

IRSTI 14.01.11

DOI <https://doi.org/10.47344/pemcsm49>Bagdaulet Abykhanov^{1*}, Mehmet Ali Yaylaci²¹SDU University, Kaskelen, Kazakhstan²Galaxy International School, Almaty, Kazakhstan*e-mail: 241302002@sdu.edu.kz

THE USE OF AI CHATBOTS IN FOREIGN LANGUAGE TEACHING: A COMPREHENSIVE LITERATURE REVIEW

Abstract. Artificial Intelligence (AI) has become one of the most significant technological advancements and is widely integrated across diverse fields. In this regard, foreign language education is no exception: AI-powered chatbots are frequently used as language-learning tools. AI chatbots are software applications or websites that enable two-way interaction via textual or audio output. Despite rapid advances in AI development, there has been a lack of studies on its application. Therefore, this literature review aims to examine previous studies on the implementation of AI chatbots in foreign language education, focusing on EFL teachers' perceptions. To achieve this aim, 20 articles were chosen for the review. The articles were selected from several databases and research platforms, namely Google Scholar, ERIC, and Sci-Space, published over a three-year period between 2022 and 2025.

Keywords: AI, AI chatbots, English as a Foreign Language, EFL teachers

Introduction

The importance of AI chatbots in English teaching has been widely recognized in the literature (Belda-Medina & Calvo-Ferrer, 2022; Kim & Kim, 2021; Tai & Chen, 2024; Wang et al., 2024). In this paper, the chat robot (chatbot) is defined as a software application that provides an opportunity for users to interact with it in the form of audio or text (Hsu et al., 2023), and can also be classified as “intelligent agent”, “conversational agent”, or “dialog system” (Pérez et al., 2020; Yin et al., 2021, as cited in Alemdag, 2023). In an educational context, the chatbot may serve multiple roles, including a “conversational partner, feedback provider, resource provider, and needs analyst” (Ji et al., 2023).

A considerable number of studies have explored the integration of AI chatbots in education, particularly for language learning. For example, the study of Belda-Medina & Calvo-Ferrer (2022) examined pre-service teachers' “knowledge, level of satisfaction, and perceptions” regarding the use of conversational agents. Their findings indicated positive attitudes towards usability and highlighted gender-based differences in satisfaction levels. Other researchers focused on the impact of AI chatbots on the development of specific skills, particularly language skills. As such, Kim and Kim (2021) conducted a study to compare changes in students' speaking skills before and after interacting with an AI chatbot. The participants had different levels, ranging from low-level to intermediate-level. The posttest results revealed that, across all levels, students at the low and intermediate levels improved their pronunciation, intonation, and stress better than others. Wang et al. (2024) took a different perspective and investigated the perceptions of human-like avatars, another common feature of Generative AI chatbots (GAI). The findings of the semi-structured interviews showed positive attitudes towards the presence of human-like avatars in AI chatbots since they provide “the immersive learning experience and emotional support” (Wang et al., 2024).

The abovementioned studies focused on university students as the target population. To close a gap in knowledge, Tai and Chen conducted a similar study in a different setting - an elementary school. The purpose of their study was to investigate the effect of GAI chatbots on the development of pupils' English as a foreign language speaking skills. Tai and Chen (2024) investigated the effect of GAI chatbots on

students in elementary school. The results showed a positive impact on students' speaking skills as GAI chatbots exhibited the following features: adeptness in interaction, charisma, personalization, and support, which were viewed favourably.

Despite a significant number of articles on the use of AI chatbots, the difference between the perceptions of novice and in-service teachers regarding the usage of conversational AI in teaching English has been addressed limitedly. The novelty of this article lies in determining how Kazakhstani novice and in-service teachers use AI chatbots in conducting their lessons.

Thus, this literature review aims to describe the use of AI chatbots in foreign language education and to examine EFL teachers' perceptions of their experiences with them.

Methods and materials

The Use of Chatbots in Learning English as a Foreign Language

This part of the literature review will focus on students' views on implementing AI chatbots for English language learning.

