



This work is licensed under a Creative Commons Attribution 4.0 International License
<https://creativecommons.org/licenses/by/4.0/>

<https://doi.org/10.24833/2687-0126-2025-7-3-54-68>

ARTIFICIAL INTELLIGENCE AND FOREIGN LANGUAGE LEARNING IN HIGHER EDUCATION: ANALYSIS OF RESEARCH METHODS

Alexandra E. Ulanova

MGIMO University

(Moscow, Russia)

aleksa.ulanova@yandex.ru

Anastasia V. Buniakova

MGIMO University

(Moscow, Russia)

bunyakova.a@inno.mgimo.ru

Andrei Y. Lazko

MGIMO University

(Moscow, Russia)

aylazko@yahoo.com

Abstract: The paper presents a systematic review of research methods devoted to the use of artificial intelligence in foreign language learning in universities. The relevance of the paper is related to the growing role of artificial intelligence technology, such as large language models in higher education and foreign language learning. The aim of the study is to obtain a methodological picture of the research field in this area. Using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses methodology, the authors selected and analysed scientific publications that apply qualitative and quantitative methods to the study of artificial intelligence for foreign language learning in higher education. From a corpus of almost 3000 sources, 32 studies in English that describe the methodology and are in the public domain were selected. The results of the review showed that the majority of the works were devoted to English as a foreign language, published between 2023 and 2024, and used quantitative and mixed empirical methods, primarily questionnaires. While noting the undoubted advantages of such methods (such as standardisation, anonymity, and the possibility of automated processing of results), the authors draw attention to the insufficiency of using only quantitative and mixed research methods to understand the peculiarities of applying artificial intelligence in universities for learning foreign languages. The paper proposes to draw attention to both theoretical and empirical qualitative methods from different scientific fields in order to gain a better understanding of the field of study, which will allow taking into account the context, ethical, and non-numerical

behavioural characteristics of people interacting with artificial intelligence in education. The paper contributes to the understanding of the current state of the field of research on artificial intelligence for foreign language learning in higher education by offering recommendations for the methodology of future research.

Keywords: neural network, foreign language education, university, large language model, LLM, PRISMA, AIEd, AIHed.

How to cite this article: Ulanova, A.E., Buniakova, A.V., Lazko, A.Y. (2025). Artificial Intelligence and Foreign Language Learning in Higher Education: Analysis of Research Methods. *Professional Discourse & Communication*, 7(3), 54–68. <https://doi.org/10.24833/2687-0126-2025-7-3-54-68>

1. INTRODUCTION

In recent years, the role of Artificial Intelligence (AI) in higher education has become increasingly important, especially in foreign language learning (Crompton & Burke, 2023). The proliferation of large language models (LLMs) is changing the approach to foreign language education in universities and has sparked an increased interest in this topic in academia, as it is seen as an innovative teaching method, supposedly improving the process of foreign language learning and making it more flexible, interactive, and effective (De la Vall & Araya, 2023). The aim of this study is to analyze the research methods used to investigate the application of Large Language Models (LLMs) in foreign language learning in higher education. In order to achieve the objective, the following tasks need to be accomplished: 1) conduct a systematic review of the research literature using PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses); 2) analyse the frequency of usage and importance of methods in the research field; 3) outline the main methodological trends in studying the impact of AI on foreign language learning in higher education.

2. THEORETICAL BACKGROUND

In the 20th century, artificial intelligence emerged as a field of research. The term artificial intelligence is thought to have gained wide currency after the Dartmouth Seminar of 1956, largely due to J. McCarthy (McCarthy et al., 2006). Currently, AI is understood as a technology that is capable of mimicking human cognitive functions and solving human tasks at a level comparable to or superior to that of humans.

At the same time, the popularity of AI tools in recent years does not fully reflect the whole range of technologies related to artificial intelligence, but focuses mainly on artificial neural networks and large language models based on them. These have been characterised by in-context learning and reinforcement learning from human feedback, whereby AI is able to produce text based on context, be involved in interactive engagement with humans, and learn from its own mistakes, improving performance (Chang et al., 2024). It is LLMs that are now widely used in many fields, from industry and medicine to law and linguistics. The use of artificial intelligence in education has led to the formation of a separate category – AI in education (AIEd) (Nemorin et al., 2023), and its part – AI in higher education (AIHed) (Bond et al., 2024), in which the possibility of applying artificial intelligence to help students learn foreign languages occupies a significant place. Speaking about the great potential of this field and possible significant effects, one cannot

ignore the fact that nowadays the expectations of AI for foreign language learning in higher education are somewhat higher than the available results (Bates et al., 2020; Al-Zahrani & Alasmari, 2024; AlTwijri & Alghizzi, 2024).

Despite some ‘overheating’ of the topic, analysing literature is an important research tool to assess the current state of AIED and AIHed, to identify leading approaches, trends, and methods, as well as unexplored areas. This study aims to address the gap in the literature on AIHed and foreign language learning by reviewing the research methods employed in academic publications from 2017 to 2024, an area that has not yet been examined through systematic analysis. Literature reviews on this topic are numerous, but their scope is often limited. They tend to focus on either artificial intelligence in higher education generally (Bearman et al., 2023), its application to foreign language learning across all levels (Almelhes, 2023), or specific AI tools like a single neural network (Sok & Heng, 2024). While some studies combine these areas, a systematic analysis of research methods at the intersection of all three remains absent.

3. MATERIAL AND METHODS

The systematic review, required to analyse research methods for studying artificial intelligence in foreign language learning in higher education, was conducted according to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol.

