

УДК 371.321.1
МРПТИ 14.35.09
DOI 10.56525/BYWA1736

ARTIFICIAL INTELLIGENCE FOR PREPARING ENGLISH LANGUAGE LESSONS

Mashinskaya O.

Yessenov University, Kazakhstan, Aktau

e-mail: olga.mashinskaya@yu.edu.kz

Abstract. This study explores the application of artificial intelligence (AI) in the preparation of English language lessons, emphasizing its transformative impact on modern educational processes. The research examines a variety of AI-driven tools, including adaptive learning platforms, interactive assignment creators, intelligent language checking systems, and automated feedback mechanisms, illustrating their role in enhancing personalization, efficiency, and engagement in language education. These technologies streamline lesson planning, automate routine grading and assessment tasks, and provide real-time language support, allowing educators to focus more on meaningful instruction and student interaction. Furthermore, AI-driven analytics help identify individual learning patterns, enabling customized lesson delivery to address diverse student needs. The study also discusses practical implications of AI integration, offering strategies for educators to effectively incorporate these tools while maintaining a balanced approach that combines AI-powered solutions with traditional teaching methodologies. The findings highlight AI's potential to revolutionize English language education, ultimately fostering a more adaptive, student-centered, and efficient learning environment.

Keywords: artificial intelligence; English language teaching; adaptive learning platforms; interactive assignments; personalized education; language tools; educational technology; teaching innovation; AI in education; lesson planning; gamification; speech recognition; learning analytics; accessibility; multimodal learning.

Introduction

Modern artificial intelligence (AI) technologies are rapidly transforming the landscape of education, offering innovative and flexible solutions to age-old challenges in teaching and learning. Among the various applications of AI in education, English language instruction stands out as one of the most dynamic and promising fields. With the global demand for English proficiency increasing, educators are actively seeking methods to enhance instructional quality while optimizing time and resources. AI provides valuable tools that allow educators to automate routine processes, personalize instruction based on learner profiles, and improve student engagement through interactivity and real-time feedback [1]. This article examines a selection of prominent AI tools and platforms that assist in the preparation of English language lessons, with particular focus on their functions, classroom applications, and pedagogical benefits. In addition, it outlines strategies for the seamless integration of AI technologies into the educational process, taking into account both their advantages and limitations.

Materials and Methods

This study employed a mixed-methods approach, combining qualitative content analysis of existing literature with case-based examination of current AI tools used in English language teaching. Sources included academic publications, user feedback from educators [2], reports by edtech companies, and practical trials conducted in classroom and online settings. The tools selected for analysis were evaluated according to several criteria: ease of use, accessibility, adaptability to different proficiency levels, and ability to provide feedback or data on learner performance. Among the platforms analyzed were Duolingo, Rosetta Stone, Grammarly, ChatGPT, Questionwell, Kahoot!,

Canva, Twee, and others. Comparative analysis allowed for the identification of core functionalities, limitations, and pedagogical effectiveness in real-world teaching scenarios.

Results

Modern artificial intelligence (AI) technologies are actively transforming the field of education, offering new approaches to learning. One of the most in-demand areas of AI application is teaching English. AI enables the automation of routine tasks, personalization of the learning process, and increased efficiency. This article examines key AI tools that can be useful for preparing English language lessons, provides detailed use cases, and highlights potential strategies for integrating these technologies into the classroom.

The Role of AI in English Language Education

AI has the potential to revolutionize language education by catering to diverse learning styles and enhancing accessibility. Whether for young learners, adults, or professionals, AI tools help break language barriers and make learning more engaging. The role of AI can be divided into three main categories:

1. **Automation of Administrative Tasks:** AI handles repetitive processes like grading, attendance tracking, and performance analysis, freeing up educators to focus on teaching.
2. **Personalized Learning Experiences:** AI adapts content to meet individual needs based on real-time feedback [1].
3. **Enhanced Interactivity and Engagement:** Through gamification and multimedia, AI tools create immersive and enjoyable learning environments.

