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# Exploring education students' use of ChatGPT for academic and personal purposes: insights from a developing country context

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Generative Artificial Intelligence (AI) has become popular and has changed how we do things. Generative AI has an impact on educational systems. One of the popular types of Generative AI is ChatGPT. Using ChatGPT presents both benefits and challenges for students. It is important to understand how our students are using this technology. This study examines Jordanian education students' use of ChatGPT for personal and academic purposes and the differences in usage based on gender and academic level. The study followed a descriptive research design in which 134 participants completed an online questionnaire. The results showed that students' use of ChatGPT for personal and academic purposes was generally moderate, with tasks such as generating translations and writing prompts to generate short, creative ideas or themes for writing assignments being the most frequently used features. Students' use of ChatGPT for personal purposes slightly exceeded their academic use of the tool, but no significant differences were observed based on gender or academic level. Despite the proven benefits of ChatGPT, the findings highlight that ChatGPT is not yet fully integrated into students' routines. Tailored training and awareness initiatives could enhance its adoption for personal and academic purposes among university students.

## KEYWORDS

ChatGPT, AI in education, education students, personal use, academic use, Jordan

## 1 Study background

The rapid development of AI technologies has substantially transformed various sectors in the past decade, and education is no exception. Generative AI writing tools represent notable innovations in AI technologies. An emerging technology that belongs to Generative AI writing tools is ChatGPT models. ChatGPT was defined as "a combination of generative AI and conversational AI, and it is built on an underlying large language model which can create new content similar to human-generated content and simulate human-like conversations" (Naik et al., 2023, p.1). Delello et al. (2025) reported that educators are increasingly dependent on AI tools to enhance teaching efficiency and simplify administrative tasks.

ChatGPT models have influenced how students encounter and conduct writing and academic tasks (Gasaymeh et al., 2024). One of the main technological advancements that led to the rise of ChatGPT models is Machine Learning (ML) and Natural Language Processing (NLP). These technological advancements make AI systems accurately able to understand, generate, and manipulate human language and mimic human writing (Fanni et al., 2023). ChatGPT models are trained by a great deal of text that makes them respond

to users' inquiries in multiple languages using contextualized text (Ray, 2023). There are several factors behind the popularity of ChatGPT models among students. Some versions of ChatGPT models are available for free. In addition, ChatGPT models can facilitate learning and communication (Gasaymeh et al., 2024). Furthermore, there is empirical evidence of the positive impact of ChatGPT on students' creativity Lee and Chung (2024) teaching-learning process (Montenegro-Rueda et al., 2023), students' educational achievements (Gasaymeh and AlMohtadi, 2024) students' motivation (Ali et al., 2023) students' educational self-efficacy (Xu et al., 2024). Furthermore, ChatGPT is useful as a virtual intelligent assistant for students (Albadarin et al., 2024).

University students can use ChatGPT models for personal purposes in various ways. Students increasingly rely on electronic platforms such as blogs, websites, and social media to express themselves. ChatGPT models play integral roles in helping students efficiently create high-quality content for these technologies. In addition, ChatGPT models represent valuable tools for generating creative ideas and content for various electronic projects (Lee and Chung, 2024; Urban et al., 2024).

Today, communication requires people to write similar content repeatedly with slight variations for different purposes. Chat GPT models would help in such matters. ChatGPT would save students' time and effort in automating repetitive writing tasks (Javaid et al., 2023). Furthermore, Chat GPT models would help students understand lengthy content like articles through text summarization (Imran and Almusharraf, 2023). In addition, ChatGPT models would help students rewrite a piece of text in a new way while retaining the original meaning through paraphrasing (Fitria, 2023).

ChatGPT models are also critical in composing different forms of literature, such as articles, essays, and stories (Fitria, 2023). Therefore, university students can use ChatGPT models in their writing assignments in different ways, including drafting literature and generating creative ideas for their writing projects (Naznin et al., 2025). Using ChatGPT models in writing assignments would contribute to speeding up students' writing and organizing their thoughts.

Furthermore, ChatGPT models can facilitate personalized communication. For instance, based on essential details provided by the users, ChatGPT models can generate professional responses to messages (Kocoń et al., 2023). Using ChatGPT models to automate personal responses would ensure the composition of consistent messages.

Another everyday use of ChatGPT models is translation. ChatGPT models can be employed to generate translations of text content into different languages (Maaß, 2024). In the current era, where social media sites dominate a significant part of students' lives, students can use ChatGPT models to translate their posts into various languages, enhancing their reach across borders. In addition, students can use the translation capabilities of ChatGPT models to collaborate with others from different linguistic backgrounds. ChatGPT models can be used to write on social media platforms. For example, ChatGPT can be used for various forms of media writing, including photo captions, video titles, infographics, and visual content descriptions (West, 2023). ChatGPT would have several benefits

in this context, such as enhancing the visual appeal of students' projects and ensuring that the accompanying text adds context to the audience.

