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ARTIFICIAL INTELLIGENCE IN THE DESIGN OF INTERACTIVE EXERCISES AND ONLINE ASSESSMENTS: IMPLICATIONS FOR ENGLISH LANGUAGE LEARNING IN HIGHER EDUCATION

The article examines the transformative role of artificial intelligence (AI), with a particular focus on models such as ChatGPT, in reshaping educational practices and methodologies in the field of English language teaching. We have to mention the fact that some recent developments in the language processing have enabled AI systems to generate human-like responses, making them valuable tools for the design of interactive learning materials. We believe that one of the most significant contributions of AI lies in its capacity to create dynamic exercises, online tests, and adaptive resources tailored to learners' individual needs. We are to mention the idea that such tools not only enhance the efficiency of the learning process but also respond to the growing demand for personalization and flexibility in modern education. Our article studies and highlights several key aspects of AI application in language teaching. First of all, we would like to say that the use of AI for the development of grammar, vocabulary, and communicative tasks provides educators with a wide range of automatically generated materials that can be adapted to different proficiency levels. Secondly, it is essential to say that AI-driven assessment tools allow for immediate feedback, which plays a crucial role in supporting autonomous learning and maintaining student motivation. Thirdly, we would mention the fact that AI contributes to the creation of interactive and game-like learning environments, which stimulate learner engagement and make the acquisition of English more enjoyable and effective. At the same time, our article addresses important challenges and limitations. We consider that the issues of content accuracy, pedagogical alignment, and the risk of overreliance on technology are discussed as potential obstacles to effective implementation. Ethical concerns, including the role of teachers and the need to preserve the human dimension of learning, are also emphasized. Finally, we would like to say that our article considers future prospects for integrating AI into English language education, suggesting that a balanced approach – where AI serves as a complement to, rather than a replacement for, the teacher – offers the most sustainable and pedagogically sound path forward. Through a critical exploration of these aspects, the article aims to contribute to the ongoing academic discussion on the role of AI in foreign language education. It is essential to say that it demonstrates that, while challenges remain, AI technologies hold significant promise for enriching teaching practices, supporting learner autonomy, and ultimately shaping the future of English language instruction.

Key words: *assessment, artificial intelligence, innovative means, intelligent learning systems, native speakers, phenomenon.*

Formulation of the Problem. Nowadays, artificial intelligence (AI), in particular large language models (LLMs) such as ChatGPT, open up new opportunities for teaching foreign languages. It is essential to say that the use of AI allows you to create interactive exercises and online tests that take into account the student's level of knowledge, provide an individual approach and help increase motivation to learn. The relevance of the study lies in the growing demand for personalized digital educational resources and the need to analyze their effectiveness in the context of teaching English.

It is a well-known fact that dynamic educational tools based on AI create individualized content. It is believed that such tools can provide personalized learning paths, dynamic content and individual feedback, which contributes to better language acquisition. Computer-assisted learning also confirms that interactive approaches increase student autonomy, their confidence and motivation in language learning.

We would like to point out that the integration of AI into education is based on the idea of adaptive learning, which takes into account the individual characteristics of the learner. The use of AI provides personalized learning paths, dynamic content, and instant feedback, which contributes to better language acquisition. The concepts of computer-assisted learning also confirm that interactive technologies increase students' autonomy, confidence, and interest in the language learning process.

Presenting the Main Material. It is essential to point out that some recent studies demonstrate the high potential of AI in creating educational tasks. This model combines algorithms for tracking the knowledge of the student and controlled text generation, which allows you to create exercises adapted to the level and progress of the student. There are some platforms that, using natural language processing technologies, automatically create game-like exercises and tests, allowing teachers to edit them and add illustrations. We can argue that the use of generative AI in testing can increase the confidence of the student and the quality of preparation for language exams. Examples of the integration of generative AI can already be seen in leading educational platforms. Preply combines AI with live teachers, providing personalization of content and feedback. Canvas, in collaboration with OpenAI, creates tasks in the format of role-playing scenarios that simulate live communication with historical or fictional characters. Duolingo has introduced innovative features – video conversations with AI characters and interactive adventures that immerse the student in the language environment. At the same time, users note certain limitations: artificial intelligence sometimes makes inaccuracies, which requires additional control from teachers.

