

Artificial Intelligence in Arabic Assignment Writing: A Case Study of UiTM Kelantan Students

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ABSTRACT

The rapid advancement of artificial intelligence (AI) has transformed academic writing practices in higher education, including second and foreign language learning contexts. This study investigates the use of AI in Arabic assignment writing among students at Universiti Teknologi MARA (UiTM) Kelantan. Grounded in the Technology Acceptance Model (TAM), the research analyzed data from 193 respondents across six constructs, yielding high overall mean scores for Perceived Usefulness, Perceived Ease of Use, and Behavioral Intention. The findings reveal that students generally hold positive perceptions toward AI, finding it particularly useful for completing assignments more quickly ($M = 4.39$) and generating ideas ($M = 4.26$). While students reported that AI tools were easy to access ($M = 4.34$), actual usage patterns showed a heavy reliance on translation (87.0%) and grammar checking (83.4%). Notably, the lower mean score for writing independence suggests that AI is currently used more as a performance-oriented aid than as a tool for deeper language mastery, raising concerns about overdependence. The study concludes that AI holds significant pedagogical potential when integrated strategically to enhance rather than replace learner autonomy.

Keywords: Artificial Intelligence, Arabic assignment writing, Technology Acceptance Model (TAM), UiTM Kelantan, language learning

INTRODUCTION

The increasing presence of Artificial Intelligence (AI) in higher education has reshaped the ways students learn, write, revise, and complete academic tasks. Over the last few years, AI-powered tools such as generative chatbots, grammar correction systems, paraphrasing applications, automated writing evaluation platforms, and machine translation engines have become more visible in students' daily academic routines. These technologies are no longer confined to technical or scientific disciplines; rather, they are now being integrated into language learning, writing development, and communication-based courses (Putri & Hasan, 2023). In this regard, academic writing has become one of the most significantly affected areas, as AI tools offer immediate linguistic support, idea generation, structural suggestions, and language correction features that were previously accessible only through instructors or peers (Okolie & Egbon, 2024; Guo & Zaini, 2024).

Within language education, the use of AI has attracted both enthusiasm and concern. On one hand, AI offers pedagogical opportunities by increasing access to instant feedback, personalized assistance, and self-paced learning support. On the other hand, its use raises important questions about academic integrity, learner autonomy, authorship, and overreliance (Samin & Osman, 2024). These concerns become even more pronounced in the context of second or foreign language learning, where students may rely on AI not merely for editing but for generating linguistic content beyond their own productive competence. Therefore, the educational value of

AI depends not only on its technical capabilities but also on how students perceive, use, and integrate it into their learning processes (Rohim et al. 2024).

In Arabic language education, the integration of AI is especially noteworthy. Arabic is a linguistically rich and structurally complex language, characterized by elaborate morphology, orthographic variation, and context-sensitive grammatical systems. These features make Arabic writing particularly challenging for learners, especially non-native speakers and university students who have limited exposure to active written production (Hidayah & Muhamad, 2023). As a result, AI tools that assist with vocabulary, syntax, grammar, sentence restructuring, and translation may be perceived as highly useful in helping learners overcome barriers to written expression (Garba & Hassan, 2024; Siyam et al., 2024).

In the Malaysian higher education context, Arabic is commonly offered as a third language or elective language. However, many students still struggle with Arabic writing tasks due to limited lexical range, weak sentence construction, grammatical uncertainty, and low confidence in composing extended written responses. Traditional classroom instruction often cannot provide sufficient individualized feedback within time constraints, especially in large classes. Consequently, students may turn to AI tools as supplementary writing aids, whether for brainstorming, translation, sentence correction, or revision. This shift has become increasingly relevant in institutions such as Universiti Teknologi MARA (UiTM), where digital learning and technology-enhanced pedagogy have gained greater prominence in recent years.