Overview of AI Tools

1. **Programs for Generating Learning Materials**
 - **ChatGPT :** This tool can be used to create texts, dialogues, and exercises on grammar or vocabulary. For instance, a teacher can ask the AI to generate dialogues for practicing specific language structures, such as modal verbs or conditionals. It is also useful for developing creative writing prompts.
 - **QuillBot:** Helps paraphrase texts, which is particularly useful for creating varied exercises. Teachers can use it to reframe existing materials into simpler or more complex versions based on student proficiency levels.
2. **Tools for Creating Interactive Assignments**
 - **Kahoot! and Quizlet:** These platforms integrate AI algorithms to analyze student progress and automatically generate quizzes based on the material studied. For example, after teaching vocabulary related to travel, these tools can create targeted games and flashcards.
 - **H5P:** Allows the creation of interactive exercises such as quizzes, audio, and video tasks, using AI recommendations to adjust difficulty levels. Its flexibility supports a wide range of activities, from matching exercises to virtual simulations.
 - **Questionwell:** A tool designed for creating customizable question banks and quizzes. It integrates AI to suggest questions based on the learning objectives and analyze student responses to improve future exercises.
 - **Twee:** A platform designed for creating microlearning experiences. Twee leverages AI to segment learning content into short, engaging modules and tailors them to the needs of the learners, making it particularly effective for vocabulary and grammar drills.
3. **Adaptive Learning Platforms**
 - **Duolingo [3]:** Uses AI to personalize lessons based on the learner's proficiency level and error analysis. Its gamified interface keeps learners motivated by tracking streaks and offering rewards for consistent practice [4].
 - **Rosetta Stone:** Employs AI for speech recognition and pronunciation improvement. This tool is particularly effective for learners focusing on speaking skills and accent reduction.
4. **Language Checking Tools**
 - **Grammarly:** AI algorithms help identify errors in texts and suggest improvements, which can be useful for creating writing assignments. It also provides insights into tone, clarity, and engagement, making it a versatile tool for various genres.

- Linguix: An alternative to Grammarly with features for adapting suggestions to specific contexts, such as academic writing. It includes a style editor, making it valuable for formal and professional writing tasks.

5. Learning Management Systems (LMS)

- Moodle: AI implementation automates test checking and analyzes student performance data. Teachers can use these insights to tailor lessons to address specific areas of difficulty.

- Canvas [5]: Uses AI to analyze student engagement and offer recommendations for improving materials. For example, it can highlight sections of a course where students struggle most and suggest improvements.

6. Tools for Pronunciation and Listening Practice

- Elsa Speak [6]: Utilizes AI to analyze pronunciation and provides exercises for improvement. Learners receive detailed feedback on their speech, including suggestions for mouth positioning and intonation.

- Speechling: Compares students' speech with that of native speakers, helping to develop listening and speaking skills. It also offers coaching from human tutors, blending AI and human expertise.

7. Visual Content Generators

- Canva with AI features: Enables the creation of posters, infographics, and presentations to visualize complex language concepts. For example, teachers can create flowcharts to explain grammar rules or timelines for historical events.

- DALL-E: Generates images that can be used as illustrations for exercises or stories. This tool is especially useful for storytelling exercises, where students can describe or write about AI-generated scenes.

I would like to conduct a detailed analysis of one of the artificial intelligence tools, Twee, which provides substantial support to English language educators in lesson preparation. This tool demonstrates significant potential in optimizing the planning process and enhancing the delivery of instructional content. It can:

1. Create a Text on Any Topic with Your Vocabulary
2. Upload your audio or video and create a list of open questions, multiple choice questions, or true/false statements.
3. Create a List of Sentences with Your Vocabulary
4. Create ABCD Questions for a Text
5. Create discussion questions on a given topic. You can use them as a warm-up or at any other stage of your lesson.
6. Automatically create a matching exercise for a list of words. Ask your student to match the word to its meaning!
7. Replace all the chosen words in the text with gaps. Gives a list of these words separately.
8. Create a true/false reading exercise for the student to check if they understand the content of the text.
9. Simplify or upgrade the uploaded text according to your request. Great to use when you need to adapt an existing text for a certain level.

