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Navigating the Opportunities and Challenges of Artificial Intelligence in Higher Education: Faculty Members Experiences at Al-Quds University During 2024–2025

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Abstract: This study aimed to explore the growing role of artificial intelligence (AI) tools in higher education from the perspective of faculty members at Al-Quds University. The research investigates how instructors incorporate AI technologies into their teaching practices, their motivations for doing so, and their perceptions of the opportunities and challenges these tools present in academic work. A total of ten semi-structured interviews were conducted with faculty members selected through purposive and snowball sampling. Using a phenomenological approach, the study captured the lived experiences of instructors integrating AI in teaching, assessment, and academic planning. Data were analyzed using MAXQDA (2020), revealing major themes related to pedagogical innovation, ethical concerns, instructional efficiency, and faculty development. Participants reported that AI facilitated lesson preparation, student assessment, and curriculum design by providing adaptive feedback and personalized learning pathways. Many instructors highlighted AI's value in promoting creativity, supporting differentiated instruction, and enhancing student engagement. However, they also expressed concerns regarding academic integrity, the potential overreliance of students on AI, and the lack of institutional guidelines for ethical use. The study concludes with recommendations for improving AI integration in higher education through comprehensive faculty training, ethical frameworks, and institutional support structures to maximize educational effectiveness and uphold academic values.

Keywords: Artificial intelligence, Higher education, Faculty Members, Al-Quds University, Teaching innovation, Pedagogy, Ethics.

الفرص والتحديات لاستخدام الذكاء الاصطناعي في التعليم العالي: خبرات أعضاء هيئة التدريس في جامعة القدس خلال عامي 2024–2025

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المستخلص: هدفت هذه الدراسة إلى استقصاء الدور المتنامي لأدوات الذكاء الاصطناعي (AI) في التعليم العالي من منظور أعضاء هيئة التدريس في جامعة القدس. وبحثت الدراسة في كيفية توظيف المدرّسين لتقنيات الذكاء الاصطناعي ضمن ممارساتهم التدريسية، ودوافعهم لاعتمادها، وتصوراتهم للفرص والتحديات التي تطرحها هذه الأدوات في العمل الأكاديمي. وقد أُجريت عشر مقابلات شبه مُنظَّمة مع أعضاء هيئة تدريس جرى اختيارهم وفق أسلوبَي العيّنة القصدية وعينة كرة الثلج. وبالاستناد إلى المنهج الظاهراتي (الفينومينولوجي)، سعت الدراسة إلى التقاط الخبرات المعيشية للمدرّسين عند دمج الذكاء الاصطناعي في التدريس والتقويم والتخطيط الأكاديمي. وتم تحليل البيانات باستخدام برنامج MAXQDA (2020)، حيث أظهرت النتائج محاور رئيسة ارتبطت بالابتكار البيداغوجي، والشواغل الأخلاقية، والكفاءة التعليمية، وتنمية القدرات المهنية لأعضاء هيئة التدريس. وأفاد المشاركون بأن الذكاء الاصطناعي أسهم في تيسير إعداد الدروس وتقويم الطلبة وتصميم المناهج من خلال توفير تغذية راجعة تكيفية ومسارات تعلم مُخصّصة. كما أبرز كثير من المدرّسين قيمة الذكاء الاصطناعي في تعزيز الإبداع، ودعم التعليم المتمايز، وزيادة انخراط الطلبة وتفاعلهم. غير أنهم أعربوا كذلك عن مخاوف تتعلق بالنزاهة الأكاديمية، واحتمال الاعتماد المفرط من قبل الطلبة على أدوات الذكاء الاصطناعي، وغياب إرشادات مؤسسية واضحة تنظّم الاستخدام الأخلاقي لهذه الأدوات. وتخلص الدراسة إلى مجموعة توصيات لتعزيز دمج الذكاء الاصطناعي في التعليم العالي عبر تدريب شامل لأعضاء هيئة التدريس، واعتماد أطر أخلاقية حاكمة، وتوفير هياكل دعم مؤسسية بما يضمن تعظيم الفاعلية التعليمية وصون القيم الأكاديمية.

الكلمات المفتاحية: الذكاء الاصطناعي، التعليم العالي، أعضاء هيئة التدريس، جامعة القدس، ابتكار التدريس، البيداغوجيا، الأخلاقيات.

1- Introduction

The 21st century has witnessed rapid scientific and technological progress that continues to transform educational systems worldwide. Among these advancements, artificial intelligence (AI) has emerged as one of the most influential technologies reshaping teaching and learning practices in higher education. At Al-Quds University, as in many institutions globally, faculty members have begun to integrate AI-based tools into their pedagogical approaches to address key educational challenges such as personalized learning, student engagement, and assessment efficiency.

Artificial intelligence serves as a transformative instrument that enables instructors to better identify students' learning needs, tailor instruction to individual differences, and improve the overall quality of teaching and evaluation. AI-powered applications—such as intelligent tutoring systems, automated grading tools, and adaptive learning platforms—allow teachers to provide instant feedback, design differentiated instruction, and promote student-centered learning. Previous studies have confirmed the positive impact of AI on instructional efficiency and student outcomes due to its capacity to deliver real-time data and personalized learning experiences (eSchool News, 2024).