Although AI adoption is rising among university students, empirical studies targeting Arabic assignment writing are scarce, especially in Malaysia. Prior research has explored AI in English writing, general academic skills, and broader language learning, but few have investigated students' application of AI to Arabic assignments, their assessments of its value, or their plans for ongoing use in future tasks. This shortfall matters since Arabic writing presents unique linguistic and cognitive challenges that could uniquely influence student views and behaviors compared to other languages. Moreover, grasping students' AI acceptance is crucial for crafting effective pedagogical approaches and ethical frameworks for AI in language education.

To address this gap, the present study aims to identify students' perceptions of the usefulness and ease of use of AI tools in Arabic writing and to explore their behavioral intention and actual usage patterns in completing Arabic assignments. This study provides localized evidence from UiTM Kelantan students in TAC 151, TAC 451, and TAC 452 courses, enriching the wider discourse on AI's role in education and Arabic language teaching. It delivers actionable guidance on integrating AI effectively into Arabic writing instruction while upholding educational standards. Ultimately, the research not only records patterns of technology adoption but also sheds light on how students manage the tension between AI support and over-reliance in a shifting, AI-driven academic landscape.

LITERATURE REVIEW

Artificial Intelligence in Education

Among the many technological breakthroughs shaping modern education, Artificial Intelligence stands out as particularly far-reaching (Nafiah, 2023). At its core, AI encompasses computer-based systems designed to carry out tasks that would ordinarily demand human-level thinking — things like understanding language, recognizing patterns, making predictions, adapting to new information, and supporting decision-making. Within classrooms and academic institutions, these capabilities have been put to work in a variety of ways, from intelligent tutoring and automated feedback to personalized learning platforms, adaptive testing, conversational chatbots, and tools that assist with writing. What makes AI especially appealing in education is its capacity to deliver support that is flexible, responsive, and tailored to individual learners — a particularly valuable quality in environments where teachers are stretched thin and one-on-one feedback is hard to come by.

The pace of AI adoption in education picked up considerably once generative AI tools became widely accessible — tools capable of producing well-structured text, fixing grammatical errors (Wan Adnan, 2025), condensing

complex information, translating between languages, and holding interactive conversations with users. These features speak directly to the demands of academic writing, where students frequently struggle with structuring their thoughts, getting the language right, choosing appropriate vocabulary, and refining their drafts. As Okolie and Egbon (2024) as well as Putri and Hasan (2023) have observed, AI has woven itself into the fabric of academic research and writing, allowing students to handle writing tasks more quickly and with less effort. In a similar vein, Hidayah and Muhamad (2023) point out that while AI opens exciting new avenues for improving writing, it also raises difficult questions about what it means to be an author, how originality is defined, and whether students are truly building the skills they need.

The integration of artificial intelligence (AI) into educational contexts presents both significant opportunities and critical pedagogical challenges. While AI enhances learning efficiency and accessibility, its increasing role in handling cognitive tasks may reduce students' engagement in productive struggle, which is essential for developing deep understanding, critical thinking, and learner autonomy. This issue is particularly pronounced in writing-intensive disciplines, where writing functions not merely as a means of communication but as a cognitive and reflective process central to knowledge construction. Excessive reliance on AI-generated outputs risks undermining these epistemic processes, potentially weakening students' ability to independently articulate, refine, and evaluate their ideas. Therefore, AI should be conceptualized as an augmentative tool that supports rather than substitutes human learning. Evaluating its educational value thus requires moving beyond output quality to critically examine its impact on students' relationships with language, their engagement in learning processes, and their academic integrity (Zakiyah, 2024).

Artificial Intelligence and Academic Writing

Weingartner et al. (2023) found that university students increasingly see AI as a helpful writing companion that boosts both efficiency and confidence, while Zubaidi et al. (2024) reported that tools like ChatGPT can meaningfully support idea development, vocabulary building, and grammatical accuracy. Yet this convenience comes with real concerns. A central worry is that students may lean on AI-generated content so heavily that their own writing abilities begin to weaken, and the authenticity of their work becomes questionable. Scholars working in the Malaysian tertiary context have flagged the risk of overreliance, cautioning that ease of use may tempt students to let AI do the thinking rather than using it to support their own efforts. Fakir et al. (2024) echoed this concern, noting that while generative AI can help produce more polished assignments, it also muddies the waters around ownership, originality, and what counts as legitimate academic assistance.

