Philology Matters / ISSN: 1994 – 4233
Uzbekistan State World Languages University
2025 Vol. 53 No. 2
METHODOLOGY
DOI: 10.36078/987655531

Received: April 24, 2025
Accepted: June 23, 2025
Available online: June 25, 2025

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NAVIGATING ARTIFICIAL INTELLIGENCE IN HIGHER EDUCATION: STUDENT PERCEPTIONS, MOTIVATIONS, AND CONCERNS

ABSTRACT

This study examines Uzbek higher education students' perceptions of using generative AI tools (e.g., ChatGPT, POE, Perplexity) for completing academic assignments to inform effective teaching and learning strategies. The research primarily aims to investigate students' self-reported familiarity level with the concept of AI, frequency of use, perceived benefits and challenges, and students' fears associated with AI use in completing academic assignments. The data was collected through a mixed-methods approach. An online survey was carried out from 257 students across different levels and disciplines at Westminster International University in Tashkent.

Survey results illustrate that a significant 72% of participants reported that they have used AI tools for academic purposes. Additionally, 10 semi-structured interviews were conducted to gain deeper insights into students' experiences,

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OLIY TA’LIMDA SUN’IY INTELLEKTDAN FOYDALANISH: TALABALARNING QARASHLARI, MOTIVATSIYASI VA MUAMMOLARI

ANNOTATSIYA

Ushbu tadqiqot O‘zbekistondagi oliy ta’lim kontekstida talabalarning o‘quv topshiriqlarini bajarishda sun’iy intellektdan (SI) foydalanish haqidagi tasavvurlarini o‘rganishga qaratilgan, masalan, ChatGPT, POE va Perplexity kabi. Tadqiqot asosan talabalarning SI tushunchasi haqidagi o‘z bilim darajalarini baholashi, undan foydalanish darajasi, idrok etilgan afzalliklar va qiyinchiliklari hamda o‘quv topshiriqlarini bajarishda SIdan foydalanish bilan bog‘liq xavotirlarini o‘rganishga qaratilgan. Tadqiqot uchun ma’lumotlar aralash metodlar yondashuvi orqali to‘plandi. Jumladan, Toshkent shahridagi Xalqaro Vestminster universitetining turli bosqich va yo‘nalishlardagi 257 nafar talabasi o‘rtasida mazkur sohada onlayn so‘rovnoma o‘tkazildi.

So‘rov natijalari shuni ko‘rsatdiki, ishtirokchilarning sezilarli qismi, ya’ni 72 foizi SI vositalaridan akademik maqsadlarda

with a particular emphasis on the psychological and behavioral drivers of AI use. Students generally expressed a positive attitude towards the integration of AI into learning and teaching at higher education, as they see some benefits, such as time savings, increased productivity, and enhanced accuracy.

Nevertheless, interview analysis revealed that procrastination is usually masked by timesaving and lack of confidence in their own academic abilities. Students also expressed their worries, such as reduced critical thinking, lack of originality, and overdependence on AI. Interestingly, while the majority of students believe they are familiar with the concept of AI, their knowledge seems to be operational, knowing how to use it, rather than critical (knowing when and why to use AI tools).

The study concludes that higher education institutions should focus on developing critical AI literacy and providing clear guidelines for AI use. It is important to explore students' perceptions as they play an important role in shaping students' motivation, engagement, and academic achievement.

Key words: artificial intelligence, higher education, students, concept, integration, achievement, productivity, experience, academic ability, knowledge.

foydalanganini ta'kidlashgan. Shuningdek, talabalarning tajribasini yanada chuqurroq anglash, ayniqsa SIdan foydalanishga undovchi psixologik va xulq-atvor omillarini yoritish maqsadida talabalar bilan 10 ta oldindan tayyorlangan savollar bilan (intervyu davomida qo'shilgan boshqa savollarni ham qamrab olgan) intervyu o'tkazildi. Umuman olganda, talabalar oliy ta'limda o'qish va o'rganish jarayoniga SIni integratsiya qilishga ijobiy munosabat bildirishdi; ular buni vaqtni tejash, unumdorlikni oshirish va aniqlikni kuchaytirish kabi afzalliklar bilan izohlashdi.

