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## **Implementation of AI in higher education: reducing the routine workload of English educators**

The current study investigates the increasing routine workload of English university educators and the use of artificial intelligence assistants in reducing this problem while maintaining professional standards and ethics. While more educational institutions use AI assistants, there is a dearth of literature available on how to properly use AI assistants to help teachers in routine teaching work. The purpose of this study is to create a methodological approach to integrate an AI assistant into the professional work of English university educators to increase the efficiency of the routine workload while maintaining educational autonomy. The results show that there are seven methodological principles: optimizing workload, following professional standards, protecting data and ethics, being flexible, being transparent and explainable, working with existing workflows, receiving feedback, and making improvements. There are seven proposed approaches for implementing an AI assistant: automating tasks, helping with decisions, integrating workflows, customizing and adapting, following ethical guidelines, monitoring and providing feedback, and training teachers. The proposed framework clarifies the distribution of responsibilities between the AI assistant and teacher, ensuring that AI supports rather than replaces professional judgment. The study contributes a conceptually grounded and practically applicable model for responsible AI integration in English teaching in higher education.

**Keywords:** artificial intelligence, methodological principles, methodological approaches, English language teaching, teacher workload, AI assistant, higher education, routine instructional tasks.

### *Introduction*

In today's world, the majority of educators face numerous routine tasks that have negative consequences. For example, in their research paper, Karimova et al. argue that routine tasks, such as planning classes and evaluating students' homework, are the primary causes of professional burnout [1]. As a consequence, they may experience fatigue and sleep disturbances due to an excessive workload. Thus, the use of artificial intelligence has the potential to reduce teachers' routine workload by automating repetitive, time-consuming tasks, allowing educators to focus on their key professional responsibilities. For instance, Dennison et al. indicated that "On average, teachers saved 2.02 hours per week on lesson planning" [2]. Moreover, they emphasized that a tool like "Copilot" powered by AI could simplify the bureaucratic process, reduce the time spent on lesson planning, and reduce teaching-related stress [2]. This shows that the integration of AI assistants in teaching practices can improve administrative and teaching processes, improve the well-being of teachers, and provide more time for teaching engagement.

Despite the increasing availability of AI tools in higher education institutions, there is a lack of methodological support on the implementation of AI assistants specifically to assist English university teachers in their daily tasks. This represents the research problem in the current study, as it frequently disregards methodological aspects and implementation procedures that are essential for improving teachers' daily workload.

The research aim is to develop a methodological approach to the implementation of an AI assistant for English university educators with the aim of improving their everyday workload while maintaining professional standards and efficiency. In addition, two research objectives can be identified to fulfill the research aim:

1. To determine the methodological principles for the implementation of an AI assistant to aid English university educators in their routine teaching tasks.

2. To design methodological approaches for the implementation of an AI assistant in the daily teaching tasks of English university educators to optimize routine teaching work while meeting professional standards.

The following research questions will be answered by this scientific research:

1. How do methodological principles interact in the process of integrating an AI assistant into English language teaching in higher education to support educators' routine instructional tasks?

2. How do methodological approaches to integration operationalize these principles in the daily work of English university educators, ensuring professionalizing standards and efficiency?

The scientific novelty of this research is that it provides a methodological framework specifically aimed at integrating the use of an AI assistant into the regular professional work of English university teachers. The research takes a teacher-centered approach and scrutinizes routine professional tasks, which is not the case in other studies that are mainly focused on the learning outcomes of students or the functioning of AI in education. The study also differs from others in that it provides methodological guidelines on how to follow professional standards and ethical principles while maintaining teacher autonomy, thus treating AI assistants as tools that support teachers rather than replacing their professional judgment.

If the methodological principles and approaches cannot be defined, automated solutions may not follow professional standards. In such cases, algorithmic systems may replace rather than supplement the professional tasks of teachers. This may pose a threat to the autonomy of teachers. A good methodological integration of an AI assistant is required to ensure that professional standards are maintained while protecting the critical role of teachers in academic decision-making.

