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Exploring the Use of Artificial Intelligence in Designing Course Descriptions: A Study at Abu Issa Faculty of Education, University of Zawia, Libya

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Abstract: This study investigates faculty members' perceptions regarding the integration of Artificial Intelligence (AI) in the design and development of course descriptions atAbu Issa faculty of Education, University of Zawia, Libya, which is a context where higher education institutions are increasingly exploring AI to improve curriculum quality but face challenges of limited training, institutional readiness, and skepticism about its reliability. By using a descriptive research design, the study examined data from 87 faculty members across various disciplines through a structured questionnaire administered after a hands-on AI training workshop. Participants engaged with AI tools in authentic curriculum development tasks before reflecting on their experiences. Data were analyzed using descriptive statistical techniques: frequencies, percentages, means, and standard deviations, to identify patterns and summarize perceptions without inferring causal relationships. The findings reveal a moderately positive attitude toward the use of AI, especially in enhancing efficiency, aligning with accreditation standards, and updating course content. However, notable reservations emerged concerning the reliability of AI for language refinement, institutional support, and faculty preparedness. Despite recognizing AI's transformative potential in curriculum design, participants expressed concerns about data security, the loss of human creativity, and the need for intensive training. The study highlights the need for capacity building initiatives and institutional support to ensure effective and equitable AI integration in academic settings. Finally, it recommends future research with broader samples, longitudinal designs, and objective outcome measures to deepen understanding and guide responsible AI adoption in higher education.

Keywords: Artificial Intelligence, Course Description, Education, Training

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Introduction

In recent years, the integration of artificial intelligence (AI) into various areas of higher education has become a significant point of interest for educators, researchers, and academic institutions. One such emerging field is the use of AI in developing and enhancing course descriptions, an important component in curriculum design, quality assurance, and accreditation processes of Libyan

institutions. Course descriptions serve as formal academic documents that mention learning objectives, content, assessment methods, intended outcomes of academic programs, and references. As educational institutions struggle for continuous improvement and alignment with global standards and rankings, the role of AI in improving these descriptions offers promising paths for innovation and efficiency.

The importance of this study comes from the growing impact that AI tools can contribute to the clarity, consistency, and relevance of course descriptions. AI-tools, such as ChatGPT, could support the academic staff in drafting, reviewing, and updating course descriptions by suggesting appropriate phrasing, suiting the learning outcomes and ensuring compatibility with accreditation frameworks. Despite this potential, there remains a noticeable gap in empirical research examining how faculty members perceive this integration, to what extent they utilize these tools, and the challenges they encounter in the process. While existing literature has highlighted the applications of AI in areas such as, assessment, teaching methods, and administration, little attention has been given to its specific role in the micro-level task such as course description writing.

This study seeks to fill this research gap by exploring the perceptions of faculty members regarding the usefulness, ease of use, and institutional support related to AI-based tools in course description design. Moreover, it aims to investigate whether AI contributes to enhancing the accuracy, coherence, and alignment of course descriptions with educational outcomes. The study is guided by several research questions: (1) To what extent are faculty members aware of and using AI tools in writing course descriptions? (2) How do they perceive the benefits and limitations of these tools? (3) What institutional or personal factors influence the adoption of AI in this context? In addition, this study hypothesizes that positive perceptions of AI (in terms of perceived usefulness and ease of use) are likely to work with higher levels of adoption in course description development.

Addressing these questions is particularly relevant in the light of the increasing emphasis on digital transformation and the modernization of academic practices in higher education. By understanding faculty attitudes and experiences, this research aims to offer practical recommendations for universities seeking to employ AI in curriculum development processes. Ultimately, this study contributes to the broader discourse on AI integration in education, offering insights into a largely overlooked but critical aspect of academic quality assurance.

Literature Review

The integration of Artificial Intelligence into higher education is increasingly recognized as a transformative force in academic institutions, influencing everything from pedagogy to administration and curriculum design (Luckin et al., 2016; Zawacki-Richter et al., 2019; Baroud et al., 2024; Alrumayh et al., 2025).). However,

scholarly investigations focusing specifically on AI's contribution to the micro-process of course description remain limited especially in Libyan universities. Within this growing field, AI has been viewed as a tool capable of enhancing efficiency, consistency, and alignment with accreditation frameworks, yet the perspectives of educators, whom the primary agents of curriculum articulation, have been ignored due to many administrative, legal, cultural and financial reasons (Setiawan et al., 2023; Elihami et al., 2024; Firdaus et al., 2024; Husayn et al., 2025).

