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Graduate Students Experiences in the Department of Special Education in Employing Artificial Intelligence to Improve the Quality of Their Education

تجارب طلاب الدراسات العليا في قسم التربية الخاصة في توظيف الذكاء الاصطناعي لتحسين جودة تعليمهم

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ABSTRACT
The current research aims to identify and evaluate graduate students' experiences in utilizing Artificial Intelligence (AI) to enhance the quality of their education. To achieve this objective, the researcher employed a qualitative approach, conducting individual interviews with four Master's students in the Special Education Department at Ajloun National University, selected purposively. The results showed that the majority of students believe that AI has contributed to improving the quality of their education, while some expressed reservations about its impact. Regarding the participants' evaluation of their experience with AI, all participants rated it positively, indicating that its use has contributed to improving the quality of their education. However, their assessments of AI's contribution to this improvement varied, ranging from 7 to 9 out of 10. The researchers recommend the necessity of offering specialized training courses to train graduate students in the application of AI in their learning. Furthermore, they emphasize the importance of providing ongoing academic support, guidance, and mentorship.

الملخص
هدف البحث الحالي للتعرف على تجربة طلاب الدراسات العليا في توظيف الذكاء الاصطناعي لتحسين جودة تعليمهم، وتقييمهم لهذه التجربة. ولتحقيق هذا الهدف استخدم الباحث المنهج النوعي، من خلال إجراء مقابلات فردية مع أربعة من طلاب مرحلة الماجستير في قسم التربية الخاصة بجامعة عجلون الوطنية، والذين تم اختيارهم بالطريقة القصدية. وأظهرت النتائج أن أغلبية الطلاب يعتقدون أن توظيف الذكاء الاصطناعي ساهم في تحسين جودة تعليمهم، بينما أبدى بعضهم تحفظاً على تأثير الذكاء الاصطناعي في تحسين جودة تعليمهم. أما تقييم المشاركين لتجربتهم في توظيف الذكاء الاصطناعي، فقد قيم جميع المشاركين هذه التجربة بإيجابية، وأن توظيفه ساهم في تحسين وتطوير جودة تعليمهم، مع اختلاف تقييمهم لمساهمة الذكاء الاصطناعي في هذا التحسن والتطوير، فقد تراوحت التقييمات (7-

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1. Introduction

The integration of artificial intelligence (AI) represents one of the most significant recent digital technological advancements in the field of educational development. This innovation has compelled higher education institutions, particularly universities, to keep pace with and employ AI technologies to enhance teaching and learning processes. The utilization of AI by graduate students has also contributed to improving the quality of their learning experiences. Universities today operate within rapidly changing environments due to the continuous and accelerated evolution of AI technologies and their applications (Arshan, 2023). Consequently, it has become essential to leverage the tools and applications that AI offers to enhance academic learning quality. AI facilitates students' access to information, enriches their knowledge more efficiently, saves time and effort, and improves their overall learning outcomes (Ibrahim, 2024). Therefore, the quality of university education is increasingly tied to the advancement of digital technologies (particularly AI) to align with the demands of modern education (Badawi, 2022). AI has opened new theoretical and practical dimensions across various educational stages (Bojorquez & Vega, 2023) and provides opportunities to improve educational quality, producing graduates capable of competing effectively in the labor market. It enables students to engage in self-directed learning and to become active participants rather than passive recipients of information (Bailey, 2024). Accordingly, the use of AI in education has become a necessity, especially given its capabilities and advantages in the learning process (Musa et al., 2021). Among these are its ability to provide students with feedback, support self-learning, and integrate them into e-learning programs (Al-Far & Mileji, 2019). Al-Omari (2019) further emphasized that AI contributes to improving the quality of educational outcomes, enhancing knowledge retention, and developing students' cognitive skills.

