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COMPARATIVE ANALYSIS OF LMS ONLINE PLATFORMS INTEGRATED WITH ARTIFICIAL INTELLIGENCE IN ENGLISH LANGUAGE TEACHING

*Kalibayeva D.B.[1], Karbozova G.K.[2], Makhanova Zh.K.[3]
*[1,3]O. Zhanibekov South Kazakhstan Pedagogical University, Shymkent, Kazakhstan
[2]M. Auezov South Kazakhstan Research University, Shymkent, Kazakhstan

Abstract. The rapid development of artificial intelligence (AI) technologies has transformed modern learning management systems (LMS). They have become less administrative and more adaptive, learner-focused tools for English Language Teaching (ELT). Despite growing academic and practical interest in LMSs with integrated AI components, their functionality, pedagogical effectiveness, and comparative advantages remain understudied. This study fills this gap by conducting a comprehensive comparative analysis of LMS platforms—Moodle, Canvas, Google Classroom — taking into account their integrated AI features relevant to English language teaching. The research methodology includes four complementary approaches: comparative analysis, content analysis, pedagogical analysis, and SWOT analysis. This multi-layered approach makes it easier to systematically assess AI tools, understand how they support key communication skills, and see their potential for personalization, adaptive learning, and automated feedback. The results reveal significant variability in the depth of AI implementation: Moodle and Canvas provide flexibility through their modular structure but require additional AI components, Google Classroom provides only limited AI support. These findings highlight the importance of combining a flexible LMS architecture with advanced AI tools to enhance foreign language communicative competence. This study contributes to the field of foreign language teaching. Recommendations for the effective integration of AI technologies into LMSs and the identification of strategic directions optimize English language teaching in a digital educational environment.

Keywords: artificial intelligence, learning management systems, English language teaching, adaptive learning, personalization, AI-based feedback, communicative competence, AI support

Introduction

The accelerated progress of artificial intelligence (AI) technologies over the past few years has brought about significant changes in the field of digital education. One of the most dynamic areas of innovation is the integration of AI into Learning Management Systems (LMS), which are becoming key tools for organizing, supporting, and personalizing the learning process [1]. Contemporary LMS platforms (e.g., Moodle, Canvas, Google Classroom) increasingly

incorporate AI-driven features such as adaptive learning and automated feedback.

The technological development of LMS has attracted the attention of researchers due to their expanding role in various educational contexts. Previous research shows that LMS implementation varies across different educational settings and is influenced by methodological, cultural, and institutional factors [2]. These methodological differences in the implementation, evaluation, and pedagogical integration of LMSs are shaped not only by technological advances but also by broader educational, cultural, and institutional contexts.

Effective LMS implementation depends not only on technological features but also on pedagogical design principles and theoretical foundations [3], ensuring alignment with established educational approaches. Another important area of research in the LMS field is the growing importance of mobile learning. With the widespread adoption of smartphones and tablets, universities are increasingly adopting mobile LMSs (mLMSs). This expands learning opportunities beyond traditional classrooms or desktop computers.

The growing role of mobile learning further expands access to educational resources and supports flexible learning environments [4]. Analysis of the application of the W3C Mobile Web Best Practices recommendations to Moodle demonstrate the importance of usability, accessibility, and device adaptability for the successful implementation of mobile-enabled educational services. A comprehensive understanding of LMS requires a holistic analysis of their key features, benefits, limitations, and usage patterns. Research also highlights the importance of key LMS tools and user engagement factors in supporting effective learning processes [5].

Taken together, these insights show that integrating AI into LMS platforms requires more than understanding their technical features. It also requires considering how different educational settings view and assess the effectiveness of an LMS. This underscores the need for a systematic and comparative analysis of AI-enhanced LMSs in the domain of English language teaching, addressing both their pedagogical potential and the contextual factors influencing their implementation.

Despite the growing interest of researchers and practitioners in the use of AI for foreign language education, the comparative assessment of the functional capabilities of various LMS, as well as the pedagogical effectiveness of embedded AI tools, remains insufficiently explored. Because there is no systematic analysis, it becomes harder to choose the best platforms and ways to use them in English teaching. This shows why the study is important for modern language education.