The key advantages of using generative AI in creating exercises and tests include:

– individualization of the learning process:

It is essential to mention the idea that AI is able to adapt tasks to the student's level, ensuring that each learner receives exercises suitable for their abilities. For instance, for a beginner level student (A1), the system may generate simple vocabulary questions: "What is your favorite color?" or basic grammar tasks like: "She ____ (like) apples." Another option could be a matching activity such as "Match the word to the picture: cat, dog, book, chair." For intermediate students (B1), AI can provide tasks that combine grammar and communicative functions. For instance: "Complete the dialogue: – Where ____ you (go) last weekend? – I ____ (visit) my grandparents." Or short reading comprehension with true/false statements, e.g., a short text about hobbies followed by questions like "Does Anna like swimming?" As for an upper-intermediate student (B2), more complex tasks can be generated. These might include sentence transformation exercises: "Rewrite the sentence using the word in brackets: They started working two hours ago. (have) → They have been working for two hours." Or conditional tasks like: "If technology ____ (develop) faster, how would education change?" Speaking prompts can also be tailored to their level: "Discuss whether artificial intelligence should be used in schools. Give at least two arguments." As for advanced learners (C1–C2), AI could design activities involving academic vocabulary or critical thinking. For example: "Summarize the following article on climate change in 3–4 sentences." Or debate-style prompts: "To what extent do you agree with the statement: 'Globalization benefits more people than it harms'? Justify your opinion." With all these examples we aimed at proving our idea that AI ensures that tasks are not only linguistically appropriate but also cognitively stimulating, helping each learner progress according to their personal needs.

– time saving thanks to automation of task creation:

Instead of manually selecting exercises, the teacher can quickly receive several task options. For example, the system creates a test with Present Perfect Continuous in a minute:

She ____ (work) here since 2019.

How long ____ you ____ (wait) for me?

This allows the teacher to focus on explaining the rules, rather than on creating tasks.

– increasing motivation through game and interactive elements:

AI allows you to create exercises in the format of quests or role-playing games. For example, students are offered a dialogue exercise "Booking a hotel room in London", where they must choose the correct phrases from several options:

A: Good afternoon, how can I help you?

B: I'd like to ____ (book / eat / write) a room for two nights.

For beginner students (A1), gamified tasks may involve simple choice-based games, such as "Find the treasure": learners solve vocabulary riddles (e.g., "I am yellow and long. Monkeys like me. What am I? → Banana) to move to the next stage of the quest. At the pre-intermediate level (B1), AI can create role-play simulations, such as "Ordering food in a restaurant". Students are given multiple response options and must choose the most polite or appropriate one:

Waiter: What would you like to drink?

Student: I'll ____ (have / doing / had) a glass of water, please.

As for upper-intermediate learners (B2), interactive case studies can be introduced. For example: "Lost luggage at the airport", where students must negotiate with a virtual agent, practicing functional phrases like "Could you check if my suitcase is on the next flight?" or "I'd like to file a claim, please." At the advanced level (C1–C2), AI can simulate debates or mystery-solving games. For instance, in

a scenario called “The Missing Manuscript”, students play the roles of journalists, detectives, or witnesses, asking and answering questions in English to solve the problem. Another advanced option is an AI-driven debate game: “Should social media platforms be regulated more strictly?” where the system assigns positions and provides counterarguments to challenge the student. We believe that these interactive and playful approaches not only increase motivation but also immerse students in authentic communicative situations, making language practice more memorable and enjoyable.

– supporting self-learning through instant feedback:

The student enters the answer in the exercise, and the system immediately explains why it is correct or not. For example, the student writes: “He don’t like coffee.” AI corrects: “Correct form: He doesn’t like coffee. In the third person singular we use ‘doesn’t’ instead of ‘don’t’.” Thus, the student receives an explanation in real time without waiting for the teacher to check.

For example, when a beginner student writes “He don’t like coffee,” the system corrects: “Correct form: He doesn’t like coffee. In the third person singular we use ‘doesn’t’ instead of ‘don’t’.” The learner not only sees the correct answer but also understands the grammatical rule behind it.