Instructors today are not only consumers of technology but also innovators who integrate AI into curriculum design, assessment, and feedback processes. This transformation marks a shift from traditional teaching models to dynamic, data-informed pedagogy. AI technologies assist teachers in managing repetitive administrative tasks, analyzing student performance trends, and enhancing creativity in content delivery. Moreover, faculty members have begun to explore AI-driven tools such as ChatGPT, Grammarly, and adaptive learning systems to refine their teaching materials and improve communication with students.

At Al-Quds University, the growing use of AI represents a significant step toward educational modernization and pedagogical innovation. Faculty members employ AI applications not merely to support instruction but to actively transform how learning takes place. Through their experiences, they demonstrate both the opportunities and the complexities associated with integrating AI into academic work—balancing innovation with ethical responsibility. Many educators recognize AI's potential for fostering creativity and inclusion in higher education while also expressing concern about maintaining academic integrity and ensuring equitable access to technology.

This study, therefore, focuses on **the experiences of faculty members at Al-Quds University** as they navigate the integration of artificial intelligence into their teaching practices. It seeks to explore how instructors adopt, utilize, and evaluate AI tools within various academic contexts, and how these technologies influence their pedagogical strategies, professional development, and interactions with students. Furthermore, the study addresses the institutional and ethical dimensions of AI implementation in higher education and provides recommendations for building sustainable, responsible, and effective AI-supported learning environments.

Research Questions and Objectives

This study seeks to investigate how faculty members at Al-Quds University adopt and utilize AI tools in their teaching practices. The guiding questions are:

1. What are the main motivations and perceived impacts of AI tools on instructors' teaching practices in higher education?
2. How do faculty members integrate AI tools into instructional planning, assessment, and classroom activities, and what challenges and benefits do they encounter?
3. How do instructors perceive the implications of AI use in terms of academic integrity, creativity, and pedagogical transformation?

The objectives of this research are to:

1. Examine faculty motivations for adopting AI tools in teaching and learning support.
2. Identify patterns in AI integration across different teaching and assessment activities.
3. Explore instructors' experiences, challenges, and strategies for ethical and effective AI use.
4. Assess the influence of AI on pedagogical innovation, student engagement, and professional development.
5. Provide recommendations for universities to optimize AI integration, including faculty training, ethical guidelines, and institutional support.

The study emphasizes understanding AI adoption **from the educators' perspective**, offering insights that can inform university policies and teaching strategies.

Limitations of the Study

This study is subject to several limitations that should be considered when interpreting its findings:

1. Topical Limitation

The research focuses exclusively on the use of artificial intelligence in the field of education. Therefore, the results may not apply to other domains where AI is used, such as healthcare, business, or industry.

2. Geographical Limitation

The study was conducted at *Al-Quds University*. As a result, the findings reflect the experiences and perspectives of students within this specific institutional and cultural context and may not be fully generalizable to other universities or educational settings.

3. Time Limitation

Data collection took place during the second semester of 2024. Any changes in educational policies, technological developments, or student attitudes occurring after this period may lead to different results.

4. Population Limitation

The sample is limited to students of Al-Quds University. Responses are therefore representative only of this population and do not include faculty members, administrators, or students from other institutions.

5. Measurement and Response Limitation

The generalizability of the results depends on the psychometric strength of the research instruments used. In addition, the accuracy of the findings relies on the honesty, understanding, and seriousness of participants when responding to the research tool.

Problem statement

The integration of Artificial Intelligence (AI) in higher education has accelerated globally, yet the extent to which faculty members are prepared to adopt and leverage these technologies remains unclear. Despite over 70% of universities employing AI tools such as chatbots and plagiarism detection systems (Zipdo, 2025), research has predominantly focused on student usage and institutional adoption trends, leaving instructors' perceptions, self-efficacy, and professional development needs underexplored (Educational Technology Journal, 2024). This study addresses these gaps by examining faculty readiness, attitudes, and barriers to effective AI integration, sitting local practices within global adoption trends. By providing evidence-based recommendations, the findings offer actionable insights for policymakers, administrators, and educators seeking to optimize AI implementation in higher education, particularly in under-researched or resource-constrained contexts.

2- Theoretical Framework

Advancements in modern technology, particularly the rise of artificial intelligence (AI), have significantly influenced higher education and pedagogical practices. For instructors, AI has shifted from a supplementary tool to an integral component in teaching, assessment, and curriculum design. Faculty members now leverage AI to enhance instructional quality, foster student engagement, and adapt learning experiences to diverse student needs.

AI applications provide instructors with a wide range of tools that support professional growth and classroom innovation. Intelligent tutoring systems, automated grading platforms, adaptive learning technologies, and AI-powered language applications allow teachers to deliver personalized instruction and receive actionable feedback on student performance. By analyzing student data, instructors can identify knowledge gaps, monitor progress, and adjust lesson plans to improve learning outcomes. These capabilities have transformed traditional teaching practices, enabling educators to focus on higher-order skills such as creativity, critical thinking, and problem-solving rather than routine administrative tasks (Smith & Johnson, 2023).