As previously mentioned, AI chatbots refer to software or websites that enable conversational interaction through text and audio (Hsu et al., 2023). The analysis of literature has revealed that AI chatbots can be successfully used in improving language skills, such as writing, reading, and speaking. For example, Duong and Chen (2025) investigated how EFL students interacted with an AI-powered chatbot, "Writing Assistant Bot" (WAB), to improve their writing skills at a high school in Vietnam. Forty-seven students participated in the research, and chat logs, timed-writing tests, questionnaires, and semi-structured interviews were used as data collection tools. The participants were divided into higher- and lower-proficiency groups. It was found that students at lower levels primarily used the chatbot to generate ideas and vocabulary during the planning stage. In contrast, higher-level students used it during the translating stage to improve the consistency and logic of their ideas. Despite their different aims, both groups showed improved writing performance after the intervention. Similarly, another study explored EFL students' perceptions of using AI in fine-tuning their writing skills (Rafida et al., 2024). The researchers interviewed 20 sophomore students who used AI tools in their writing practice. The data analysis revealed that students had positive views of AI and listed benefits, including improving grammar and sentence structure, refining paraphrasing skills, expanding vocabulary, and generating ideas. As such, Hsu et al. (2023) and Rafida (2024) agreed that the use of AI chatbots enhances language use, facilitates rapid idea generation, and enriches vocabulary in writing. However, the latter study identified drawbacks of AI, including overreliance on AI, reduced creativity, and plagiarism issues (Rafida et al., 2024). Another study built on the argument that AI has become a prominent tool in education. Namely, AI has been actively used in creating educational materials, gamification, and individualized learning experiences (Zhang & Huang, 2024). Then, it shifted the focus towards AI chatbots. First, the study discussed the older models which were mainly rule - based and their limitations in personalized learning experience and consideration of language proficiency levels in second language learning. Second, the study discussed chatbots based on large language models (LLMs) and their abilities to imitate human language and generate live responses. These chatbots can offer individualized learning assistance unlike the older types (Zhang & Huang, 2024). This is the gap the researchers tried to fill. Previous studies utilized mainly rule - based types of chatbots and focused on learning outcomes and performance improvement. The study aimed to provide insights about the efficacy and advantages of Chatbots (LLMs) in improving language proficiency and facilitating tailored learning among students. More specifically, the researchers sought to identify to what extent Chatbots (LLMs) enrich receptive and productive vocabulary in L2 learners. Also, the study focuses on how Chatbots (LLMs) promote unintentional vocabulary learning L2. The participants were 52 high school students with a minimum two years experience of learning English. The students' L1 was Mandarin Chinese and the L2 was English. The study used mixed methods. As per the procedure, first the students completed the vocabulary assessment

test to see that they have a minimum proficiency level of intermediate. Then, the students were divided into experimental and control groups. Both groups engaged in the same learning tasks with the difference being in the implementation of chatbots (LLMs) in the experimental group. Throughout eight weeks, the experimental group was observed in order to see the frequency of interaction with the chatbots (LLMs). After 8 weeks, both groups took the post vocabulary test for receptive and productive vocabulary. In addition, the delay test was administered after two weeks to assess retention of the vocabulary. Findings suggested that the experimental group outperformed the control group in both receptive and productive tests. Meaning, chatbots enhance the productive and receptive vocabulary. In addition, it also assisted in learning incidental vocabulary. According to Zhang and Huang (2024), incidental vocabulary “is considered a learning approach closest to native language acquisition” (p. 3). It can be assumed that this means that incidental vocabulary is the words that are learnt accidentally in the process of being engaged in the task. Regarding the writing skill, another study by Rong et al. (2025) focused on the engagement of students when they are interacting with a chatbot to work on their writing in English. As it was revealed, there are studies focusing on the engagement of students while they are using automated writing evaluation (AWE) tools rather than AI chatbots. In this paper, engagement is considered as a multi - dimensional construct. That construct consists of behavioral, cognitive, and emotional engagement. According to Rong et al. (2025), those dimensions are explained in the following sense:

Behavioral engagement pertains to the interactions between students and the chatbot, as well as students’ revision actions in response to the feedback received. Cognitive engagement encompasses cognitive and metacognitive decisions made by students during interaction and revision processes. Emotional engagement entails emotional responses and attitudinal reactions of students when interacting with the chatbot and utilizing its feedback for revisions. (p. 4)