Beyond dependency, there is also the question of quality. AI can produce fluent and grammatically sound text, but it is not immune to inaccuracies, contextual missteps, or unnatural phrasing — issues that become more pronounced in non-English language settings. This means students need more than just access to these tools; they need the critical awareness to assess and refine what AI produces. Within Arabic education specifically, this balance has been a recurring theme. Siyam et al. (2024) found AI useful for translation and grammar mapping, though not always reliably accurate. Allaithy and Zaki (2025) identified both promise and pedagogical limitations in AI-generated Arabic reading materials, and Zaki and Ali (2024) cautioned that while AI can support Arabic teaching when used thoughtfully, uncritical adoption risks oversimplifying content or introducing factual distortions. Taken together, these findings reinforce the view that AI in academic writing is best understood as a mediated support tool — one whose value depends heavily on the user's linguistic proficiency, critical literacy, and the pedagogical context in which it is applied.

Empirical Evidence in Malaysian Context

Empirical work consistently points to Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) as the two most influential factors in whether students choose to adopt AI tools for academic and language learning purposes. Mohamed et al. (2023) found that Malaysian university students regard AI applications particularly those built around ChatGPT as genuinely useful for Arabic language learning, especially in helping them engage with course content, generate ideas, and complete assignments more efficiently. This is echoed by Sahrir et al. (2025) and Johan et al. (2025), whose findings show that students are increasingly turning to generative AI for learning Arabic language skills, including vocabulary development, reading comprehension, and writing support.

This pattern is further reinforced by research exploring student perceptions of AI in Malaysian higher education curricula, which identifies perceived utility as a key predictor of whether students actively engage with AI-driven tools in their academic experiences. Broadly speaking, students appear most willing to adopt tools that have a tangible, direct impact on their academic performance and make complex tasks feel more manageable.

On the question of ease of use, the picture is similarly consistent. Malaysian students generally find AI tools intuitive and accessible (Putri & Hasan, 2023), requiring little to no technical know-how to get started a quality that translates into more frequent use and more favorable attitudes toward AI in learning. Ismail (2024) noted that the simplicity of these tools drives rapid uptake among tertiary students, though he also cautioned that this same convenience could slip into habitual over-reliance without proper guidance. Sahrir et al. (2025) further argue that when high usefulness and ease of use work together, they significantly strengthen students' intention to keep engaging with AI tools over time. Adding further weight to this, a study conducted at Multimedia University, Malaysia, examining students' attitudes toward widely used AI tools such as ChatGPT, Quillbot, Grammarly, and Perplexity found that both perceived usefulness and ease of use were central in shaping students' behavioral intentions and actual adoption of these tools in academic settings (Darus et al., 2025). Taken together, these findings suggest that in the Malaysian context, PU and PEOU do more than just spark initial adoption they sustain it, making them indispensable lenses for understanding how and why students integrate AI into Arabic academic writing.

METHODOLOGY

Research Design

This study adopts a quantitative survey research design to investigate the integration of Artificial Intelligence (AI) tools in Arabic academic writing among undergraduate students at UiTM Kelantan. A quantitative approach was selected to enable the systematic collection of measurable data from a substantial sample, allowing for the identification of trends, patterns, and general perceptions regarding AI adoption. As the research objectives focus on students' perceptions, intentions, and behaviors, a structured survey instrument was deemed the most effective method for obtaining comparable and objective responses. The study is theoretically grounded in the Technology Acceptance Model (TAM), developed by Davis (1989), explains technology acceptance through two key beliefs: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), which influence users' behavioral intention and actual use. It has been widely applied in educational technology research to examine students' adoption of platforms, e-learning systems, and, more recently, AI-based tools.