A significant body of research has focused on comparing Learning Management System (LMS) platforms in order to identify their functional strengths, usability issues and suitability for different institutional needs. Alva-Mantari [6] conducted a three-platform comparison for selecting an LMS for research administration, emphasizing usability, adaptability, and alignment with researchers' workflows. Their findings highlight that LMS adoption is often driven not solely by pedagogical considerations but by administrative efficiency and technical compatibility.

In contrast, Poulova [7] carried out a broader comparative evaluation of several LMS platforms, using criteria such as functional depth, technical requirements, and cost, demonstrating differences in system design approaches. While these analyses provide valuable descriptive comparisons, they largely overlook user-experience variables across diverse learner groups. This limitation is addressed by Abdulai and Korsah [8], who employed the UTAUT framework to analyze LMS usage across different student demographics, showing that user acceptance depends not only on system features but also on institutional and socio-cultural factors.

Collectively, these studies indicate that although LMSs are widely compared at the technical and functional level, there remains a methodological gap in integrating technical evaluation with pedagogical effectiveness, user acceptance, and contextual factors. This gap underscores the need for more holistic comparative analyses that consider both system capabilities and pedagogical outcomes, particularly in English language teaching and AI-enhanced learning environments.

In Kazakhstan, research primarily focuses on the pedagogical impact of individual digital tools rather than comprehensive LMS analysis, highlighting the need for more systematic comparative studies [9].

Although these findings show that technology can support teaching and learning, they still don't compare LMS features in a clear or structured way. This means we need fuller and more detailed evaluations across different platforms.

The selection of Moodle, Canvas, and Google Classroom in this study reflects their widespread use and different approaches to AI integration in education [10]. These LMSs are widely used in teaching and represent key segments of digital education: university systems (Moodle, Canvas), school cloud solutions (Google Classroom). This choice allows us to explore how various digital tools support language skill development, provide personalization, automated feedback, and create a more interactive learning environment. Furthermore, differences in the depth of AI integration highlight the importance of comparing platforms to identify the most effective solutions for foreign language teaching.

Recent studies emphasize the growing role of artificial intelligence in transforming traditional LMS into more adaptive and learner-centered environments. Aldahwan and Alsaeed note that the introduction of intelligent agents enables LMS platforms to personalize instruction, automate feedback, and diagnose learner needs through AI models such as decision trees, neural networks, and Bayesian systems [11].

Although these innovations enhance the analytic and predictive capabilities of LMS, the authors highlight an important limitation: many LMS designs prioritize technological complexity over pedagogical usability, risking cognitive overload and reducing user autonomy. Moreover, existing studies are largely focused on technical algorithms rather than empirical evidence of learning outcomes or cross-platform effectiveness. This indicates a persistent gap, as the pedagogical value of AI-enhanced LMS features is still insufficiently examined in real educational contexts.

Despite the rapid development of digital technologies and the expanding capabilities of modern LMSs, comprehensive research remains scarce. Specifically, there is a lack of studies that simultaneously evaluate the technical characteristics of platforms and the pedagogical effectiveness of integrated AI tools. Most existing studies examine either individual technologies or narrow aspects of LMS functionality, which prevents a comprehensive understanding of their potential for developing foreign language communicative competence. Therefore, the relevance of this study lies in the need to address the identified research gap.

The originality of this study lies in its use of a multi-level approach—comparative, content analysis, pedagogical analysis, and SWOT analysis. This approach provides a comprehensive assessment of the potential of LMSs in conjunction with AI. The contribution of this study lies in the development of analytical criteria, interpretation of findings, and formulation of methodological recommendations for integrating LMS and AI in English language teaching.

In this context, the *purpose* of the present research is to conduct a comprehensive comparative analysis of LMS platforms with integrated artificial intelligence and to identify the most effective strategies for combining LMS and AI to improve the quality of English language instruction.

To achieve this aim, the study sets out the following *objectives:*

1. Compare the capabilities of LMSs with embedded AI for English language teaching, evaluating their administrative, pedagogical, and adaptive functions, as well as the AI tools used.

2. Develop recommendations for improving English language teaching using AI, identifying effective ways to use chatbots, intelligent assistants, automated checking, and adaptive modules.