Besides their personal uses, ChatGPT models can help students accomplish various academic tasks. Students can use ChatGPT models to enhance their educational experience in multiple ways. For instance, students can use ChatGPT models to simplify complicated course materials by generating educational summaries (Araújo and Aguiar, 2023; Vazquez-Cano et al., 2023). Summarizing course materials using ChatGPT models helps students facilitate their understanding of the key concepts, enhance their ability to retain information, and improve their exam performance.

In the context of students' evaluation, ChatGPT models can be helpful for students in exam preparation. For instance, ChatGPT models can create different study aids, including study guides, notes, and flashcards (Skrabut, 2023). Using ChatGPT models to create study aids would help students review course content efficiently. As the primary purpose of ChatGPT models is to generate text, these models can assist students in the academic writing process (Lingard, 2023). For instance, students can use ChatGPT models to ensure higher-quality writing work by brainstorming ideas, triggering creative ideas for writing projects, and drafting outlines for writing assignments (Alzubi et al., 2025).

Furthermore, students can use ChatGPT models' writing capability to paraphrase and summarize educational information from various sources (Emran et al., 2024; Silalahi, 2024). Using ChatGPT for paraphrasing text can help students avoid plagiarism (Emran et al., 2024). In addition to their role in writing and summarizing, ChatGPT models can assist students in translating educational materials into their native language (Kocoń et al., 2023). Another essential educational use of ChatGPT models is related to their capabilities of supporting the creation of educational interactive visuals (Kocoń et al., 2023). For instance, ChatGPT models can generate text that complements visual elements. These models can generate text that complements visual elements and suggest ways to organize information visually. Using ChatGPT models to support multimedia creation, students can enrich multimedia and communicate complex ideas more effectively. Moreover, students can utilize ChatGPT models to facilitate academic collaboration (Osman et al., 2024). In virtual learning environments, students can use ChatGPT models to create shared documents, outlines, and project proposals in group projects, fostering an innovative approach to collaboration (Baskara, 2023). Delello et al. (2025) reported that educators noted the increased use of AI tools, such as ChatGPT, by students for completing assignments, necessitating changes in instructional approaches to foster critical thinking and reduce dependency on these technologies.

The previous discussion draws special attention to the ChatGPT models' diverse applications in personal and educational contexts. These models significantly enhance various facets of students' individual pursuits and academic experiences. They offer notable benefits, including improved writing support, greater accessibility, preparation for future workforce challenges,

and the potential to democratize education (Gasaymeh et al., 2024). However, they also present challenges that require careful consideration, particularly regarding academic integrity, potential bias, critical thinking, and the ethical use of technology (Gasaymeh et al., 2024; Delello et al., 2025). Generative AI writing technologies, in general, and ChatGPT have profoundly transformed the education system. These models revolutionize how students learn, educators teach, and institutions operate. Understanding the status of ChatGPT usage among education students in developing countries is particularly important, where the education system in developing countries has several challenges that emerging technologies such as ChatGPT can help overcome. For instance, developing countries suffer from overcrowded classrooms, limited instructional resources, a shortage of qualified educators, and infrastructural inequalities. Such challenges would negatively affect students' academic progress (Mncube, 2023). Generative AI writing tools, e.g., ChatGPT, offer an innovative solution to support students' academic and professional development. Moreover, education students play integral roles in adopting emerging technologies, e.g., ChatGPT, into their current and future classrooms. Therefore, there is a need to examine and understand how students use these tools to provide clear insights into how these technologies are changing the landscape of education, inform strategies for integrating them into the curriculum in ways that support all learners, help educators and institutions develop policies and guidelines that promote ethical use while maintaining academic standards, help educators in developing strategies for integrating Generative AI models into the curriculum in ways that promote critical thinking and creativity, and help in guiding the development of policies and practices that ensure the responsible use of these technologies. Understanding how education students in developing countries utilize ChatGPT for personal and academic purposes is essential to assessing its potential in empowering current and future teachers, improving educational equity, and fostering innovation in under-resourced educational systems.

Jordan is a developing country with a vision to achieve a significant technological rise in integrating digital technologies in education (Gasaymeh, 2017, 2018; Gasaymeh and Waswas, 2019; Ayrasrah et al., 2023; Beirat et al., 2025). The current study aims to examine Jordanian education students' use of ChatGPT for personal and academic purposes and the differences in these uses based on their gender and educational level.