Search Strategy. Publications were selected according to four criteria: research area, topic, research design, and year of publication. The review included papers in the field of foreign language learning in higher education. The research topic was determined by searching for the phrases ‘artificial intelligence’ (or ‘AI’) and ‘foreign language learning’ (or ‘foreign language education’); ‘large language model’ and ‘foreign language learning’ (or ‘foreign language education’) in titles, abstracts, and keywords. In terms of research design, the review included theoretical and empirical studies with quantitative and qualitative methods. The years of publication were limited to 2017 - 2024. This is due to the fact that a massive increase in research and case studies on the topic in question started after the ‘transformer’ model of artificial neural networks was introduced, and a leap in natural language processing took place. *Scopus*, *Google Scholar*, and *The Lens* databases were searched in January 2025, resulting in 2900 sources. *Scopus* served as a primary database, with *Google Scholar* and *The Lens* supplementing *Scopus* with their larger coverage of scholarly literature. Before starting screening, the inclusion criteria were clearly defined.

Inclusion Criteria. Studies met the inclusion criteria if they: 1) were devoted to the application of artificial intelligence in foreign language learning in higher education; 2) contained a research methodology with the indication and description of methods; 3) were written in English; 4) were open access studies; 5) were research articles, book chapters or conference proceedings, corresponding to the stated topic and keywords.

Screening Procedure. After excluding duplicates, 2640 publications remained; after screening abstracts – 110; after full text screening – 30. The decision to include the studies in this review was made jointly by the authors as a result of discussions. After reviewing the reference lists, 2 sources were added, resulting in 32 papers. The scheme of work with sources (PRISMA flow diagram) is presented in Figure 1.

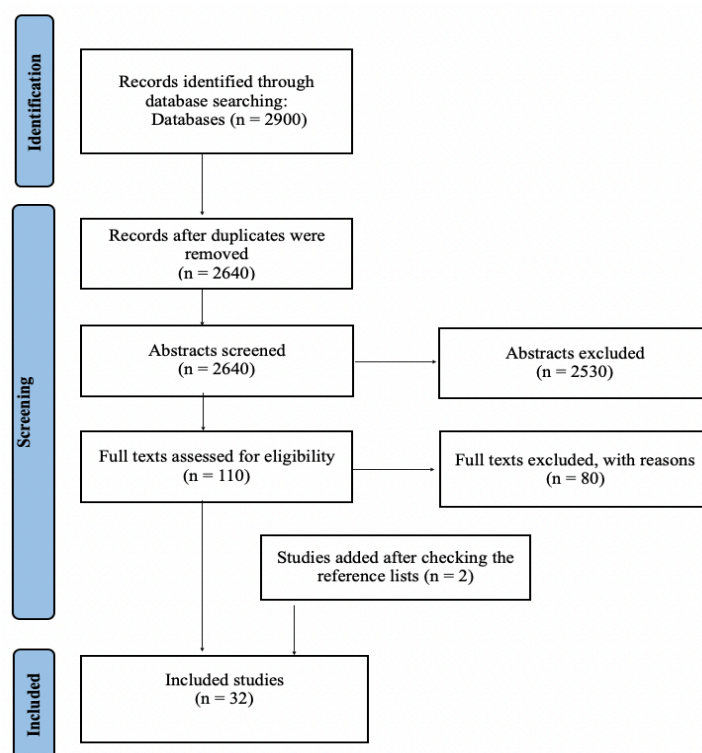


Figure 1. PRISMA flow diagram (compiled by the authors)

Data extraction. The authors extracted the following data from the studies: the title, name(s) of the author(s), the date of the publication, types of studies (theoretical/empirical, qualitative/quantitative), method(s), language, AI tool, and country.

4. RESULTS

The first objective of this study was to conduct a systematic review of the research literature using PRISMA. Table 1 presents the results of the review carried out using the PRISMA method.

Table 1. Reviewed articles (compiled by the authors)

Title	Authors	Year	Theoretical / Empirical	Qualitative / Quantitative	Method	Language	AI tool	Country
Exploring EFL university teachers' beliefs in integrating ChatGPT and other large language models in language education: a study in China	Y. Gao, Q. Wang, X. Wang	2024	Empirical	Qualitative + Quantitative	Questionnaire (with quantitative scales and a qualitative open-ended question)	English	ChatGPT and others	China
Advancing Foreign Language Teaching with AI-assisted models; Insights from lecturers and university administrators	N. Al-Awawdeh, I.A. Al-Shaboul, M.A. Saleem Khasawneh	2023	Empirical	Quantitative	Questionnaire	Not mentioned	Not mentioned	Jordan, Saudi Arabia