3. Compare the effectiveness of LMS AI tools (Moodle, Canvas, Google Classroom) in developing speaking, listening, reading, and writing skills, as well as in improving personalization and the quality of feedback.

4. Identify the most promising strategies for integrating LMSs and AI in language education, proposing recommendations for the optimal combination of platforms and AI tools and outlining their advantages and limitations.

Materials and methods

As part of a study aimed at identifying the potential of integrating artificial intelligence into LMSs for developing foreign language communicative competence, several key analytical methods were selected and applied. Each allowed for a diverse approach to the study, providing a comprehensive understanding of the potential of modern digital platforms. Comparative analysis helped identify functional differences between LMSs, identify their strengths and weaknesses, and evaluate which AI tools most effectively support language skills development, which directly aligns with the study's objectives of comparing LMS functionality and effectiveness. Content analysis enabled the systematization of information on AI technologies used in LMSs, examining official documentation, feature descriptions, and scientific publications, thereby identifying the types

and implementation features of AI tools. The pedagogical analysis allowed us to assess the educational value of AI functions in terms of foreign language teaching methods, examine the impact of algorithms on the development of speaking, listening, reading, and writing, and formulate methodological recommendations, which fully aligns with the study's objectives aimed at improving the quality of English language teaching (Table 1). Finally, the SWOT analysis provided a comprehensive picture of the advantages, limitations, prospects, and risks of implementing AI in the digital educational environment, helped identify the most promising strategies for integrating LMS and AI, and substantiated the selection of optimal solutions for the future development of language education. The combined use of these methods allowed us to draw substantiated conclusions and identify areas for the optimal selection and application of LMS in English language teaching.

Table 1. LMS analysis methods and rationale for their use

Method of Analysis	*Content / How It Was Applied*	*Why This Analysis Is Necessary (Scientific and Practical Justification)*
1. Comparative Analysis	Comparison of LMS platforms (Moodle, Canvas, Google Classroom) based on functionality, AI availability, adaptability, feedback mechanisms, and potential for developing communicative skills.	Identifies which LMS is most suitable for developing language competence; highlights differences in AI implementation; justifies platform selection; reveals system gaps.
2. Content Analysis	Analysis of official LMS documentation, AI feature descriptions, technical specifications, user guides, and academic publications.	Helps classify AI technologies, understand their logic, limitations, and capabilities; provides objective grounds for describing LMS architecture; supports analysis reliability.
3. Pedagogical Analysis of AI Effectiveness	Evaluation of how AI tools influence speaking, listening, reading, writing; analysis of adaptability principles, feedback quality, and theoretical learning models.	Establishes pedagogical value of AI beyond technical features; explains how AI affects learning and supports FLCC; reveals methodological gaps.
4. SWOT Analysis	Evaluation of Strengths, Weaknesses, Opportunities, and Threats of each LMS in the context of AI integration.	Provides a comprehensive view of risks, limitations, and development prospects; justifies selecting the most effective platform; supports recommendations for AI integration in ELT.

Results

Comparative Analysis

A comparative analysis of five LMS platforms with integrated artificial intelligence (AI) elements revealed significant differences in their approaches to AI use, adaptability, and depth of pedagogical support. The data was compiled from scientific publications (Alva-Mantari et al., 2021; Poulova et al., 2015; Abdulai & Korsah, 2024; Aldahwan & Alsaeed, 2020), official platform

documentation (Moodle Docs, Canvas Guides, Google Classroom Help), and a content analysis of LMS functionality. The comparison of the platforms revealed both technological differences and discrepancies in their focus on developing learners' communicative skills (Table 2).

The data obtained demonstrate that Moodle and Canvas offer high customization flexibility and extensive integration capabilities. However, their core AI elements require additional configuration. Google Classroom remains the simplest and most technically limited tool, offering only a minimal level of AI support.

