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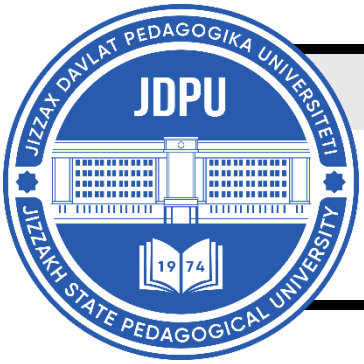

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THE TRANSFORMATIVE IMPACT OF ARTIFICIAL INTELLIGENCE ON TEACHING WORD COMBINATIONS

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ABOUT ARTICLE

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Abstract: This article examines the transformative role of Artificial Intelligence (AI) in teaching word combinations, with a particular focus on collocations, phrasal verbs, idioms, and lexical chunks in English language learning. Through analyzing AI-based tools, adaptive learning systems, and corpus-driven platforms, the study highlights how AI enhances vocabulary acquisition, improves learner autonomy, and increases instructional efficiency. The findings demonstrate that AI-driven approaches lead to higher retention rates, personalized learning paths, and improved communicative competence.

Introduction. The rapid advancement of artificial intelligence (AI) has brought profound changes to educational systems worldwide, particularly in the field of foreign language teaching. AI technologies have redefined traditional instructional approaches by enabling intelligent, data-driven, and learner-centered educational environments. In language education, the integration of AI has opened new opportunities for addressing long-standing challenges related to vocabulary acquisition, grammatical accuracy, and communicative

competence. Among these challenges, the effective teaching and learning of word combinations, or collocations, remains one of the most complex and critical aspects of second and foreign language acquisition.

Word combinations play a central role in natural and fluent language use. Native-like proficiency is largely determined not only by grammatical correctness but also by the appropriate use of conventional word pairings such as make a decision, strong evidence, or highly effective. Learners who lack collocational competence often produce grammatically correct yet unnatural or non-idiomatic expressions. Traditional instructional methods, which typically rely on memorization, isolated vocabulary lists, and limited contextual exposure, have proven insufficient in developing learners' ability to use word combinations accurately and flexibly in real communicative situations.

Recent developments in artificial intelligence, particularly in natural language processing (NLP) and machine learning, offer innovative solutions to these pedagogical limitations. AI-powered systems are capable of analyzing vast amounts of authentic linguistic data, identifying frequent word patterns, and modeling native-like language use. These technologies allow learners to interact with language in meaningful contexts while receiving immediate and personalized feedback on their use of word combinations. As a result, AI facilitates a shift from rule-based and teacher-centered instruction toward adaptive, interactive, and learner-driven language learning experiences.

Moreover, AI-based language learning tools support individualized instruction by adjusting learning materials to learners' proficiency levels, learning styles, and error patterns. Intelligent tutoring systems, chatbots, and corpus-based platforms can detect inappropriate word combinations in learner output and provide corrective suggestions supported by contextual examples. This level of personalization is difficult to achieve in traditional classroom settings, especially in large or heterogeneous groups. Consequently, AI enhances learner autonomy and encourages continuous practice beyond the classroom environment.

Despite the growing interest in artificial intelligence in education, research focusing specifically on its role in teaching word combinations remains limited. While numerous studies have examined AI-assisted vocabulary learning and grammar instruction, fewer have explored how AI contributes to the development of collocational competence. This gap highlights the need for a focused investigation into the pedagogical impact of AI on teaching word combinations and its implications for language educators and curriculum designers.

Therefore, this article aims to examine the transformative impact of artificial intelligence on teaching word combinations by analyzing its methodological advantages, instructional

effectiveness, and potential challenges. By exploring the role of AI in enhancing collocational awareness, accuracy, and fluency, the study seeks to contribute to the growing body of research on technology-enhanced language learning and to provide practical insights for integrating AI into modern language education.

Materials and methods. This study employs a qualitative-descriptive and analytical research design aimed at examining the role and effectiveness of artificial intelligence in teaching word combinations in foreign language education. The research is grounded in contemporary theories of second language acquisition, corpus linguistics, and computer-assisted language learning (CALL). A mixed set of materials and methodological approaches was used to ensure the reliability and validity of the findings.

The primary research materials consist of academic sources, including peer-reviewed journal articles, monographs, conference proceedings, and doctoral dissertations published in the fields of applied linguistics, educational technology, and artificial intelligence in education. These sources were selected based on their relevance to AI-assisted language learning, collocation instruction, and natural language processing technologies.

In addition to theoretical sources, the study analyzes a range of AI-based language learning tools and platforms that are commonly used for teaching vocabulary and word combinations. These include intelligent tutoring systems, AI-powered chatbots, corpus-based learning platforms, and adaptive mobile applications designed for foreign language learners. Authentic language data from large-scale linguistic corpora embedded in these tools were also considered as instructional materials for collocation learning.

Several research methods were applied to achieve the objectives of the study. First, a systematic literature review method was employed to examine existing research on artificial intelligence in language education and the teaching of word combinations. This allowed for the identification of prevailing trends, theoretical frameworks, and research gaps related to AI-enhanced collocation instruction.

Second, a comparative analytical method was used to contrast traditional teaching approaches with AI-supported instructional models. Traditional methods included textbook-based instruction, teacher-led explanations, and rote memorization techniques, while AI-supported models emphasized adaptive learning, automated feedback, and data-driven language exposure. The comparison focused on pedagogical effectiveness, learner engagement, and accuracy in word combination usage.

Third, qualitative content analysis was conducted to examine how AI tools provide feedback, contextual examples, and error correction related to word combinations. Learner

interaction patterns with AI systems were analyzed to understand how personalized feedback and repeated exposure contribute to the development of collocational competence. Special attention was given to error detection mechanisms based on natural language processing algorithms.