Research Setting and Participants

The study was conducted at Universiti Teknologi MARA (UiTM) Cawangan Kelantan, involving students enrolled in Arabic-related language courses. The target population consisted of undergraduate students taking Arabic as part of their academic elective courses. A total of 193 respondents were selected through purposive sampling, as they were chosen based on their direct relevance to the research objectives. Specifically, the participants were drawn from the following three courses: TAC 151 (Foundation Arabic II), TAC 451 (Introductory Arabic II), and TAC 452 (Arabic for Business Communication II).

Students enrolled in TAC 151 and TAC 451 are exposed to Arabic vocabulary, grammar, and phrases, as well as basic conversational Arabic in daily situational contexts. Cultural elements are also incorporated into these courses. Emphasis is placed on consolidating the four language skills, namely listening, speaking, reading, and writing. Meanwhile, TAC 452 is designed to equip students with essential Arabic language skills for professional and business contexts. It focuses on developing effective communication abilities in both spoken and written Arabic, specifically tailored to workplace interactions. The course also introduces elements of Arab business culture, etiquette, and communication styles to enhance cross-cultural understanding and professionalism. In all three courses, 40% of the final grade is allocated to group assignments, making the use of writing support tools highly relevant to the students' academic success.

Research Instrument

Data were collected using a structured questionnaire designed to measure students' perceptions and experiences regarding the use of AI in Arabic assignment writing. The instrument consisted of closed-ended items rated on a five-point Likert scale and was developed based on the Technology Acceptance Model (TAM) as well as previous literature on AI in academic writing and language learning.

To ensure thematic clarity, the questionnaire was divided into six main constructs. Perceived Usefulness measured the extent to which students believed AI tools improved their Arabic writing performance, including writing quality, sentence fluency, grammar correction, paragraph organization, vocabulary enhancement, and assignment efficiency. Perceived Ease of Use assessed how easy students found AI tools to access, understand, and operate for Arabic writing tasks, including ease of navigation, clarity of responses, convenience, learnability, and accessibility. Behavioral Intention examined students' willingness to continue using AI in future Arabic assignments, including their preference for AI-assisted writing and their willingness to recommend such tools to peers.

The remaining constructs focused on broader educational and experiential dimensions. Learning Development explored whether AI contributed to grammar awareness, editing skills, writing confidence, independence, and overall language development. Satisfaction measured students' trust, comfort, reliability perceptions, and overall satisfaction in using AI tools for Arabic assignments. Future Expectations investigated students' optimism regarding the future role, capability, and relevance of AI in Arabic education.

The questionnaire was distributed online during the academic semester. Respondents were informed that participation was voluntary, confidential, and intended solely for academic research purposes. They were instructed to answer based on their actual experiences using AI tools such as ChatGPT, translation applications, grammar correction platforms, paraphrasing tools, and other AI-assisted writing systems in completing Arabic assignments, ensuring that the responses reflected authentic rather than hypothetical usage.

Analysis

The collected data were analyzed using descriptive statistics, specifically frequency, percentage, mean score, and standard deviation, to examine students' perceptions, usage tendencies, and acceptance of AI tools in Arabic assignment writing. This approach was appropriate because the study aimed to describe students' responses rather than test causal relationships. Mean scores were interpreted using the following ranges: 1.00–2.33 = Low, 2.34–3.66 = Moderate, and 3.67–5.00 = High. This section presents the findings according to the study constructs and discusses their relevance in relation to the Technology Acceptance Model (TAM) and Arabic language learning.

Respondent Demographic Profile

A total of 193 students participated in the study. The respondents represented learners from three Arabic-related courses at UiTM Kelantan. Table 1 presents the demographic distribution of the respondents according to course enrollment.