First, students were instructed on how they should interact with the chatbots, then the students had to produce an argumentative essay in 60 minutes, and then they made revisions on their essays using the chatbot. Their chat logs were sent to the researchers for analysis. The researchers collected the drafts and final versions of students’ essays as well. Then, the researchers conducted semi - structured interviews with the students. This research is a case study in nature. In order to investigate the students’ engagement levels across the dimensions only three participants were selected. The participants were university students. The students were selected based on their scores on the College English Test Band 4 (CET - 4) (Rong et al., 2025). Three students had high, moderate, and low levels of English. The chatbot in question was specifically created to improve teaching and learning English. It was called Unipus AIGC (Version 1.4.0). According to Rong et al. (2025), this chatbot “generates contextually relevant and personalized responses based on user inquiries, facilitating various modes of interactions” (p. 7). As the researchers analyzed the chat logs of the students, it was found that the students interacted with the chatbot frequently and were able to ask for feedback about their essays. In terms of engagement, all three students demonstrated a high level of behavioral and emotional engagement with the chatbot. Their cognitive engagement aligned with their level of English. The major takeaway is that the lower level student needs more support with prompting while revising the work with the chatbot, specifically formulating higher order questions. They still need support in terms of prompting questions for feedback.

Another study conducted by El Hassan and Alsawah (2025) examined the influence of ChatGPT on the development of reading comprehension. Overall, it was determined that integrating ChatGPT into EFL students’ reading classes was beneficial, as it promoted reading comprehension, vocabulary acquisition, and student engagement.

Furthermore, another study explored the use of the chatbot in reading. Pan et al. (2024) developed a customized AI chatbot, Reade, specifically designed to support EFL learners’ self-regulated reading activities. To support self-regulated learning, this chatbot demonstrated how to use reading strategies to

maximize comprehension. However, El Hassan and Alsalwah (2025) and Pan et al. (2024) agreed that there are several limitations of using the chatbot. The former study revealed that the effectiveness of ChatGPT was influenced by contextual and cultural factors, suggesting that ChatGPT is still not adept in these areas (El Hassan & Alsalwah, 2025). The latter study indicated that the chatbot could not entirely match students' interests and levels and that the texts were sometimes of inappropriate difficulty (Pan et al., 2024). Still, both studies concluded that reading engagement improved significantly when the chatbot was implemented.

Regarding speaking skills, it was found that integrating the Doubao chatbot can reduce anxiety levels. Mingyan et al. (2024) investigated the effects of an AI chatbot mobile application on lowering foreign language anxiety (FLA) among Chinese undergraduate students. The researchers conducted a quasi-experimental study involving 30 participants: 15 interacted with Doubao, while the control group engaged in peer discussions. The results indicated that the experimental group had a significant reduction in FLA levels as the chatbot enabled providing personalized learning experiences. Similarly, Soon et al. (2024) stated that the main advantages of using Doubao for developing speaking skills are the provision of feedback and individualized learning tasks for students.

EFL Teachers' Attitudes towards Using AI Chatbots

The EFL teachers exude positive attitudes towards using AI chatbots in their practice by integrating them into teaching speaking and writing skills, and developing cultural awareness (Nguyen, 2023; Yuan, 2023; Zheng & Stewart, 2024). Nguyen (2023) conducted a mixed-methods study to examine university teachers' perceptions of using chatbots in their lessons. Overall, based on 20 survey responses and semi-structured interviews, it was found that the teachers were enthusiastic about integrating the chatbot in their writing sessions. In addition, ChatGPT was useful for co-creating culturally appropriate materials. Nevertheless, Zheng and Stewart (2024) warned that teachers should be aware of the Western cultural biases that AI-generated content may contain. As such, AI chatbots are highly effective at improving productive skills and providing information on cultural aspects; however, teachers should double-check the generated content.

Despite having certain benefits, the use of AI chatbots frequently raises several concerns. Firstly, the issue of ethics should not be undermined: AI chatbots can be easily used to cheat and plagiarize. In addition, the creation of assignments using AI chatbots raises ethical questions (Chetyrina, 2024; Ohashi & Alm, 2023). Furthermore, Khasawneh (2023) reported that teachers expressed a need for specialized training on the use of AI in their practice. This study focused on identifying teachers' views on the use of AI. Although most of them held positive attitudes towards AI integration, they lacked the knowledge to do it properly.

Conclusion

The current literature review aims to describe the use of AI chatbots in foreign language education. Findings from various research papers were grouped into two themes: The Use of Chatbots in Learning English as a Foreign Language and EFL Teachers' Attitudes towards Using AI Chatbots. Having reviewed 20 studies on the aforementioned topics, it can be concluded that AI chatbots are highly effective tools for enhancing language skills and have received positive responses from teachers as well. However, ethical concerns about implementing chatbots are also present. Furthermore, in terms of writing, students might still need support from the teachers on prompting, specifically students with low - levels in English language. In addition, it was found that perceptions among novice teachers are scarce and have not been investigated in comparison with those of in-service teachers. Thus, this literature review suggests further research comparing novice and in-service teachers' views.