The current research would inform policymakers regarding strategic decisions and highlight the use of AI tools such as ChatGPT among students. Another critical aspect of conducting the current research in Jordan is Jordan's bilingual nature, with Arabic as the primary language. Therefore, the current study's results would provide a unique angle to investigate how ChatGPT's Arabic language capabilities influence its usability among students. This is particularly relevant as the tool's performance in non-English languages remains an area of active exploration. This localized research contributes to the broader understanding of ChatGPT's role in diverse educational contexts while addressing a critical gap in existing studies on the Arab world. The findings of current research are not only academically valuable but also practically applicable to enhancing educational strategies in Jordan and similar regions.

## 2 Previous studies

Reviewing the literature regarding students' use of ChatGPT and similar technologies in education showed that the previous research studies focused on various applications and patterns of use associated with this type of technology. For instance, Crček and Patekar (2023) examined Croatian university students' use of ChatGPT and how they use it. The study followed a descriptive research design in which 201 students completed an online questionnaire. The results showed that more than half of the participants use ChatGPT for written assignments, most of which generate ideas, while many use it to summarize, paraphrase, proofread, and write a part of the assignment for them. Another study conducted in Georgia by Nebieridze and Jorua (2024) aimed to examine university students' use of ChatGPT. The study followed a descriptive research design in which 72 students completed an online questionnaire with open and closed-ended questions. The results showed that most respondents (70.8%) reported using ChatGPT to assist them with homework assignments and academic tasks.

In another study that was conducted in the United States, Divekar et al. (2024) examined university students' use of generative AI tools. The study followed a descriptive research design in which 68 students completed an online questionnaire that consisted of quantitative and qualitative questions. The results showed that all the participants were ChatGPT users. The participants reported using generative AI tools for various purposes, including learning complex topics, communicative writing, rephrasing, proofreading, writing outlines, brainstorming, software and data analysis, and entertainment. In addition, the participants reported low-frequency use of AI tools for acquiring mental health resources, developing presentations, supporting professional development, social purposes, and searching for information. In similar study, Delello et al. (2023) conducted a mixed-methods study exploring college students' awareness of AI and ChatGPT, as well as their perceptions regarding the associated benefits and risks. The study collected data from 165 students who completed an electronic questionnaire. Results indicated high levels of awareness, with 98.2% of participants being somewhat familiar with AI, and 71.5% familiar with ChatGPT. The study highlighted that students believe AI and ChatGPT are not fully utilized by college instructors, primarily due to the absence of clear institutional policies governing AI usage. Students identified several benefits of AI, particularly its potential to personalize learning experiences. Conversely, they expressed concerns about risks such as academic misconduct, specifically plagiarism, arising from ChatGPT usage.

Another study, Skrabut (2023), followed a systematic literature review of 13 recent research studies and examined the use of specific generative AI writing tools, ChatGPT and Jenni.ai, in higher education students' writing. The results showed that the students use these to provide real-time feedback, check grammar, write revisions, translate, detect plagiarism, and generate ideas.

In a large-scale study conducted in Germany, Von Garrel and Mayer (2023) examined university students' use of ChatGPT and AI-based tools. The study was national, and 6,311 students completed an online survey. The results showed that about half of the participants reported using ChatGPT. The students

reported using these tools for research and literature studies, concept development and design, data analysis, data visualization, modeling, problem-solving, decision-making, clarifying questions, explaining concepts, text analysis, text processing, text creation, translations, language processing, exam preparation, and programming and simulations.

In another study in Finland, [Fuchs and Aguilos \(2023\)](#) examined students' use of ChatGPT in their education. The study followed a qualitative exploratory research design in which 12 undergraduate students participated in interviews. The participants reported using ChatGPT to accomplish different tasks, including understanding complex theories and concepts, receiving comprehensive responses to academic queries, supporting homework completion, enhancing distance learning, transforming notetaking in class, and replacing traditional instructional resources. Furthermore, the participants reported using ChatGPT for out-of-class educational activities, including tutoring and helping complete learning assignments.

In another study that focused solely on postgraduate students, [Costa et al. \(2024\)](#) examined the use of ChatGPT in higher education among them. The study followed a descriptive research design in which 389 master's and PhD students completed a questionnaire. The results showed that over half reported using ChatGPT in their academic, social, and professional contexts. The participants reported using ChatGPT for various purposes, including searching for information, seeking preliminary ideas to address a topic, and summarizing information.