### *Methods and Materials*

This research paper uses a theoretical and analytical research design to provide a methodological framework for the application of an AI assistant for English university educators. A comprehensive literature review was conducted to determine methodological principles and strategies for the application of an AI assistant, particularly in relation to the routine teaching tasks of educators. This research paper used conceptual analysis to ensure that both principles and strategies were clearly identified and understood. Finally, analytical synthesis and conceptual modeling were applied to integrate the identified principles and strategies into a framework. This is to demonstrate how an AI assistant can benefit educators in their daily teaching practice while following professional standards and being efficient. This approach ensures that the proposed framework is both theoretically sound and practically useful for guiding the application of AI in higher education.

### *Results and Discussion*

The proposed methodological guidelines, consisting of seven key principles essential for guiding the application of AI assistants in English teaching at universities (Fig. 1), are based on a theoretical and analytical study and a comprehensive review of the existing literature.



Figure 1. Methodological Principles

The first principle states that the AI assistant should concentrate on automating tasks that are repetitive and take a long time, such as developing lesson plans, grading, and scheduling. This way, teachers can spend more time on higher-level teaching decisions and interacting with students. As an example, Borgonovi et al. contend that AI technologies can assist Italian educators with grading, scheduling, and document preparation to simplify routine tasks, thus alleviating the administrative burden, the primary source of stress [3]. The Workload Optimization Principle in AI assistants can help teachers save time and perform different routine tasks.

The principle of compliance with professional standards means using AI assistants that follow established professional norms and institutional policies. This is to ensure that automated systems do not substitute professional judgment and that people are held accountable. Azevedo et al. highlight the need for comprehensive institutional policies on AI technologies to ensure the integrity of education and the values and principles of the institution [4]. This is a crucial principle since it ensures that AI assistants support teachers in making professional judgments and that they do not substitute them.

The Ethical and Data Protection Principle relates to the existence of ethical standards, including data protection, security, and responsible use, to ensure the transparency of decisions made using AI technology. Yun et al. point out the need for urgent ethical issues, such as privacy, bias, and transparency, in their research paper on AI-based technologies [5]. Leong and Zhang additionally believe that “Ethical AI systems in education should be designed to mitigate bias by using diverse and representative datasets, protect user privacy by securing sensitive student data, and ensure inclusivity by accommodating diverse learning needs, including those of students with disabilities” [6]. These data jointly demonstrate that the ethical and data protection principle is crucial for ensuring that AI-assisted educational systems function transparently and responsibly, protecting sensitive information while promoting trust, fairness, and inclusivity in instructional decision-making.

The Adaptability Principle means that the AI system can work with different types of courses, teaching styles, and teacher preferences. Filiz et al. assert that “Additionally, for AI-generated content to support seamless integration, it must be more compatible with existing curricula and adaptable to various educational contexts” [7]. In other words, this means that AI-automated processes must follow the specific learning objectives, instructional goals, and individual teacher preferences of each course. This way, AI tools can help with teaching rather than forcing standardized or rigid teaching methods.

The fifth principle states that AI assistants should offer teachers decisions or recommendations they can comprehend and apply. For instance, Feldman-Maggor et al. argue that the concept of understandability makes AI tools valid and reliable, thereby fostering a trustworthy attitude toward AI-supported decisions in educational contexts [8]. To explain it in another way, if AI assistants are able to clearly explain why they are making a certain recommendation, then teachers are more likely to understand, assess, and confidently implement these recommendations in their teaching. This is because they will be able to control the teaching process and ensure that the recommendations made by AI assistants are in line with the objectives of the course and the needs of the students, rather than being unclear or unquestionable.

The Integration with Existing Workflows Principle is one of the most significant methodological principles. AI assistants should improve, rather than disrupt, existing teaching methodologies and online platforms. Garzon et al. argue that “Future research and policy must focus on responsible AI design, teacher training, and inclusive practices to ensure that AI complements rather than replaces human-centered education” [9]. This means that AI systems should support teachers rather than replace them. This is because teachers have critical thinking skills and pedagogical judgment that AI systems cannot copy.