Table 2. Comparison chart of LMS platforms with integrated AI elements

Platform	*AI Tools*	*Functional Flexibility*	*Pedagogical Support*	*Adaptive Mechanisms*	*Personalization*	*Data Source*
Moodle	External AI plugins, chatbots, automated assessment, analytics via MoodleAnalytics plugin	Very high (open-source code, plugins, integrations)	Medium: depends on teacher configuration	Low–medium (adaptivity achieved through plugins)	Medium	Moodle Docs; Poulova et al. (2015)
Canvas	Built-in analytics, performance prediction, Smart Recommendations, integration with AI services	High (LTI integrations, grading modules, analytics)	High: advanced course tools and feedback mechanisms	Medium	Medium–high	Canvas Guides; Piña (2013)
Google Classroom	Google AI: automated organization, speech recognition, auto-generated prompts	Medium: limited to Google ecosystem	Low–medium: basic functionality set	Low	Low–medium	Google Classroom Docs

Thus, the comparative analysis allowed us to identify the strengths of each platform and uncover differences in the nature of artificial intelligence integration. These results provide a basis for selecting optimal digital solutions for English language teaching and enable us to systematically present the data in a table.

Content Analysis

To gain a deeper understanding of the rationale behind integrating artificial intelligence into modern LMSs, we conducted a detailed content analysis of official documentation, user guides, technical descriptions, and scientific publications. This section of the analysis can be considered an assessment of the platform's functionality. This analysis allowed us to systematize information on the types of AI technologies used in different LMSs, identify implementation

features, and identify limitations that impact pedagogical effectiveness. The data obtained formed the basis for comparative Table 3.

Table 3. Comparative Characteristics of LMS Platforms with Integrated AI Tools

LMS Platform	*Types of AI Tools*	*AI Applications*	*Limitations / Features*	*Source (Official Documentation + Research)*
Moodle	AI plugins, automated grading, MoodleAnalytics, chatbots	Automated assessment, prediction, task adaptation (via plugins)	AI is not built-in by default; requires setup and external modules	Moodle Docs; Poulova et al., 2015
Canvas	Intelligent analytics, Smart Recommendations, LTI integrations	Performance prediction, teacher recommendations, course automation	AI is limited to administrative tasks	Canvas Guides; Piña, 2013
Google Classroom	Google AI: autograding, speech recognition, hint generation	Simplified grading, oral speech support, automated lesson structure	Lacks deep adaptivity; limited pedagogical functions	Google Classroom Help

The pedagogical analysis aimed to assess the educational value of AI tools integrated into modern LMSs in terms of their impact on the development of learners' foreign language communicative competence. Unlike content analysis, which focuses on the technical characteristics of systems, pedagogical analysis focuses on the didactic potential of technologies: support for language skill acquisition, the quality of feedback, the adaptability of the learning process, and the degree of learner engagement.

The analysis revealed that AI tools vary in their pedagogical effectiveness. Canvas and Moodle less AI-enhanced, allow teachers to build a pedagogically sound course structure, integrate external AI modules, and provide high-quality feedback. Their pedagogical strength lies not in automatic adaptability, but in the flexibility of the course and the ability to combine AI tools with traditional teaching methods.

In Google Classroom, the pedagogical potential of AI is most limited. The platform provides basic support for oral language processing and automated assessment, but does not develop deep adaptability or student-centered learning. However, the platform's simplicity helps reduce cognitive load, which has a positive impact on the initial stages of language acquisition.

The overall pedagogical conclusion is that artificial intelligence can significantly enhance foreign language learning, but the effectiveness of AI tools depends on the degree of integration into the platform's pedagogical architecture. The most effective combination is adaptive intelligent algorithms with a flexible course management system, which allows for the simultaneous development of productive and receptive language skills.

Pedagogical Analysis of AI Effectiveness

To assess the real educational potential of artificial intelligence technologies in modern LMSs, a pedagogical analysis was conducted to identify how AI influences the development of key components of students' foreign language communicative competence. This approach allowed us to examine not only the technical capabilities of the systems but also their didactic significance, including their impact on the development of speaking, listening, reading, and writing skills, the quality of feedback, and the adaptability of the learning process (Table 4).