However, in order for students to effectively harness these potentials and benefits, they must possess the necessary skills that enable them to employ AI meaningfully to improve their learning quality (Al-Hajahoj, 2024). Based on this context, the present study aims to explore the experiences of graduate students in the Department of Special Education in utilizing artificial intelligence to enhance the quality of their learning. It is impossible to ignore or deny the fact that graduate students' use of artificial intelligence (AI) to enhance the quality of their learning has become an issue that requires deeper and more detailed examination, especially after numerous studies and conferences have confirmed the positive outcomes associated with its utilization. The recommendations of the conference "Artificial Intelligence: Between Reality and Aspiration and Its Legal Applications" (2024) emphasized the necessity of integrating AI into educational institutions to achieve quality education and to include AI applications across all educational stages (Al-Mutairi & Al-Suhaim, 2024). Similarly, Hary (2023) indicated that AI contributes to improving students' outcomes, as it allows them to learn at their own pace and in ways that suit their individual learning styles. It also saves time, provides more accurate and consistent information, and supports personalized learning experiences. Bojorquez and Vega (2023) concurred, noting that AI enhances and supports students' educational experiences by offering more customized learning opportunities, analyzing their learning patterns, strengths, and weaknesses to generate knowledge tailored to their needs, suggesting resources to meet their individual requirements, and adapting to each student's progress. It also identifies knowledge gaps, provides instant feedback, and suggests additional interventions and materials to help them master academic content, while improving their focus and engagement. Al-Ghoneim (2024) added that AI can process large amounts of information requested by students and provide them with the educational content they need, while being accessible anytime and anywhere (Badawi, 2022). Furthermore, AI provides continuous support, can work with students for long periods, and maintains the same level of efficiency, speed, and accuracy (Hidaya, 2023). However, despite the growing importance of AI in education, the actual level of its utilization among graduate students to enhance their learning quality remains below the desired level. Fan (2024) reported that although graduate students recognize the significance of AI in improving instructional efficiency, their actual academic performance has remained largely unchanged. Similarly, Al-Masri (2022) found that university students in Jordan demonstrate a moderate level of AI use. In contrast, Alshamy et al. (2025)

found that graduate students frequently employ AI tools in their studies. This insufficient utilization of AI among graduate students can be attributed to several challenges. Alshamy et al. (2025) identified issues such as AI overuse, academic integrity concerns, and the decline of critical and creative thinking skills. Fan (2024) further highlighted students' concerns regarding the accuracy and reliability of AI-generated information. Drawing upon the researcher's specialization in special education and experience in teaching graduate students, it was observed that graduate students do not sufficiently employ AI to improve their academic learning quality, nor do they take full advantage of its capabilities. Moreover, there is a notable scarcity of Arabic studies addressing this topic. Accordingly, this study was undertaken to fill that gap. Based on the above, the research problem and questions are formulated as follows:

1. What are the experiences of graduate students in the Department of Special Education in employing artificial intelligence to enhance the quality of their learning?
2. How do graduate students in the Department of Special Education evaluate their experience in employing artificial intelligence to enhance the quality of their learning?

Based on the presentation of the research problem and the significance of employing artificial intelligence (AI) by graduate students to improve the quality of their learning, as well as their experience in utilizing it, the present study aims to explore the experiences of graduate students in the Department of Special Education in employing AI to enhance the quality of their learning and to examine their evaluation of this experience.

2. Literature Review and Hypotheses

Artificial intelligence (AI) is one of the most significant modern technologies that continues to evolve rapidly, driving innovation and growth across multiple sectors, including education. AI can be defined as a set of computational techniques and methods concerned with the ability of computer systems to make rational, flexible decisions and respond to environmental conditions that are often unpredictable. It encompasses areas such as natural language processing, machine learning, intelligent agents, and logical decision-making (Al-Mutairi & Al-Suhaim, 2024).