Table 1 Distribution of Respondents by Course and Year of Study

Variable	Category	Frequency (n)	Percentage (%)
Course	TAC 151	71	36.8
	TAC 451	64	33.2
	TAC 452	58	30.1
Total		193	100.0

The demographic distribution indicates that the respondents were reasonably balanced across the selected Arabic courses, with the largest proportion coming from TAC 151 (36.8%), followed by TAC 451 (33.2%) and TAC

452 (30.1%). In terms of academic level, second -year students (100 %) formed the majority of the sample. This distribution is relevant because it reflects the perspectives of students at different stages of university-level Arabic learning, where linguistic support tools such as AI are likely to be particularly appealing, especially among those who have already experienced and completed previous assignment writing tasks.

General Exposure to AI Tools in Arabic Assignment Writing

Before examining the six constructs, it was necessary to determine whether respondents had actual experience using AI tools in relation to Arabic assignments.

Table 2 Students’ Self-Reported Use of AI Tools for Arabic Assignments

Item	Response	Frequency (n)	Percentage (%)
Have you ever used AI tools to help complete Arabic assignments?	Yes	176	91.2
	No	17	8.8
Total		193	100.0

The findings indicate that 91.2% of the respondents reported having used AI tools to assist them in completing Arabic assignments, while only 8.8% reported no prior use. This result strongly suggests that AI use is already widespread among students in Arabic-related courses at UiTM Kelantan. It also confirms that the majority of respondents were sufficiently familiar with AI tools to provide meaningful responses to the survey items. The high level of AI exposure among respondents reflects the growing normalization of AI-assisted learning in university contexts. Rather than being a rare or experimental practice, AI use appears to have become part of the ordinary academic support strategies adopted by students in Arabic learning.

Descriptive Analysis by Construct

The following sections present the descriptive analysis of each construct measured in the study.

Perceived Usefulness

The first construct examined was Perceived Usefulness, which refers to the extent to which students believed that AI tools helped improve their Arabic writing and assignment completion.

Table 3 Mean Scores for Perceived Usefulness

Item	Mean	SD	Interpretation
AI tools help me generate ideas for Arabic assignments.	4.26	0.71	High
AI tools help improve my Arabic sentence construction.	4.18	0.74	High
AI tools help me choose better Arabic vocabulary.	4.21	0.69	High
AI tools help me complete Arabic assignments more quickly.	4.39	0.67	High
AI tools help improve the grammar of my Arabic writing.	4.11	0.78	High
AI tools help improve the overall quality of my Arabic writing.	4.15	0.73	High
AI tools help me organize my ideas into paragraphs more effectively.	4.07	0.76	High
Overall Mean	4.20	0.73	High

Students reported a high level of agreement regarding the usefulness of AI tools in Arabic writing, with an overall mean of 4.20. The highest-rated item was “AI tools help me complete Arabic assignments more quickly” (M = 4.39, SD = 0.67), indicating that efficiency is one of the most valued benefits of AI. High scores for idea generation (M = 4.26), vocabulary enhancement (M = 4.21), and sentence construction (M = 4.18) further

suggest that students rely on AI during the planning and drafting stages of writing. Although paragraph organization ($M = 4.07$) received the lowest score in this section, it remained within the high range, indicating that AI is perceived as more effective for sentence-level and lexical support than for broader discourse organization. These findings are consistent with studies highlighting AI’s usefulness in improving writing productivity and language quality (Weingartner et al., 2023).

Perceived Ease of Use

This construct assessed how easy students found AI tools to access, understand, and operate in Arabic writing tasks.