Table 4. Impact of Key AI Functions on the Development of Foreign Language Communication Skills

AI Function	***Pedagogical Effect (Impact on FLCC Development)***
Adaptive algorithms (personalized learning)	Individualization of the learning trajectory; optimization of task difficulty; increased motivation; faster development of listening and reading skills due to alignment with the learner's level.
Speech recognition	Development of speaking skills and phonetic competence; instant pronunciation correction; improved automation of oral speech.
Automated grading of written work (auto-grading, NLP analysis)	Immediate feedback; development of writing skills; reduced teacher workload; improved accuracy through targeted error correction.
Error prediction (predictive modelling)	Improved diagnostic accuracy; prevention of typical mistakes; strengthening of compensatory strategies.
Intelligent recommendations (smart feedback, hints)	Development of learner autonomy; higher quality of feedback; support for critical thinking and self-regulation.
Adaptation of pace and task volume	Reduced cognitive overload; improved efficiency of material processing; better concentration.
AI-based gamification (adaptive gamification)	Increased engagement; higher intrinsic motivation; development of persistence in performing tasks; support for repeated language practice.
Semantic text analysis (semantic NLP)	Deeper development of reading and writing skills; better contextual understanding; formation of semantic analysis skills.

The analysis revealed that AI tools in modern LMSs perform several critical educational functions. First, they provide adaptability, allowing the system to automatically adjust tasks to the learner's level characteristics, including difficulty, speed, and exercise type. Second, AI improves the quality of feedback: automatic assessment of written assignments, speech recognition, and the generation of hints and intelligent comments accelerate the learning process and make it more personalized, which is especially important for developing productive skills such as speaking and writing.

Furthermore, AI tools support the development of listening comprehension through automatic adaptation of audio materials and comprehension error analysis, as well as reading comprehension through automatic text difficulty algorithms and interactive assignments. These capabilities increase student engagement and create conditions for flexible, independent learning, consistent with modern theoretical models of linguodidactics and adaptive learning.

However, the pedagogical analysis also revealed methodological gaps. In some LMSs (for example, Google Classroom and, to some extent, Moodle), AI tools are focused primarily on administrative support and automation of the learning process, but have a limited impact on the development of communication skills. Despite the availability of external modules, deep adaptability and intelligent speech correction remain under-implemented. This points to the need to integrate more sophisticated speech processing algorithms, automate the semantic analysis of written assignments, and expand adaptive capabilities.

Thus, the pedagogical analysis shows that AI has significant potential to support the development of FLCC, but its effectiveness depends not only on the availability of technology but also on its integration into the platform's pedagogical logic. Maximum results are achieved by combining intelligent algorithms with a didactically sound course structure and an active role for the instructor.

SWOT Analysis of LMS in the Context of AI Integration

A SWOT analysis of five platforms: Moodle, Canvas, Google Classroom revealed the advantages and disadvantages of their practical use. This method allowed us to assess not only the current effectiveness of the systems but also potential risks, opportunities for expansion, and areas for optimization when using AI in English language teaching (Table 5).

Table 5. Comparative SWOT Analysis of LMS Platforms in the Context of AI Use

SWOT Category	***Moodle***	***Canvas***	***Google Classroom***
S — Strengths	•Flexibility, open-source code •Expandable with AI plugins •Strong pedagogical course customization	•Built-in analytics •LTI integrations •Well-structured course organization	•Simplicity •Google AI: auto-grading, speech-to-text •Suitable for schools
W — Weaknesses	•No built-in AI by default •Requires configuration •Limited automatic adaptivity	•Limited depth of AI •No linguistic adaptivity	•Limited functionality •Low personalization •Weak feedback mechanisms
O — Opportunities	•Integration of NLP and speech-AI •Expansion via AI plugins •Moodle Analytics	•Integration of generative AI •Expansion of adaptive features	•Strengthening Google AI •Extension of AI for language learning
T — Threats	•Plugin incompatibility •High administrative workload	•Platform dependency •Risk of data loss during integration	•Limitations of Google ecosystem •Insufficient for higher education

The SWOT table demonstrates that each LMS platform has its own profile of strengths and weaknesses, which determines its potential for using AI tools in English language teaching.

Moodle is highly flexible and adaptable thanks to its open source nature and extensive extensibility through plugins. However, the lack of built-in AI tools makes the platform dependent on the quality of external modules, which can cause compatibility issues and increase the workload for administrators. Despite its significant potential for using AI, Moodle requires technical support and proper configuration.

Canvas combines basic LMS capabilities with advanced analytics, providing high-quality monitoring and performance forecasting. However, the platform's AI features are primarily limited to administrative analytics and do not provide deep adaptability for language teaching. Nevertheless, the potential integration of generative AI makes Canvas a promising system for the further development of language teaching.