Advantages of Using AI

- Personalization: AI adapts tasks to the individual needs of learners, ensuring that each student progresses at their own pace.

- Time-saving: Automation of routine tasks such as test creation, grading, and feedback allows educators to allocate more time to lesson planning and student interaction.

- Interactivity: The use of multimedia elements, gamified exercises, and real-time feedback creates a more engaging learning environment.

- Analytics: Teachers gain access to detailed data on student progress, enabling more precise and effective lesson planning.

Limitations and Challenges

Despite numerous advantages, using AI in English language teaching has its limitations:

- **High Implementation Costs:** Advanced AI tools may require significant investment in software and hardware.
- **Teacher Training:** Educators need to be trained to use these technologies effectively, which can be time-consuming.
- **Creative and Intercultural Constraints:** AI often lacks the ability to create nuanced cultural contexts or support highly creative tasks, such as literary analysis.

Future Directions

The integration of AI in education is still evolving, and its potential is far from fully realized. Future developments could include:

1. **Multimodal Learning Experiences:** Combining AI with augmented reality (AR) and virtual reality (VR) to create immersive language learning environments.
2. **Improved Accessibility:** Developing AI tools that cater to learners with disabilities, such as speech impairments or visual challenges.
3. **Ethical AI in Education:** Ensuring data privacy and fairness in algorithmic decisions to build trust among users.
4. **Collaborative AI Systems:** Enhancing collaboration between AI tools and human educators to achieve optimal outcomes.

The findings demonstrate that AI tools significantly improve the efficiency and effectiveness of English language teaching.

Key outcomes include:

1. **Enhanced Personalization:** Adaptive platforms like Duolingo tailored lessons based on learner proficiency and error analysis, leading to improved engagement and retention.
2. **Efficiency in Routine Tasks:** Language checking tools such as Grammarly automated error correction, saving time for both students and educators.
3. **Interactive Learning:** Gamified tools like Kahoot! increased student participation and motivation by turning lessons into engaging activities [7].
4. **Pronunciation and Listening Improvements:** Tools like Elsa Speak provided detailed feedback on pronunciation, helping learners develop confidence in spoken English.

Conclusion

The integration of AI in English language education offers educators powerful tools to streamline lesson preparation, personalize instruction, and enhance learner engagement. While the technology is not a panacea, when applied thoughtfully and ethically, it serves as a dynamic supplement to traditional teaching. Future research and practice should focus on overcoming implementation challenges, developing inclusive AI designs, and fostering professional development for educators. Ultimately, AI's thoughtful incorporation into English language teaching holds the promise of more responsive, equitable, and effective education.

LITERATURE

1. Brown, H. D. (2020). *Principles of Language Learning and Teaching*. Pearson.
2. Reinders, H., & Benson, P. (2017). *Research in Technology and Second Language Education*. Routledge.
3. Duolingo Research Team. (2023). *Language Learning with AI*. [Online resource].
4. Warschauer, M. & Grimes, D. (2008). "Automated Writing Evaluation and Writing Instruction." *International Journal of Artificial Intelligence in Education*, 18(1), 1–25.
5. Kukulska-Hulme, A. (2020). *Mobile-Assisted Language Learning: Affordances and Constraints*. Springer.
6. Godwin-Jones, R. (2018). "Emerging Technologies: Language Learning with Artificial Intelligence." *Language Learning & Technology*, 22(3), 5–10.

7. Godwin-Jones, R. (2018). "Emerging Technologies: Language Learning with Artificial Intelligence." *Language Learning & Technology*, 22(3), 5–10.

ИСКУССТВЕННЫЙ ИНТЕЛЛЕКТ ДЛЯ ПОДГОТОВКИ УРОКОВ АНГЛИЙСКОГО ЯЗЫКА

Машинская О.

