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PRACTICAL APPLICATION OF CHATBOTS IN TEACHING WRITING SKILLS

Abstract. Artificial intelligence has become an integral part of our lives, making it easier and faster to search for information and create content in many areas of knowledge.

ChatGPT can write essays and other types of content in any style and language in a matter of seconds, but we must not forget that it cannot yet create unique texts. ChatGPT and other AI tools use a compilation of already insignificant content on the network, which makes it easily recognizable for AI detectors.

But chatbots are capable of more than just producing text. They can be a useful tool in the classroom for improving students' written communication skills.

With personalized recommendations, automatic error checking, and interactive dialogues, chatbots help students develop their writing skills. Their ability to recommend writing topics, correct grammar and style, and simulate authentic conversation scenarios encourages more meaningful and informed writing. As a result, chatbots are evolving from simple text generators into full-fledged teaching aids.

Key words. Chatbots; Foreign language competence; Independent learning; Interactive learning; Artificial intelligence, Writing skill

Introduction. With the advent of large language models like ChatGPT, the technology has begun to make its way into classrooms across the country. Proponents say schools can use it to enhance courses and ease the burden on overworked and underpaid teachers.

Some are adopting it even more zealously: At at least one network of cyber schools, the goal is to have the technology teach classes, modifying lessons in real time based on how students are absorbing the content.

Chatbots have become a valuable educational tool in recent years, particularly in developing writing skills. Their ability to simulate interactive dialogue gives students real-time feedback, encourages self-correction, and supports ongoing language practice outside the traditional classroom. As educators seek more adaptive and student-centered approaches, the practical integration of chatbots into writing instruction presents new opportunities for personalized and engaging learning. More districts are starting to implement AI-powered tutoring because the technology allows teachers to double the amount of practice they can provide without adding to the assessment workload they then have to manage.

While the idea of AI-powered tutoring isn't new, advances in the availability of large language models have made it much easier to deploy AI — it allows for more natural interactions with AI that weren't possible before, said Zachary Pardos, an associate professor of education at the University of California, Berkeley, who specializes in adaptive learning and AI.[1]

For example, students can get immediate feedback on their writing, says Makpal Orynbetova. An AI tutor can clarify a term or explain context that a student finds confusing. And a math tutor can quickly adjust to a student's abilities if exercises are too challenging.[2] The debate on the impact of artificial intelligence on all aspects of human life has intensified, especially with the advances in conversational AI since late 2022. These rapidly evolving technologies offer immediate and long-term opportunities, challenges, and threats to education systems (UNESCO, 2023)[3]. However, when it comes to integrating artificial intelligence in education, current research and recommendations are limited, and there is an urgent need for a more comprehensive study of these issues.

To advance this study, the research paper uses a secondary qualitative research approach that will enable the researchers to understand the potential of AI-based chatbots as language tutors to improve ESL learners' writing skills. This method was chosen as it is suitable for reviewing the literature and integrating insights from existing studies to ensure a proper understanding of the problem at hand.

These included papers that documented the benefits as well as the prevalence of challenges associated with the use of AI-based chatbots in the ESL environment. The articles reviewed illustrate the extent to which the implementation of chatbots facilitates differentiation in the learning process, immediate feedback, and student engagement during writing activities. In addition, the researchers reviewed articles and journals that discuss the limitations of using chatbot systems, particularly in areas such as complex feedback, contemporary language elements, and cultural factors.

This article examines how chatbots can serve as interactive writing partners by providing immediate feedback, supporting complex writing tasks, and encouraging student autonomy. The transition from traditional teacher-led instruction to technologically enhanced learning environments presents both challenges and opportunities, requiring closer examination of how these tools can be purposefully designed and implemented in classroom and self-paced learning contexts.

Chatbots are not just a novelty, they represent a transformative approach to language learning by providing personalized, accessible, and scalable writing instruction. The purpose of this study is to highlight their practical advantages, potential limitations, and pedagogical strategies needed to maximize their effectiveness in teaching writing.

Materials and Methods of research. In a study conducted at M. Utemisov West Kazakhstan University with the participation of FL 11 and FL 13 groups, each with 45 students, several well-known chatbots for learning a foreign language, such as Duolingo Chatbots and Babbel, were used. The Telegram bot "TilOquBot", developed in the Almaty region for distance learning of the Kazakh language, was also used. This bot includes a 100-hour curriculum and office work courses in the Kazakh language. The experimental group (FL 11) used these chatbots in the learning process, and the control group (FL 13) studied using traditional methods without digital assistants.