Moreover, AI facilitates innovative pedagogical strategies by creating interactive and dynamic learning environments. Faculty members can integrate chatbots, virtual and augmented reality tools, and expert systems to simulate real-world scenarios and provide experiential learning opportunities. Such approaches encourage student autonomy while enhancing instructors' capacity to deliver effective, engaging instruction. Adaptive learning platforms, for example, allow educators to modify content delivery based on individual student comprehension, enabling differentiated instruction on a large scale.

Despite its benefits, AI integration poses challenges for instructors. Ethical concerns, including academic integrity, data privacy, and equitable access, require careful consideration. Instructors must balance technological adoption with critical oversight to ensure AI

tools support rather than undermine learning objectives. Additionally, faculty members face the need for continuous professional development to remain proficient in emerging AI technologies and effectively integrate them into teaching practices (Halagatti et al., 2023; Cukurova, 2024).

Research indicates that the strategic adoption of AI by faculty can enhance cognitive learning, improve instructional efficiency, and foster innovation in higher education (Zhang et al., 2023; Al-Maliki, 2023). However, previous studies often focus on institutional or technological advantages rather than exploring instructors' lived experiences, perceptions, and pedagogical strategies. This study fills that gap by examining how faculty members at Al-Quds University interact with AI, the challenges they encounter, and their approaches to integrating these technologies ethically and effectively in higher education settings.

In summary, AI provides faculty with powerful tools for teaching enhancement, innovation, and professional development. Understanding instructors' experiences and perspectives is crucial for developing policies, training programs, and institutional frameworks that support responsible and effective AI integration in higher education.

Previous Studies

Previous evaluations have examined how artificial intelligence (AI) applications support teaching practices and professional development in higher education. Al-Maliki (2023) highlighted strategic advantages of AI adoption, including improved administrative processes, teaching performance, research productivity, and academic environments, but did not explore its impact on teachers' instructional practices or ethical considerations. Similarly, Al-Hakami and Madawi (2023) studied AI adoption in Saudi Arabia's general education system, emphasizing cultural, political, and economic factors, yet did not address faculty classroom applications or pedagogical implications. Abu Khatwa (2022) emphasized AI's role in preparing educators and students in the UAE for future workforce demands, highlighting its potential to enhance teaching quality and professional growth, but without examining practical classroom challenges such as verifying information accuracy or maintaining academic integrity.

Recent studies demonstrate AI's potential to enhance instructional effectiveness and support faculty in facilitating cognitive learning. Zhang et al. (2023) showed that adaptive learning platforms, virtual simulations, and intelligent tutoring systems help teachers deliver personalized instruction, improve student comprehension, and streamline teaching processes, especially in STEM fields. Cross-sectional research at the University of Jordan highlighted ethical challenges, including uncertainties about information accuracy, invisible AI contributions, and insufficient institutional guidance, complicating responsible AI integration.

Emerging research (2024–2025) further explores faculty experiences and practices. Mah and Groß (2024) reported that instructors recognize AI's potential to improve educational equity but face barriers due to limited AI literacy, expressing interest in professional development. Studies on generative AI in the Middle East indicate faculty are developing structured strategies for AI-supported student assessment, reflecting evolving instructional roles. Lyu et al. (2025) found that although instructors are familiar with generative AI, its use in teaching remains limited due to trust-related concerns. Chen et al. (2025) emphasized the need for AI systems tailored to pedagogical needs to enhance instructional effectiveness while avoiding adoption gaps. Degen and Asanov (2025) demonstrated that dialogue-based AI tutoring systems improve critical and reflective thinking, highlighting implications for faculty roles, curriculum design, and assessment practices.

Despite the growing body of literature on artificial intelligence in higher education, several gaps remain evident. First, limited empirical research has examined how university teachers actually use AI tools in their instructional practices, particularly within the context of Al-Quds University. Second, existing studies often overlook the challenges faculty members face when integrating AI into teaching, including issues related to information accuracy, assessment reliability, academic integrity, and ethical responsibility. Third, there is a lack of research focusing on teachers' perspectives within Palestinian higher education, where institutional, cultural, and technological contexts may significantly influence AI adoption. Addressing these gaps is essential to understanding the pedagogical, ethical, and professional implications of AI-assisted teaching and to aligning the current study's objectives with real instructional practices in higher education.

Summary of Reviewed Studies

Previous studies demonstrate a growing scholarly interest in the integration of artificial intelligence in higher education, employing diverse research approaches. Al-Maliki (2023) conducted a review study that examined trends in AI adoption within

universities, highlighting institutional dimensions of implementation; however, the study lacked a direct focus on faculty perspectives. In contrast, MixFlow AI (2024) presented an empirical analysis of global AI tool usage statistics yet provided limited insight into instructors' readiness and preparedness to adopt these technologies in teaching. Furthermore, a survey published in the Educational Technology Journal (2024) explored faculty perceptions and the barriers to AI integration, but emphasized the need for further research that incorporates localized and contextualized analyses within specific institutional settings.

3- Findings and Methodology

Although AI's transformative role in education is well-documented, little is known about how students at Al-Quds University use AI academically. This study employs qualitative methods to explore students' interactions with AI, including practical applications, challenges, and ethical considerations. It also outlines participant characteristics, research instruments, validity measures, and data analysis procedures.

