods were based mostly on rote execution. The students are best taught repetition, memorisation,

and structured classroom instruction. AI fills this need by overcoming such limitations through AI, which offers individualized and flexible learning experiences fine tuned in to unique learner profiles. Platforms with machine learning algorithms, including Duolingo, LingQ, and Quizlet, check learners’ progress and change educational resources dynamically. Such as when students are struggling with verb conjugation or vocabulary, which serve to supplement the exercises, contextualized, providing incremental mastery via targeted and purposeful examples for repetition. In addition, AI serves the context-dependent learning critical to a suitable use of language. Natural language processing (NLP) approaches process learner input to find and correct errors and provide rapid corrective feedback. Certain applications detect mistakes with preposition use or verb tenses, and explain them accordingly, reducing repetitive errors and encouraging self-audit of one's own to watch. AI offers more than just instructional support – it also supports assessment and diagnostics. Adaptive testing monitors errors and develops comprehensive learner profiles to inform pedagogy. According to Son et al. [1], for precision, these analytics support pedagogical changes and help a learner advance (in particular, beginners and intermediate learners). For interactive AI-facilitated tasks, quizzes, and real-time feedback mechanisms.

AI helps vocabulary and grammar acquisition in terms of adaptive, interactive, and personalized approaches that are responsive, based on contextual understanding, error corrections, autonomous learners, and actionable instructional data that collectively impact learning outcomes and engagement. AI’s ability to improve speaking and listening skills, in its own right, is a major factor in the field of foreign language education. Time, materials, and genuine speaking practice are limited in traditional classrooms. Solutions to overcome these challenges are powered by AI tools providing interactive, flexible, and immersive practice learning environments. Voice recognition, virtual tutoring, and chatbot interfaces allow learners to perform realistic oral work. These systems analyze metrics including pronunciation, intonation, and fluency, and perform instant corrective feedback. Apps and applications such as ELSA Speak and Google Pronunciation Coach spot articulation problems and make suggestions for correction and model target speech patterns, subsequently aiding advancements in accuracy and naturalness.

AI-enabled access to diverse auditory materials also improves listening skills, including podcasts, scripted dialogues, and recordings featuring various accents. AI changes the complexity and pace of these materials to match individual ability levels.



AI-mediated listening tasks lead to better retention of vocabulary and syntactic understanding compared with traditional resources. AI further augments individualized, independent practice by allowing controlled repetition, performance monitoring, and focused training on weaker linguistic aspects. Chatbots simulate conversational exchanges so learners can build communicative confidence with less of the social risks entailed by face-to-face interactions. Additionally, AI adaptively customizes listening activities by varying difficulty, offering contextual clues, and enabling content replay. Interactive quizzes and feedback keep up motivation and engagement. Gamification features such as scoring, achievement levels, and progress indicators inspire learners and build oral confidence in comprehension and production. From a holistic point of view, AI helps the development of speaking and listening competencies through personalized, adaptive, and interactive modes, promoting pronunciation, fluency, comprehension, and cultural literacy in flexible and engaging learning opportunities. AI has changed the way we teach writing skills in foreign language contexts by offering feedback, instructional guidance, and motivational support. Writing lessons usually depend on the teacher’s checking, but teachers have many students and little time, and different opinions. AI tools can process massive amounts of learner writing, detect grammatical, syntactic, and stylistic errors, and provide immediate, personalized feedback that speeds up skill acquisition. One major contribution is automated corrective feedback. Platforms like Grammarly, Write & Improve, and ChatGPT suggest improvements in sentence structure, lexical choice, punctuation, and overall clarity. They also elucidate underlying grammatical principles in a way that can aid learner internalization and reduce recurring mistakes. In addition, AI helps track students’ writing over time, shows their common mistakes, and changes exercises to help them improve. As Chen Z. mentioned, AI-generated feedback increases accuracy, coherence, and learner confidence [2]. Ongoing support encourages revision, vocabulary exploration, and experimentation with complex sentence forms, fostering self-regulated learning. Generative AI not only corrects but also supports ideation and creativity. Tools like ChatGPT help brainstorm topics, structure essays, and provide illustrative exemplars. Such aids, when used responsibly, can alleviate writer’s block and motivate expression, especially among learners with limited vocabulary or confidence. Students feel more motivated because of game elements, tasks that match their level, and personal rewards. Platforms integrating scoring systems, levels, and badges stimulate continued engagement. Gamified settings increase persistence and involvement, which is essential for developing writing fluency and precision. AI-enabled tools that manage collaborative writing track contributions, suggest improvements, and provide communal feedback. This interaction promotes communicative competence, critical thinking, and exposure to diverse perspectives, reflecting authentic writing and academic collaboration contexts. Ethical concerns are still important. Learners need guidance to use AI responsibly, avoiding plagiarism and undue dependence. Bittle and El-Gayar say it is important to teach how to use AI in the correct way, so it really helps students build skills and become more independent