In another study conducted in Greece that focused on education students, [Nikolopoulou \(2024\)](#) examined students' experiences using ChatGPT for academic purposes. Data were collected through interviews with 17 undergraduate students. The findings revealed that students reported using ChatGPT to quickly generate responses, access relevant information, support the planning of educational practices and lesson plans, and explore a variety of teaching strategies that promote children's social skills (such as communication and collaboration) and make effective use of technology in the classroom. In another study conducted in various countries and focused on students in the faculty of education, [Mohamed et al. \(2024\)](#) investigated the impact of AI on students' intrinsic motivation and learning experiences. The study included 455 students from Egypt, Saudi Arabia, Spain, and Poland, enrolled in various education-related majors. Data were collected through a questionnaire. The results showed that AI tools positively influenced students' intrinsic motivation by enhancing autonomy, critical thinking, and personalized learning. Significant differences were observed by nationality and major, with Polish students and educational technology majors demonstrating the highest motivation. However, no significant differences were found based on academic levels. The previously discussed studies have shown that growing research focuses on students' models, such as the general use of generative AI models like ChatGPT. Such interest in using these models reflects their usefulness across various contexts and student populations. The diverse geographical locations of the studies reflect the global adoption of ChatGPT among students. The studies showed that students would use ChatGPT for various personal and academic tasks, including generating ideas, summarizing, proofreading, providing realtime feedback, supporting autonomous learning, and offering personalized assistance. However, while research studies have

explored the use of ChatGPT among students globally, there is a lack of research focusing on developing countries such as Jordan. Such a shortage of research studies creates opportunities to examine how university students in Jordan engage with this technology in their personal and academic lives. The current studies aimed to investigate education students' use of ChatGPT for personal and academic purposes and the differences in these uses based on gender and educational level in Jordan.

## 3 Method

The current study used a quantitative descriptive research design. Data were collected using a questionnaire at one point in time. The quantitative descriptive research design is appropriate for the current study since it allows systematic collection and analysis of numerical data to describe university students' uses of ChatGPT for personal and academic purposes. This design helps provide a snapshot of the phenomenon at a specific time ([Creswell and Creswell, 2017](#)). As in the current study, collecting data simultaneously would ensure that the survey catches the current state of students' practices regarding ChatGPT use. Capturing the current state of ChatGPT use among students is particularly relevant in fast-evolving fields such as technology adoption in education.

### 3.1 Research questions

The current study aimed to answer the following research questions:

- First research question: To what extent do College of Education students use ChatGPT for personal purposes?
- Second research question: To what extent do College of Education students use ChatGPT for academic purposes?
- Third research question: Are there statistically significant differences in College of Education students' use of ChatGPT for personal and academic purposes based on gender?
- Fourth research question: Are there statistically significant differences in College of Education students' use of ChatGPT for personal and academic purposes based on their academic level?

### 3.2 Participants

Previous studies have shown that ChatGPT has become popular among university students. However, in the current study, the participants had not received formal guidance on using ChatGPT for personal and academic tasks. The questionnaire gathered demographic information about the participants, including their gender, academic levels, and age ([Table 1](#)).

The data showed that 134 students participated in the study, with 88.8% ( $n = 119$ ) identifying as female and 11.2% ( $n = 15$ ) as male. The majority were bachelor's students (80.6%;  $n = 108$ ), while 7.5% ( $n = 10$ ) were master's students, and 11.9% ( $n = 16$ ) were pursuing PhDs. Most participants (80.6%;  $n = 108$ ) were between the ages of 18 and 22, followed by smaller groups aged 23–27 (4.5%;



TABLE 1 Demographic characteristics of the participants.

Variable	Category	Frequency	Percent
Gender	Female	119	88.8
	Male	15	11.2
Academic level	Bachelor	108	80.6
	Master	10	7.5
	PhD	16	11.9
Age	18–22	108	80.6
	23–27	6	4.5
	28–33	7	5.2
	34–39	3	2.2
	40–45	8	6.0
	More than 45	2	1.5

N = 134.

$n = 6$ ), 28–33 (5.2%;  $n = 7$ ), 34–39 (2.2%;  $n = 3$ ), 40–45 (6.0%;  $n = 8$ ), and over 45 (1.5%;  $n = 2$ ). These demographics reflect the study’s focus on students across varying academic levels and age groups.

### 3.3 Study settings and procedure

The study took place in the first semester of the academic year of 2024/2025, which started in September 2024 and lasted until February 2025. Students from a college of education at a university in Jordan were invited to participate in the study. The researcher sends invitations to faculty members to have their students complete the questionnaire. The faculty members who agreed to have their students participate in the survey posted the link to the questionnaire on their class learning management system. Participation in the survey was voluntary, and the students did not provide any information that would reveal their identity. This study did not require approval from an Institutional Review Board (IRB), as such approval was not mandatory according to the policies of the university in which the study took place. However, all ethical guidelines mandated by Jordanian universities were strictly adhered to, specifically regarding the confidentiality and anonymity of participants. Accordingly, participants’ identities and names were not recorded or disclosed, ensuring their protection and privacy throughout the research process.