Университет Есенова, Казахстан, Актау

e-mail: olga.mashinskaya@yu.edu.kz

Аннотация. В данном исследовании рассматривается применение искусственного интеллекта (ИИ) в подготовке уроков английского языка, подчеркивая его трансформационное влияние на современные образовательные процессы. В работе анализируются различные ИИ-инструменты, включая адаптивные обучающие платформы, интерактивные генераторы заданий, интеллектуальные системы проверки языка и механизмы автоматизированной обратной связи, демонстрируя их роль в повышении персонализации, эффективности и вовлеченности в процесс изучения языка. Эти технологии оптимизируют планирование уроков, автоматизируют рутинные процессы оценки и предоставляют поддержку в реальном времени, позволяя преподавателям сосредоточиться на значимом обучении и взаимодействии со студентами. Кроме того, аналитические возможности ИИ помогают выявлять индивидуальные модели обучения, что способствует созданию персонализированных занятий с учетом разнообразных потребностей учащихся. В исследовании также обсуждаются практические аспекты интеграции ИИ, предлагая стратегии для эффективного использования этих инструментов при сохранении сбалансированного подхода, сочетающего ИИ-решения с традиционными методами преподавания. Выводы подчеркивают потенциал ИИ в революционизации обучения английскому языку, создавая более адаптивную, ориентированную на ученика и эффективную образовательную среду.

Ключевые слова: искусственный интеллект; преподавание английского языка; адаптивные обучающие платформы; интерактивные задания; персонализированное обучение; языковые инструменты; образовательные технологии; инновации в преподавании; ИИ в образовании; планирование уроков; геймификация; распознавание речи; аналитика обучения; доступность; мультимодальное обучение.

АҒЫЛШЫН ТІЛІ САБАҚТАРЫН ДАЙЫНДАУ ҮШІН ЖАСАНДЫ ИНТЕЛЛЕКТ

Машинская О.

Университет Есенова, Актау, Казахстан

e-mail: olga.mashinskaya@yu.edu.kz

Аннотация. Бұл зерттеуде ағылшын тілі сабақтарын дайындауда жасанды интеллекттің (ЖИ) қолданылуы қарастырылады, оның қазіргі білім беру үдерісіне ықпал ететін өзгерістері атап өтіледі. Жұмыста бейімделген оқыту платформалары, интерактивті тапсырма құру жүйелері, интеллектуалды тілдік тексеру құралдары және автоматтандырылған кері байланыс механизмдері сияқты әртүрлі ЖИ құралдары зерттеліп, олардың білім берудегі дербестендіруді, тиімділікті және оқушылардың белсенділігін арттырудағы ролі көрсетіледі. Бұл технологиялар сабақ жоспарлауды оңтайландырып, рутиндік бағалау процестерін автоматтандырып, нақты уақыт режимінде қолдау көрсетеді, осылайша мұғалімдерге мағыналы оқыту мен студенттермен өзара әрекеттесуге көбірек көңіл бөлуге мүмкіндік береді. Сонымен қатар, ЖИ-дің аналитикалық мүмкіндіктері оқушылардың жеке оқу үлгілерін

анықтауға көмектеседі, бұл әртүрлі қажеттіліктерді ескере отырып, жекелендірілген сабақтар ұйымдастыруға жағдай жасайды. Зерттеу барысында ЖИ-ді білім беру үдерісіне тиімді енгізудің практикалық аспектілері талқыланып, оны дәстүрлі оқыту әдістерімен үйлестіру стратегиялары ұсынылады. Зерттеу нәтижелері ЖИ-дің ағылшын тілін оқытуды түбегейлі өзгерту әлеуетін көрсетіп, білім берудің икемді, оқушыға бағытталған және тиімді ортасын қалыптастыруға ықпал ететінін айқындайды.

Түйінді сөздер: жасанды интеллект; ағылшын тілін оқыту; адаптивті оқыту платформалары; интерактивті тапсырмалар; дараланған оқыту; тіл құралдары; білім беру технологиялары; оқытуды жаңғырту; білім берудегі ЖИ; сабақ жоспары; геймификация; сөйлеуді тану; оқыту аналитикасы; қолжетімділік; мультимодальды оқыту.