Kazakh scientists and their contribution

- Alibek Barlybayev: Director of the Research Institute of Artificial Intelligence, L.N. Gumilyov, led the development of the Kazakh analogue of ChatGPT, which is capable of analyzing and generating texts in the Kazakh language. This development uses the architecture of neural networks and understands the rules of the Kazakh language.

- Institute of Smart Systems and Artificial Intelligence (ISSAI) at Nazarbayev University: Developed a large language model KazLLM, based on 148 billion tokens in Kazakh, English, Russian and Turkish. This model is intended for a wide range of users, including the scientific community and startups. Methods used and competencies revealed

Methods used in the experiment: pedagogical experiment using interactive chatbots, surveys, testing, comparative analysis of the results for the control and experimental groups.

Competencies revealed in the experiment:

- Communicative competence: Development of oral and written communication skills. The experimental group improved by 80%, while the control group improved by 60%.

- Linguistic competence: Mastering vocabulary and grammar. The experimental group improved by 75%, while the control group improved by 55%.

- Digital competence: Developing skills in working with modern educational technologies. The experimental group improved by 60%, while the control group improved by 40%.

- Motivational competence: Increasing interest and engagement in learning. The experimental group improved by 88%, while the control group improved by 50%.

- Cognitive competence: Developing critical thinking and reflection. The experimental group improved by 68%, while the control group improved by 45%.

Expected and achieved results

- Significant increase in motivation and engagement of students in the experimental group.

- Improve language skills, especially writing and speaking, through interactive practice and instant feedback from chatbots.

- Development of digital competence and independent learning skills.

- Reduction of anxiety when performing language tasks.

The methodology aids in analyzing the literature within the relevant field of study to identify trends, gaps, and features that address the overarching research questions. Regarding data collection, the scientific method has involved a review based on the relevance of the research context and accessible journals and articles from Google Scholar and ProQuest. These platforms have been utilized to identify and obtain high-quality, peer-reviewed materials that address some of the research questions, including the use of AI-based chatbots in language learning, their effect on writing skills, and other pertinent literature within the ESL context. Consequently, by using the aforementioned credible databases, the researcher has ensured the reliability of the gathered data.

Findings. AI-driven chatbots are regarded as highly effective, which is a significant point highlighted in the current literature. Unlike traditional classrooms where educators must anticipate the challenges and errors each student will encounter to offer appropriate feedback, chatbots can respond to weak knowledge exemplifications and various mistakes based on individual assessments. Research conducted by Alrajhi (2024) has shown that feedback from chatbots tailored to students can improve their ability to correct grammatical errors and enhance the overall structure of their sentences.[4] The reduction in the frequency of students' mistakes, in response to language AI feedback, indicated that adaptive AI can adjust to the specific needs of each student and improve their understanding of grammatical structures. The work of Ghorbandordinejad and Kenshinbay (2024) also emphasizes how the ability of AI chatbots to adopt a personalized learning approach aligns well with modern theories of language learning, particularly the ZPD theory. The zone of proximal development (ZPD) suggests that learning occurs when instruction is just within a learner's grasp, or slightly beyond it, but accessible with support, according to Tahir and Tahir (2023). In the context of AI-powered chatbots, by providing immediate responses tailored specifically to the errors a student made or particular areas they struggle with, these tools serve as scaffolds. It is crucial to address the gaps in their knowledge to promote a gradual process of language acquisition, wherein specific aspects of the language, such as grammatical structures or phrases that pose difficulties for the student, are addressed. Each learner is given feedback pertinent to their learning profile, thus offering

them a structured pathway to mastery as opposed to the generalized methods often employed in most language classes.[5]

If a learner appears to be facing particular challenges in specific grammar or common language expressions that are employed in conversation, an advanced chatbot can deliberately provide the learner with additional practice in those areas until they demonstrate improvement. This not only accelerates the pace of learning but also guarantees that the learner receives a more tailored approach that makes learning more engaging for an individual compared to a situation where the tutor simply repeats similar responses. Introduction of new advancements in NLP allows chatbots to implement precise modifications, resulting in better engagement of learners by challenging them with more demanding tasks as they progress through their studies. With respect to the evolution of AI technology, there is potential for the level of personalization in AI chats to be further enhanced, which would boost the effectiveness of chatbots in teaching ESL. Perhaps in the future, NLP capabilities could be further developed to incorporate guidance that aligns with the ZPD concept, enabling chatbots to offer feedback on the tone, style, or context of the language utilized. Such advancements would lead to a more improved approach for ESL at the district level, making chatbots even more effective in enhancing learners' fluency [6]. Therefore, the advancement of NLP for AI-powered chatbots can transform these bots from simple language translators and generators into intelligent tutors who can effectively support ESL learners in learning progressively and efficiently over time through proficient writing and other sophisticated language applications.