### 3.4 Research instrument

The questionnaire used for data collection comprised three parts. The first part collected demographic information about the participants, i.e., gender, age, and academic level. The second section addressed students’ use of ChatGPT for personal purposes, such as translation, creative writing, content creation, and personal communication. The third addressed students’ use of ChatGPT for academic purposes, such as generating writing prompts, summarizing course materials, creating study aids, and facilitating group collaborations.

The second and third parts of the questionnaire used a five-point Likert-type scale ranging from “1 Never,” “2 Rarely,” “3

TABLE 2 Summary of reliability analysis.

Scale	Number of scale items	Cronbach’s Alpha ( $N = 134$ )
ChatGPT’s use for personal purposes scale	9	0.89
ChatGPT’s use for academic purposes scale	7	0.90

Sometimes,” “4 Often,” to “5 Always,” which was used to measure participants’ responses. The questionnaire items were selected and developed based on different research studies. Examples of research studies that were used to create questionnaire scales are as follows: Use of ChatGPT for personal purposes scale (e.g., [Urban et al., 2024](#); [Imran and Almusharraf, 2023](#); [Kocoń et al., 2023](#); [Maaß, 2024](#)) and use of ChatGPT for academic purposes scale (e.g., [Kocoń et al., 2023](#); [West, 2023](#); [Skrabut, 2023](#); [Lingard, 2023](#); [Emran et al., 2024](#); [Fanni et al., 2023](#); [Flynn, 2025](#)).

The current study selected the questionnaire because it efficiently collected data from many participants within a limited timeframe ([Creswell and Creswell, 2017](#)), especially in a developing country. Its standardized format ensured consistency in responses, enabling comparisons and the identification of trends ([Bryman, 2016](#)). Moreover, its costeffectiveness, facilitated by online administration, made it a practical choice for the study. The validity of the questionnaire was tested by a panel of experts consisting of five faculty members at the College of Education. The reliability was checked by computing Cronbach’s Alpha. [Table 2](#) presents the results of the reliability analysis. Cronbach’s Alpha values for both scales are more significant than 8, indicating the “good” internal consistency of the items ([Aron et al., 2005](#)).

### 3.5 Data analysis

Descriptive statistics, including means and standard deviations, were utilized to address participants’ use of ChatGPT for personal and academic purposes. The levels of students’ use of ChatGPT for personal and academic purposes was determined based on three levels which were high, moderate and low, in which a high distribution between the mean score of 1.00 to 2.33 was considered as low, distribution between the mean score of 2.34 to 3.66 as moderate and 3.67 to 5.00 was categorized as high. Independent sample  $t$ -tests were conducted to explore differences in students’ use of ChatGPT for personal and academic purposes based on their gender and educational level.

## 4 Results and discussion

This section presents the results of the data analysis and the discussion of the results. The results of the data analysis related to this study were presented in four sections. First, the findings regarding students’ use of ChatGPT for personal purposes. Second, the findings regarding students’ use of ChatGPT for academic purposes. Third, the findings regarding the differences in students’ use of ChatGPT for personal and academic purposes based on their gender. Third, the findings regarding the differences in students’

use of ChatGPT for personal and academic purposes based on their academic level.

#### 4.1 First research question: to what extent do college of education students use ChatGPT for personal purposes?

The results regarding students' use of ChatGPT for personal purposes suggest that participants had moderate usage patterns, with specific tasks like generating translations being the most frequently used feature.

Table 3 shows that the participants' use of ChatGPT for personal purposes was moderate and close to "Sometimes" ( $M = 2.78$ ,  $SD = 1.00$ ). The participants were found to have responded most positively to item 1, "I use ChatGPT to generate translations of text content into different languages" ( $M = 3.03$ ,  $SD = 1.53$ ), indicating a usage frequency between "Sometimes" and "Often.". However, they responded least positively to item 9, "I use ChatGPT to create dialogue or plot ideas for my creative writing projects, such as novels or short stories" ( $M = 2.62$ ,  $SD = 1.29$ ), which corresponds to a frequency between "Rarely" and "Sometimes."

The current study's findings align with previous studies that showed that students use ChatGPT models for personal applications, including idea generation and content creation (Suryanti and Ramadhanti, 2024). However, some previous studies (Von Garrel and Mayer, 2023; Costa et al., 2024) reported high usage rates compared to the current study's findings. In addition, the current study's findings differ from previous studies that showed that students frequently used ChatGPT for creative purposes (Von Garrel and Mayer, 2023). In contrast, the current study showed that the students had less engagement with ChatGPT for creative personal tasks.