Title	Authors	Year	Theoretical / Empirical	Qualitative / Quantitative	Method	Language	AI tool	Country
Exploring the Evolution of AI Integration in English as a Foreign Language Education: A Scopus-Based Bibliometric Analysis (1997-2023)	M.G. Yaseen, S.S. Alnakeeb	2023	Theoretical	Qualitative + Quantitative	Bibliometric analysis	English	Not mentioned	Iraq
Generative Artificial Intelligence and ChatGPT in Language Learning: EFL Students' Perceptions of Technology Acceptance	T.K.A. Vo, N. Nguyễn	2024	Empirical	Quantitative	Questionnaire	English	ChatGPT	Vietnam
Leveling the Language Field: A Qualitative Study of the Impact of AI on Learning English as a Foreign Language in Higher Education	S.M.B. Palomares	2024	Empirical	Qualitative + Quantitative	Semi-structured interviews, questionnaire	English	Not mentioned	Spain
Impact of ChatGPT on Learning Motivation: Teachers and Students' Voices	J. Ali, M.A.A. Shamsan, T. Hezam, A.A.Q. Mohammed	2023	Empirical	Quantitative	Questionnaire	English	ChatGPT	Saudi Arabia, Yemen, India
Utilizing Artificial Intelligence-based Paraphrasing Tool in EFL Writing Class: A Focus on Indonesian University Students' Perceptions	M. Syahnaz, R. Fithriani	2023	Empirical	Qualitative + Quantitative	Questionnaire + face-to-face interviews	English	QuillBot	Indonesia
Using Artificial Intelligence for Developing English Language Teaching/Learning: An Analytical Study from University Students' Perspective	T.R. Al Mukhallafi	2020	Empirical	Quantitative	Questionnaire	English	Not mentioned	Saudi Arabia
Examining the Effects of L2 Self-Guides on Chinese University EFL Learners' Attitudes Towards Classroom Language Choice	J. Li, K.W.H. Tai	2024	Empirical	Qualitative + Quantitative	Semi-structured interviews, questionnaire	English	Not mentioned	China, UK
Embedding Artificial Intelligence Applications in Higher Educational Institutions to Improve Students' Pronunciation Performance	M.A.I. Al-Shallakh	2024	Empirical	Quantitative	Test, questionnaire	English	Elsa Speak	Jordan
The Effects of an Artificial Intelligence Voice Chatbot on Improving Vietnamese Undergraduate Students' English Speaking Skills	T.V.T. Duong, S. Suppasertsee	2024	Empirical	Qualitative + Quantitative	Test, questionnaire, semi-structured interviews	English	Andy	Vietnam

Title	Authors	Year	Theoretical / Empirical	Qualitative / Quantitative	Method	Language	AI tool	Country
Exploring the Use of Generative AI in Student-Produced EFL Podcasts: A Qualitative Study	R. Baskara, A.D. Puri, C.L. Mbato	2024	Empirical	Qualitative	Open-ended questionnaire	English	ChatGPT and others	Indonesia
Student Preferences on Using Artificial Intelligence (AI) Platform in Language Learning	R. Siregar, H. Subagiharti, D.S. Handayan, Sutarno, A.L. Hasibuan, E. Barus	2024	Theoretical + Empirical	Qualitative + Quantitative (according to authors — ‘descriptive research with a qualitative approach’ - p. 748)	Content analysis, questionnaire	English	Not mentioned	Indonesia
Research on Innovative Models of Second Language Teaching in the Age of Artificial Intelligence	C. Lin	2024	Empirical	Quantitative	Mixed quantile regression and Bayesian inference methods	Not mentioned	Not mentioned	China
Which one? AI-assisted language assessment or paper format: an exploration of the impacts on foreign language anxiety, learning attitudes, motivation, and writing performance	N. Biju, N.S.G. Abdelrasheed, K. Bakiyeva, K.D.V. Prasad, B. Jember	2024	Empirical	Qualitative + Quantitative	Sequential exploratory mixed-methods	English	ChatGPT	India, Oman, Uzbekistan, Bangladesh
The Potentials Of Artificial Intelligence In Stimulating Motivation And Improving Performance Of Undergraduates In Foreign Languages	M.A.S. Khasawneh, Y. Khasawneh	2023	Empirical	Quantitative	Questionnaire	Not mentioned	Not mentioned	Saudi Arabia, Jordan
Pattern Recognition of EFL University Students’ Online Behaviors through Data Science: Any Investment on English Language Components or Skills?	M. Arabshahi, Z. Kafi, D. Krummacker, H.D. Schotten	2024	Empirical	Quantitative	Analysis of online behaviors in AI application	English	Not mentioned	Iran, Germany
Exploring the Impact of AI on The EFL Context: A Case Study of Saudi Universities	A.G. Alhalangy, M. AbdAlgane	2023	Empirical	Quantitative	Questionnaire	English	Not mentioned	Saudi Arabia
A case study of implementing generative AI in university’s general English courses	Y.-J. Lee, R.O. Davis	2024	Empirical	Quantitative	Questionnaire	English	ChatGPT, SoulMachines	South Korea
The use and abuse of artificial intelligence-enabled machine translation in the EFL classroom: An exploratory study	W. Alharbi	2023	Empirical	Qualitative + Quantitative	Questionnaire + pre- and post-tests of writing drafts	English	Google Translate	Saudi Arabia
ChatGPT in English Education: A Case Study of Vietnamese English Majors’ Perceptions	L.Q. Hung	2024	Empirical	Quantitative	Questionnaire	English	ChatGPT	Vietnam

Title	Authors	Year	Theoretical / Empirical	Qualitative / Quantitative	Method	Language	AI tool	Country
Using Artificial Intelligence as a Digital Tool in Foreign Language Teaching	I.A. Kolegova, I.A. Levina	2024	Theoretical + Empirical	Qualitative + Quantitative	Literature review + questionnaire	English	ChatGPT, Twee, Eduaide Ai	Russian Federation
Integrating Artificial Intelligence into Foreign Language Learning: Learners' Perspectives	S. Aydın, M. Zeinolabedini	2024	Empirical	Qualitative	Background questionnaire and interviews	English	Not mentioned	Turkey, Iran
The Role of Artificial Intelligence in Advancing English as a Foreign Language Teaching at Saudi Universities	M. Alharbi	2024	Empirical	Qualitative + Quantitative	Questionnaire, semi-structured interviews	English	Not mentioned	Saudi Arabia
Pre-service teachers' attitudes towards artificial intelligence and its integration into EFL teaching and learning	S. Pokrivcakova	2023	Empirical	Quantitative	Questionnaire	English	Not mentioned	Slovakia
Exploring the Effects of Artificial Intelligence Application on EFL Students' Academic Engagement and Emotional Experiences: A Mixed-Methods Study	Y. Guo, Y. Wang	2024	Empirical	Qualitative + Quantitative	Descriptive statistics, semi-structured interviews	English	Bodoudou, ChatGPT, Wenxin Yiyuan	China
ChatGPT in Language Learning: Perspectives from Vietnamese Students in Vietnam and the USA	V.P.H. Pham, A.Q. Le	2024	Empirical	Quantitative	Questionnaire	English	ChatGPT	Vietnam, USA
Japanese University EFL Student Insights on the Emerging ChatGPT Phenomenon	G. Price	2024	Empirical	Qualitative	Survey, semi-structured interviews, informal discussions, and follow-up correspondence	English	ChatGPT	Japan
Enhancing Writing Accuracy and Complexity through AI-Assisted Tools among Moroccan EFL University Learners	A. Azennoud	2024	Empirical	Quantitative	Questionnaire	English	Not mentioned	Morocco
The Current State and Future Prospects of the Integration of Artificial Intelligence Technologies in Foreign Language Instruction at Universities	I.A. Semyonkina, T.A. Pavlova	2024	Theoretical + Empirical	Qualitative + Quantitative	Literature review + survey	English	Not mentioned	Russian Federation
Investigating The Impact of AI-Driven Chatbots On the Acquisition of English as a Foreign Language Among Saudi Undergraduate Students	A.S.E. Abu-Sahyon, O. Alshorman, B. Al-Absi	2023	Empirical	Quantitative	Questionnaire	English	Not mentioned	Saudi Arabia