AI's importance in the educational intuitions is often understood through established models of technology acceptance, such as the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT), which highlight perceived usefulness and ease of use as predictors of adoption (Davis, 1989; Venkatesh et al., 2003). Moreover, studies have shown that educators' attitudes and institutional culture play pivotal roles in shaping the adoption of AI tools within curriculum-related processes (Ifenthaler & Yau, 2020; Ruslan et al., 2024; Baroud, 2024; Padang & Kasheem, 2025). Nevertheless, while much attention has been paid to AI in assessment, learning analytics, and administrative functions, little research has considered how AI might reshape the writing and design of course descriptions, essential documents for curriculum clarity, accreditation compliance, and learning transparency.

Existing literature suggests that AI can enhance the precision of curriculum documents through natural language processing tools that align course objectives with institutional goals and global competencies (Baker & Smith, 2019; Ejjami, 2024). These tools also assist educators by offering consistency in terminology, standardizing learning outcomes, and ensuring coherence with broader accreditation standards (Bond et al., 2021; Alsayd et al., 2025; Abdulghani & Alrumayh, 2025). However, some scholars caution against excessive reliance on AI, arguing that it may undermine the expertise educators bring to curriculum development, particularly within culturally and institutionally specific contexts (Selwyn, 2019; Primarni et al., 2025).

Further, Riyadi et al. (2024) addresses the integration of humanistic and theocentric values into holistic educational models. This approach aligns with broader debates about AI in education, where scholars argue for maintaining human values, ethical standards, and spiritual dimensions within increasingly automated systems (Biggs & Tang, 2011; Hassan, 2025; Masoud et al., 2025). The tension between technological efficiency and the preservation of educational integrity mirrors debates within the AI discourse on curriculum development.

Existing literature supports the view that AI can enhance curriculum standardization and quality assurance processes (Chen et al., 2021; Paisun & Masuwd 2024). However, scholars also emphasize the need for human oversight to ensure that course descriptions retain disciplinary depth and cultural relevance

(Yanto et al., 2024; Hasibuan et al., 2024; Syarifaturrahmatullah et al., 2025). Moreover, the institutional readiness for AI adoption which shaped by factors such as infrastructure, leadership, and faculty development is critical to successful implementation (Batista et al., 2024; Broadbent & Poon, 2015; Kasheem et al., 2025).

Several relevant studies have examined AI's role in course design. For example, one study proposed a workflow integrating ChatGPT and DALL·E to generate introductory course videos from existing descriptions, highlighting efficiency gains but also concerns over AI accuracy and human review needs (Weerakoon et al., 2024). Another study introduced the "AI Course Design Planning Framework" to help instructors develop domain-specific AI courses efficiently, with positive usability evaluations but limited testing across varied contexts (Schleiss et al., 2023). A third study applied a problem-based learning approach supported by technology in teaching AI, focusing on improving engagement and contextualization for students with diverse backgrounds (Cavedon et al., 1997).

However, none of these studies have investigated faculty perceptions after directly applying AI tools to create and revise actual course descriptions in a real higher education setting, particularly in a non-Western context such as Libya. This focus is important because it captures authentic, discipline spanning faculty experiences with AI integration, revealing both opportunities and barriers that may differ from that in technology driven or Western based contexts. This study offers a novel contribution to understanding the readiness, attitudes, and institutional factors influencing AI adoption in curriculum development.

Methodology

This study employed a simple descriptive research design to explore faculty perceptions of integrating AI in the design and writing of course descriptions in higher education (Figure 1). The descriptive approach was chosen because the purpose of this study is not to test a specific theory or establish causal relationships but rather to describe current practices, attitudes, and perceptions, as they exist among university faculty members.