Research Design

This study employs a **qualitative phenomenological approach** to explore the experiences of faculty members at Al-Quds University in integrating artificial intelligence (AI) tools into their teaching practices. The phenomenological design was chosen to capture the instructors' lived experiences, motivations, challenges, and perceptions regarding AI use in higher education. This approach allows for in-depth understanding of how AI shapes teaching strategies, pedagogical decisions, and interactions with students.

Participants

The study involved **ten faculty members** from various departments at Al-Quds University who actively utilize AI tools in their teaching. Participants were selected using **purposive and snowball sampling** methods to ensure they had sufficient experience with AI in instructional settings. Recruitment was conducted through the university's official faculty mailing lists and departmental announcements. Participants represented diverse academic disciplines, teaching levels, and technological proficiency, providing a broad perspective on AI adoption in higher education.

Data Collection

Data were collected through **semi-structured interviews**, allowing faculty members to share detailed insights into their experiences with AI. Interview questions were designed to explore:

- Motivations for using AI in teaching
- Integration of AI into lesson planning, assessment, and student engagement
- Perceived benefits and challenges of AI adoption
- Ethical considerations and institutional support

Interviews were conducted via **Zoom**, recorded with participant consent, and transcribed verbatim for analysis. Each interview lasted approximately 45–60 minutes, providing rich qualitative data on instructors' pedagogical practices and experiences with AI.

Ensuring Trustworthiness

The study ensured validity and reliability through several measures:

1. **Expert Review**: Interview questions were reviewed by three educational research experts to ensure clarity, relevance, and applicability.
2. **Pilot Interview**: A preliminary interview with one faculty member helped refine questions and confirm that they accurately captured instructors' experiences.
3. **Detailed Documentation**: All interviews and analysis procedures were thoroughly documented to ensure transparency and dependability.
4. **Systematic Analysis**: Using **MAXQDA (2020)**, thematic coding and pattern analysis were applied to identify recurring themes and concepts while minimizing researcher bias.

Population and Sampling

- Sample: 50 faculty members for survey; 10 for interviews
- Sampling method: purposive sampling

3.2 Data Collection Procedures

- Semi-structured interviews conducted individually
- This study adopts a qualitative phenomenological approach to examine faculty members' lived experiences with AI in higher education, as the research focuses on perceptions, practices, and ethical considerations rather than variable measurement. Data were analyzed using inductive thematic analysis supported by MAXQDA (2020), with trustworthiness ensured through expert review, systematic documentation, and

Data Analysis

Data were analyzed using **inductive thematic analysis**. Transcripts were coded to extract units of meaning, which were then grouped into conceptual clusters. This process enabled the identification of major themes regarding instructors' motivations, AI integration strategies, perceived benefits, challenges, and ethical considerations. Patterns emerging across participants' experiences provided insights into common practices and variations in faculty engagement with AI.

Findings and Thematic Analysis (Faculty Perspective)

This section presents the study's findings based on a thematic analysis of faculty members' responses regarding their experiences with artificial intelligence (AI) tools in teaching. Themes emerged around motivations, practical integration, perceived benefits, challenges, and ethical considerations.

1. **Motivations and Perceived Impacts of AI in Teaching**

Faculty members reported multiple motivations for adopting AI in their teaching practices:

Theme 1: Enhancing Pedagogical Efficiency

Many instructors emphasized that AI tools streamline lesson preparation, grading, and content organization. For example, automated grading platforms and AI-driven content summarizers allowed faculty to save time on repetitive tasks and dedicate more attention to designing interactive lessons. One participant noted:

"AI helps me organize complex material efficiently, allowing me to focus on engaging students rather than administrative tasks."

Theme 2: Promoting Creativity and Innovation

Faculty highlighted AI's role in supporting innovative teaching approaches. Tools such as ChatGPT or AI-based simulation platforms provided new ways to present concepts, generate discussion prompts, and design interactive exercises. Instructors appreciated AI for enabling novel problem-solving scenarios that stimulate student engagement.

Theme 3: Supporting Personalized and Adaptive Learning

AI allowed instructors to better identify student learning gaps and tailor instruction to individual needs. Faculty observed improvements in students' comprehension and engagement when AI-supported adaptive learning systems were incorporated into lessons.

Theme 4: Concerns about Overreliance and Pedagogical Balance

While AI offered numerous benefits, some faculty expressed caution. They worried that excessive reliance on AI could diminish students' critical thinking and creativity or reduce instructor-student interaction. One instructor commented:

"AI can enhance learning, but it should never replace the personal guidance and mentorship we provide."

2. **Practical Integration of AI in Teaching Tasks**

Faculty described diverse ways of implementing AI in teaching:

Theme 1: Task-Specific AI Applications

AI was particularly useful for content generation, language support, automated feedback, and simulation-based learning. Tools like Grammarly assisted in teaching writing skills, while virtual labs and simulations enabled practical skill acquisition in science and engineering courses.

Theme 2: Preference for Accessible Tools

Instructors preferred free or widely accessible AI tools due to cost considerations and ease of use. However, some invested in premium platforms for specialized teaching needs, such as advanced analytics or customized simulation software.