Lastly, the principle of continuous feedback and improvement allows AI assistants to monitor, evaluate, and improve based on teacher feedback and performance metrics. In the study of Alfaleh, “The integration of AI into assessment aligns with broader theories of formative learning, feedback literacy, and reflective engagement. AI can expedite feedback cycles and facilitate iterative improvement; however, its pedagogical value depends on effective teacher mediation and instructional design” [10]. The concept of continuous feedback makes AI assistants adaptive tools, and their continuous development is impacted by the involvement of educators, thus ensuring that changes in the system are not only technical but also pedagogically relevant.

Based on the above-mentioned methodological principles, seven approaches have been designed to implement them and show how AI assistants can be integrated into the daily tasks of English university educators while maintaining professional standards (Fig. 2).

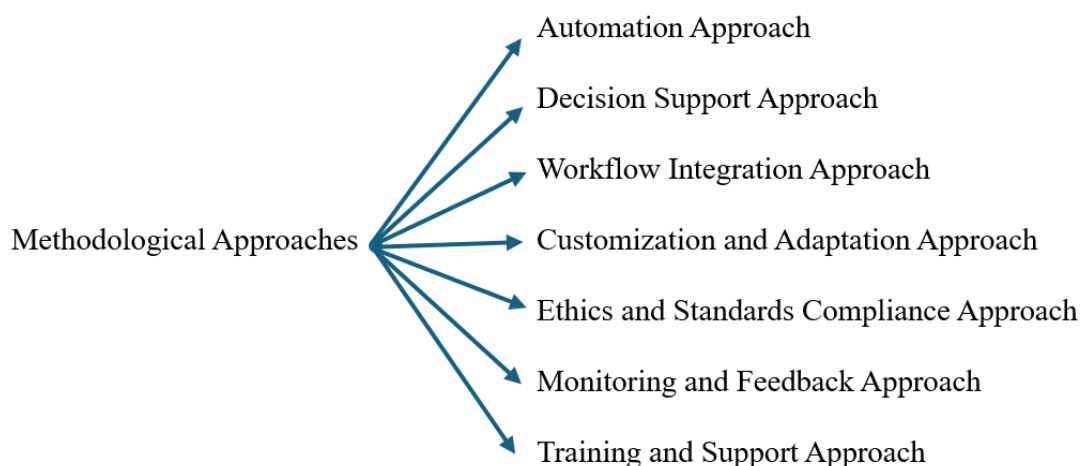


Figure 2. Methodological Approaches

First, automation is the foundation of methodological approaches of an AI assistant. This involves identifying tasks that are repetitive, such as grading, creating timetables, recording attendance, and feedback, and automating them with the help of an AI assistant. Scientists such as Alghamdi and Alghizzi believe that AI tools can minimize administrative tasks (e.g., grading and attendance tracking), allowing educators to spend their time effectively [11]. In addition, Erickson and Estes highlight that with the help of AI technologies, teachers can focus more on pedagogical activities and student engagement [12]. This shows that teachers and AI assistants work effectively together to perform a variety of routine and repetitive tasks.

Second, an AI assistant should recommend lesson materials, exercises, and feedback during the evaluation process, but it should not replace the teacher's judgment. According to Rasheed et al., there is a tendency to use AI-based technologies because teachers enjoy autonomy [13]. Also, Zamani's findings demonstrate that using the system "to augment — rather than replace — human educators" leads to the efficient usage of AI [14]. In consequence of this, AI assistants should be used in educational institutions in a way that ensures that teachers remain in charge of making decisions.

Third, the Workflow Integration Approach means adding an AI assistant to the platforms and administrative systems that teachers already use, such as Learning Management System (LMS), grading software, and communication tools. Researchers such as Yawan et al. emphasize the positive results of integrating AI chatbots into LMS, namely that they can support teachers' instructional practices, enhance lesson planning, and serve as a thinking partner for generating lesson ideas and managing workload [15]. Thus, an AI assistant allows teachers to manage their daily tasks while ensuring that operations on educational platforms function more smoothly.

Fourth, there should be an opportunity to configure the AI assistant based on the course structure, teaching style, and workload needs. In the study of Yoo et al., "AI chatbots have emerged as promising educational tools for personalized learning experiences, with advances in large language models (LLMs) enabling teachers to create and customize these chatbots for their specific classroom needs" [16]. In other words, advances in LLM-based technologies make it possible to design AI assistants that go beyond generic support and can be configured to function as course-specific instructional aides, aligned with the course's structure, the instructor's teaching style, and workload demands.