Title	Authors	Year	Theoretical / Empirical	Qualitative / Quantitative	Method	Language	AI tool	Country
Incorporating AI in foreign language education: An investigation into ChatGPT's effect on foreign language learners	F. Karataş, F. Y. Abedi., F. Ozek Gunyel, D. Karadeniz, Y. Kuzgun	2024	Empirical	Qualitative	Case study	English	ChatGPT	Turkey, Canada

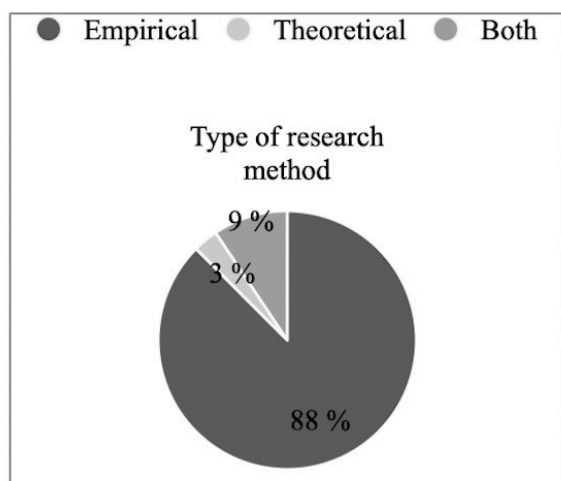


Figure 2. Type of research method

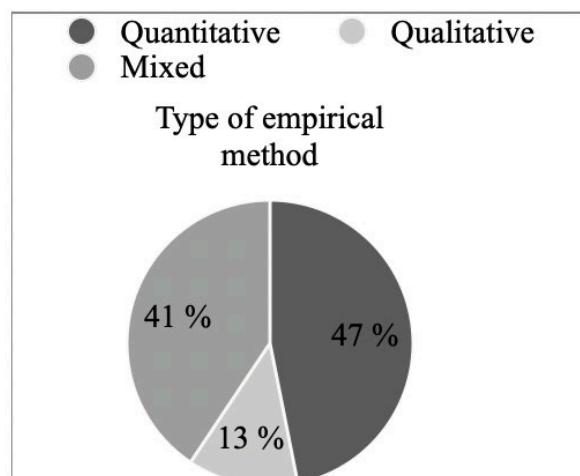


Figure 3. Type of empirical method

Based on the findings, it can be concluded that most studies on the application of artificial intelligence in foreign language learning in universities are empirical (more than 85%, Figure 2) and most often apply quantitative or mixed methods in the form of questionnaires (47% and 41%, Figure 3).

As shown in Figure 4, the first publication in the review dates back to 2020. Since then, more than 10 studies have been published in 2023, with a significant increase in 2024, where the number doubled. This suggests that there is currently a growing interest in AIHED and foreign language learning.

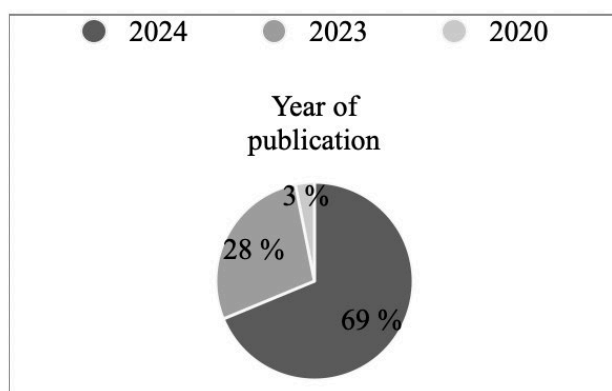


Figure 4. Year of publication

The geography of publications covered in this review is quite diverse, ranging from Slovakia to Japan. Interestingly, there are no studies from Latin America in the data set, but there is a significant number from Saudi Arabia ($n = 8$) and Vietnam ($n = 4$). This distribution may be due to the particular features of the databases and their search engines used in this research.

The most popular AI tool discussed in included publications is ChatGPT. This is likely because of its widespread use around the world and its wide range of features for learning English as a second language. Interestingly, another trend in the review is that all of the selected publications focus on English as the target language being learned. However, this criterion was not used to select studies. This trend, along with the other trends mentioned above, will be further discussed in the next section.