References

- 1 Alemdag, E. (2023). The effect of chatbots on learning: A meta-analysis of empirical research. *Journal of Research on Technology in Education*, 1–23. <https://doi.org/10.1080/15391523.2023.2255698>
- 2 Belda-Medina, J., & Calvo-Ferrer, J. R. (2022). Using Chatbots as AI Conversational Partners in Language Learning. *Applied Sciences*, 12(17), 8427. <https://doi.org/10.3390/app12178427>
- 3 Chetyrina, N. V. (2024). Organizational and pedagogical conditions for teaching students foreign language written interaction based on practice with chatbots. *Vestnik Tambovskogo Universiteta. Seriya: Gumanitarnye Nauki*, 29(6), 1590–1607. <https://doi.org/10.20310/1810-0201-2024-29-6-1590-1607>
- 4 Duong, T.-N.-A., & Chen, H.-L. (2025). An AI Chatbot for EFL Writing: Students' Usage Tendencies, Writing Performance, and Perceptions. *Journal of Educational Computing Research*, 63(2), 406-430. <https://doi.org/10.1177/07356331241312363> (Original work published 2025)
- 5 El Hassan, F. A. M., & Alsawah, A. F. (2025). Exploring the Impact of ChatGPT on EFL Reading Practices: Opportunities and Challenges. *International Journal of English Language Teaching*, 13(1), 85–93. <https://doi.org/10.37745/ijelt.13/vol13n18593>
- 6 Hsu, M. H., Chen, P. S., & Yu, C. S. (2023). Proposing a task-oriented chatbot system for EFL learners speaking practice. *Interactive Learning Environments*, 31(7), 4297-4308
- 7 Ji, H., Han, I., & Ko, Y. (2023). A systematic review of conversational AI in language education: Focusing on the collaboration with human teachers. *Journal of Research on Technology in Education*, 55(1), 48–63. <https://doi.org/10.1080/15391523.2022.2142873>
- 8 Khasawneh, M. A. S. (2023). Advancing foreign language teaching with ai-assisted models; insights from lecturers and university administrators. *Journal of Namibian Studies : History Politics Culture*, 33. <https://doi.org/10.59670/jns.v33i.798>
- 9 Kim, H. S., Cha, Y., & Kim, N. Y. (2021). Effects of AI chatbots on EFL students' communication skills. *영어학*, 21, 712-734.
- 10 Mingyan, M., Noordin, N., & Razali, A. B. (2024). Effects of an AI Chatbot Mobile Application on Foreign Language Anxiety among Chinese EFL Undergraduates. *International Journal of Academic Research in Progressive Education and Development*, 13(4), 3828–3839.
- 11 Nguyen, T. T. H. (2023). EFL Teachers' Perspectives toward the Use of ChatGPT in Writing Classes: A Case Study at Van Lang University. *International Journal of Language Instruction*, 2(3), 1–47. <https://doi.org/10.54855/ijli.23231>
- 12 Ohashi, L., & Alm, A. (2023). ChatGPT and language learning: University educators' initial response. <https://doi.org/10.4995/eurocall2023.2023.16917>
- 13 Pan, M., Guo, K., & Lai, C. (2024). Using Artificial Intelligence Chatbots to Support English-as-a-Foreign Language Students' Self-Regulated Reading. *RELC Journal*, 0(0). <https://doi.org/10.1177/00336882241264030>
- 14 Rafida, T., Suwandi, S., & Ananda, R. (2024). EFL Students' Perception in Indonesia and Taiwan on Using Artificial Intelligence to Enhance Writing Skills. *Jurnal Ilmiah Peuradeun*, 12(3), 987. <https://doi.org/10.26811/peuradeun.v12i3.1520>
- 15 Rong, M., Yao, Y., Li, Q., & Chen, X. (Winnie). (2025). Exploring student engagement with artificial intelligence-guided chatbot feedback in EFL writing: Interactions and revisions. *Computer Assisted Language Learning*, 1–30. <https://doi.org/10.1080/09588221.2025.2539979>
- 16 Soon, G. Y., Abdullah, N. A. C. B., Suyan, Z., & Yiming, C. (2024). Integrating AI Chatbots in ESL and CFL Instruction: Revolutionizing Language Learning with Artificial Intelligence. *LatIA*, (2), 6.
- 17 Tai, T.-Y., & Chen, H. H.-J. (2024). Improving elementary EFL speaking skills with generative AI chatbots: Exploring individual and paired interactions. *Computers & Education*, 220, 105112. <https://doi.org/10.1016/j.compedu.2024.105112>
- 18 Wang, C., Zou, B., Du, Y., & Wang, Z. (2024). The impact of different conversational generative AI chatbots on EFL learners: An analysis of willingness to communicate, foreign language speaking

anxiety, and self-perceived communicative competence. System, 127, 103533. <https://doi.org/10.1016/j.system.2024.103533>