AI is a scientific field that seeks to create machines and develop computer systems and software capable of performing tasks that, until recently, were exclusive to humans. It enables the design of computer programs that simulate human intelligence, allowing machines to perform functions requiring reasoning, comprehension, speech, and motion in a logical and organized manner. Through AI, it is possible to develop computing systems that operate with efficiency comparable to that of experienced human experts, systems capable of imitating human cognitive and motor processes, reasoning patterns, and learning from past experiences to generate intelligent, adaptive responses. In essence, AI represents the emulation of the human mind and its functions (Hao et al., 2025). According to Ahmed (2024), AI in learning refers to computers, software programs, and smart applications on mobile devices and tablets that mimic human cognitive abilities and possess the capacity to act and make decisions in ways similar to human thinking, with the goal of utilizing these capabilities to achieve meaningful educational objectives. AI is characterized by several distinctive features, the most important of which include problem-solving in the absence of complete information, the ability to access and employ vast amounts of data, learning and perception, and the use of prior experience (Abu Al-Nasr, 2020). Al-Ghunaim (2023) added that AI supports the entire educational ecosystem (students, teachers, and administrators) by enabling continuous, high-efficiency work, providing speed and precision in task completion, and processing massive datasets for analysis and information extraction. Similarly, Mutair (2022) emphasized that integrating AI into education has become a necessity, given its powerful potential and capacity for handling extensive information efficiently.

Among its advantages, AI allows students more time for learning, ensures better comprehension of educational content, and helps tailor learning experiences to individual needs. It enables students to access learning materials anytime and anywhere, promotes self-directed learning without constraints, and facilitates the review of educational content independently of the teacher. Furthermore, it helps learners identify and correct their weaknesses, transforming learning into an engaging and stimulating process (Matar & Saleh, 2021). AI also enhances interaction opportunities between learners and educational content by providing accurate, efficient responses to inquiries, supporting experiential learning through low-risk trial and error, and introducing adaptive learning models that align with individual learner profiles. It assists in language

acquisition, text analysis and correction, problem-solving with incomplete data, and fosters elements of curiosity, challenge, imagination, and competition within the educational process (Al-Mutairi & Al-Suhaim, 2024). Ahmed (2024) identified several AI-based teaching strategies that may enhance instructional quality, including intelligent teaching strategies, adaptive learning, intelligent educational games, smart assessment systems, letter and text recognition tools, automatic text summarization, augmented and virtual reality applications, speech synthesis, expert systems, and educational and conversational robots.

Through a review of prior research, it was found that the present study stands out for its novelty, particularly given the scarcity of Arabic studies addressing the experiences of postgraduate students in employing AI to enhance educational quality through a qualitative approach. Accordingly, previous studies are presented here in descending chronological order. Alshamy et al. (2025) conducted a study aimed at exploring postgraduate students' perceptions of AI use by applying the Technology Acceptance Model to a sample of 555 students at Sultan Qaboos University in Oman. Using a survey design, the results showed that students frequently used AI for academic support, including specialized learning, brainstorming, and completing assignments. They also recognized AI's role in enhancing efficiency and innovation in academic practices. Fan (2024) investigated the educational effects of AI on the learning and performance of postgraduate engineering students in China. Using a survey method with 148 participants, the results indicated that most students perceived AI as having a positive impact on their learning efficiency, initiative, creativity, and independent thinking. Although they acknowledged improved instructional quality, many reported that their actual academic performance remained largely unchanged and expressed concerns regarding the reliability of AI in specific contexts.

Chaudhay et al. (2024) examined the impact of AI-based educational tools on postgraduate students' engagement and learning outcomes. The study utilized a survey of 500 postgraduate students from five universities in Lahore. Findings revealed a strong correlation between the use of AI-based educational tools and students' engagement, which positively influenced their learning outcomes and academic performance, as well as their critical thinking skills. The study concluded that AI tools hold substantial potential to transform postgraduate education by fostering active learning environments and improving educational results. Wood and Mss (2024) conducted a qualitative study to evaluate the impact of AI on postgraduate students' learning experiences and perceptions within a specific academic course. The findings indicated that integrating AI into course design enhanced students' comfort with AI technologies, deepened their understanding of ethical implications, and improved instructional strategies, personal growth, and responsible adoption of AI in education. Ibrahim (2024) carried out a descriptive-analytical study to examine postgraduate students' utilization of AI tools at Beni Suef University, involving 127 participants. The results showed that the primary benefit of AI for students lay in its ability to provide abundant sources of information relevant to their research topics. Collectively, the reviewed studies highlight a research gap concerning the experiences of postgraduate students in Arab universities (particularly in Jordan) in using AI to enhance the quality of their education. The current study builds upon prior research in instrument design but differs in its methodology, research questions, instruments, procedures, participants, and the context of its implementation.