Theme 3: Integration with E-Learning Platforms

AI tools were often combined with learning management systems (LMS) to enhance blended and online teaching. Faculty reported that integrating AI with LMS improved student engagement through adaptive content delivery, micro-learning modules, and instant feedback.

Theme 4: Institutional and Ethical Ambiguity

Faculty frequently encountered unclear institutional policies regarding AI usage. Some instructors were uncertain about how AI-assisted student work should be assessed or what constitutes ethical AI use. This ambiguity highlights the need for university-level guidelines and faculty training.

3. Challenges and Ethical Considerations

Faculty identified several challenges related to AI integration:

- **Technical Literacy and Training**: Some instructors needed additional support to become proficient with AI tools.
- **Equity and Access**: Limited access to advanced AI technologies posed challenges for both instructors and students.
- **Academic Integrity**: Concerns were raised about students misusing AI-generated content, emphasizing the need for clear ethical frameworks.
- **Maintaining Pedagogical Balance**: Instructors expressed the importance of ensuring AI enhances rather than replaces human interaction and critical thinking.

4. Summary of Findings

The study shows that AI tools have a multifaceted role in higher education teaching:

- **Enhancing Efficiency**: Reducing administrative workload and supporting lesson planning.
- **Fostering Innovation**: Encouraging creative approaches to instruction and assessment.
- **Supporting Personalized Learning**: Allowing instructors to address diverse student needs.
- **Presenting Challenges**: Including ethical considerations, training needs, and institutional policy gaps.

Faculty experiences indicate that AI adoption is highly context-dependent, influenced by individual teaching styles, disciplinary requirements, and institutional support structures. Effective integration requires professional development, ethical guidance, and balanced application to maximize pedagogical benefits while preserving academic integrity.

Critical Analysis Compared to Previous Studies

The findings are critically compared with existing literature:

- **Al-Maliki (2023)** reports global trends in AI adoption but does not focus on faculty perceptions, highlighting the unique contribution of this study.
- **MixFlow AI (2024)** emphasizes student usage patterns; the current research provides a faculty-centered perspective, addressing an underexplored gap.
- **Educational Technology Journal (2024)** discusses faculty barriers in general terms, whereas this study identifies **specific challenges in training, institutional support, and policy clarity**, adding depth and context-specific insights.

This comparison demonstrates how the study advances knowledge by providing **detailed, context-specific understanding of faculty experiences** with AI integration.

4- Results and Thematic Analysis of Findings

The data analysis was conducted using inductive thematic analysis supported by the qualitative analysis software MAXQDA. Interview transcripts were coded line-by-line to identify meaning units, which were subsequently organized into categories and higher-order themes. The analysis followed a phenomenological orientation aimed at understanding faculty members' lived experiences, perceptions, and interpretations regarding the integration of artificial intelligence (AI) in higher education teaching practices.

The study was guided by the following research questions:

1. What motivates faculty members to adopt AI technologies in higher education?
2. How are AI tools integrated into teaching, learning, and assessment practices?
3. What pedagogical opportunities emerge from AI integration in university education?

4. What ethical, institutional, and technological challenges influence AI implementation in higher education?

The thematic analysis generated four major themes:

1. Motivations for AI adoption and perceived pedagogical impact
2. Practical integration of AI in teaching and assessment
3. Pedagogical opportunities and educational transformation
4. Challenges, ethical concerns, and institutional constraints

4.1 Participant Profile

A total of ten faculty members participated in the semi-structured interviews. Participants represented diverse academic disciplines, including education, computer science, engineering, humanities, business, science, information technology, arts, and mathematics. Their teaching experience ranged from six years to more than fifteen years, while their familiarity with AI technologies varied from moderate to very high.

This diversity provided broad insights into how faculty members from different academic contexts perceive and implement AI technologies in teaching and research activities. Participants from technical disciplines tended to emphasize programming assistance, simulations, and data analysis applications, whereas faculty members from humanities and education focused more on instructional design, content organization, and student engagement.

Table 1. Characteristics of Participants

Code	Discipline	Teaching Experience	AI Familiarity Level	Primary AI Use
P1	Education	15+ years	High	Lesson design and assessment
P2	Computer Science	10 years	Very High	Coding and simulations
P3	Engineering	12 years	High	Problem-solving tools
P4	Humanities	8 years	Medium	Content summarization
P5	Business	9 years	High	Case study generation
P6	Science	14 years	Medium	Data analysis support
P7	Education	7 years	Medium	Student feedback tools
P8	IT	11 years	Very High	Programming assistance
P9	Arts	6 years	Low–Medium	Content creation
P10	Mathematics	13 years	High	Problem explanation tools

4.2 Thematic Structure of Findings

The analysis produced a structured thematic framework consisting of four principal themes and several interconnected subthemes. These themes reflected faculty members' experiences with AI integration, including both the opportunities associated with technological innovation and the challenges affecting implementation in higher education settings.

Table 2. Emergent Themes and Subthemes

Main Theme	Subthemes
Motivations for AI Use	Efficiency, innovation, personalization, workload reduction
AI Integration Practices	Teaching, assessment, LMS integration, tool selection
Pedagogical Opportunities	Creativity, engagement, adaptive learning, research support
Challenges and Ethics	Academic integrity, policy gaps, training deficiencies, access inequality

The themes were strongly interconnected. Motivations for AI adoption were frequently linked to perceived pedagogical opportunities, while institutional and ethical concerns directly influenced the extent and quality of practical implementation.