Google Classroom uses AI minimally and primarily helps organize the learning process. Although the platform supports speech recognition and automatic proofreading via Google AI, it offers almost no personalization or adaptability. This is sufficient for entry-level language learning, but insufficient for a university setting.

Using SWOT profiles allows us to objectively assess the potential of each platform and identify optimal strategies for combining LMS and AI tools to effectively develop foreign language communicative competence.

Discussion

The combined research and comparative analysis demonstrate that modern LMSs are evolving under the influence of rapid advances in artificial intelligence. In addition to technological advances, pedagogical challenges are also becoming more complex, as mobile learning options expand. Moodle, Canvas, and Google Classroom platforms vary significantly in the depth of AI integration, adaptability, quality of feedback, and the pedagogical focus of their built-in tools. The perspectives examined in the literature—including the historical foundations of LMSs [3], the development of mobile learning services [4], functional and user criteria for platform selection [5], and AI models based on neural networks, decision trees, and probabilistic algorithms [11]—confirm that LMSs represent a complex ecosystem in which technological innovations are closely linked to pedagogical goals.

However, previous comparative studies of LMSs [6, 7, 8] are primarily guided by technical or organizational criteria, rarely addressing the question of how embedded AI tools support the development of foreign language communicative competence. Kazakhstani studies also focus on individual digital tools rather than LMSs as holistic platforms [9]. This confirms a methodological gap between functional comparisons and the pedagogical effectiveness of AI tools.

The results of the content, pedagogical, and SWOT analyses demonstrate that general-purpose LMSs (Moodle, Canvas) are flexible and extensible but require the integration of external AI modules to achieve a similar pedagogical effect. Google Classroom remains a minimalist platform with limited support for

FLCC development. This gap between functional capabilities and pedagogical effectiveness highlights the need for a comprehensive approach when assessing the effectiveness of LMSs in English language teaching.

Based on all the comparative analyses we conducted, AI integration into LMSs should be considered simultaneously from a technological, pedagogical, and contextual perspective. This multi-layered approach reveals the real advantages and limitations of platforms and demonstrates that AI implementation requires not only technical solutions but also a well-thought-out methodological strategy.

Therefore, it is important to consider several recommendations. First, when choosing an LMS, it is important to evaluate not only the availability of AI tools but also their actual pedagogical benefits: the quality of feedback, adaptability, and connection to learning objectives. Second, AI implementation should be accompanied by teacher training: they need clear instructions, sample assignments, lesson plans, and performance evaluation criteria. Third, AI components should complement, not replace, live pedagogical interaction, so it is important to combine them with traditional teaching methods. Finally, platforms should be adapted to the specific context—the level of students, the educational environment, the goals, and the format of the course. This study aims to comparatively evaluate LMSs, develop methodological recommendations, and identify optimal AI integration models that will help improve the quality of English language learning and make it more flexible, personalized, and effective.

Conclusion

The analysis revealed that modern LMS platforms with integrated AI elements are already moving beyond simple tools for organizing the learning process. They are becoming complex adaptive systems capable of significantly changing English language teaching methods. Despite the diverse functionality of Moodle, Canvas, and Google Classroom their effectiveness is determined not only by their level of technological support but also by their relevance to pedagogical objectives and the context of their use.

Comparative, content, pedagogical, and SWOT analyses revealed significant differences in the depth of AI integration, the quality of feedback, support for the development of communication skills, and the potential for personalization. Moodle and Canvas offer significant flexibility and functional extensibility but require external integrations to achieve a comparable pedagogical effect. Google Classroom remains a convenient entry-level tool, but its AI architecture does not provide sufficient support for the development of FLCC. A synthesis of the study's results highlights that, to date, there is no universal LMS capable of fully meeting all the requirements for AI-based English language teaching. However, the combination of flexible LMS and specialized AI tools creates optimal conditions for developing all components of foreign language communicative competence. Thus, a combined approach, integrating platforms with different functional profiles and using AI tools tailored to specific teaching tasks, is a viable strategy.

These findings form the basis for developing methodological recommendations and selecting the most effective models for integrating artificial intelligence into English language teaching, confirming the relevance and practical significance of this study.