2.1 Operational Definitions

Artificial Intelligence (AI): refers to systems that utilize technologies capable of collecting and using data to predict, recommend, or make decisions with varying levels of autonomy, selecting the best course of action to achieve specific objectives (Regona et al., 2022). Operationally, it is defined as a set of digital applications that graduate students can employ to enhance the quality of their learning.

Graduate Students: These are individuals officially enrolled in public or private universities to obtain a higher diploma, master's degree, or doctorate (Ministry of Higher Education and Scientific Research, 2024). Operationally, they are defined as master's students in the Department of Special Education at Ajloun National University.

Quality of Education: refers to conducting the educational and instructional process correctly from the very first step while continuously evaluating the process to determine the extent of performance improvement (Al-Fahmi, 2020). Operationally, it is defined as the extent to which graduate students in the Department

of Special Education possess the essential and necessary knowledge and skills related to their specialization.

3. Methodology

The present study adopted a narrative qualitative research design to explore the experiences of postgraduate students in the Department of Special Education in utilizing artificial intelligence (AI) to enhance the quality of their education. This approach was selected for its appropriateness in investigating personal experiences, as it focuses on gathering and interpreting participants' stories and accounts to answer the research questions. Through this method, the researcher sought to understand the participants lived experiences and to construct a cohesive narrative that integrates their perspectives with the researcher's own interpretations (Al-Qasimi, 2022). The population of the study consisted of all postgraduate students enrolled in the master's program in the Department of Special Education at Ajloun National University, totaling forty-five students. As Creswell and Poth (2019) indicated, it is essential to specify the size and characteristics of the research population when conducting qualitative studies. The participants were selected purposefully, following the most common strategy in qualitative research, which ensures that individuals who possess the relevant knowledge and experience are included. Poles (2020) emphasized that the number of participants in qualitative research is typically small, usually ranging from four to ten participants, with the possibility of conducting multiple interviews with each one. Based on this rationale, the present study involved four master's students from the Department of Special Education at Ajloun National University. These participants were purposefully chosen during the summer semester of the 2024/2025 academic year, which is consistent with the logic of qualitative inquiry that prioritizes depth of understanding over numerical representation.

To collect data, the researcher developed an interview protocol after reviewing relevant literature and previous studies (such as Alshamy et al., 2025; Fan, 2024). The study relied primarily on semi-structured individual interviews, which are widely recognized as one of the most effective tools for obtaining rich and detailed data in qualitative studies (Al-Abdulkareem, 2020; Hassan et al., 2019). This method was chosen because it allows flexibility in exploring participants' experiences while maintaining focus on the main research questions. The interview included an introductory section in which the researcher introduced himself, clarified the title and objectives of the study, explained the estimated duration of the interview (approximately 30–40 minutes), and sought participants' consent for audio recording to ensure accurate transcription. Participants were assured that their information would remain confidential and would be used solely for research purposes in accordance with ethical research standards. After a careful review process, the interview protocol was finalized and approved in its initial form. Following the identification of the study population, the researcher constructed the interview tool and submitted it for validation by three faculty members specializing in educational research. It was then piloted on three participants from the same population but outside the main sample to ensure the clarity and appropriateness of the questions. After obtaining the necessary modifications, the final version of the interview was conducted with the four primary participants. Once their consent was obtained, the researcher arranged suitable times for each interview, which were carried out either face-to-face or via the Zoom platform, depending on participants' availability.