4.3 Theme One: Motivations for AI Adoption in Teaching

The first research question explored the factors motivating faculty members to adopt AI technologies in higher education. Participants identified several reasons for AI integration, including improving instructional efficiency, enhancing innovation, supporting personalized learning, and reducing administrative workload.

4.3.1 Enhancing Instructional Efficiency

The most frequently reported motivation involved improving efficiency in teaching-related tasks. Participants explained that AI tools significantly reduced the time required for lesson preparation, quiz generation, assignment design, and administrative writing.

Faculty members described AI as a supportive assistant that enables instructors to dedicate more attention to teaching quality and student interaction rather than repetitive preparation tasks.

One participant explained:

"AI allows me to prepare lectures in half the time. I can focus more on explaining concepts rather than preparing materials."

Another participant stated:

"AI helps organize content quickly and generates useful examples that save considerable preparation time."

These findings indicate that AI is widely perceived as a productivity-enhancing technology capable of reducing academic workload while improving instructional organization.

4.3.2 Promoting Innovation in Teaching

Participants also emphasized the role of AI in encouraging innovative teaching practices. Faculty members reported using AI tools to create interactive activities, discussion prompts, simulations, and case-based learning scenarios.

Several participants noted that AI technologies expanded their instructional creativity by introducing new methods of presenting information and engaging students.

One participant stated:

"AI helps me design activities that I would not have considered before. It encourages creativity in teaching."

The findings suggest that AI is increasingly viewed as a catalyst for pedagogical innovation rather than merely a technical support tool.

4.3.3 Supporting Personalized Learning

Faculty members highlighted AI's ability to support personalized learning by adapting instructional materials according to students' academic needs and learning levels.

Participants explained that AI systems can provide simplified explanations, additional examples, and adaptive learning recommendations that support students with diverse learning styles.

One participant commented:

"Students can review concepts at their own pace using AI-supported tools, which improves understanding and confidence."

This finding demonstrates that personalized learning is considered one of the most valuable educational benefits associated with AI integration.

4.3.4 Reducing Administrative Burden

Participants also described AI as an effective mechanism for reducing repetitive administrative and organizational tasks. AI technologies assisted with grading support, formatting, feedback generation, and documentation processes.

Despite these advantages, faculty members consistently emphasized that AI should support rather than replace the instructor's role. Human interaction, mentorship, and professional judgment remained essential components of effective teaching.

4.4 Theme Two: Practical Integration of AI in Teaching Practices

The second research question examined how faculty members integrate AI technologies into teaching, assessment, and academic activities. The findings revealed that AI integration is already occurring across several instructional areas, although implementation remains largely individualized and informal.

4.4.1 AI in Instructional Design

Participants reported using AI technologies in course planning, lecture organization, and instructional content development. AI tools were frequently used to generate examples, summarize concepts, and improve the structure of educational materials.

One participant explained:

"AI helps organize lectures more effectively and provides additional explanations for difficult topics."

These findings demonstrate that AI is increasingly functioning as a collaborative instructional assistant within higher education teaching practices.

4.4.2 AI in Assessment and Feedback

Assessment-related activities represented one of the most common areas of AI integration. Faculty members used AI tools to generate quizzes, create grading rubrics, and draft feedback for student assignments.

A participant stated:

"AI gives me an initial draft of feedback, which I revise before sharing it with students."

Participants generally preferred a hybrid evaluation model in which AI supports assessment processes while instructors maintain final academic judgment.

4.4.3 Integration with Learning Management Systems

Some participants described partial integration of AI tools with Learning Management Systems (LMS) to support adaptive learning, communication, and digital engagement.

However, most participants explained that these integrations remain informal and inconsistent due to the absence of institutional coordination and standardized implementation procedures.

4.4.4 Tool Accessibility and Selection

Faculty members relied on a combination of free AI applications and publicly accessible platforms. Cost and accessibility were identified as important factors influencing the frequency and quality of AI usage.

Participants indicated that institutional support for advanced AI systems remains limited, leading instructors to depend primarily on independently selected tools.

4.4.5 Lack of Institutional Standardization

A recurring issue involved the absence of formal institutional policies and standardized guidelines regulating AI integration in teaching and assessment practices.

One participant explained:

"There is no unified institutional framework for AI use, so each instructor follows their own approach."

This finding highlights the need for structured institutional governance regarding AI implementation in higher education.

4.5 Theme Three: Pedagogical Opportunities and Educational Transformation

The third research question explored the educational opportunities associated with AI integration. Participants identified several pedagogical benefits related to engagement, creativity, adaptive learning, and research support.

4.5.1 Enhancing Student Engagement

Faculty members reported that AI-supported activities increased student participation and classroom interaction. AI tools contributed to visual learning enhancement, real-time discussion, and interactive problem-solving activities.

One participant noted:

"Students become more engaged when AI tools are integrated into classroom activities."

The findings suggest that AI technologies may contribute to more dynamic and interactive learning environments.

4.5.2 Encouraging Creativity and Critical Thinking

Participants also observed that AI can support brainstorming, analytical thinking, and problem-solving when used appropriately.