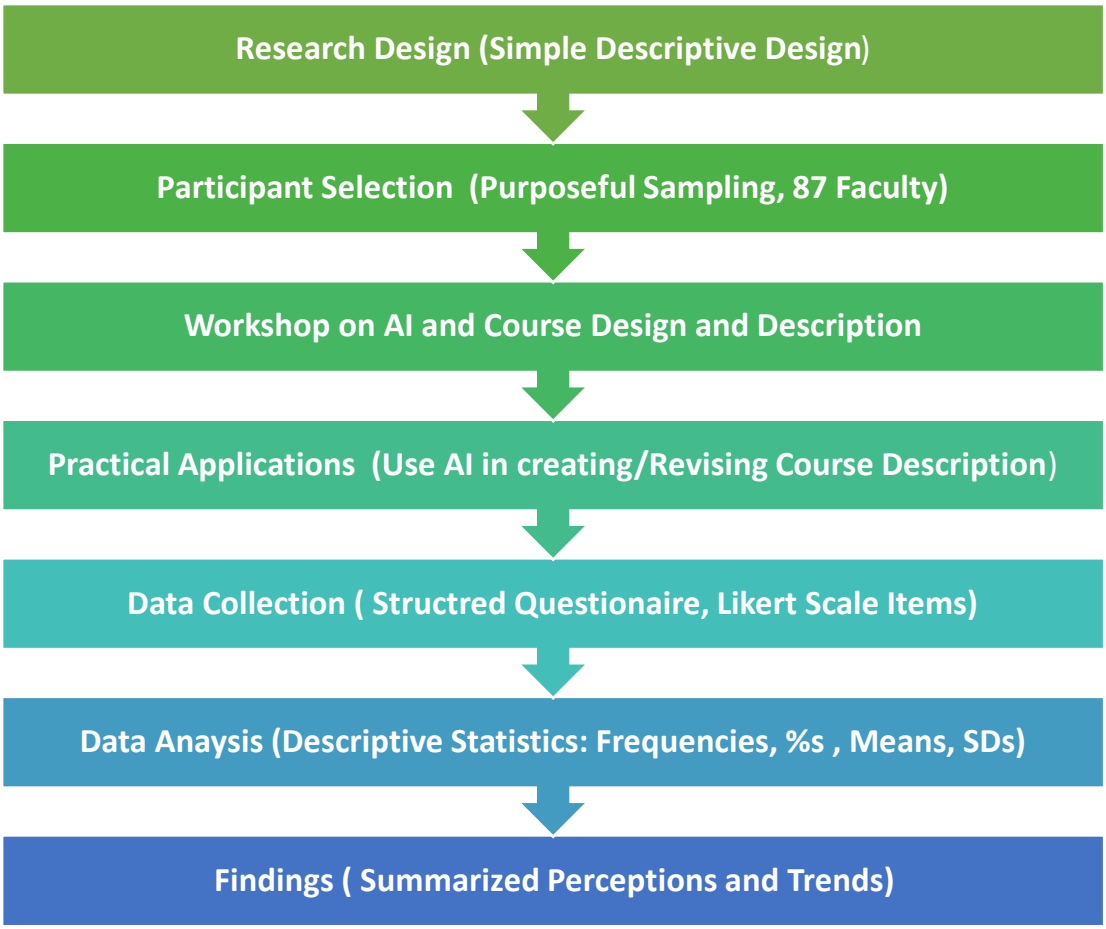

Figure 1. Research Flow of AI Integration in Course Description Design

The participants in this study were faculty members from various departments within higher education institutions, selected through a purposive sampling method. The selection criteria included faculty who are involved in preparing or reviewing course descriptions and have varying degrees of experience with AI tools in academic tasks. A total of 87 participants were invited to participate, representing different academic ranks and disciplines to ensure diversity of opinions and experiences.

The research process began with organizing a workshop specifically designed to introduce participating educators to AI applications in academic writing and curriculum development. During the workshop, participants were trained on how to use AI tools to draft, enhance, and evaluate course descriptions. Hands-on exercises and examples were provided to ensure that educators had a basic understanding of how to effectively use these technologies in their work. Following the workshop, participants were asked to apply AI tools to create or revise actual course descriptions. This practical application phase allowed them to experience AI integration firsthand and reflect on its usefulness and limitations in an authentic

academic setting. Once the educators had used AI in course description development, a structured questionnaire was distributed to collect data on their perceptions, experiences, and attitudes regarding the integration of AI in this specific context. The questionnaire included Likert-scale items focusing on perceived usefulness, ease of use, accuracy, alignment with learning outcomes, and institutional support.

The data were analyzed using simple descriptive statistical methods, including frequencies, percentages, means, and standard deviations. These statistics were used to provide a clear picture of the general trends and attitudes among faculty regarding the use of AI in course description preparation. The analysis focused on summarizing participants' perceptions without inferring beyond the collected data.

Result and Discussion

Description of Sample Characteristics

Table 1 presents the distribution of the study sample according to academic rank. The findings indicate that the majority of respondents were Lecturers (n = 35), representing 40.2% of the total sample. This is followed by Assistant Professors (n = 24; 27.6%) and Assistant Lecturers (n = 15; 17.3%). Meanwhile, Associate Professors accounted for 9.2% (n = 8), and Professors represented the smallest group, with only 5.7% (n = 5). This distribution suggests that mid-career academics dominate the faculty at the University of Zawia's Faculty of Education. Such a distribution may influence attitudes toward AI adoption, as previous research has shown that early and mid-career faculty members are often more adaptable and open to technological innovations in curriculum development (Georgina & Olson, 2008).

Table 1.
Distribution of Sample According to Academic Ranking

Academic Rank	Number	Percentage
Professor	5	5.7%
Associate Professor	8	9.2%
Assistant Professor	24	27.6%
Lecturer	35	40.2%
Assistant Lecturer	15	17.3%
Total	87	100%

As shown in Table 2, participants were distributed across ten departments. The Arabic Language department had the highest number of participants (n = 18; 20.68%), followed by Education and Psychology (n = 14; 16.09%). Other departments,

such as Mathematics (n = 11), Physics (n = 9), and Biology (n = 8), were also moderately represented. Computer Science and Islamic Studies each had 7 participants (8.05%), while Geography had 5 (5.78%). The History and English Language departments had the lowest representation, with only 4 participants each (4.59%). This varied disciplinary representation offers a holistic view of faculty perceptions, aligning with studies that emphasize the role of disciplinary culture in shaping attitudes toward educational technologies (Bennett et al., 2008). For example, humanities-based departments may exhibit different expectations regarding AI usage compared to science fields.