Ethical considerations were carefully observed throughout all stages of the study. In line with the recommendations of Al-Qudah and Felemban (2025), the researcher took the necessary precautions to ensure confidentiality and data security. All audio recordings and transcripts were stored in a secure location accessible only to the researcher. Participants' names were replaced with numerical codes to preserve anonymity, and all identifying materials were permanently deleted after the completion of data analysis. To establish the trustworthiness and credibility of the findings, the researcher employed several strategies commonly used in qualitative research (Al-Harbi & Al-Qudah, 2023; Al-Sarhani & Al-Qudah, 2024; Al-Qasimi & Al-Qudah, 2023). Credibility was enhanced through the use of participant validation, peer debriefing, triangulation, and maintaining a detailed audit trail of the research process. Transferability was supported by selecting participants from diverse academic backgrounds within the field of special education, which enriched the data and expanded the contextual understanding of the phenomenon. Dependability was achieved by documenting every step of the research process in sufficient detail to allow for replication and verification by future researchers. To ensure confirmability, the researcher maintained a reflexive stance by

documenting personal reflections and justifications for methodological decisions, thus minimizing bias and maintaining objectivity throughout the study. Data analysis was conducted using thematic analysis, which is widely regarded as one of the most effective approaches for interpreting qualitative data. As Creswell (2019) described, qualitative data analysis is a continuous process that involves organizing, reading, coding, interpreting, and comparing the data with existing theories and literature. The researcher began by organizing the raw data, transcribing the recorded interviews verbatim into Microsoft Word documents, and reviewing them carefully to ensure accuracy. Each participant's data were stored in a separate file and coded with a numerical identifier.

The analysis proceeded through several iterative stages. In the open coding phase, the researcher read the transcripts multiple times and assigned initial codes to meaningful phrases and sentences. These codes were then grouped into related categories that reflected recurring ideas and experiences. During the axial coding stage, relationships between categories were identified and refined to form broader, interconnected themes. Finally, in the selective coding phase, these themes were synthesized into an integrated narrative that represented the essence of the participants' experiences. The themes were reviewed several times to ensure consistency and coherence between the raw data and the researcher's interpretations. In presenting the results, the researcher supported each theme with direct quotations from participants to illustrate their perspectives authentically. These findings were then compared and discussed in relation to previous studies and theoretical frameworks, highlighting both the areas of convergence and the unique contributions of the current study. The analysis concluded with a synthesis of insights and recommendations aimed at improving the integration of artificial intelligence in postgraduate education within the field of special education.

4. Findings

The results of this study were presented to address the research questions in depth. The analysis of the first question "What are the experiences of postgraduate students in the Department of Special Education in employing artificial intelligence to enhance the quality of their education?" revealed two main themes. The first theme represented students' awareness and actual use of artificial intelligence to improve the quality of their education, accounting for 75% of participants. The second theme reflected students' awareness of AI without active utilization of its tools for educational enhancement, comprising 25% of participants. Further analysis of participants' experiences identified four main dimensions of AI use, ranked from most to least frequent. The first and most common dimension was using AI as a direct source of information and academic discussion, reported in three out of four interviews (75%). Participants described AI as a convenient and efficient means of accessing accurate and immediate information. One participant (P1) stated: "I don't need to search through multiple books or sources anymore; I just type my question and get a clear answer. And if I don't understand something, I can ask again, and it explains it to me." The second dimension involved enhancing the quality of presentations and academic assignments, also mentioned in three of the four interviews (75%). Students indicated that AI tools had helped them produce more organized, visually appealing, and academically coherent materials. As one participant (P3) explained: "Our presentations have become much better in terms of design and organization, and our assignments are clearer and more structured". The third dimension related to simplifying complex concepts and accelerating understanding, mentioned in two interviews (50%). One participant (P1) noted: "If I don't understand a particular concept, I ask the AI, and it explains it in several ways until I get it." The fourth dimension was saving time and effort, also observed in two interviews (50%). A participant (P4) stated: "Honestly, I've learned a lot from it. It saves me effort, gives me quick answers, and provides information I didn't know before, even when I ask about different topics, it gives me separate, clear explanations."