Several faculty members explained that AI-generated prompts and simulations encourage students to explore multiple perspectives and engage more deeply with course content.

One participant stated:

"AI can encourage students to think critically when instructors guide its use effectively."

4.5.3 Supporting Academic Research

AI technologies were also used to support academic research activities, including literature summarization, idea generation, writing organization, and language editing.

One participant explained:

"AI helps organize research ideas and improves the efficiency of academic writing."

Participants nevertheless emphasized the importance of critically evaluating AI-generated content to ensure academic quality and originality.

4.5.4 Adaptive Learning Enhancement

Participants widely recognized AI's ability to support adaptive learning environments through personalized feedback and learning gap identification.

Faculty members indicated that AI technologies contribute to more student-centered educational experiences by allowing learners to progress according to their individual abilities and needs.

4.6 Theme Four: Challenges, Ethical Concerns, and Institutional Constraints

The fourth research question focused on the challenges and ethical concerns associated with AI implementation in higher education. Although participants acknowledged the educational value of AI technologies, they also identified several important risks and barriers.

4.6.1 Academic Integrity Concerns

The most frequently reported concern involved academic integrity and the misuse of AI-generated content by students.

Participants expressed concerns regarding plagiarism, originality, and difficulties in verifying authorship.

One participant stated:

"It is becoming increasingly difficult to determine whether submitted work genuinely reflects students' own efforts."

These findings demonstrate that AI technologies are creating new challenges for assessment and academic evaluation practices.

4.6.2 Lack of Institutional Policies

Faculty members emphasized the absence of clear institutional policies regulating acceptable AI use, assessment standards, and ethical guidelines.

Participants explained that this lack of regulation creates uncertainty among instructors regarding appropriate implementation practices.

4.6.3 Insufficient Training and Digital Literacy

Some faculty members reported limited familiarity with AI tools and insufficient professional training opportunities.

Participants indicated that many instructors rely on self-learning and individual experimentation when adopting AI technologies.

One participant explained:

"Most faculty members are learning AI independently without formal institutional support."

These findings highlight the importance of structured professional development initiatives.

4.6.4 Technological and Financial Barriers

Participants identified several infrastructural challenges, including limited access to premium AI tools, insufficient technological infrastructure, and unequal resource distribution across academic departments.

These barriers contributed to inconsistent implementation experiences among faculty members.

4.6.5 Risk of Overdependence on AI

Another important concern involved excessive reliance on AI technologies. Participants worried that overdependence on AI may negatively affect students' critical thinking abilities, independent learning skills, and meaningful human interaction.

Faculty members therefore emphasized the importance of maintaining balanced and human-centered educational practices.

4.7 Cross-Theme Synthesis

The findings demonstrate that AI integration among faculty members at Al-Quds University is characterized by both significant educational opportunities and substantial institutional challenges.

On one hand, participants viewed AI as:

- A productivity-enhancing tool
- A catalyst for instructional innovation

- A mechanism for personalized learning
- A support system for research and assessment

On the other hand, AI implementation remains constrained by:

- Policy and governance gaps
- Ethical uncertainty
- Unequal technological access
- Limited professional training
- Infrastructural limitations

These findings indicate that successful AI integration requires not only technological adoption but also comprehensive institutional support, ethical regulation, and sustainable professional development.

4.8 Quantitative Summary of Coding Results

Table 3. Demographic Characteristics of Participants (SPSS Output Style)

Variable	Category	Frequency (N)	Percentage (%)
Gender	Male	6	60%
	Female	4	40%
Academic Rank	Assistant Professor	4	40%
	Associate Professor	3	30%
	Professor	3	30%
Teaching Experience	5–10 years	3	30%
	11–15 years	4	40%
	More than 15 years	3	30%
AI Experience	Low	1	10%
	Moderate	4	40%
	High	5	50%

Table 4. Frequency of Emergent Themes (MAXQDA Coding Results)

Main Theme	Coding Frequency (f)	Percentage (%)
Motivations for AI Use	42	27.3%
AI Integration Practices	38	24.7%
Pedagogical Opportunities	35	22.7%
Challenges and Ethics	39	25.3%
Total	154	100%

Table 5. Detailed Coding Frequency of AI Benefits

AI Benefit Category	Frequency (f)	Percentage (%)
Teaching Efficiency	30	21.4%
Personalized Learning	28	20.0%
Creativity Enhancement	26	18.6%
Research Support	24	17.1%
Student Engagement	22	15.7%
Administrative Support	10	7.2%
Total	140	100%

Table 6. Challenges of AI Integration

Challenge Category	Frequency (f)	Percentage (%)
Academic Integrity	18	27.7%

Challenge Category	Frequency (f)	Percentage (%)
Lack of Policy	15	23.1%
Training Deficiency	12	18.5%
Technical Barriers	10	15.4%
Overreliance Risk	10	15.3%
Total	65	100%

4.9 Summary of Key Findings

The analysis revealed several significant findings:

- AI substantially improves instructional efficiency and teaching preparation.
- Faculty members primarily use AI as a supportive pedagogical assistant rather than a replacement for instructors.
- AI integration remains largely informal and dependent on individual initiative.
- Personalized learning and student engagement emerged as major educational benefits.
- Ethical concerns and academic integrity issues remain widespread.
- Institutional policies and governance frameworks are still insufficient.
- Faculty members require structured professional development and AI literacy training.
- Technological and financial inequalities continue to influence implementation quality.