The next method is the Ethics and Standards Compliance Approach. This allows teachers to set rules and verify the AI system to ensure it follows professional standards and ethical practices. Yan and Liu note the importance of implementing a five-step, multi-layered ethical framework that includes principles such as the proper use of AI technology, responsibility, fairness, and cost [17]. This is necessary as AI within educational institutions becomes increasingly complicated, and there are moral issues related to bias, accountability, and unequal access in educational contexts.

The Monitoring and Feedback Approach assists teachers in obtaining feedback and performance metrics so they can judge how effectively AI functions while enhancing its efficiency. The view of Fajardo-Ramos supports this approach by emphasizing that progress in AI-enhanced education depends less on adding new tools and more on professionalizing human-in-the-loop assessment within robust governance frameworks, which inherently requires continuous monitoring, evaluation, and feedback to ensure trustwor-

thy and pedagogically sound AI use [18]. To put it another way, the practical method of monitoring and feedback emphasizes that continuous evaluation and human oversight are necessary for responsible and effective AI integration in education.

Lastly, the Training and Support approach provides teachers with information and tools on how to use AI assistants effectively. Researchers such as Daskalaki et al. emphasize the need to attend training seminars, workshops, and online courses on integrating AI tools efficiently into educational processes [19]. This means that educators can improve their professional skills, confidence, and ability to use AI in a practical way while also dealing with moral issues and the risk of misuse.

After reviewing methodological principles and approaches, the table below (Table 1) provides an overview of how an AI assistant can be integrated into higher education English language teaching, illustrating the functional division of tasks between the AI system and the teacher.

Table 1

**Methodological Principles, Approaches, and Task Distribution between AI Assistant and Teacher in Education**

| Methodological Principles                     | Methodological Approaches                                           | AI Assistant Tasks                                                                                                                                        | Teacher Tasks                                                                                                               |
|-----------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Workload Optimization Principle               | Automation Approach                                                 | Prepare lesson materials, Schedule lessons, Grade assignments, provide feedback for students, Track attendance, manage course documents, Generate reports | Review AI outputs, Approve or edit materials, schedules, grades, and feedback, adjust lesson plans, Maintain accountability |
| Professional Standards Compliance Principle   | Decision Support Approach, Ethics and Standards Compliance Approach | Suggest materials, Flag non-compliance, Recommend alternatives                                                                                            | Approve/edit suggestions, ensure standards, Make final decisions                                                            |
| Ethical and Data Protection Principle         | Ethics and Standards Compliance Approach                            | Anonymize data, Monitor bias, Check privacy                                                                                                               | Validate fairness, oversee ethics, Manage sensitive cases                                                                   |
| Adaptability Principle                        | Customization and Adaptation Approach                               | Customize content, adapt exercises, Adjust difficulty                                                                                                     | Align to objectives, Tailor to context, Ensure pedagogical fit                                                              |
| Transparency and Explainability Principle     | Decision Support Approach, Monitoring and Feedback Approach         | Explain recommendations, show criteria, Provide interpretable feedback                                                                                    | Review explanations, interpret outputs, Apply judgment                                                                      |
| Integration with Existing Workflows Principle | Workflow Integration Approach                                       | Embed in LMS, Generate notifications, Sync outputs                                                                                                        | Validate integration, manage workflow, Adjust to processes                                                                  |
| Continuous Feedback and Improvement Principle | Monitoring and Feedback Approach, Training and Support Approach     | Track metrics, suggest improvements, Adapt recommendations                                                                                                | Provide feedback, Guide AI refinement, Attend training                                                                      |

The table shows how methodological principles and approaches are connected. First, the Workload Optimization Principle establishes a list of repetitive and time-consuming activities such as the creation of lesson materials, scheduling, grading, giving feedback to students, tracking student attendance, handling course documents, and creating reports. The Automation Approach makes it easier to implement the principle above because the AI assistant can automatically perform these tasks, allowing the teacher to make more critical decisions about teaching. This enables the teacher to evaluate AI-made lesson plans and tests, approve or change schedules and grades, alter lesson plans based on what the students need, offer more feedback when they need it, validate attendance records for accuracy, ensure that course documents are complete, and be in charge of the overall results of the teaching.