5. DISCUSSION

When looking at other literature reviews, similar trends can be seen. According to the closest systematic review to this study (Crompton, 2023), a PRISMA-based review of publications about AI in higher education 2016-2022, there is a dramatic increase in the number of published studies, especially noticeable in 2021 and 2022, when the number of publications almost doubled or tripled compared to the previous years. Most of the works are devoted to empirical studies, which were conducted on students. The main methods are surveys, questionnaires, and case studies. The authors also point out that artificial intelligence in foreign language learning in universities is one of the most important applications of AI in higher education.

Another review (Law, 2024), which also uses the PRISMA method, but to analyse publications on generative AI (i.e., predominantly GPT models) in foreign language learning at all educational levels, 2017-2023, also describes an increase in publication activity, marking its beginning in 2023. Most of the papers in the review were also empirical, methodologically divided roughly equally into quantitative, qualitative, and mixed methods. About 20-25 per cent of the publications studied in the review focused on foreign language learning at the tertiary level.

In a systematic review of artificial intelligence in education (at all levels) (Mustafa et al., 2024), the year 2024 is named as a turning point in research, when, according to the authors, AIED is going through a period of transformation and widespread adoption of AI in the learning process.

Thus, it can be seen that each newer review discovers that the increase in the number of publications about AI in education or foreign language learning falls in the last year investigated in the literature analysis (which is also confirmed by the results of the study conducted by the authors of this article). This is due to the fact that modern AI systems are constantly improving, solving more and more complex problems, and becoming more widely implemented in educational processes, in response arousing more and more interest in the academic community.

Most studies focus on the application of AI to teaching English as a foreign language (Ayoutunde et al, 2023), which is certainly due to its widespread use and lingua franca status. In the present study, too, almost all the selected sources appeared to focus on the application of AI in universities for teaching English as a foreign language. This may be due to the fact that the inclusion criterion for the review was the English language of the sources, whereas in the selection process, there were materials in other languages dealing with non-English languages. Another reason could be that today's large language models are most often trained on the vast amount of information presented in English, and are therefore much better suited to helping learn that particular language.

This, incidentally, can be seen as an additional barrier (Suzina, 2021) to a more equal and equitable representation of AI tools for learning different languages in the educational system at the university level.

Regarding the prioritised research methods, it can be seen that the dominant type is empirical research of quantitative or mixed type in the form of questionnaires. Such focus on questionnaires can be explained by their undoubted advantages (Dalati & Gómez, 2018). They allow collecting a large amount of data in a fairly short period of time, the questions and answer options are standardised and therefore easily comparable, questionnaires are anonymous and easily accessible to respondents, and their results can be processed automatically. Another advantage of this method is its easy adaptation to the IMRAD format favoured by many modern scientific journals. At the same time, questionnaires, with their limited depth, do not allow to see those numerous nuances of behaviour of people encountering artificial intelligence in the educational process, which are visible only through direct observation and which do not have numerical expression, but can be identified through empirical qualitative research methods (e.g., participant observation, in-depth interview, case study method). Also, in order to get a more complete, multifaceted picture of how artificial intelligence affects higher education through foreign language learning, it is worthwhile to turn to theoretical qualitative methods that allow us to assess social, ethical, economic, political, and other global aspects.

Implications of the results for researchers and policymakers. The study's findings have several implications for researchers and policymakers who focus on improving the quality of academic research. There are two implications for research in AIHed and foreign language learning. First, it is essential to expand the use of qualitative research methods. These methods are not inferior to quantitative methods, and they have their own unique advantages that cannot be overlooked in light of the rapid development of artificial intelligence. Second, it is important to consider the need for a theoretical framework for research on artificial intelligence in higher education. Without such a framework, quantitative research in the form of questionnaires on small sample sizes appears fragmented and insufficient to serve as a solid basis for further scientific exploration. There are also two implications for policymakers for working with AIHed and foreign language learning. First, it is important to be cautious when introducing AI into foreign language teaching in universities and to base decisions on the results of scientific research. Second, it is essential to take into consideration the existing practical experience of teachers and their opinions when introducing AI in foreign language learning. It is also important to consider their long-term interaction with students in order to maintain the unique, human-centered atmosphere of the universities.

Limitations and future directions. This study has several limitations. It is based on data extracted from three academic databases: *Scopus*, *Google Scholar*, and *The Lens*. Although these databases represent a significant portion of AIHed and foreign language learning, it is clear that some relevant publications have been omitted. Therefore, the findings of this study offer a preliminary overview of current research trends, but they might not fully reflect the whole scope of the field. Further investigations should consider incorporating other academic databases and additional literature (government reports, white papers, policy documents, etc.) in order to achieve a more comprehensive understanding of the subject. Another limitation of this review is the lack of a quality assessment of the included studies. This is because the review covers a wide range of studies, including both theoretical and empirical works using quantitative, qualitative, and mixed methods. As a result, it is difficult to apply common assessment methods that are specific to certain types of methods. In further research, it would be beneficial to focus on theoretical or empirical

studies only and evaluate their quality. Other limitations are related to the choice of research language (only English-written studies) and time frame (2017-2024). Future reviews may focus on selecting studies written in different languages and other publication years.

6. CONCLUSION

The use of artificial intelligence in foreign language teaching in higher education can be called a promising and relevant area of research. Despite the existing limitations of the research (only English language, time frame, a certain set of databases and search words, and lack of access to all suitable works), this review has achieved its goal by solving the set objectives, identifying the key methodological foundations of research in this area. Firstly, the review demonstrates that a significant proportion of AIHed and foreign language learning research employs empirical methods. Secondly, empirical studies in this field rely on quantitative or mixed methods.