Table 4 Mean Scores for Perceived Ease of Use

Item	Mean	SD	Interpretation
AI tools are easy to access when I need help with Arabic assignments.	4.34	0.65	High
I find AI tools easy to use for Arabic writing tasks.	4.22	0.71	High
I can understand the responses or suggestions given by AI tools.	4.13	0.75	High
It is easy for me to learn how to use AI tools for Arabic assignments.	4.19	0.72	High
AI tools do not require much effort for me to use.	4.17	0.73	High
I can use AI tools even without much technical knowledge.	4.09	0.81	High
Overall Mean	4.19	0.73	High

The overall mean of 4.19 indicates that students perceived AI tools as highly accessible and user-friendly. The highest score was recorded for ease of access ($M = 4.34$, $SD = 0.65$), suggesting that convenience and immediacy are major reasons for students’ use of AI. Similarly, students agreed that AI tools are easy to use, easy to learn, and require minimal effort. Although the item on using AI without technical knowledge received the lowest mean ($M = 4.09$), it still reflects a high level of agreement. These findings support TAM’s proposition that technologies perceived as easy to use are more likely to be adopted regularly in academic practice.

Behavioral Intention

This construct measured students’ willingness to continue using AI tools in future Arabic assignments.

Table 5 Mean Scores for Behavioral Intention

Item	Mean	SD	Interpretation
I intend to continue using AI tools for future Arabic assignments.	4.28	0.69	High
I would recommend AI tools to my classmates for Arabic writing.	4.17	0.74	High
I prefer using AI tools when I face difficulty in Arabic writing.	4.25	0.71	High
I plan to use AI tools more frequently in future Arabic coursework.	4.11	0.79	High
AI tools will remain part of my academic writing process.	4.14	0.76	High
Overall Mean	4.19	0.74	High

Students demonstrated a strong intention to continue using AI, as shown by the high overall mean ($M = 4.19$). The strongest agreement was found for future continued use ($M = 4.28$) and preference for AI when facing writing difficulties ($M = 4.25$). These findings suggest that AI is not viewed as a temporary novelty but as a continuing part of students’ academic writing practices. The willingness to recommend AI to peers further indicates that AI use has become increasingly normalized among students. This pattern is consistent with TAM, where perceived usefulness and ease of use often lead to stronger behavioral intention.

Learning Development

This construct examined Learning Development, which refers to students’ perceptions of whether AI contributes to their actual improvement in Arabic writing skills and language learning.

Table 6 Mean Scores for Learning Development

Item	Mean	SD	Interpretation
AI tools help me learn new Arabic vocabulary.	4.18	0.72	High
AI tools help me better understand Arabic grammar.	3.97	0.82	High
AI tools improve my editing and correction skills in Arabic writing.	4.05	0.77	High
AI tools increase my confidence in writing Arabic assignments.	4.12	0.74	High
AI tools help me become more independent in completing Arabic writing tasks.	3.88	0.85	High
AI tools support my overall Arabic language learning development.	4.03	0.79	High
Overall Mean	4.04	0.78	High

The overall mean for Learning Development was 4.04, indicating that students generally believed AI supported their Arabic writing development. However, this construct recorded the lowest overall mean among the six, making it analytically significant. The highest score was for learning new vocabulary ($M = 4.18$), followed by increased writing confidence ($M = 4.12$) and editing improvement ($M = 4.05$). By contrast, relatively lower scores were observed for understanding grammar ($M = 3.97$) and becoming more independent ($M = 3.88$). This suggests that while AI is clearly perceived as useful for completing assignments, students are somewhat less certain about its role in promoting deeper grammatical understanding and writing autonomy. In this sense, AI appears to function more effectively as a scaffold for task performance than as a full substitute for sustained language development.

Satisfaction

This construct measured Satisfaction, referring to students' overall contentment, comfort, and trust in using AI tools for Arabic assignment writing.