The collected data were analyzed using thematic analysis. Key themes such as contextualization of word combinations, personalization of learning content, immediacy of feedback, and learner autonomy were identified and categorized. The effectiveness of AI tools was evaluated based on their ability to improve learners' awareness, accuracy, and appropriate use of word combinations in communicative contexts.

To enhance methodological rigor, triangulation was applied by cross-referencing findings from literature sources, tool analysis, and pedagogical observations. This approach increased the credibility of the results and reduced potential bias. Ethical considerations were also taken into account, ensuring that all analyzed materials and platforms were used solely for research and educational purposes.

Results and discussion. The analysis of theoretical sources and AI-based language learning tools demonstrates that artificial intelligence has a significant and multidimensional impact on teaching word combinations. The results indicate notable improvements in learners' collocational awareness, accuracy, and fluency when AI-supported instructional approaches are integrated into language education. This section discusses the key findings in relation to pedagogical effectiveness, learner engagement, and instructional innovation.

One of the most prominent results is the enhanced contextualization of word combinations provided by AI systems. Unlike traditional teaching methods that often present collocations in isolation, AI-powered tools expose learners to authentic language data derived from large linguistic corpora. This exposure enables learners to observe how word combinations function in real communicative contexts, thereby facilitating deeper understanding and long-term retention. Context-based learning also helps learners distinguish between semantically similar but collocationally different expressions, which is a common difficulty in foreign language acquisition.

Another significant finding relates to the role of immediate and personalized feedback in collocation learning. AI-driven platforms employing natural language processing algorithms are capable of identifying incorrect or unnatural word combinations in learner output. These systems provide instant corrective feedback, often accompanied by usage explanations and alternative examples. Such feedback mechanisms allow learners to notice and correct errors at the moment of production, reinforcing accurate collocational patterns. Compared to delayed

teacher feedback, AI-based feedback was found to be more effective in supporting continuous practice and self-correction.

The results also highlight the contribution of artificial intelligence to learner autonomy and motivation. AI-supported learning environments encourage independent exploration and repeated practice of word combinations beyond classroom boundaries. Intelligent tutoring systems and chatbots simulate real-life communicative interactions, prompting learners to actively produce language while receiving guidance. This interactive nature of AI tools increases learner engagement and reduces anxiety associated with making mistakes, as learners can practice in a low-pressure digital environment.

Furthermore, the findings suggest that AI-based instruction supports differentiated learning by adapting content to individual learner needs. Adaptive algorithms analyze learners' performance data, such as error frequency and response time, to adjust the difficulty level and focus of instructional materials. As a result, learners receive targeted practice on problematic word combinations, leading to more efficient learning outcomes. This level of personalization is particularly beneficial in heterogeneous classrooms where learners possess varying proficiency levels.

Despite these advantages, the discussion also reveals certain challenges associated with the integration of artificial intelligence in teaching word combinations. One concern is the potential over-reliance on automated feedback, which may limit learners' critical thinking if not properly guided by teachers. Additionally, the effectiveness of AI tools largely depends on the quality of linguistic data and algorithmic accuracy. Inaccurate feedback or limited cultural nuance may occasionally lead to inappropriate collocational suggestions. Another challenge involves teachers' digital competence and access to technological resources, which can affect the successful implementation of AI-based instruction.

Overall, the results support the view that artificial intelligence functions as a powerful pedagogical enhancer rather than a replacement for traditional instruction. When combined with teacher guidance and sound methodological principles, AI-based tools significantly improve the teaching and learning of word combinations. These findings align with previous research in computer-assisted language learning, confirming that technology-enhanced instruction fosters more dynamic, personalized, and effective language learning experiences.

Conclusion. The findings of this study demonstrate that artificial intelligence has a transformative and increasingly influential role in the teaching of word combinations within foreign language education. By integrating advanced technologies such as natural language processing, machine learning, and adaptive learning systems, AI significantly enhances

learners' ability to recognize, understand, and accurately use word combinations in authentic communicative contexts. The analysis confirms that AI-supported instruction effectively addresses many of the limitations associated with traditional collocation teaching methods.

One of the most important conclusions is that artificial intelligence promotes contextualized and data-driven learning. Through exposure to large-scale linguistic corpora and real-life language patterns, learners gain deeper insight into how word combinations function naturally in discourse. This contextual awareness contributes to improved fluency and more native-like language production. Moreover, AI-based tools provide immediate and personalized feedback, enabling learners to identify and correct collocational errors in real time, which supports long-term retention and accuracy.

The study also concludes that artificial intelligence fosters learner autonomy and motivation. AI-powered platforms encourage independent practice and continuous engagement by offering interactive tasks, adaptive learning paths, and low-anxiety environments. As learners become active participants in their own learning process, they develop greater confidence and responsibility for mastering word combinations. This shift toward learner-centered instruction aligns with contemporary pedagogical principles in language education.

Despite its numerous advantages, the integration of artificial intelligence into teaching word combinations requires careful pedagogical planning. AI should not be regarded as a substitute for teachers but rather as a supportive instructional tool that enhances traditional teaching practices. Teachers play a critical role in guiding learners, interpreting AI-generated feedback, and ensuring the meaningful integration of technology into the curriculum. Inadequate digital literacy, unequal access to technological resources, and potential over-dependence on automated systems remain challenges that must be addressed.

In conclusion, artificial intelligence represents a powerful pedagogical innovation with significant potential to improve the teaching and learning of word combinations. When implemented thoughtfully and ethically, AI-enhanced instruction can lead to more effective, personalized, and engaging language learning experiences. Future research should focus on empirical classroom-based studies, longitudinal investigations, and cross-cultural contexts to further explore the long-term impact of artificial intelligence on collocational competence and overall language proficiency.

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