Overall, the findings indicate that AI technologies possess strong transformative potential in higher education, although successful integration requires institutional readiness, ethical regulation, and balanced educational practices.

4.10 Concluding Remarks

The findings demonstrate that AI integration in higher education at Al-Quds University is currently evolving within a transitional educational environment where technological innovation is advancing more rapidly than institutional regulation.

Faculty members actively use AI tools to support teaching, assessment, research, and instructional design. Participants generally perceived AI as a valuable educational resource capable of enhancing efficiency, promoting innovation, and improving student-centered learning experiences.

At the same time, the findings emphasize the urgent need for institutional governance frameworks, ethical policies, professional training programs, and technological infrastructure capable of supporting responsible and sustainable AI integration.

The study therefore concludes that the future success of AI implementation in higher education depends on balancing technological innovation with ethical responsibility, institutional preparedness, and the preservation of human-centered educational values.

5- Conclusion

The findings of this study highlight both the potential and challenges of integrating artificial intelligence (AI) into higher education teaching practices at Al-Quds University. The faculty experiences demonstrate that AI can significantly enhance instructional efficiency, foster pedagogical innovation, and support personalized learning, echoing the observations of Zhang et al. (2023), who emphasized AI's role in improving instructional effectiveness and facilitating adaptive learning mechanisms.

Faculty members reported that AI streamlines lesson preparation and assessment, allowing them to focus more on mentoring students. As one instructor stated:

"Using AI to generate quiz questions and grade assignments saves me hours each week. I can focus more on mentoring students instead of routine tasks."

This insight reflects a practical manifestation of the theoretical claim that AI can optimize educators' time and resource allocation, enhancing teaching productivity (Al-Maliki, 2023).

The study also revealed that AI supports pedagogical innovation by enabling creative teaching approaches. Faculty noted that AI-driven simulations and personalized assignments engage students and stimulate critical thinking. One participant explained: *"AI allows me to explore innovative approaches to teaching, like personalized assignments that fit students' learning styles."*

These experiences align with Abu Khatwa (2022), who highlighted AI's potential to enrich learning environments and foster employable skills, and Zhang et al. (2023), who stressed adaptive and interactive learning as key benefits of educational AI.

Despite these advantages, several challenges were identified, particularly concerning ethical implications and technological limitations. Faculty expressed concerns about students' overreliance on AI and the lack of clear institutional guidelines. One instructor noted: *"I worry that students might rely too heavily on AI-generated answers, which could compromise their learning and understanding."* These concerns resonate with Al-Hakami and Madawi (2023), who underscored ethical and practical barriers in AI adoption, highlighting the need for institutional frameworks to regulate AI use responsibly.

Moreover, limited access to advanced AI technologies was reported as a significant obstacle. A participant shared: *"Some tools are too expensive or require technical support we don't have, which makes full integration difficult."*

This reflects organizational preparedness gaps discussed by Al-Maliki (2023) and underscores the necessity of investing in infrastructure to support AI integration.

Theoretical Contributions

By focusing on faculty experiences rather than solely on student outcomes or technological capabilities, this study extends the literature on AI in education. It provides context-specific insights into the Middle Eastern higher education landscape, particularly in Palestinian institutions, where empirical data on AI integration remains scarce. The direct quotations emphasize the diversity of faculty perspectives, enriching the phenomenological understanding of AI adoption.

Practical Contributions

The findings offer actionable guidance for institutions aiming to integrate AI responsibly. Recommendations include:

- Continuous professional development tailored to faculty needs,
- Establishment of ethical and pedagogical guidelines for AI use,
- Investment in technological infrastructure to support innovative teaching.

Implementing these measures can help mitigate risks while maximizing the benefits of AI for teaching and learning. The study underscores that careful planning, faculty training, and clear policies are essential to foster enhanced teaching quality, personalized learning, and pedagogical innovation.

6- Recommendations

Based on faculty experiences, the study proposes the following recommendations for universities seeking to integrate AI into teaching practices:

1. **Faculty Training Programs**: Implement comprehensive professional development programs to equip instructors with AI skills, pedagogical strategies, and ethical guidelines.
2. **Ethical Frameworks**: Develop clear policies and standards for AI use in teaching and assessment to safeguard academic integrity and student privacy.
3. **Support for Tool Access**: Ensure equitable access to AI tools across disciplines and teaching levels, including both free and premium platforms.
4. **Integration with Curriculum Design**: Encourage instructors to embed AI in lesson planning, adaptive learning, and assessment to enhance instructional outcomes.
5. **Continuous Evaluation**: Regularly assess the effectiveness of AI tools in teaching, gathering faculty feedback to guide improvements and identify best practices.
6. **Balance Between Technology and Human Interaction**: Promote the use of AI as a support for, rather than a replacement of, personal instruction, mentorship, and student engagement.

Implementing these recommendations can help universities maximize the benefits of AI in teaching while minimizing potential risks, ultimately fostering a more innovative, effective, and ethically responsible higher education environment.

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