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АҒЫЛШЫН ТІЛІН ОҚЫТУДА ЖАСАНДЫ ИНТЕЛЛЕКТ ИНТЕГРАЦИЯЛАНҒАН LMS ПЛАТФОРМАЛАРЫНЫҢ САЛЫСТЫРМАЛЫ ТАЛДАУЫ

*Калибаева Д.Б.[1], Карбозова Г.К.[2], Маханова Ж.К.[3]
*[1,3]Ө.Жәнібеков атындағы Оңтүстік Қазақстан педагогикалық университеті, Шымкент, Қазақстан
[2]М.Әуезов атындағы Оңтүстік Қазақстан зерттеу университеті, Шымкент, Қазақстан

Аңдатпа. Жасанды интеллект (ЖИ) технологияларының қарқынды дамуы заманауи білімді басқару жүйелерін (LMS) едәуір түрлендірді. Олар әкімшілік құралдардан гөрі ағылшын тілін оқытуға бағытталған, бейімделетін және оқушыға бағдарланған платформаларға айналды. ЖИ компоненттері енгізілген LMS жүйелеріне ғылыми және практикалық қызығушылық артып келе жатқанына қарамастан, олардың функционалдығы, педагогикалық тиімділігі және салыстырмалы артықшылықтары әлі де жеткілікті зерттелмеген. Бұл зерттеу осы олқылықтың орнын толтыру үшін Moodle, Canvas, Google Classroom платформаларының ағылшын тілін оқытуға қатысты ЖИ мүмкіндіктеріне кешенді салыстырмалы талдау жүргізеді. Зерттеу әдістемесі төрт өзара толықтыратын тәсілден тұрады: салыстырмалы талдау, контент-талдау, педагогикалық талдау және SWOT-талдау. Көпқабатты тәсіл ЖИ құралдарының негізгі коммуникативтік дағдыларды дамытуға әсерін жүйелі бағалауға, сондай-ақ персонализация, адаптивті оқу және автоматтандырылған кері байланыс әлеуетін анықтауға мүмкіндік береді. Нәтижелер ЖИ енгізілу тереңдігінің айтарлықтай өзгеретінін көрсетеді: Moodle мен Canvas модульдік құрылымының икемділігіне қарамастан, қосымша ЖИ компоненттерін талап етеді, Google Classroom ЖИ бойынша шектеулі қолдау ұсынады. Бұл қорытындылар шетел тіліндегі коммуникативтік құзыреттілікті арттыру үшін икемді LMS

архитектурасын дамыған ЖИ құралдарымен ұштастырудың маңыздылығын айқындайды. Зерттеу шетел тілін оқыту саласына үлес қосып, ЖИ технологияларын тиімді енгізу бойынша ұсыныстар мен ағылшын тілін цифрлық ортада оқытуды оңтайландыруға бағытталған стратегиялық бағыттарды анықтайды.

Тірек сөздер: жасанды интеллект, білімді басқару жүйелері, ағылшын тілін оқыту, адаптивті оқыту, персонализация, ЖИ-негізделген кері байланыс, коммуникативтік құзыреттілік, жасанды интеллект қолдауы

СРАВНИТЕЛЬНЫЙ АНАЛИЗ LMS-ПЛАТФОРМ С ИНТЕГРИРОВАННЫМ ИСКУССТВЕННЫМ ИНТЕЛЛЕКТОМ В ОБУЧЕНИИ АНГЛИЙСКОМУ ЯЗЫКУ

*Калибаева Д.Б.[1], Карбозова Г.К.[2], Маханова Ж.К.[3]
*[1,3]Южно-Казахстанский педагогический университет им. Ө.Жәнібеков, Шымкент, Казахстан
[2]Южно-Казахстанский исследовательский университет им. М. Ауэзова, Шымкент, Казахстан