Table 7 Mean Scores for Satisfaction

Item	Mean	SD	Interpretation
Overall, I am satisfied with using AI tools in Arabic assignments.	4.21	0.71	High
I trust AI tools to give helpful suggestions in Arabic writing.	3.96	0.81	High
I feel comfortable using AI tools in my Arabic coursework.	4.17	0.73	High
AI tools make Arabic writing less stressful for me.	4.24	0.70	High
Using AI tools gives me a more positive writing experience.	4.13	0.76	High
Overall Mean	4.14	0.74	High

Students expressed a high level of satisfaction with AI use in Arabic writing ($M = 4.14$). The highest-rated item was "AI tools make Arabic writing less stressful for me" ($M = 4.24$, $SD = 0.70$), suggesting that AI also plays an important affective role by reducing writing anxiety. Students were generally satisfied with AI's assistance and felt comfortable using it in coursework. Although trust in AI suggestions ($M = 3.96$) was the lowest item in this section, it still remained in the high range, indicating a generally positive but slightly cautious view of AI reliability. This is particularly relevant in Arabic writing, where grammatical and stylistic precision may vary depending on the tool used.

Future Expectations

This construct explored students' expectations regarding the future role of AI in Arabic education.

Table 8 Mean Scores for Future Expectations

Item	Mean	SD	Interpretation
AI will become increasingly important in Arabic language learning.	4.31	0.66	High
Future AI tools will be more accurate in Arabic writing support.	4.12	0.75	High
AI should be integrated more systematically into Arabic education.	4.08	0.78	High
AI tools will continue to shape how students write Arabic assignments.	4.27	0.69	High

I expect AI to become a normal part of Arabic learning in universities.	4.22	0.72	High
Overall Mean	4.20	0.72	High

Students held strongly positive expectations regarding the future role of AI, with an overall mean of 4.20. The highest-rated item was “AI will become increasingly important in Arabic language learning” (M = 4.31, SD = 0.66), followed by AI shaping future Arabic writing (M = 4.27) and becoming a normal part of university Arabic learning (M = 4.22). These findings suggest that students view AI not as a temporary trend but as an emerging educational reality. The results also imply a growing expectation that institutions and educators will provide clearer guidance and more structured integration of AI in Arabic learning contexts.

Overall Summary of Constructs

To provide a comparative overview, Table 9 summarizes the overall mean scores for all six constructs.

Table 9 Overall Mean Scores Across Constructs

Construct	Mean	SD	Interpretation
Perceived Usefulness	4.20	0.73	High
Perceived Ease of Use	4.19	0.73	High
Behavioral Intention	4.19	0.74	High
Learning Development	4.04	0.78	High
Satisfaction	4.14	0.74	High
Future Expectations	4.20	0.72	High

All six constructs recorded high mean scores, indicating a generally strong student acceptance of AI in Arabic assignment writing. The highest overall means were found for Perceived Usefulness and Future Expectations (both M = 4.20), followed closely by Perceived Ease of Use and Behavioral Intention (both M = 4.19). This pattern suggests that students’ acceptance of AI is driven primarily by its practical value, usability, and perceived future relevance. In contrast, Learning Development (M = 4.04) recorded the lowest mean, suggesting that students distinguish between AI as a helpful assignment support tool and AI as a deeper instrument for long-term language mastery. This distinction is pedagogically important and indicates that AI may support performance more strongly than independent learning.

Analysis of Actual Usage Patterns of AI in Arabic Assignments

In addition to perception-based constructs, the study also explored how students actually use AI in completing Arabic assignments.

Table 10 Students’ Common Uses of AI Tools in Arabic Assignment Writing

Usage Purpose	Frequency (n)	Percentage (%)
Translating words or sentences into Arabic	168	87.0
Checking grammar or sentence correctness	161	83.4
Generating ideas or content for assignments	154	79.8
Improving vocabulary choice	149	77.2
Rewriting or polishing assignment sentences	143	74.1
Organizing paragraphs or structuring written responses	121	62.7
Understanding Arabic grammar explanations	117	60.6

The most common use of AI among students was translation support (87.0%), followed by grammar checking (83.4%), idea generation (79.8%), and vocabulary improvement (77.2%). These findings indicate that students primarily use AI as a practical linguistic support tool, especially in areas where Arabic writing presents immediate challenges such as lexical selection, grammar, and sentence formation. Comparatively lower use for paragraph organization (62.7%) and understanding grammar explanations (60.6%) suggests that students are more likely to use AI for output-oriented assistance than for conceptual language learning. In other words, AI is

being used more frequently as a writing aid than as a language tutor. This reinforces the earlier finding that AI is highly effective in supporting assignment completion, but its contribution to deeper language development depends on how critically and pedagogically it is used.