The results of this work help to clarify some possible areas of future research and practice. While some authors of other systematic reviews (Law, 2024) say that more quantitative empirical research is needed to better understand the short- and long-term effects of artificial intelligence in foreign language learning in higher education, it seems equally important to increase the number of papers with theoretical and empirical qualitative methods from different fields of knowledge that will allow a broader view of the subject area (e.g. discourse analysis, in-depth interviews, frame analysis, PESTEL analysis, Porter's five forces analysis, etc.). Currently, there is no unified theoretical framework for interpreting the results of numerous narrowly focused quantitative studies, mostly conducted on small samples (up to 100 people). In addition, the use of AI in education, and especially in the field of foreign languages, has a significant impact on society and raises numerous ethical and value issues. As researchers have pointed out (Pilcher & Cortazzi, 2024), qualitative methods are extremely useful in such circumstances, as they allow for a deeper understanding of human behaviour, motivations, and concerns that cannot be expressed in numbers (Taherdoost, 2022), as well as a more complete representation of the human experience in a new social context.

Acknowledgments:

The paper was prepared as part of a study by a research team within the MGIMO University project "Challenges and opportunities for integrating artificial intelligence (henceforth AI) tools into the educational process in language and academic discipline departments".

Conflict of interests:

The authors state that there is no conflict of interest.

REFERENCES

1. AbuSahyon, A.S.E., Alshorman, O., & Al-Absi, B. (2023). Investigating The Impact of AI-Driven Chatbots On the Acquisition of English as A Foreign Language Among Saudi Undergraduate Students. *International Journal of Membrane Science and Technology*, 10(2), 3075-3088. <https://doi.org/10.15379/ijmst.v10i2.3049>

2. Al Mukhallafi, T.R. (2020). Using artificial intelligence for developing English language teaching/learning: an analytical study from university students' perspective. *International Journal of English Linguistics*, 10(6), 40-53. <https://doi.org/10.5539/ijel.v10n6p40>
3. Al-Awawdeh, N., Al-Shaboul, I. A., & Saleem Khasawneh, M. A. (2023). Advancing Foreign Language Teaching with AI-assisted models; Insights from Lecturers and University Administrators. *Journal of Namibian Studies: History Politics Culture*, 33, 1491-1506. <https://doi.org/10.59670/jns.v33i.798>
4. Alhalangy, A.G.I., & AbdAlgane, M. (2023). Exploring the impact of AI on the EFL context: A case study of Saudi universities. *Journal of Intercultural Communication*, 23(2), 41-49. <https://doi.org/10.36923/jicc.v23i2.125>
5. Alharbi, M. (2024). The role of artificial intelligence in advancing English as a foreign language teaching at Saudi universities. *World Journal on Educational Technology Current Issues*, 16(3), 181-200. doi:10.18844/wjet.v16i3.9311
6. Alharbi, W. (2023). The Use and Abuse of Artificial Intelligence-Enabled Machine Translation in the EFL Classroom: An Exploratory Study. *Journal of Education and e-learning Research*, 10(4), 689-701. <https://doi.org/10.20448/jeelr.v10i4.5091>
7. Ali, J., Shamsan, M.A.A., Hezam, T., & Mohammed, A.A.Q. (2023). Impact of ChatGPT on learning motivation: Teachers and students' voices. *Journal of English Studies in Arabia Felix*, 2(1), 41-49. <https://doi.org/10.56540/jesaf.v2i1.51>
8. Almelhes, S.A. (2023). A review of artificial intelligence adoption in second-language learning. *Theory and Practice in Language Studies*, 13(5), 1259-1269. <https://doi.org/10.17507/tpls.1305.21>
9. Al-Shallakh, M.A.I. (2024). Embedding Artificial Intelligent Applications in Higher Educational Institutions to Improve Students' Pronunciation Performance. *Theory and Practice in Language Studies*, 14(6), 1897-1906. <https://doi.org/10.17507/tpls.1406.31>
10. AlTwijri, L., & Alghizzi, T.M. (2024). Investigating the integration of artificial intelligence in English as foreign language classes for enhancing learners' affective factors: A systematic review. *Heliyon*, 10(24), e31053. <https://doi.org/10.1016/j.heliyon.2024.e31053>
11. Al-Zahrani, A.M., & Alasmari, T.M. (2024). Exploring the impact of artificial intelligence on higher education: The dynamics of ethical, social, and educational implications. *Humanities and Social Sciences Communications*, 11, 912. <https://doi.org/10.1057/s41599-024-03432-4>
12. Arabshahi, M., Kafi, Z., Krummacker, D., & Schotten, H.D. (2024). Pattern Recognition of EFL University Students' Online Behaviors through Data Science: Any Investment on English Language Components or Skills?. *Indonesian Journal of EFL and Linguistics*, 9(1), 99-113. <https://doi.org/10.21462/ijeel.v9i1.758>
13. Aydin, S., & Zeinolabedini, M. (2024). Integrating Artificial Intelligence into Foreign Language Learning: Learners' Perspectives. In S. Poyrazli (Ed.), *EJER Congress: 2024 International Eurasian Educational Research Congress, May 21-24, 2024, Kocaeli University, Turkey: Conference Proceedings* (pp. 121-126). Kocaeli: Ani Publishing.
14. Ayotunde, O.O., Jamil, D.I., & Cavus, N. (2023). The impact of artificial intelligence in foreign language learning using learning management systems: a systematic literature review. *Information Technologies and Learning Tools*, 95(3), 215-228. <https://doi.org/10.33407/itlt.v95i3.5233>
15. Azennoud, A. (2024). Enhancing Writing Accuracy and Complexity through AI-Assisted Tools among Moroccan EFL University Learners. *International Journal of Linguistics and Translation Studies*, 5(4), 211-226. <https://doi.org/10.36892/ijlts.v5i4.529>