The researcher interprets these findings as evidence that, although the integration of artificial intelligence in educational contexts is relatively new, it is already being used effectively by some students as a cognitive and organizational tool that enhances their learning experience in terms of efficiency, speed, and academic quality. This reflects a notable shift from traditional learning practices toward a more technology-dependent model, particularly in higher education. However, the use of AI remains largely individualized and self-directed, relying on students' personal digital skills, which consequently affects both the quality of application and the educational outcomes. These findings are consistent with Alshamy et al. (2025), who concluded that AI has the potential to enhance efficiency and innovation in academic practices. Similarly, Chaudhary et al. (2024) found that AI tools positively influence postgraduate students' learning outcomes,

academic performance, and critical thinking skills. Ibrahim (2024) also emphasized that AI's primary benefit for students lies in facilitating access to rich information sources that support their research activities. However, the second major theme in the results highlighted a degree of reservation among some participants regarding the impact of AI on educational quality, reported by one participant (25%). Participant (P2) expressed concern that the ease of obtaining information through AI might reduce long-term knowledge retention: "When I use AI, it's not the same as going through academic sources or books. When I read from references or libraries, the information stays in my memory longer. Searching and working to find it helps me retain it better than just receiving ready-made answers from AI."

The researcher interprets this as indicating that the absence of positive outcomes for some students may stem from superficial or unstructured use of AI tools, or from insufficient academic guidance. Overreliance on AI without critical engagement may weaken cognitive effort and hinder deep learning, resulting in a diminished ability to retain and internalize knowledge. Thus, while AI offers significant advantages in terms of speed and convenience, unbalanced or unguided use can compromise educational depth and sustainability. Individual differences also played a role in shaping these varied experiences. Variations in students' technological proficiency, motivation, and self-regulated learning skills contributed to different levels of benefit from AI tools. Moreover, the absence of structured academic training on the pedagogically sound use of AI appears to limit students' ability to employ it effectively and responsibly. These interpretations align with Fan (2024), who found that despite graduate students' awareness of AI's educational value, their actual academic performance remained largely unchanged, highlighting the gap between potential and practice.

The analysis of the second research question "How do postgraduate students in the Department of Special Education evaluate their experience in employing artificial intelligence to improve the quality of their education?" showed that all participants expressed highly positive evaluations of their experiences. The overall theme was unanimous satisfaction, reported across all four interviews (100%). Their evaluations varied slightly in degree: one participant (25%) rated the experience as 9 out of 10, two participants (50%) rated it 8 out of 10, and one participant (25%) rated it 7 out of 10. Participant (P2) stated: "Personally, I'd rate it 9 out of 10 because it really helped me, especially in organizing information and completing tasks quickly." Participant (P3) shared: "I'd give it 8 out of 10. Nothing is perfect, but AI gives great and useful results, and maybe my high rating is because I know how to use it well." Participant (P1) added: "I'd rate the experience 7 out of 10. It's excellent, but I can't rely on it completely. I still need to verify the information with my professor." The researcher interprets these results as reflecting a consistently positive perception of AI's role in enhancing the learning process, with differences in ratings attributable mainly to variations in depth of use and awareness of AI's potential. Higher ratings were generally associated with broader and more sophisticated use of AI tools; especially for information retrieval, analysis, and task completion—while lower but still positive ratings tended to correspond with limited or surface-level use of AI. Additionally, differences in students' learning preferences, information-processing styles, and technological literacy may explain variations in evaluation. To the researcher's knowledge, no prior studies have specifically investigated postgraduate students' evaluations of their AI-based learning experiences. Nonetheless, these findings are consistent with Wood and Mss (2024), whose study on AI's influence on master's students' learning experiences reported that integrating AI into instructional design increased students' comfort in using AI, improved their understanding of its ethical implications, and enhanced teaching strategies, personal growth, and practical readiness for responsible AI integration.