DISCUSSION

The findings show that students at UiTM Kelantan hold consistently positive perceptions toward the use of AI in Arabic assignment writing. In line with the Technology Acceptance Model (TAM), the high scores for Perceived Usefulness and Perceived Ease of Use suggest that students are more likely to adopt AI because they perceive it as both beneficial and manageable. AI appears to support students most strongly in areas such as translation, grammar correction, vocabulary enhancement, sentence construction, and idea generation, all of which are central challenges in Arabic writing. The high score for Behavioral Intention further indicates that AI is no longer viewed merely as a temporary digital aid but has become a normalized part of students' academic writing practices. At the same time, the high Satisfaction and Future Expectations scores suggest that students not only appreciate AI's current value but also anticipate a greater role for it in Arabic education moving forward.

However, the results also indicate an important pedagogical distinction: students appear to value AI more strongly as a tool for improving writing performance and completing assignments than as a means of achieving deeper independent language mastery. This is evident in the relatively lower mean for Learning Development ($M = 4.04$), particularly in relation to grammar understanding and writing independence. While the overall results indicate high acceptance, a critical finding emerges from the Learning Development construct, which recorded the lowest overall mean among the six constructs. Specifically, the item concerning student independence in completing tasks received the lowest score ($M = 3.88$) within that group. This suggests a notable tension in the data: while students find AI highly useful for efficiency and performance, they are less certain of its ability to foster autonomous writing skills. This finding directly addresses the "overdependence" concerns raised in the introduction, implying that without explicit pedagogical intervention, AI may function as a crutch that bypasses the productive struggle necessary for deep language mastery.

Such a pattern suggests that while AI can function effectively as a scaffold for Arabic writing, it does not automatically guarantee long-term language development unless students are guided to use it critically and reflectively. This alignment requires a shift from viewing AI as an automated producer of text to utilizing it as a reflective partner in the writing process. To mitigate the risk of passive dependence, lecturers should design Arabic writing tasks that require students to critically evaluate AI-generated suggestions, thereby transforming a performance-oriented aid into a tool for cognitive engagement. Furthermore, integrating systematic training on the ethical boundaries of AI usage can help students navigate the tension between leveraging technological support and maintaining the authenticity of their linguistic production. By prioritizing learner autonomy and critical literacy, institutions like UiTM Kelantan can ensure that AI serves to enhance, rather than diminish, the rich communicative competence required for mastering the Arabic language.

CONCLUSION

This study investigated the use of Artificial Intelligence (AI) in Arabic assignment writing among students at UiTM Kelantan, with particular focus on students' perceptions of usefulness, ease of use, behavioral intention, and their actual usage patterns. The findings reveal that students generally hold positive perceptions toward AI and widely recognize its value as a support tool in Arabic academic writing. AI was found to assist students in several key areas, including idea generation, vocabulary enhancement, grammar checking, sentence construction, and assignment efficiency. In line with the Technology Acceptance Model (TAM), the results indicate that students are more likely to adopt AI because they perceive it as both beneficial and easy to use. At the same time, the study highlights that AI is being used primarily as a practical writing aid rather than a full substitute for language learning. While students acknowledged that AI can contribute to confidence, editing, and some aspects of learning development, the findings suggest that its strongest role currently lies in supporting writing performance and task completion. Therefore, the study concludes that AI should be viewed not as a replacement for student effort or lecturer guidance, but as a pedagogical support mechanism that can enhance Arabic writing when used critically, ethically, and strategically. Overall, this research contributes to the growing discussion on AI in language education by offering localized insight into Arabic academic writing within a

Malaysian university context and underscores the importance of developing balanced educational approaches to AI integration in higher education.

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