16. Baskara, F.R., Puri, A.D., & Mbato, C.L. (2024). Exploring the Use of Generative AI in Student-Produced EFL Podcasts: A Qualitative Study. *Language Teaching Research Quarterly*, 43, 81-101. <https://doi.org/10.32038/ltrq.2024.43.05>
17. Bates, T., Cobo, C., Mariño, O., & Wheeler, S. (2020). Can artificial intelligence transform higher education?. *International Journal of Educational Technology in Higher Education*, 17, 42. <https://doi.org/10.1186/s41239-020-00218-x>
18. Bearman, M., Ryan, J., & Ajjaw, R. (2023). Discourses of artificial intelligence in higher education: A critical literature review. *Higher Education*, 86(2), 369-385. <https://doi.org/10.1007/s10734-022-00937-2>
19. Biju, N., Abdelrasheed, N.S.G., Bakiyeva, Kh., Prasad, K.D.V., & Jember, B. (2024). Which one? AI-assisted language assessment or paper format: An exploration of the impacts on foreign language anxiety, learning attitudes, motivation, and writing performance. *Language Testing in Asia*, 14(1), 45. <https://doi.org/10.1186/s40468-024-00322-z>
20. Bond, M., Khosravi, H., De Laat, M., Bergdahl, N., Negrea, V., Oxley, E., Pham, P., Wang Chong, S., & Siemens, G. (2024). A meta systematic review of artificial intelligence in higher education: A call for increased ethics, collaboration, and rigour. *International Journal of Educational Technology in Higher Education*, 21, 4. <https://doi.org/10.1186/s41239-023-00436-z>
21. Chang, Y., Wang, X., Wang, J., Wu, Y., Yang, L., Zhu, K., Chen, H., Yi, X., Wang, C., Wang, Y., Ye, W., Zhang, Y., Chang, Y., Yu, P.S., Yang, Q., & Xie, X. (2024). A survey on evaluation of large language models. *ACM transactions on intelligent systems and technology*, 15(3), 39, 1-45. <https://doi.org/10.1145/3641289>
22. Crompton, H., & Burke, D. (2023). Artificial intelligence in higher education: the state of the field. *International Journal of Educational Technology in Higher Education*, 20, 22. <https://doi.org/10.1186/s41239-023-00392-8>
23. Dalati, S., & Marx Gómez, J. (2018). Surveys and questionnaires. In J. Marx Gómez and S. Mouselli (Eds.), *Modernizing the academic teaching and research environment: Methodologies and cases in business research* (pp. 175-186). Springer International Publishing AG.
24. De la Vall, R.R.F., & Araya, F.G. (2023). Exploring the benefits and challenges of AI-language learning tools. *The International Journal of Social Sciences and Humanities Invention*, 10(01), 7569-7576. <https://doi.org/10.18535/ijsshi/v10i01.02>
25. Duong, T., & Suppasetsee, S. (2024). The effects of an artificial intelligence voice chatbot on improving Vietnamese undergraduate students' English speaking skills. *International Journal of Learning, Teaching and Educational Research*, 23(3), 293-321. <https://doi.org/10.26803/ijlter.23.3.15>
26. Gao, Y., Wang, Q., & Wang, X. (2024). Exploring EFL university teachers' beliefs in integrating ChatGPT and other large language models in language education: A study in China. *Asia Pacific Journal of Education*, 44(1), 29-44. <https://doi.org/10.1080/02188791.2024.2305173>
27. Guo, Y., & Wang, Y. (2024). Exploring the Effects of Artificial Intelligence Application on EFL Students' Academic Engagement and Emotional Experiences: A Mixed-Methods Study. *European Journal of Education*, 60(1), e12812. <https://doi.org/10.1111/ejed.12812>
28. Hung, L.Q. (2024) ChatGPT in English Education: A Case Study of Vietnamese English Majors' Perceptions. *International Journal of Science and Management Studies (IJSMS)*, 7(4), 108-112. <https://doi.org/10.51386/25815946/ijms-v7i4p114>