Students who engaged with chatbots during writing tasks demonstrated a noticeable improvement in structural coherence and lexical variety. Unlike static resources, chatbots provided dynamic interaction, which encouraged learners to experiment with sentence structures and vocabulary in real time. Moreover, students reported increased motivation and reduced writing anxiety, suggesting that the non-judgmental, always-available nature of chatbot interaction played a significant role in fostering a more positive attitude toward writing.

Challenges in Addressing Advanced Linguistic and Cultural Nuances. A prevalent concern highlighted in the literature is that AI-driven chatbots struggle with managing intricate linguistic and cultural elements during the foreign language learning process. Written English for ESL students is not merely about the equivalents of another language's grammar, syntax, idioms, and phrases, but also involves selecting the appropriate words and tone. This stems from the failure of most chatbots to integrate context in issues spanning from language to culture, which consequently renders the feedback they provide technically accurate.

For an extended period, the deficiency of cultural sensitivity in chatbot responses has been attributed to the general dataset employed to train an AI system. The majority of chatbots rely on large, publicly accessible datasets that do not encompass all variations of the English language, or cultural nuances, or idiomatic expressions. These datasets may be more biased towards certain language variations, typically the American or British English, according to the research of Dr Helen Crompton and Ross Crichton (2024). Consequently, these models do not sufficiently differentiate to tackle the variability patterns of cultural context in language. Something that is acceptable in one culture might be entirely different in others or may be completely inappropriate to use. Thus, without such exposure throughout training, chatbots lack a crucial element of the fluency process, which involves guiding ESL learners on the appropriate cultural usage of language. This limitation highlights the necessity for the advancement of sophisticated Language AI models, particularly in their capacity to integrate diverse linguistic and cultural data. Enhancing cultural sensitivity in current chatbots would entail employing a more varied dataset that includes different styles of intonation, accent, and oral language retention. This would provide the chatbots with the capability to offer feedback that aligns not just with language grammar, but also with cultural and contextual aspects;

ultimately fostering a comprehensive learning experience that aids ESL learners. For individuals seeking genuine interactions, especially in written form, the chance to receive feedback from a cultural standpoint would bridge a significant gap, ultimately improving learners' readiness to engage in realistic situations, according to Klimova (2023). By addressing this need, AI chatbots can evolve into superior language instructors who not only equip ESL learners with various techniques to enhance their language skills but also cultivate pragmatic competence, ensuring they are neither limited nor inadequately prepared in specific communication contexts.

Discussion. The results of this study provide important implications for acquiring new insights regarding the use of chatbots as a language teaching resource for ESL writers and other L2 learners. The outcomes of the research offer perspectives on the extensive positive impacts as well as the current limitations of chatbot usage in language education, thus revealing a rather intricate view of the topic. One of the advantages highlighted in the findings is the adaptability of learning through chatbots. Unlike a classroom environment where an instructor corrects grammatical mistakes and poor sentence structures within seconds of their occurrence, chatbot interactions are different. This feature of chatbot engagement aligns more closely with Vygotsky's Zone of Proximal Development, as it offers a form of 'scaffolding' that gradually aids learners in achieving incremental progress. Another significant advantage lies in its nature, allowing for immediate feedback which helps learners grasp corrections more effectively over time. Instant feedback is consistently linked to Krashen's Input Hypothesis, wherein learners come to understand input that is both understandable and accurate, propelling language acquisition through correction. However, as the chatbot's complexity increases, so does the value of this feedback. Many chatbots are designed primarily to rectify basic grammatical and syntactical errors in the text while neglecting aspects like style, tone, and the appropriate word choice depending on the situational context. This limitation often becomes evident for ESL learners, particularly those at advanced levels, who may require language components that current chatbot solutions cannot adequately address.[7]

Conclusion. In conclusion, this article confirms that using chatbots in teaching English writing skills is a promising and effective approach. Experiments, including research at Utemisov West Kazakhstan University, have shown that tools such as Duolingo Chatbots and Babbel help to develop key skills : writing through interactive practice and immediate feedback. Enhance linguistic literacy through adaptive tasks and personalized learning plans. It reduces anxiety: creating a safe environment for interacting with bots reduces the fear of making mistakes, which is especially important for students who are unsure. It ensures accessibility: chatbots provide 24/7 access to learning, which is convenient for students with different schedules and needs.