5. Implication

The theoretical significance of this study lies in its focus on a highly contemporary topic (artificial intelligence); which plays an active and influential role in improving the quality of education among graduate students. AI supports students in acquiring knowledge related to their specialization, developing the skills necessary to apply that knowledge, evaluating their competencies, and continuously updating their professional knowledge and expertise. To the best of the researcher's knowledge, this study is among the first to address the experiences of graduate students in employing AI to improve the quality of their learning within Jordanian universities. It is expected that the findings will motivate other researchers to conduct further studies on AI integration in various academic disciplines, across different graduate levels, and using

diverse research methodologies. The practical significance of this research lies in raising awareness among decision-makers in universities and educational institutions, faculty members, and graduate thesis supervisors regarding the importance of AI utilization by graduate students to improve the quality of their learning. Additionally, it provides researchers with a potential tool to explore and assess graduate students' experiences in employing AI and their evaluations of this educational innovation.

The findings of this study carry significant theoretical and practical implications for integrating Artificial Intelligence (AI) into higher education, particularly in specialized fields like special education. Theoretically, this research contributes to the Technology Acceptance Model (TAM) and experiential learning theory by providing qualitative, nuanced evidence from a previously under-researched context. The study moves beyond merely measuring perceived usefulness and ease of use, delving into the lived experiences and subjective evaluations of graduate students. It identifies a critical theoretical tension: while AI is perceived as a powerful tool for enhancing efficiency and accessibility (aligning with TAM), its potential to undermine deep, critical engagement and long-term knowledge retention presents a paradox. This suggests that existing theoretical models must be expanded to account for the "depth of use" and the pedagogical guidance required to transform a productivity tool into a genuine cognitive partner. Furthermore, the unanimous positive evaluation despite varying levels of actual benefit indicates that user satisfaction in an educational context is a complex construct that warrants further theoretical exploration.

Practically, this study offers clear guidance for university administrators, faculty, and instructional designers. The primary implication is that simply providing access to AI tools is insufficient. To harness AI's potential effectively, institutions must develop and implement structured training programs. These programs should equip graduate students with the skills to use AI not just for information retrieval, but for critical analysis, synthesis of ideas, and ethical application in academic work. Secondly, the findings underscore the indispensable role of the instructor. The variation in student experiences highlights the need for continuous academic mentorship and supervision to guide students toward deep and meaningful AI integration. Faculty members should explicitly model and teach the responsible use of AI, helping students discern its appropriate and inappropriate applications. Finally, for students in special education, these findings can inform their future practice, suggesting that the AI skills they develop can be adapted to create personalized learning tools and support systems for individuals with disabilities.

6. Conclusion

This study set out to explore the experiences and evaluations of graduate students in special education regarding their use of AI to enhance learning quality. The findings conclusively demonstrate that AI is a significant and positively perceived force in the academic lives of these students. It functions as a multifaceted tool that streamlines research, improves the presentation of academic work, and facilitates understanding of complex concepts. However, the study also reveals a crucial caveat: without critical engagement and pedagogical guidance, the convenience of AI can potentially lead to superficial learning and a reliance on pre-processed information, which may compromise long-term knowledge retention and critical thinking skills. This research is not without its limitations. Firstly, the findings are based on a small, purposefully selected sample from a single department within one university, which limits the generalizability of the results. A larger, multi-institutional study would strengthen the findings. Secondly, the reliance on self-reported data in interviews is susceptible to social desirability bias, where participants may have overstated their positive experiences. Future research should employ mixed-methods approaches, combining interviews with quantitative measures of academic performance and direct observation of AI use. Longitudinal studies are also needed to track the long-term impact of AI integration on critical thinking and professional competency. Finally, future work should investigate the development and efficacy of specific pedagogical frameworks and training modules designed to foster the deep and ethical use of AI among graduate students. The findings of this study are limited to the instrument used to explore the experiences of graduate students in the Department of Special Education in employing artificial intelligence to improve the quality of their learning and to evaluate these experiences. The study is also limited to the summer semester of the academic year 2024/2025, focusing on master's students in the Department of Special Education at Ajloun National University.

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