Table 2.
Distribution According to their Affiliated Academic Departments

Department	Number	Percentage
History	4	4.59%
Computer Science	7	8.04%
Physics	9	10.34%
Mathematics	11	12.64%
Education and Psychology	14	16.09%
Geography	5	5.78%
Arabic Language	18	20.68%
Islamic Studies	7	8.05%
Biology	8	9.20%
English Language	4	4.59%
Total	87	100%

Table 3 shows a significant gender imbalance in the study sample. Female faculty members constituted the majority of the participants (90.8%, n = 79), while male faculty members accounted for only 9.2% (n = 8). While this reflects the actual demographics in the institution, it also raises questions about how gendered experiences might influence perceptions of AI in academic work.

Table 3.
Distribution of the Sample Members According to Gender

Gender	Number	Percentage
Male	8	9.2%
Female	79	90.8%
Total	87	100.0%

As indicated in Table 4, faculty members with more than 10 years of university teaching experience represented the largest group (55.2%, n = 48), followed by those with 5–10 years (34.5%, n = 30). Only 10.3% (n = 9) had less than 5 years of experience. This experience-heavy sample suggests that most respondents have substantial exposure to traditional academic practices, which may affect their openness to incorporating AI tools in tasks such as course description design.According to Venkatesh et al. (2003) and Manshur et al. (2025), perceived ease of use and institutional support are especially important for experienced users to engage with new technologies, as their routines may be more established and resistant to change.

Table 4.
Distribution of the Sample Members According to Years of Experience in University Teaching

Percentage	Number	Years of Experience
10.3%	9	Less than 5 years
34.5%	30	5-10 years
55.2%	48	More than 10 years
100%	87	Total

These demographic results have several implications for the adoption of AI in academic course description development. The dominance of Lecturers and Assistant Professors, along with a strong representation from Arabic and Education departments, suggests a user group that may benefit from AI tools designed with mid-career professionals and pedagogical disciplines in mind. The heavy skew toward female faculty could influence both the training needs and the design of institutional policies for AI adoption. Additionally, the high proportion of experienced educators implies a need for tailored professional development programs that respect existing expertise while promoting digital innovation. Finally, the distribution across various departments indicates that any implementation of AI for course design must consider disciplinary differences in terminology, epistemology, and curriculum goals. As scholars like Alouzi (2024), Masyitah et al. (2024) and Baroud & Aljarmi (2025) note, successful AI integration requires sensitivity to these academic cultures.

The Use of Artificial Intelligence in Designing Course Descriptions

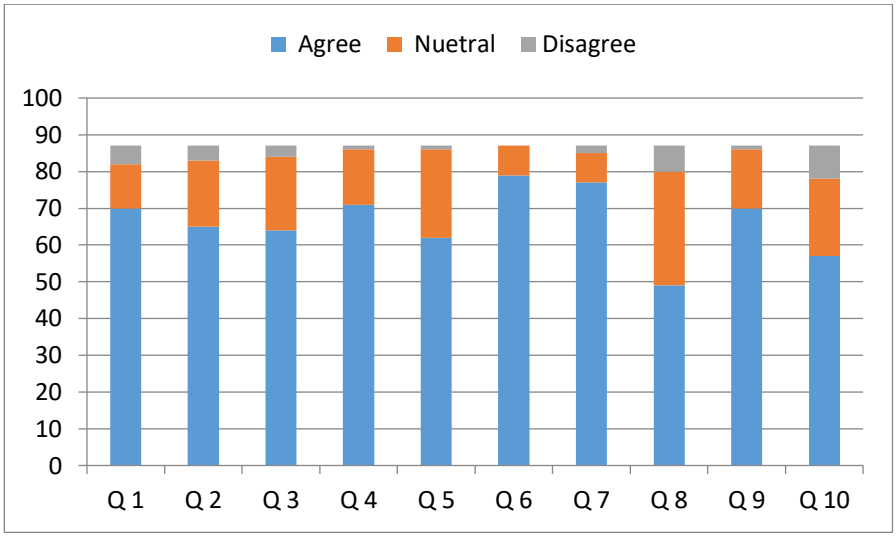

Figure 2.
Responses to the Items on the Use of Artificial Intelligence in Designing Course Descriptions

Based on the results shown in Figure (2) and Table (7), the overall mean score for all items was 2.729, which falls within the "Moderate" level of agreement. This indicates a generally positive tendency toward using AI in the context of designing course descriptions, though not a full or unanimous adoption by all participants.