Second, the Professional Standards Compliance Principle asserts that teachers or administrative staff at educational institutions can establish a list of professional standards and institutional rules that describe what is acceptable in terms of teaching, grading, and behavior. This makes sure that the activities supported by the AI are not capable of replacing professional judgment and are in line with the rules and standards of the organization. The Decision Support Approach and the Ethics and Standards Compliance Approach help in the implementation of this tenet by allowing the AI assistant to give recommendations, point out possible violations of the standards, and limit the output that goes against the policies of the organization. The AI assistant uses the rules and compliance while giving recommendations for teaching materials, ways to test the students, and feedback. The teachers check and approve the recommendations given by the AI assistant and make decisions regarding what to teach, using their professional judgment if needed, while making sure that all their teaching activities are in line with the standards of the organization.

Third, the Ethical and Data Protection Principle enables academic staff to create a list of ethical standards, like data privacy, security, and responsible use, so that AI-assisted decisions are clear. The Ethics and Standards Compliance Approach is used in AI-assisted lessons to protect privacy, check on bias, and anonymize data. In this case, the AI assistant works within moral boundaries, while teachers address critical situations, so that students follow the rules and step in when there are moral or data-related problems.

The Adaptability Principle asserts that AI-based suggestions should be based on specific types of courses, teaching styles, and teacher preferences. Thus, this principle is applied through the use of a Customization and Adaptation strategy. In this strategy, the AI system customizes content, adapts exercises, and adjusts the level of difficulty based on the objectives of the course and the needs of the learners. The teachers then analyze and modify these adaptations to make them pedagogically relevant.

The Transparency and Explainability Principle is responsible for making sure that the AI recommendations and decisions are interpretable and understandable to the teachers. Both the Decision Support Approach and the Monitoring and Feedback Approach use this principle. This helps the AI assistant to give feedback that can be easily understood, to highlight where the criteria were used, and to explain the recommendations. In this step, the teachers critically evaluate the explanations given by the AI, compare them with the learning objectives and needs of the students, and then use their professional judgment to find the best possible way to implement the AI recommendations in their teaching.

The Integration with Existing Workflows Principle states that the AI assistants support and do not interfere with the existing digital platforms and teaching processes. The Workflow Integration Approach implements this principle by integrating the AI assistant with the LMS, providing automatic reminders to students and teachers, and maintaining outputs according to the course schedule, grading, and teaching materials. Teachers validate that AI notifications are correct, that AI content corresponds with lesson plans, that the sequence of instructional activities is correct, and workflows are adjusted as needed to maintain smooth, consistent course delivery. In addition, teachers monitor how students interact with AI-generated materials and intervene if discrepancies or misalignments with the course objectives arise.

The Continuous Feedback and Improvement Principle concentrates on enabling the AI assistant to evolve and adapt in response to teacher input and performance metrics. The Monitoring and Feedback Approach and the Training and Support Approach are two ways of implementing this principle in practice. In this system, the AI assistant monitors performance data, offers ways to improve teaching materials and methods, and adjusts its recommendations based on how teachers interact with it. Teachers perform plenty of different activities to become involved with AI, which include providing feedback on its outputs, so that recommendations are in line with educational goals, monitoring how efficiently the system functions, and attending training sessions or workshops to learn how to use AI properly. Teachers can still control the quality of lessons through these activities, while AI-supported processes are still useful for learning and connecting with the course goals.

### *Conclusion*

This research paper provides a compilation of methodological suggestions for employing an AI assistant to automate routine tasks in English language teaching. The established link between methodological principles and approaches not only helps IT professionals develop AI assistants that are safe and ethical, but it additionally renders it more apparent how AI assistants will work in the classroom and what teachers will do in every circumstance. This framework assists English teachers in performing their regular work while also helping them reach their teaching goals.