29. Karataş, F., Abedi, F.Y., Ozek Gunyel, F., Karadeniz, D., & Kuzgun, Y. (2024). Incorporating AI in foreign language education: An investigation into ChatGPT's effect on foreign language learners. *Education and Information Technologies*, 29(15), 19343-19366. <https://doi.org/10.1007/s10639-024-12574-6>
30. Khasawneh, M.A.S., & Khasawneh, Y. (2023). The potentials of artificial intelligence in stimulating motivation and improving performance of undergraduates in foreign languages. *Journal of Namibian Studies: History Politics Culture*, 34, 7059-7077. <https://doi.org/10.59670/jns.v34i.2937>
31. Kolegova, I.A., & Levina, I.A. (2024). Using Artificial Intelligence as a Digital Tool in Foreign Language Teaching. *Bulletin of the South Ural State University. Series Education. Educational Sciences*, 16(1), 102-110. <https://doi.org/10.14529/ped240110>
32. Law, L. (2024). Application of generative artificial intelligence (GenAI) in language teaching and learning: A scoping literature review. *Computers and Education Open*, 6, 100174. <https://doi.org/10.1016/j.caeo.2024.100174>
33. Lee, Y.J., & Davis, R.O. (2024). A Case Study of Implementing Generative AI in University's General English Courses. *Contemporary Educational Technology*, 16(4), ep533. <https://doi.org/10.30935/cedtech/15218>
34. Li, J., & Tai, K.W.H. (2024). Examining the Effects of L2 Self-Guides on Chinese University EFL Learners' Attitudes Towards Classroom Language Choice. *English Teaching & Learning*, 48(2), 241-263. <https://doi.org/10.1007/s42321-024-00175-y>
35. Lin, C. (2024). Research on Innovative Models of Second Language Teaching in the Age of Artificial Intelligence. *Applied Mathematics and Nonlinear Sciences*, 9(1). <https://doi.org/10.2478/amns-2024-0760>
36. McCarthy, J., Minsky, M.L., Rochester, N., Shannon, C.E. (2006). A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence, August 31, 1955. *AI Magazine*, 27(4), 12. <https://doi.org/10.1609/aimag.v27i4.1904>
37. Mustafa, M.Y., Tlili, A., Lampropoulos, G., Huang, R., Jandrić, P., Zhao, J., Salha, S., Xu, L., Panda, S., Kinshuk, López-Pernas, S., & Saqr, M. (2024). A systematic review of literature reviews on artificial intelligence in education (AIED): a roadmap to a future research agenda. *Smart Learning Environments*, 11, 59. <https://doi.org/10.1186/s40561-024-00350-5>
38. Nemorin, S., Vlachidis, A., Ayerakwa, H.M., & Andriotis, P. (2023). AI hyped? A horizon scan of discourse on artificial intelligence in education (AIED) and development. *Learning, Media and Technology*, 48(1), 38-51. <https://doi.org/10.1080/17439884.2022.2095568>
39. Palomares, S.M.B. (2024). Leveling the Language Field: A Qualitative Study of the Impact of AI on Learning English as a Foreign Language in Higher Education. In K.B. Prager and N. Bilge (Eds.), *Digital Literacy at the Intersection of Equity, Inclusion, and Technology* (pp. 145-177). IGI Global. <https://doi.org/10.4018/979-8-3693-2591-9.ch007>
40. Pham, V.P.H., & Le, A.Q. (2024). ChatGPT in language learning: Perspectives from Vietnamese students in Vietnam and the USA. *International Journal of Language Instruction*, 3(2), 59-72. <https://doi.org/10.54855/ijli.24325>
41. Pilcher, N., & Cortazzi, M. (2024). 'Qualitative' and 'quantitative' methods and approaches across subject fields: implications for research values, assumptions, and practices. *Quality & Quantity*, 58(3), 2357-2387. <https://doi.org/10.1007/s11135-023-01734-4>

42. Pokrivcakova, S. (2023). Pre-service teachers' attitudes towards artificial intelligence and its integration into EFL teaching and learning. *Journal of Language and Cultural Education*, 11(3), 100-114. <https://doi.org/10.2478/jolace-2023-0031>
43. Price, G. (2024). Japanese University EFL Student Insights on the Emerging ChatGPT Phenomenon. *International Journal of Education, Learning and Development*, 12(5), 83-100. <https://doi.org/10.37745/ijeld.2013/vol12n583100>
44. Semyonkina, I.A., & Pavlova, T.A. (2024). The Current State and Future Prospects of the Integration of Artificial Intelligence Technologies in Foreign Language Instruction at Universities. *Russian Journal of Education and Psychology*, 15(5), 219-242. <https://doi.org/10.12731/2658-4034-2024-15-5SE-642>
45. Siregar, R., Subagiharti, H., Handayani, D.S., Sutarno, S., Hasibuan, A.L., & Barus, E. (2024). Student Preferences on Using Artificial Intelligence (AI) Platform in Language Learning. *International Journal of Educational Research Excellence (IJERE)*, 3(2), 746-754. <https://doi.org/10.55299/ijere.v3i2.890>
46. Sok, S., & Heng, K. (2024). Opportunities, challenges, and strategies for using ChatGPT in higher education: A literature review. *Journal of Digital Educational Technology*, 4(1), ep2401. <https://doi.org/10.30935/jdet/14027>
47. Suzina, A.C. (2021). English as lingua franca. Or the sterilisation of scientific work. *Media, Culture & Society*, 43(1), 171-179. <https://doi.org/10.1177/0163443720957906>
48. Syahnaz, M., & Fithriani, R. (2023). Utilizing artificial intelligence-based paraphrasing tool in EFL writing class: a focus on Indonesian university students' perceptions. *Scope: Journal of English Language Teaching*, 7(2), 210-218. <https://doi.org/10.30998/scope.v7i2.14882>
49. Taherdoost, H. (2022). What are Different Research Approaches? Comprehensive Review of Qualitative, Quantitative, and Mixed Method Research, Their Applications, Types, and Limitations. *Journal of Management Science & Engineering Research*, 5(1), 53-63. <https://doi.org/10.30564/jmser.v5i1.4538>
50. Vo, A., & Nguyen, H. (2024). Generative artificial intelligence and ChatGPT in language learning: EFL students' perceptions of technology acceptance. *Journal of University Teaching and Learning Practice*, 21(6). <https://doi.org/10.53761/fr1rkj58>
51. Yaseen, M.G., & Alnakeeb, S.S. (2023). Exploring the evolution of AI integration in English as a foreign language education: A Scopus-based bibliometric analysis (1997-2023). *Mesopotamian Journal of Computer Science*, 2023, 143-158. <https://doi.org/10.58496/MJCSC/2023/019>

About the authors:

Alexandra E. Ulanova, Cand. Sci. (Philosophy), is a Senior Lecturer in the Department of Philosophy named after A. F. Shishkin at MGIMO University, Moscow, Russia. ORCID: 0000-0001-5317-7991

Anastasia V. Buniakova, Cand. Sci. (Economics), is a Senior Lecturer in the English Language Department No. 2 at MGIMO University, Moscow, Russia. ORCID: 0000-0002-9987-9320

Andrei Y. Lazko is a Senior Lecturer in the English Language Department No. 2 at MGIMO University, Moscow, Russia. ORCID: 0000-0002-2740-2558

Received: March 31, 2025.

Accepted: July 4, 2025.