Table 7.
Participants' Responses to the Items on the Use of Artificial Intelligence in Designing Course Descriptions

No.	Statement	Mean	SD	Level of Agreement
1.	I believe AI can assist in accurately formulating course objectives.	2.747	0.554	Moderate
	I use AI tools when designing the course description.	2.701	0.552	Moderate
2.	AI contributes to improving the alignment of the course description with learning outcomes.	2.701	0.531	Moderate
3.	AI can help analyze the content that should be included in the course description.	2.804	0.427	Moderate
4.	AI facilitates aligning the course	2.701	0.485	Moderate

	description with academic accreditation standards.			
5.	I find that using AI reduces the time and effort in preparing the course description.	2.908	0.291	Moderate
6.	AI provides useful suggestions for updating course content.	2.862	0.408	Moderate
7.	I use AI to review the language and phrasing of the course description.	2.483	0.645	Low
8.	AI tools offer support in identifying appropriate assessment methods for the course.	2.793	0.435	Moderate
9.	I believe AI can reduce errors in course descriptions.	2.588	0.642	Low
	Overall	2.729	0.576	Moderate

The most agreed-upon item was Statement 6 "I find that using AI reduces the time and effort in preparing the course description"; with the highest mean score of 2.908. This reflects strong consensus among participants on AI's effectiveness in saving time and effort. On the other hand, the lowest levels of agreement were seen in Statements 8 "I use AI to review the language and phrasing of the course description" and 10 "I believe AI can reduce errors in course descriptions", which received the lowest mean scores of 2.483 and 2.588, respectively, and were classified as "Low." This suggests participants are less inclined to use AI for linguistic proofreading or error correction, or they may lack full confidence in its effectiveness for such tasks.

Regarding standard deviation: the values ranged from 0.291 to 0.645. The lowest SD was for Statement 6 (0.291), confirming strong agreement and homogeneity in responses to this item. The highest SD was for Statement 8 (0.645), indicating significant variation in participants' opinions about using AI for reviewing language and phrasing, some use it regularly for this purpose, while others remain unconvinced of its usefulness.

These results reveal a clear recognition among participants of AI's benefits in saving time, analyzing content, and formulating objectives (Statements 6, 4, 1). However, there appears to be hesitation or a lack of confidence in using AI for tasks related to linguistic proofreading and error minimization (Statements 8 and 10), suggesting that this area may require further development or awareness.

Knowledge, Support, and Overall Impact of AI Use

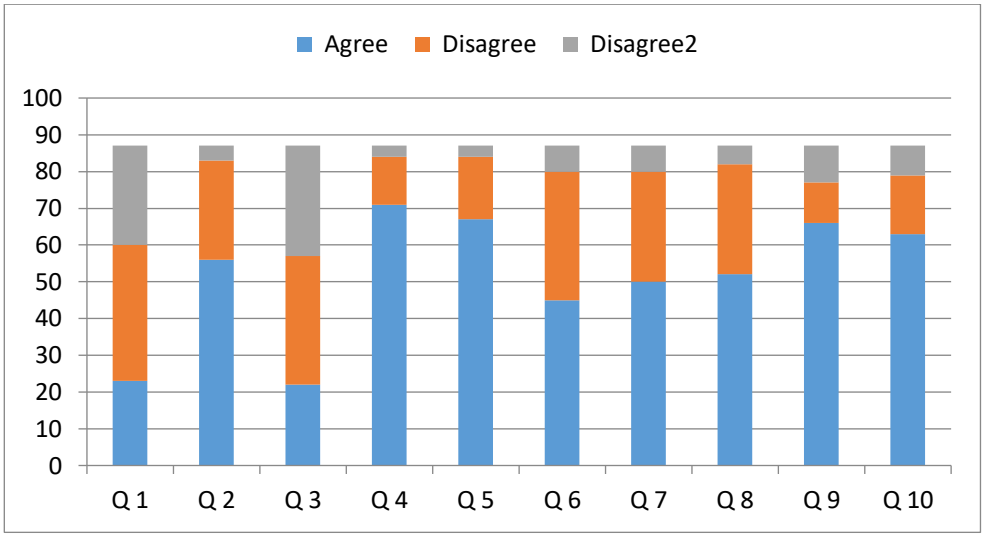

Figure 3.
Responses to the Items on Knowledge, Support, and Overall Impact of Using Artificial Intelligence

Based on the results shown in Figure (3) and Table (8), the overall mean score across all items was 2.472, which falls within the "Low" agreement level. This suggests that, overall, participants are not fully enthusiastic about using AI in this domain, indicating a potential need for more training or awareness initiatives.