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### **Жоғары білім беруде ЖИ енгізу: ағылшын тілі оқытушыларының күнделікті жұмыс жүктемесін төмендету**

Бұл зерттеу университеттердегі ағылшын тілі оқытушыларының артып келе жатқан күнделікті жүктемесін және кәсіби стандарттар мен этикалық нормаларды сақтай отырып, оны төмендету үшін жасанды интеллект (ЖИ) негізіндегі ассистенттерді пайдалану әлеуетін талдауға арналған. Жоғары білім беруде ЖИ-дің кеңеюіне қарамастан, оқытушылардың әдеттегі педагогикалық міндеттерін қолдау үшін оны жүйелі интеграциялау бойынша әдістемелік ұсыныстар шектеулі болып қала береді. Зерттеудің мақсаты — педагогикалық автономияға нұқсан келтірместен күнделікті жүктемені оңтайландыру мақсатында университеттердегі ағылшын тілі оқытушыларының кәсіби қызметіне ЖИ ассистентін енгізудің әдіснамалық негізін әзірлеу. Зерттеу әдебиеттерге теориялық және аналитикалық шолу жасауға негізделген. Жеті негізгі әдіснамалық принцип анықталды: жұмыс жүктемесін оңтайландыру, кәсіби стандарттарды сақтау, этика және деректерді қорғау, бейімделу, ашықтық және түсіндірмелілік, қолданыстағы жұмыс үдерістерімен интеграция, үздіксіз кері байланыс және жетілдіру. ЖИ енгізудің жеті тәсілі ұсынылды: міндеттерді автоматтандыру, шешім қабылдауды қолдау, жұмыс үдерістеріне интеграциялау, баптау және бейімдеу, этикалық нормаларды сақтау, мониторинг және кері байланыс, оқытушыларды даярлау және біліктілігін арттыру. Ұсынылған әдістемелік модель ЖИ ассистенті мен оқытушы арасындағы міндеттерді бөлуді нақтылайды, кәсіби пікірді алмастырмай ЖИ-дің қолдаушы рөлін қамтамасыз етеді. Модель тұжырымдамалық тұрғыдан негізделген және жоғары білім беруде ағылшын тілін оқытуда ЖИ-ді жауапты түрде интеграциялау үшін іс жүзінде қолданылады.

*Кілт сөздері:* жасанды интеллект, әдіснамалық принциптер, әдіснамалық тәсілдер, ағылшын тілін оқыту, оқытушының жұмыс жүктемесі, жасанды интеллект негізіндегі ассистент, жоғары білім, күнделікті оқу міндеттері.

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### **Внедрение ИИ в высшее образование: снижение рутинной рабочей нагрузки преподавателей английского языка**

Данное исследование посвящено анализу растущей рутинной нагрузки преподавателей английского языка в университетах и потенциала использования ассистентов на базе искусственного интеллекта (ИИ) для её снижения при сохранении профессиональных стандартов и этических норм. Несмотря на расширяющееся применение ИИ в высшем образовании, методические рекомендации по его систематической интеграции для поддержки рутинных педагогических задач преподавателей остаются ограниченными. Цель исследования заключается в разработке методологической основы для внедрения ИИ-ассистента в профессиональную деятельность преподавателей английского языка в университетах с целью оптимизации рутинной нагрузки без ущерба для педагогической автономии. Исследование базируется на теоретическом и аналитическом обзоре литературы. Выявлены семь ключевых методологических принципов: оптимизация рабочей нагрузки, соблюдение профессиональных стандартов, этика и защита данных, адаптивность, прозрачность и объяснимость, интеграция с существующими рабочими процессами, а также непрерывная обратная связь и совершенствование. Предложены семь подходов к внедрению ИИ: автоматизация задач, поддержка принятия решений, интеграция в рабочие процессы, настройка и адаптация, соблюдение этических норм, мониторинг и обратная связь, подготовка и повышение квалификации преподавателей. Предложенная методологическая модель уточняет распределение обязанностей между ИИ-ассистентом и преподавателем, обеспечивая поддерживающую роль ИИ без замены профессионального суждения. Модель является концептуально обоснованной и практически применимой для ответственной интеграции ИИ в преподавание английского языка в высшем образовании.

*Ключевые слова:* искусственный интеллект, методологические принципы, методологические подходы, преподавание английского языка, рабочая нагрузка преподавателя, ассистент на базе искусственного интеллекта, высшее образование, рутинные учебные задачи.

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