[3]. AI impacts writing instruction by providing immediate feedback, ongoing assessment, creative support, gamified engagement, and collaborative opportunities. These tools improve accuracy, creativity, confidence, and learner independence, complementing traditional instruction to support comprehensive language ability. While AI offers several advantages, its integration into language learning presents ethical, practical, and intercultural challenges that merit careful attention to ensure responsible use. Another major concern is overreliance on AI tools. Learners may depend too heavily on automated corrections, impeding critical thinking, self-assessment, and problem-solving skills. Elzerman argues that although AI is convenient, it cannot substitute human pedagogical judgment [3]. Overdependence risks a superficial understanding of grammar, vocabulary, and cultural nuance, prioritizing form over meaningful communication. Data privacy and security challenges arise as AI systems collect personal and performance data to personalize learning. Questions about informed consent, data management, and potential misuse require strict data protection protocols and clear communication with learners [4]. Equity and access are further challenges. Effective AI use depends on stable internet, the right hardware, and digital literacy. Institutional efforts and fair access policies are key to reducing disparities. AI tools may also reflect cultural and linguistic biases, as training on datasets dominated by certain languages and cultures can reduce relevance and accuracy for underrepresented learner groups. Curran et al. emphasize designing culturally responsive AI systems sensitive to linguistic diversity and inclusivity [5]. Academic integrity is also at stake. Generative AI platforms such as ChatGPT can produce essays or translations that learners might misuse. Bittle and El-Gayar highlight the need for education on ethical technology use, proper attribution, and supporting authentic engagement in learning tasks [3]. Chapelle underscores that although AI supports routine language functions, human instructors stay indispensable for contextual interpretation, cultural mediation, and emotional support [6]. Nonetheless, AI holds promise for enhancing intercultural communication by exposing learners to diverse linguistic varieties and cultural norms. Chatbots can have conversations like native speakers and show how people usually speak and behave. However, cultural content should complement, not replace, educator guidance, fostering critical and authentic interpretation. AI integration offers significant opportunities alongside inherent challenges. Ethical application, avoidance of overdependence, privacy protection, fair access, bias mitigation, and academic honesty are vital to maximizing AI's pedagogical value. Balancing technological tools with traditional teaching and human engagement is essential for cultivating genuine language competence and intercultural skills.

There are areas in which AI in foreign language education is promising. Anticipated developments that make personalized, adaptive, immersive learning experiences. Current problems can be solved with innovative technologies. VR-based AI, for example, could model visits to foreign locations, allowing learners to mingle with native speakers and practice the language in a rich, situational context. Adaptive

learning algorithms are likely to be on the rise, complex, personalized to individual skill levels, learning styles, and cognitive preferences. Future AI might catch errors in that moment and give practice as the target error, allowing us to scaffold learner progress towards weaknesses more efficiently than traditional methods. AI also connects people and cultures to help global collaboration and communication. Global learners across the globe for group projects, diplomacy, negotiation, and discussion across different cultures, and collaborative practices [5]. Moreover, AI-backed assessment methods integrating natural language processing, machine learning, and speech recognition may provide more comprehensive and fair assessments of speaking, writing, listening, and reading skills. Such systems can ease instructor load and still afford detailed feedback. Still, constant ethical and practical concerns stay paramount. Privacy, bias, access, and academic integrity must be carefully managed. In addition, AI and compared studies scoring with human evaluators prove that AI is able to deliver consistent and scalable assessments. AI, as such, should provide human educators with added information, cultural background, emotional support, and pedagogic insight (from the educational experience of how more sophisticated technologies reinforce rather than replace teacher authority).