Table 8.
Participants' Responses to the Items on Knowledge, Support, and Overall Impact of Using Artificial Intelligence

No.	Statement	Mean	SD	Level of Agreement
1.	I have sufficient knowledge of how to use AI in higher education.	1.954	0.761	Low
2.	I feel comfortable using AI tools when preparing course descriptions.	2.597	0.580	Low
3.	I receive sufficient institutional support to use AI in preparing course descriptions.	1.908	0.772	Low
4.	I believe AI will revolutionize curriculum design.	2.781	0.492	Moderate
5.	I think AI helps improve the alignment	2.735	0.516	Moderate

	of course descriptions across the academic program.			
6.	AI contributes to achieving transparency and accuracy in course descriptions.	2.436	0.642	Low
7.	I use AI to compare my course description with those of other universities.	2.494	0.645	Low
8.	I believe AI helps me incorporate job market-required skills into the course description.	2.540	0.606	Low
9.	I believe AI can be an effective alternative to some traditional suggestions in course design.	2.643	0.682	Moderate
10.	I recommend using AI in designing course descriptions in colleges and universities.	2.632	0.649	Moderate
	Overall	2.472	0.663	Low

The most agreed-upon item was Statement 4 "I believe AI will revolutionize curriculum design", with the highest mean score of 2.781. This indicates that participants hold strong beliefs about the future potential of AI in education, even if their current use of such tools remains limited. The least agreed-upon items were Statements 1 "I have sufficient knowledge of how to use AI in higher education" and 3 "I receive sufficient institutional support to use AI in preparing course descriptions", which received the lowest mean scores of 1.954 and 1.908 respectively, and were classified under the "Low" level. This reveals a clear gap in both knowledge and institutional support available to the participants, which may explain the overall low level of agreement.

As for the standard deviation: values ranged between 0.492 and 0.772. The lowest standard deviation was recorded for Statement 4 (0.492), confirming that participants were generally in agreement regarding the transformative potential of AI (Hamidah & Masuwd, 2024; Hilman et al., 2024; Masuwd et al., 2024; Yahya et al., 2025). The highest standard deviation appeared in Statement 3 (0.772), indicating a wide variation in opinions regarding institutional support, some participants might perceive adequate support, while others feel it is entirely lacking.

These results demonstrate that while participants recognize the future potential of AI in education, they face significant challenges in applying it. These challenges stem from a lack of sufficient knowledge and training, as well as the

absence of necessary institutional support. This highlights an urgent need for offering training programs, workshops, and a supportive environment within academic institutions to enable faculty members to fully benefit from AI tools in their work.

The Extent of Need and Benefit from Using Artificial Intelligence in Course Description

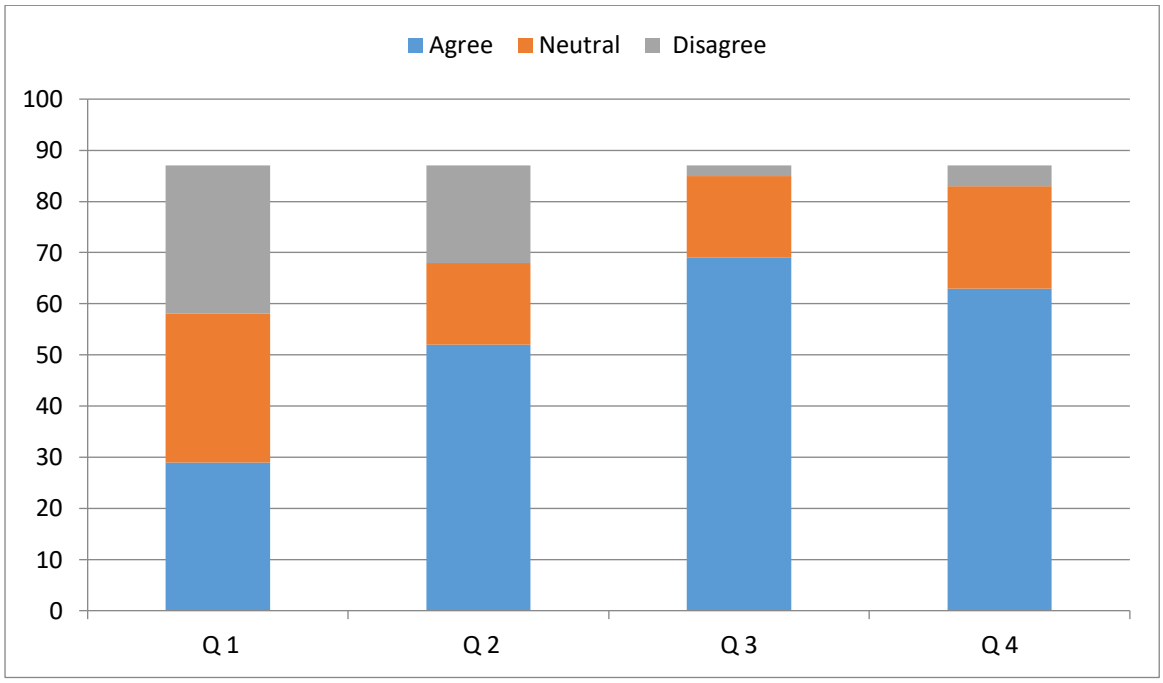

Figure 4.
Responses to the Items on the Extent of Need and Benefit from Using Artificial Intelligence in Course Description

Based on the results presented in Figure (4) and Table (9), the overall mean score was 2.457, which falls within the "Low" level of agreement. This indicates the presence of challenges in the course description process, and those participants' views vary regarding how AI can help address them.