Benefits of technology are that chatbots allow you to practice at any time and repeat exercises as much as necessary, reinforcing skills. Tools such as automatic grammar checking and adaptive scripts enable learning from mistakes in real time.

Future recommendations are to develop chatbot functionality to handle more complex dialogues and assist with creative tasks. Integrate them with traditional teaching methods to create blended learning models.

These results highlight that investing in digital educational tools not only improves learning outcomes, but also makes learning more accessible and personalized. Chatbots are becoming an integral part of modern education, opening up new opportunities for teaching English writing skills.

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ЖАЗБА ТІЛ ДАҒДЫЛАРЫН ҮЙРЕТУДЕ ЧАТ-БОТТАРДЫҢ ПРАКТИКАЛЫҚ ҚОЛДАНЫЛУЫ

Аңдатпа. Жасанды интеллект өміріміздің ажырамас бөлігіне айналып, түрлі білім салаларында ақпаратты іздеуді және мазмұн құруды жеңілдетіп, жылдамдатты.

ChatGPT бірнеше секунд ішінде кез келген тілде және стильде эссе мен басқа мәтін түрлерін жаза алады, бірақ ол әлі де бірегей мәтіндер жасай алмайтынын ұмытпауымыз керек. ChatGPT және басқа жасанды интеллект құралдары желідегі бұрыннан бар контенттің жиынтығын пайдаланады, сондықтан олардың мәтіндері жасанды интеллект детекторларымен оңай танылады.

Дегенмен, чат-боттардың мүмкіндігі жай мәтін жасаудан әлдеқайда кең. Білім беру саласында олар жазбаша тілді дамытуға арналған тиімді құрал бола алады.

Чат-ботта студенттерге интерактивті диалогтар, қателерді автоматты түрде тексеру және жекелендірілген ұсыныстар арқылы жазу дағдыларын жетілдіруге көмектеседі. Олар жазуға тақырыптар ұсына алады, грамматика мен стильді түзетеді, сондай-ақ нақты коммуникациялық жағдайларды модельдейді. Бұл жазбаша тілді саналы

әрі терең меңгеруге ықпал етеді. Осылайша, чат-боттар жай мәтін генераторлары емес, оқу үдерісінде толыққанды көмекшілерге айналуға.

Кілт сөздер. Чат-боттар; шетел тілі құзыреттілігі; өзіндік оқу; интерактивті оқу; жасанды интеллект; жазу дағдысы.

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ПРАКТИЧЕСКОЕ ПРИМЕНЕНИЕ ЧАТ-БОТОВ В ОБУЧЕНИИ НАВЫКАМ ПИСЬМА

Аннотация. Искусственный интеллект стал неотъемлемой частью нашей жизни, облегчая и ускоряя поиск информации и создание контента во многих областях знаний.

ChatGPT может писать эссе и другие виды контента в любом стиле и на любом языке за считанные секунды, но не стоит забывать, что он пока не может создавать уникальные тексты. ChatGPT и другие инструменты ИИ используют компиляцию уже незначительного контента в сети, что делает его легко узнаваемым для детекторов ИИ.

Но чат-боты способны на большее, чем просто создавать тексты. Они могут стать полезным инструментом в классе для улучшения навыков письменного общения учащихся.

Благодаря персонализированным рекомендациям, автоматической проверке ошибок и интерактивным диалогам чат-боты помогают учащимся развивать навыки письма. Их способность рекомендовать темы для письма, корректировать грамматику и стиль, а также имитировать аутентичные сценарии разговора способствует более осмысленному и осознанному письму. В результате чат-боты превращаются из простых генераторов текста в полноценные учебные пособия.

Ключевые слова. Чат-боты; иноязычная компетенция; самостоятельное обучение; интерактивное обучение; искусственный интеллект; навыки письма.