In vocabulary tasks, if a student writes “I wear soup every morning” instead of “I eat soup every morning,” AI can respond: “The verb ‘wear’ is used for clothes. The correct verb here is ‘eat.’” This allows the learner to immediately recognize and fix lexical misuse.

For writing practice, AI can provide real-time feedback on sentence structure and style. If a learner submits: “The article interesting was,” the system may suggest: “Word order in English is subject + verb + object. Correct form: ‘The article was interesting.’” For more advanced learners, AI could also highlight overuse of simple vocabulary and propose alternatives (e.g., replacing “very good” with “excellent”).

Pronunciation tasks can also benefit from instant feedback. With speech recognition, if a student pronounces “three” as “tree,” the system can highlight the error, provide a phonetic explanation, and suggest minimal pair practice: “Try contrasting ‘tree’ and ‘three.’ Focus on the /θ/ sound.”

In reading comprehension, AI may check short written answers and guide the learner. For example, if the question is “Why did Anna move to London?” and the student replies “Because she happy,” the system can point out: “This answer is incomplete. Try writing: ‘Because she was happy with her new job.’”

By receiving this type of immediate feedback across different skills, learners are encouraged to experiment with language, correct themselves without fear of failure, and develop greater autonomy. Instead of waiting hours or days for teacher feedback, they are guided step by step, which creates a more dynamic and motivating learning process.

As Kostochka I. and Ponomareva N. have noted in their latest article on this topic, artificial intelligence has already had a noticeable impact on the educational process. In their article, they explored the key benefits of using AI in the education, including personalization of materials to the student’s level of knowledge and flexibility in organizing the educational process. The authors also outlined ethical challenges associated with the use of AI, such as the confidentiality of student data, and conducted a comparative analysis of various artificial intelligence resources for language and literature education – generative, analytical, interactive, and assessment.

We fully support these conclusions. For example, when learning English, a student can receive individual tasks created by generative AI that match his current level and pace of learning. At the same time, interactive resources allow for exercises in the format of dialogues or role-playing games, which increases motivation and engagement. However, as Kostochka I. and Ponomareva N. warn, it is important to teach students to be critical of the data obtained from AI and to check its reliability in order to avoid the spread of false information.

However, there are also challenges. Firstly, the quality of the content does not always meet academic standards, as confirmed by the examples from Duolingo: sometimes students are offered overly simplified exercises or sentences that have no communicative value (e.g., “The cat drinks milk every evening”), which limits the development of critical thinking. Secondly, there are ethical risks associated with replacing a human teacher with technology, as students can receive answers from AI without explaining the rules. For example, when asked “What is the difference between ‘say’ and ‘tell’?” AI can provide a concise answer, but not always accompany it with adequate examples for different contexts. Thirdly, AI-generated materials often require refinement and pedagogical expertise. For example, an automatically generated test may contain grammatically correct but methodologically incorrect tasks – for example, questions about choosing the correct verb form without taking into account the student’s level (“If I ____ (be) you, I would study harder” for beginners). In such cases, the teacher should edit the exercises, selecting tasks that gradually build language competencies.

Conclusions and Prospects for Further Research. Generative artificial intelligence is gradually becoming not just a technological innovation, but a meaningful partner in the field of English language teaching. Its ability to generate interactive exercises, design online tests, and provide adaptive feedback opens up possibilities that were