Table 9.
Participants' Responses to Items on the Need for and Benefit from Artificial Intelligence in Course Description

No.	Statement	Mean	SD	Level of Agreement
1.	I find it difficult to formulate learning outcomes for academic courses.	2.000	0.821	Low
2.	The course description process requires a lot of time and effort.	2.379	0.825	Low
3.	I believe AI can contribute to improving the quality of course descriptions.	2.770	0.475	Low
4.	AI can help ensure consistency in course descriptions across different departments.	2.678	0.560	Low
	Overall	2.457	0.719	Low

The most agreed-upon item was Statement 3 "I believe AI can contribute to improving the quality of course descriptions", which received the highest mean score of 2.770. This reflects a strong belief among participants in AI's potential to enhance the quality of course design, indicating their confidence in its future role in this domain. The least agreed-upon item was Statement 1 "I find it difficult to formulate learning outcomes for academic courses", with the lowest mean score of 2.000. This suggests that formulating learning outcomes are not perceived as a major difficulty by most participants, or that their opinions on this matter are divided.

As for the standard deviation: it ranged from 0.475 to 0.825. The lowest SD was for Statement 3 (0.475), indicating high consistency in participants' belief in AI's ability to improve the quality of course descriptions. The highest SD was for Statement 2 (0.825), reflecting wide variation in participants' opinions about the time and effort required for course description, some view it as highly demanding, while others do not see it as a significant burden.

These results show that participants believe AI has the potential to improve the quality and consistency of course descriptions (Statements 3 and 4). However, their views are more divided regarding current challenges such as the time and effort involved in the process (Statement 2), and they do not perceive formulating learning outcomes as a major difficulty (Statement 1).

Potential Challenges and Concerns

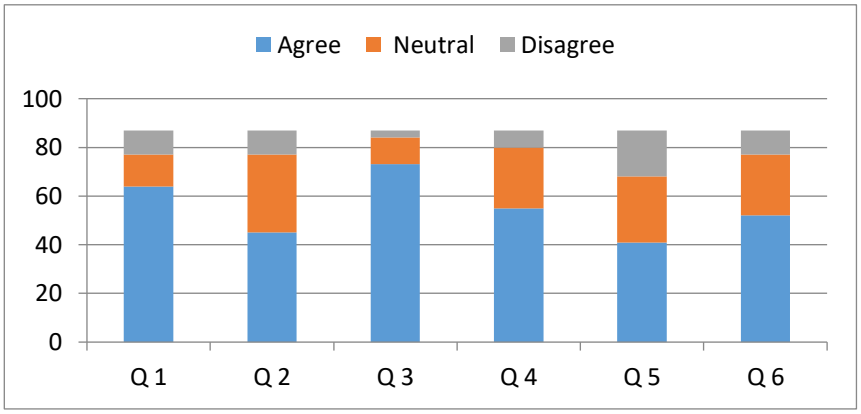

Figure 5.
Responses to the Items on Potential Challenges and Concerns

Based on the results presented in Figure (5) and Table (10), the overall mean for concerns and challenges is 2.519, which falls within the "Low" agreement level. This indicates that participants do have a set of reservations and concerns regarding the use of AI in course description, though these concerns are not overwhelmingly strong.

Table 10.
Participants' Responses to Items on Potential Challenges and Concerns

No.	Statement	Mean	SD	Level of Agreement
1.	I fear that relying on AI may lead to the loss of human creativity in course description.	2.620	0.686	Moderate
2.	I have concerns about the accuracy and reliability of the information provided by AI.	2.402	0.690	Low
3.	I believe that using AI requires intensive training for faculty members.	2.804	0.478	Moderate
4.	There may be resistance to applying AI in course description by some individuals.	2.551	0.643	Low
5.	I think the financial cost of implementing AI technologies could be a barrier.	2.252	0.796	Low
6.	I have concerns about data privacy and information security when using AI.	2.482	0.697	Low
	Overall	2.519	0.629	Low

The most agreed-upon item was Statement 3 "I believe that using AI requires intensive training for faculty members", which received the highest mean score of 2.804. This shows strong consensus among participants that training is a critical and necessary condition for the successful integration of AI into academic environments. The least agreed-upon item was Statement 5 "I think the financial cost of implementing AI technologies could be a barrier"; with the lowest mean score of 2.252. This suggests that participants see cost as a relatively minor concern compared to other aspects such as training, accuracy, or data security.