Аннотация. Стремительное развитие технологий искусственного интеллекта (ИИ) существенно трансформировало современные системы управления обучением (LMS). Они становятся менее административными и более адаптивными, ориентированными на обучающегося инструментами для преподавания английского языка. Несмотря на растущий научный и практический интерес к LMS, интегрирующим ИИ, их функциональность, педагогическая эффективность и сравнительные преимущества остаются недостаточно изученными. Данное исследование восполняет этот пробел и представляет комплексный сравнительный анализ платформ — Moodle, Canvas, Google Classroom — с учётом их встроенных ИИ-функций, применимых в обучении английскому языку. Методология исследования включает четыре взаимодополняющих подхода: сравнительный анализ, контент-анализ, педагогический анализ и SWOT-анализ. Такой многоуровневый подход позволяет систематически оценить ИИ-инструменты, понять их влияние на развитие ключевых коммуникативных навыков, а также определить их потенциал в области персонализации, адаптивного обучения и автоматической обратной связи. Результаты показывают значительную вариативность глубины интеграции ИИ: Moodle и Canvas, обладая модульной гибкостью, требуют дополнительных ИИ-компонентов, Google Classroom обеспечивает лишь ограниченную поддержку ИИ. Полученные данные подчёркивают важность сочетания гибкой архитектуры LMS с современными ИИ-инструментами для развития иноязычной коммуникативной компетенции. Исследование вносит вклад в методику преподавания иностранных языков и предлагает рекомендации по эффективной интеграции ИИ-технологий в LMS, а также определяет стратегические направления оптимизации обучения английскому языку в цифровой образовательной среде.

Ключевые слова: искусственный интеллект, системы управления обучением, обучение английскому языку, адаптивное обучение, персонализация, ИИ-обратная связь, коммуникативная компетенция, поддержка искусственного интеллекта

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Information about the authors:

Kalibayeva Dinara Bakhaduralievna- educational program 8D01703 – Foreign Language: Training of a Teacher of Two Foreign Languages, Department of English, Faculty of Philology, e-mail: kalibaeva_d@mail.ru

Karbozova Gulnara Kumisbekovna - Head of the Department of Modern Languages and Translation Studies Faculty of Philology, M. Auezov South Kazakhstan Research University, Shymkent, Republic of Kazakhstan, e-mail: 140206kgk@mail.ru

Makhanova Zhanna Kudaibergenovna- Head of the Department of English, Faculty of Philology, O. Zhanibekov South Kazakhstan Pedagogical University,

Shymkent, Republic of Kazakhstan, e-mail: zhanna_kudaibergenovna@mail.ru

Авторлар туралы мәлімет:

Калибаева Динара Бахадуралиевна - 8D01703- Шетел тілі: екі шет тілі педагогін даярлау» білім беру бағдарламасының докторанты, Ағылшын тілі кафедрасы, Филология факультеті, Ө.Жәнібеков атындағы Оңтүстік Қазақстан педагогикалық университеті, Шымкент қ.,

Қазақстан Республикасы, e-mail: kalibaeva_d@mail.ru

Карбозова Гульнара Кумисбековн - «Заманауи тілдер және аударматану» кафедрасының меңгерушісі, Филология факультеті, М.Әуезов атындағы Оңтүстік Қазақстан зерттеу университеті, Шымкент қ., 160018, Қазақстан Республикасы**,** e-mail: 140206kgk@mail.ru

Маханова Жанна Кудайбергеновна - Ағылшын тілі кафедрасының меңгерушісі, Филология факультеті, Ө.Жәнібеков атындағы Оңтүстік Қазақстан педагогикалық университеті, Шымкент қ., Қазақстан Республикасы**,** e-mail: zhanna_kudaibergenovna@mail.ru

Информация об авторах:

Калибаева Динара Бахадуралиевна - Докторант образовательной программы «8D01703 – Иностранный язык: подготовка педагога двух иностранных языков», Кафедра английского языка, Факультет филологии, Южно-Казахстанский педагогический университет имени Ө. Жәнібеков, г. Шымкент, Республика Казахстан**,** e-mail: kalibaeva_d@mail.ru

Карбозова Гульнара Кумисбековна - Заведующая кафедрой «Современные языки и переводоведение», Филологический факультет, Южно-Казахстанский исследовательский университет имени М. Ауэзова, г. Шымкент, Республика Казахстан, e-mail: 140206kgk@mail.ru

Маханова Жанна Кудайбергеновна - Заведующая кафедрой английского языка,

Филологический факультет, Южно-Казахстанский педагогический университет имени Ө. Жәнібеков, г. Шымкент, Республика Казахстан, e-mail: zhanna_kudaibergenovna@mail.ru