previously either too time-consuming or too resource-intensive for educators to manage on their own. For students, this means greater access to personalized learning experiences that reflect their individual strengths and weaknesses. For teachers, it means the opportunity to focus less on repetitive preparation tasks and more on guiding, mentoring, and inspiring their learners. One of the most important contributions of generative AI is its support for personalization. Learners no longer need to move through a "one-size-fits-all" curriculum. Instead, AI can adapt grammar drills, vocabulary tasks, or reading comprehension exercises according to a student's proficiency level and learning pace. For example, a beginner may receive sentence completion tasks with simple verbs, while a more advanced learner may be challenged to construct conditional sentences or analyze idiomatic expressions. Equally significant is the motivational dimension. Interactive and game-based activities created by AI can capture students' attention and maintain their engagement. When learners receive instant feedback, they are encouraged to keep trying, correcting mistakes in real time rather than waiting for delayed evaluation. This immediacy not only builds confidence but also helps students take more responsibility for their own learning. In this way, AI does not replace human motivation but reinforces it by making progress visible and tangible. Nevertheless, technology cannot stand alone. AI-generated content sometimes lacks the depth, cultural nuance, or pedagogical sequencing that professional educators bring to their work. A teacher can explain why "say" and "tell" are used differently in subtle contexts, or how tone and register shift between academic and casual English – something AI often oversimplifies. Teachers also serve as role models, mentors, and empathetic guides, offering encouragement and critical thinking that no machine can fully replicate. For this reason, the most effective use of AI in English teaching will always be in partnership with human expertise. We believe that some questions remain about how to measure the quality and reliability of AI-generated exercises, how to integrate digital resources with established teaching methods, and how the long-term use of AI will shape learning outcomes and learner autonomy. We would like to sum up by saying that generative AI offers real promise for enriching English language education, but its value lies not in replacing teachers, but in amplifying what they can achieve. When technology and human experience are combined thoughtfully, the result is not only more efficient learning, but also more meaningful and human-centered education – where students feel supported, motivated, and truly engaged in their journey of mastering the English language.

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Коляда І. В., Суханова Т. Є., Внукова К. В. Штучний інтелект у розробці інтерактивних вправ та онлайн-оцінювання: наслідки для вивчення англійської мови у вищій освіті

У статті розглядається трансформаційна роль штучного інтелекту (ШІ), зокрема мовних моделей, таких як ChatGPT, у зміні освітніх технік і методик у сфері викладання англійської мови. Останні досягнення у сфері обробки іноземної мови надали можливість системам ШІ генерувати відповіді, подібні до людських, що робить їх цінними інструментами для створення інтерактивних навчальних матеріалів. На нашу думку, одним із найбільш вагомих внесків ШІ є його здатність розробляти вправи, онлайн-тести та адаптивні ресурси, орієнтовані на індивідуальні потреби студентів. Такі інструменти не лише підвищують ефективність навчального процесу, а й відповідають сучасному

запиту на персоналізацію та гнучкість в освіті. У нашій статті ми висвітлюємо кілька ключових аспектів застосування ШІ у викладанні іноземних мов. По-перше, використання ШІ для створення граматичних, лексичних та комунікативних завдань, на нашу думку, надає викладачам широкий спектр автоматично згенерованих матеріалів, які можна адаптувати до різних рівнів володіння іноземної мови. По-друге, інструменти оцінювання на основі ШІ забезпечують миттєвий зворотний зв'язок, що відіграє важливу роль у підтримці автономного навчання та збереженні мотивації студентів. По-третє, ШІ сприяє створенню інтерактивних ігрових середовищ, які стимулюють залученість і роблять процес опанування англійської мови більш захопливим та ефективним. Водночас ми розглядаємо у статті важливі виклики та обмеження, подібних до ChatGPT, платформ ШІ. До потенційних перешкод ми можемо віднести проблеми точності контенту, його педагогічної відповідності та ризики надмірної залежності від технологій. Також, ми акцентуємо увагу на етичних питаннях, зокрема ролі викладача та необхідності збереження людського виміру у навчанні. Нарешті, у статті аналізуються перспективи подальшої інтеграції ШІ в англомовну освіту, роблячи висновок, що збалансований підхід – коли ШІ виступає доповненням, а не заміною викладача – є найбільш сталим і педагогічно обґрунтованим напрямом розвитку. Ми вважаємо, що критичне дослідження цих аспектів має на меті зробити внесок у сучасну наукову дискусію щодо ролі генеративного ШІ у викладанні іноземних мов та викладанні взагалі. У нашій статті ми показуємо, що, попри існуючі виклики, технології ШІ мають значний потенціал для збагачення методики викладання, підтримки автономії студентів та формування майбутнього викладання англійської мови.

Ключові слова: *оцінка, штучний інтелект, інноваційні засоби, інтелектуальні системи навчання, носії мови, феномен.*

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