Regarding standard deviation, values ranged from 0.478 to 0.796. The lowest SD was for Statement 3 (0.478), indicating a strong agreement among participants on the necessity of training. The highest SD was for Statement 5 (0.796), reflecting a significant variation in participants' opinions on whether cost is a major barrier—some see it as a considerable obstacle, while others do not.

These results reveal that the main concerns of participants are not financial, but rather human and technical. The most pressing concern is the need for intensive faculty training. Additional concerns include the accuracy and reliability of AI tools, data privacy, and the potential loss of human creativity especially in religious and cultural sensitive texts (Ichwan et al., 2024; Ayad et al., 2025; Masuwd, 2025; Alriteemi et al., 2025). This data provides clear evidence that the successful use of AI in education in general, and in course description specifically, requires a strong focus on delivering effective training programs, building trust in AI tools, addressing data security concerns, and preserving the active role of faculty members in the educational process.

Recommendations and Suggestions

In light of the findings, it is clear that faculty members recognize the potential value of Artificial Intelligence in curriculum design, particularly in enhancing efficiency and improving content alignment. However, their limited use and cautious attitudes point to several areas that require immediate attention. First and foremost, there is a pressing need for comprehensive professional development programs that build faculty competence in using AI tools effectively. Such training should go beyond basic functionality to include practical applications, discipline-specific case studies, and strategies for integrating AI meaningfully into academic work.

Equally important is the enhancement of institutional support systems. The data suggest that many faculty members feel unsupported in their attempts to adopt AI, which may discourage experimentation and innovation. Universities should therefore establish dedicated support units, such as instructional design centers or AI integration task forces that offer guidance, technical support, and access to relevant resources. These units could also play a role in fostering communities of practice

where faculty share experiences, address common challenges, and collaboratively explore AI applications.

Furthermore, there is a need to promote a more critical and ethical use of AI within the academic environment. Faculty must be equipped not only with the technical skills to operate AI tools but also with the ethical frameworks necessary to evaluate AI-generated content, manage data privacy concerns, and uphold academic integrity. Training in this regard should address issues such as algorithmic bias, intellectual ownership, and the responsible use of AI outputs in course development.

Collaboration across academic departments can also contribute to more successful AI integration. By encouraging interdisciplinary dialogue and shared experimentation, institutions can create a culture that normalizes the use of AI and reduces resistance. Faculty who have successfully adopted AI in their curriculum work can serve as mentors or role models for others, thus promoting peer-supported learning.

Finally, the use of AI in higher education should be subject to continuous evaluation and scholarly inquiry. Institutions should monitor its pedagogical impacts, student outcomes, and unintended consequences to inform ongoing improvements. Supporting further research in this area, especially studies that examine long-term use, discipline-specific patterns, and gender-based differences, will ensure that AI implementation remains responsive, inclusive, and pedagogically sound.

Conclusion

The integration of Artificial Intelligence in higher education curriculum development represents both a promising opportunity and a complex challenge. This study has shown that faculty members exhibit a cautiously optimistic perspective, particularly recognizing AI's capacity to improve efficiency, alignment, and content relevance in course descriptions. Nonetheless, the overall level of agreement remained moderate to low across most dimensions, reflecting underlying concerns about insufficient knowledge, lack of institutional support, and skepticism regarding AI's accuracy in language use and error detection.

While participants were not strongly resistant to AI, their hesitation was shaped by practical limitations such as training demands and unfamiliarity with AI tools in pedagogical contexts. The perceived benefits—such as reducing time, enhancing quality, and ensuring alignment with learning outcomes—are counterbalanced by apprehensions related to data privacy, creative autonomy, and technical readiness. These findings underscore the importance of fostering an institutional environment that supports thoughtful and well-informed AI adoption. For AI to be successfully embedded in educational practice, faculty must be

equipped not only with technical skills but also with ethical frameworks and critical perspectives to guide their use.

This research was limited by its reliance on a relatively small, purposive sample drawn from faculty members in a single faculty and campus in Libya. These findings may not fully represent the diversity of perspectives across different universities or faculties. Additionally, the evaluation was based on self-reported perceptions rather than objective measures of course description outcomes, which may introduce response bias. The research also focused on short-term perceptions immediately following a training workshop, without examining long-term adoption or sustained behavioral changes.

Future studies should expand the sample to include multiple institutions and a wider range of disciplines to capture more varied perspectives on AI integration in curriculum design. Longitudinal research could examine how faculty perceptions and practices evolve over time as they gain more experience with AI tools. Further exploration into ethical, legal, and cultural considerations surrounding AI use in academic contexts, such as bias, intellectual property, and data security, would also be considered. Finally, research could investigate the development of targeted professional development programs and institutional policies that facilitate confident, effective, and responsible AI adoption in higher education.

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