Finally, AI offers us the possibilities of providing immersive, individualized, personalized, and responsive learning, global collaboration, and enhanced assessment. AI can cultivate when used engagement, independence, and intercultural competence as drivers of learner engagement within an inclusive, learner-centred, language education environment appropriately. AI tools offer instantaneous feedback, gamification elements, and collaboration as they are collective platforms that can promote learner engagement, independence, and confidence. But there are hurdles, such as the dangers of over-dependence on AI, ingrained biases, privacy issues, uneven access, and the need for ethical guidelines that prevent misuse. AI cannot replace human educators, whose role in contributing to providing cultural framing, emotional support, and pedagogical judgment remains essential. Responsible and ethical use (in addition to intercultural awareness) is essential. Learners ought to use AI tools with sensitivity, evaluate feedback with a critical eye, and use what they learn within a real-world context as communicators. Educational agencies and trainers must have clear policies for ethical AI use to help ensure fair use of technology. Moving ahead, advances like multimodal AI, emotionally intelligent platforms, and immersive virtual reality applications will enhance the learning of language. These breakthroughs may enable real interactions, personalized approaches to learning, and shared learning. Carefully used AI helps to make inclusive, effective, and meaningful contributions to human-centered classrooms that reconcile technology and human instruction. Language education opens new opportunities for skill building, for learner motivation, and cross-cultural competency.

References

1. Son, J.-B., Ružc, N. K., & Philpott, A. (2023). Artificial intelligence

technologies and applications for language learning and teaching. *Journal of China Computer-Assisted Language Learning*. <https://doi.org/10.1515/jccall-2023-0015>

2. Chen, Z., Wei, W., Cao, K., & To, J. (2025). To revise or to recommend: an exploratory sequential mixed method study on GenAI formative feedback on reading assessment in secondary schools. *Innovation in Language Learning and Teaching*, 1-19.

3. Bittle, K., & El-Gayar, O. (2025). Generative AI and academic integrity in higher education: a systematic review and research agenda. *Information*, 16(4), 296. <https://doi.org/10.3390/info16040296>

4. Elzerman, G. (2025). When AI does the thinking: The risks of over-reliance on artificial intelligence in higher education language learning. In *Proceedings of the International Conference on Artificial Intelligence and Education*. <https://doi.org/10.1109/ICAIE64856.2025.11158185>

5. Galaczi, E., & Pastorino-Campos, C. (2025). Ethical AI for language assessment: Principles, considerations, and emerging tensions. *Annual Review of Applied Linguistics*, 45, 294–314. <https://doi.org/10.1017/s0267190525100081>

6. Curran, N. M., Gu, B., Zhen, L., & Jenks, C. (2025). AI and native speakerism: the intersections of technology, language assessment, and linguistic objectivity. *RELC Journal*. <https://doi.org/10.1177/00336882251367459>

7. Chapelle, C. A. (2025). Generative AI as game changer: Implications for language education. *System*, 132, 103672. <https://doi.org/10.1016/j.system.2025.103672>

IRSTI 14.25.09

**USING AI-SUPPORTED GENETICS SIMULATORS
IN A BILINGUAL LEARNING ENVIRONMENT:
THE OPPORTUNITIES OF ACADEMIC ENGLISH
FOR STEM LEARNERS**

Zhanar Yeltay, Kyzyrova Assem

L.N. Gumilyov Eurasian National University,
Astana, Kazakhstan

Abstract

This article analyzes the embedding of AI-supported Genetics simulators into Kazakhstan's bilingual education system, where instruction is conducted in Kazakh and English. The author analyzes the way digital tools, such as PhET and Geniventure, help overcome language barriers and the complexity of scientific terminology while developing students' academic English skills in STEM fields. The text accentuates the importance of translanguaging, in which the native language is used to understand