The findings suggest that while users employ ChatGPT for specific, straightforward tasks such as translations, their overall use of ChatGPT for personal purposes remains moderate. The variability in usage (evidenced by relatively high standard deviations) indicates that users' adoption of the tool depends significantly on their individual needs and preferences. Users' moderate use of ChatGPT might stem from limited familiarity with its capabilities for personal purposes or a lack of understanding of how to integrate it effectively into broader contexts. Tasks such as summarization, creative writing prompts, and personalized communication were reported less frequently, suggesting that users have not yet widely adopted these applications. The findings imply that while users are open to using ChatGPT for tasks such as translation, they may require more guidance or examples to explore its broader potential. Educational institutions could consider initiatives to demonstrate the practical applications of ChatGPT for personal projects, which could encourage greater adoption.

#### 4.2 Second research question: to what extent do college of education students use ChatGPT for academic purposes?

The results regarding students' use of ChatGPT for academic purposes suggest that participants also had moderate usage

patterns, with tasks such as generating writing prompts, brainstorming ideas, and drafting outlines being the most frequently used features.

Table 4 shows that the participants' use of ChatGPT for academic purposes was moderate and between "Rarely" and "Sometimes" ( $2.75$ ;  $SD = 1.03$ ). The participants were found to have responded most positively to item 1, "I rely on ChatGPT to assist me in generating writing prompts, brainstorming ideas, and drafting outlines for essays, reports, or presentations assigned in my courses" ( $M = 2.88$ ,  $SD = 1.27$ ), indicating a usage frequency between "Rarely" and "Sometimes." However, they responded least positively to item 7: "I use ChatGPT to create interactive multimedia presentations, infographics, or visual aids to enhance my class presentations or projects" ( $M = 2.69$ ,  $SD = 1.30$ ), reflecting usage less close to the "Sometimes" level.

The findings regarding students' use of ChatGPT models for specific academic tasks aligned with those of previous studies. For example, the findings regarding students' use of ChatGPT for brainstorming and outlining aligned with those of previous studies (Von Garrel and Mayer, 2023). However, different from the findings of a previous study (Costa et al., 2024), the current study showed that students engage less with ChatGPT for visual academic tasks.

The findings indicate that students employ ChatGPT slightly more often for tasks related to generating ideas and supporting writing assignments than for creating visual or interactive materials. While the moderate levels of usage suggest that users recognize the potential of ChatGPT for educational tasks, the tool is not yet fully integrated into their academic routines.

A comparison between academic use ( $2.75$ ;  $SD = 1.03$ ) and personal use ( $M = 2.78$ ,  $SD = 1.00$ ) shows that the overall frequency of ChatGPT use is similar in both contexts, with a slightly higher mean for personal purposes. However, usage patterns differ across contexts: for academic purposes, students focus on tasks like generating writing prompts and summarizing content, whereas for personal purposes, translation tasks and creative idea generation are more prominent.

These findings suggest that while students value ChatGPT for personal and academic tasks, their specific applications of the tool are influenced by their needs. Educational institutions might consider providing tailored training and support to encourage broader use of ChatGPT for academic purposes, such as facilitating group collaborations and simplifying complex course materials. Additionally, promoting awareness of ChatGPT's capabilities for creating visual aids could enhance its utility in educational settings.

#### 4.3 Third research question: are there statistically significant differences in college of education students' use of ChatGPT for personal and academic purposes based on gender?

Students' responses to using ChatGPT for personal and academic purposes scales were compared based on gender through *t*-tests (Table 5).

The results showed no significant differences between male and female users using ChatGPT for personal and educational

TABLE 3 Descriptive statistics of participants' responses to ChatGPT's use for personal purposes scale.

N	ChatGPT's use for personal purposes scale	<i>M</i>	<i>SD</i>	Level
1.	I use ChatGPT to generate translations of text content into different languages	3.03	1.53	Moderate
2.	I use ChatGPT to automate repetitive tasks such as text summarization, paraphrasing,	2.90	1.31	Moderate
3.	I use ChatGPT to brainstorm ideas and generate creative writing prompts for my projects.	2.86	1.29	Moderate
4.	I use ChatGPT as a source of inspiration and creativity, helping me generate fresh ideas for my writing pursuits.	2.79	1.33	Moderate
5.	I use ChatGPT drafts or outlines for articles, essays, or stories, which I refine and edit.	2.72	1.33	Moderate
6.	I use ChatGPT to create captions and titles for my visual content, such as images, videos, or infographics.	2.72	1.37	Moderate
7.	I use ChatGPT primarily to assist in content creation for my personal blog, website, or social media platforms.	2.69	1.39	Moderate
8.	I use ChatGPT to generate personalized responses or messages for communication purposes, such as crafting email templates or social media posts.	2.66	1.39	Moderate
9.	I use ChatGPT to generate dialogue or plot ideas for my creative writing projects, such as novels or short stories.	2.62	1.29	Moderate
	Total	2.78	1.00	Moderate

N = 134.