19 Zhang, Z., & Huang, X. (2024). The impact of chatbots based on large language models on second language vocabulary acquisition. Heliyon, 10(3), e25370. <https://doi.org/10.1016/j.heliyon.2024.e25370>

20 Zheng, Y., & Stewart, N. (2024). Improving EFL students' cultural awareness: Reframing moral dilemmatic stories with ChatGPT. Computers and Education Artificial Intelligence, 6, 100223. <https://doi.org/10.1016/j.caeai.2024.100223>

Бағдаулет Абыханов^{1*}, Мехмет Али Яйладжи²

¹ SDU University, Қаскелең, Қазақстан

² Galaxy International School, Алматы, Қазақстан

*e-mail: 241302002@sdu.edu.kz

ЖИ ЧАТ - БОТТАРДЫҢ ШЕТЕЛ ТІЛІН ОҚЫТУДА ҚОЛДАНЫЛУЫ: ӘДЕБИЕТКЕ КЕШЕНДІ ШОЛУ

Аңдатпа. Жасанды Интеллект (ЖИ) әлемдегі заманауи технологиялардың біріне айналып, сан түрлі салаларда қолданысқа енгізіліп жатыр. Сол салалардың қатарында шетел тілін оқыту саласы да бар. Шетел тілін оқытуда ЖИ чат боттар тіл үйрену құралы ретінде қолданылуда. ЖИ чат - боттары - мәтін немесе аудио арқылы өзара әрекеттесу үшін қолданылатын бағдарламалық құрал немесе веб - сайт. ЖИ технологиясы қанша қарқынды дамып келе жатқанымен, оның тәжірибеде қолданылуы жайында зерттеу жұмыстары жеткіліксіз. Сондықтан, осы әдебиетке шолу ағылшын тілі пәні мұғалімдерінің пікірлеріне негізделі отырып, ЖИ чат боттарды шетел тілін оқытуда қолдану жайында жазылған зерттеу жұмыстарын саралауға бағытталған. Осы бағыт бойынша әдебиетке шолу жасау үшін 20 мақала таңдалды. Бұл мақалалар Google Scholar және ERIC атты дерекқорлардан, сонымен қатар Sci-Space атты зерттеу платформасынан іріктеліп алынды. Мақалалар 2022 - 2025 жылдар аралығында аталған дерекқорлар мен зерттеу платформасында жарияланған.

Түйін сөздер: ЖИ, ЖИ чат боттар, ағылшын тілі шетел тілі ретінде, ағылшын тілі мұғалімдері

Бағдаулет Абыханов^{1*}, Мехмет Али Яйладжи²

¹ SDU University, Қаскелең, Қазақстан

² Galaxy International School, Алматы, Қазақстан

*e-mail: 241302002@sdu.edu.kz

ИСПОЛЬЗОВАНИЕ ИИ ЧАТ - БОТОВ В ПРЕПОДАВАНИИ ИНОСТРАННОГО ЯЗЫКА: КОМПЛЕКСНЫЙ ОБЗОР ЛИТЕРАТУРЫ

Аннотация. Искусственный интеллект (ИИ) стал самым большим достижением в области технологий. Он интегрируется во все сферы, особенно в языковое образование. Чат - боты с ИИ внедряются в обучение языкам. Чат - боты с ИИ - это программное обеспечение или аудио. Однако, несмотря на то что ИИ быстро развивается, исследования об использовании ИИ только публикуются. Поэтому, целью данного обзора литературы описать как чат - боты с ИИ используются в языковом образовании по мнению учителей английского языка как иностранного об этих чат - ботах. Для достижения этой цели было рассмотрено 20 статей. Статьи были

отобраны из различных баз данных, таких как Google Scholar, ERIC и исследовательской платформы SciSpace, за период с 2022 по 2025 год.

Ключевые слова: ИИ, ИИ чат - боты, английский язык как иностранный, учителя английского как иностранного

Received 12 October 2025