"1 Never," "2 Rarely," "3 Sometimes," "4 Often," to "5 Always."

TABLE 4 Descriptive statistics of participants' responses to ChatGPT's use for academic purposes scale.

N	ChatGPT's use for academic purposes scale	<i>M</i>	<i>SD</i>	Level
1.	I rely on ChatGPT to generate writing prompts, brainstorm ideas, and draft outlines for essays, reports, or presentations assigned in my courses.	2.88	1.27	Moderate
2.	I depend on ChatGPT to generate translations of course materials into my native language or other languages I am proficient in, facilitating comprehension and accessibility.	2.84	1.39	Moderate
3.	I leverage ChatGPT to create study guides, notes, or flashcards to prepare for exams and quizzes, which helps me efficiently organize and review course content.	2.73	1.25	Moderate
4.	I utilize ChatGPT to paraphrase or summarize information from external sources and integrate it into my writing while avoiding plagiarism.	2.72	1.30	Moderate
5.	I use ChatGPT to generate summaries or outlines of complex course materials to aid in my understanding and retention of key concepts.	2.71	1.31	Moderate
6.	In virtual learning environments, I collaborate with peers on group projects by utilizing ChatGPT to generate shared documents, outlines, or project proposals.	2.70	1.28	Moderate
7.	I use ChatGPT to create interactive multimedia presentations, infographics, or visual aids to enhance my class presentations or projects.	2.69	1.30	Moderate
	Total	2.75	1.03	Moderate

N = 134.

"1 Never," "2 Rarely," "3 Sometimes," "4 Often," to "5 Always."

TABLE 5 Results of *t*-tests and descriptive statistics for use of ChatGPT for personal and academic purposes by gender.

Outcome	Gender	<i>M</i>	<i>SD</i>	<i>n</i>	<i>t</i>	<i>df</i>	<i>p</i>
Use of ChatGPT for personal purposes	Female	2.76	0.98	119	−0.73	132	0.467
	Male	2.96	1.17	15			
Use of ChatGPT for educational purposes	Female	2.73	1.01	119	−0.76	132	0.451
	Male	2.94	1.18	15			

purposes. Male users reported slightly higher mean scores than female users for personal purposes ( $M = 2.96$ ,  $SD = 1.17$ ,  $n = 15$ ) and academic purposes ( $M = 2.94$ ,  $SD = 1.18$ ,  $n = 15$ ). Female users reported slightly lower scores for personal purposes ( $M = 2.76$ ,  $SD = 0.98$ ,  $n = 119$ ) and academic purposes ( $M =$

$2.73$ ,  $SD = 1.01$ ,  $n = 119$ ). However, the differences were not statistically significant, with  $t = -0.73$ ,  $p = 0.467$  for personal use, and  $t = -0.76$ ,  $p = 0.451$  for educational use. These findings suggest that gender does not play a significant role in determining the use of ChatGPT for personal or educational purposes,

TABLE 6 Results of *t*-tests and descriptive statistics for use of ChatGPT for personal and academic purposes by academic level.

Outcome	Academic level	<i>M</i>	<i>SD</i>	<i>n</i>	<i>t</i>	<i>df</i>
Use of ChatGPT for personal purposes	Undergraduate	2.77	0.97	108	−0.17	132
	Postgraduate	2.81	1.12	26		
Use of ChatGPT for educational purposes	Undergraduate	2.74	1.02	108	−0.36	132
	Postgraduate	2.82	1.07	26		

as both male and female users exhibit close to “Sometimes” usage patterns.

#### 4.4 Fourth research question: are there statistically significant differences in college of education students’ use of ChatGPT for personal and academic purposes based on their academic level?

Students’ responses to using ChatGPT for personal and academic purposes scales were compared, based on educational level, through *t*-tests (Table 6).

The results showed no significant differences between undergraduate and postgraduate students regarding using ChatGPT for personal and educational purposes. Postgraduate students reported slightly higher mean scores than undergraduate students for personal purposes ( $M = 2.81$ ,  $SD = 1.12$ ,  $n = 26$ ) and academic purposes ( $M = 2.82$ ,  $SD = 1.07$ ,  $n = 26$ ). Undergraduate students reported slightly lower scores for personal purposes ( $M = 2.77$ ,  $SD = 0.97$ ,  $n = 108$ ) and academic purposes ( $M = 2.74$ ,  $SD = 1.02$ ,  $n = 108$ ). However, the differences were not statistically significant, with  $t = -0.17$ ,  $p = 0.866$  for personal use, and  $t = -0.36$ ,  $p = 0.720$  for educational use. These findings suggest that the academic level (undergraduate or postgraduate) does not play a significant role in determining the use of ChatGPT for personal or educational purposes, as both groups exhibit close to “Sometimes” usage patterns.

## 5 Conclusion and recommendations

The current study showed that Jordanian education students use ChatGPT moderately for personal and academic purposes, with personal use slightly surpassing academic use. The most common uses of ChatGPT for personal purposes among students were generating translations and brainstorming creative ideas, while academic use focused on writing prompts, summarization, and brainstorming. Furthermore, the study showed no significant differences in usage based on gender or educational level, indicating uniform students’ use of ChatGPT regardless of gender or academic level. These findings suggest that, despite ChatGPT’s great potential, it is not yet fully integrated into their routines, likely due to limited familiarity with its features or uncertainty about its applications.

ChatGPT has provided several benefits, including fostering creativity, productivity, and academic growth in diverse

educational contexts. However, universities should implement training programs to address these gaps and raise awareness of ChatGPT’s capabilities. These programs should guide ChatGPT’s ethical and practical use. In addition, universities should work on incorporating ChatGPT into curricula, mainly for writing courses. Integrating ChatGPT into curricula would encourage students to utilize the tool for brainstorming, drafting, and refining their educational work. Importantly, faculty members are integral to this process, playing a critical role in shaping the use of ChatGPT by students through mentoring their use of ChatGPT-specific academic applications and conducting periodic research that can track evolving usage patterns to inform policy adjustments and training improvements.

From the cultural point of view, the Jordanian students may still rely heavily on traditional methods of learning and assessment, which could limit their exploration of emerging technologies like ChatGPT. In many educational contexts, particularly within more traditional or collectivist cultures such as Jordan, technology adoption may be influenced by societal norms, institutional expectations, and attitudes toward innovation. Cultural attitudes toward AI, concerns about academic integrity, and uncertainty about data privacy may contribute to students’ cautious adoption of such tools. The lack of clear institutional guidance or supportive peer practices might also hinder more active engagement. Fostering a constructive community around AI’s ethical and practical use—where students feel safe, informed, and encouraged to experiment with these tools—could play a key role in promoting more meaningful integration in academic and personal contexts.

This study provides a foundational understanding that can inform institutional policies, curriculum design, and digital literacy initiatives in Jordanian higher education. As one of the early investigations into ChatGPT use among Jordanian university students, it offers insights that can guide future efforts to bridge the gap between technological potential and actual usage. By highlighting the moderate level of adoption and the cultural factors that may shape students’ attitudes toward AI tools, the study underscores the need for context-sensitive strategies that promote responsible and confident use of emerging technologies.

The current study represents a preliminary investigation to explore students’ use of ChatGPT for personal and educational purposes. Future research should employ different research methods and data collection tools. For instance, future studies should adopt a mixed research design that includes quantitative and qualitative data to understand students’ use of ChatGPT better. Additionally, future studies should consider collecting more information about postgraduate participants, particularly regarding their educational backgrounds and the student levels they teach. Moreover, future research should be conducted



with participants from different academic majors and be more representative regarding gender and educational level. Moreover, future research should consider factors shaping students' use of emerging technologies, e.g., ChatGPT.

## 6 Limitation

This study has limitations. Some of these limitations were related to the used instrument. The questions used in the instrument were created to examine the students' use of ChatGPT for personal and academic purposes, listing a limited number of uses. Therefore, some of ChatGPT's uses that might have been popular among the participants might be misreported. In addition, the questionnaire did not collect the specific educational levels they teach and the academic disciplines of the postgraduate students' bachelor's degrees. In addition, the questionnaire used in this study did not collect information regarding participants' prior experience with ChatGPT (e.g., duration or frequency of use). Lack of such information might limit the depth of analysis. Furthermore, most of the participants completing the questionnaire were female and undergraduate students. Such homogeneity in participants' majors may influence the generalizability of the finding.

## Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

## Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Participation in the study was voluntary and written informed consent from the participants was

not required in accordance with the national legislation and the institutional requirements.

## Author contributions

AG: Methodology, Resources, Writing – original draft. AA: Writing – review & editing. RA: Writing – review & editing, Resources. MB: Resources, Writing – review & editing.

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The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

## Generative AI statement

The author(s) declare that Gen AI was used in the creation of this manuscript. Generative AI was used for language editing.

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