Shunga qaramay, intervyularni tahlil qilish shuni ko'rsatdiki, aslida talabalar o'z ishlarini doimiy ravishda kechiktirishadi (prokrastinatsiya), ammo buni "vaqtni tejayapman" deb oqlashadi. Shu bilan birga, ularda o'zlarining akademik qobiliyatlariga yetarlicha ishonch yo'qligi ham sezildi. Talabalar sun'iy intellektga haddan ortiq bog'lanib qolish, tanqidiy fikrlash qobiliyatining pasayishi va ishlarining o'ziga xosligi (original ekanligi) yo'qolib borayotganidan tashvishda ekanliklarini ham bildirishdi. Qiziqarli tomoni shundaki, talabalarning aksariyati o'zlarini SI tushunchasi bilan tanish deb hisoblasalar-da, ularning bilimi "qanday foydalanishni bilish" (operatsion) darajasida bo'lib, "qachon va nima uchun ishlatish kerakligini bilish" (tanqidiy) darajasida emasligi ma'lum bo'ldi.

Shu bois tadqiqot shunday xulosaga keladi: oliy ta'lim muassasalari SIdan foydalanishni taqiqlashdan ko'ra, uni to'g'ri qo'llash bo'yicha aniq yo'riqnomalar berishga va talabalarda tanqidiy SI savodxonligini shakllantirishga e'tibor qaratishlari lozim. Talabalarning bu boradagi fikrlarini o'rganish juda muhim, chunki bu ularning motivatsiyasi, faolligi va o'qishdagi muvaffaqiyatiga bevosita ta'sir ko'rsatadi.

Kalit so'zlar: sun'iy intellekt, oliy ta'lim, talabalar, konsepsiya, integratsiya, muvaffaqiyat, samaradorlik, tajriba, akademik salohiyat, bilim.

INTRODUCTION

Westminster International University in Tashkent (WIUT), being located in the capital of Uzbekistan, has around 6000 students enrolled in Foundation, Undergraduate, and Post Graduate Courses. WIUT has long been integrating technological advancements into its teaching and learning process. WIUT provides opportunities to students to interact with information and communication technologies (ICT) through the use of different applications and devices. Learning analytics, three-dimensional

(3D) printing, wearable technology, online learning, remote labs, learning management system (LMS), and Big Blue Button are some examples of what type of technology is available for students.

The release of ChatGPT in November 2022 increased a huge interest of students in the use of generative AI for their learning experience. Students actively started benefiting from 24/7 availability, immediate response, and personalized learning opportunities provided by AI assistants. However, in reality, while many students appear willing to use AI to complete their academic assignments, teachers generally view it as plagiarism [Ibrahim et al., 2023].

Artificial Intelligence (AI) tools are used for different purposes in higher education. Generative AI (Gen AI) tools such as ChatGPT, Gemini, and other chatbots provided by POE can provide writing assistance to non-native English speakers [Chan & Lee, 2023; Singh et al., 2023; Ali et al., 2023]. In addition to it, Gen AI tools have started being used to assist students in brainstorming ideas, summarizing long texts, and polishing their sentences. Text-to-image AI generators, such as DALL-E, and chatbots provided by the service POE can help students visualize technical and artistic concepts, thereby enriching their learning experience. Moreover, Gen AI tools also have the potential to assist with learning assessment [Crompton & Burke, 2023; Karneci et al., 2023]. Mizumoto and Eguchi studied the reliability and accuracy of ChatGPT as an essay scoring tool and concluded that it increased efficiency, consistency in scoring, and that it can provide immediate scores and feedback on students' writing [Mizumoto & Eguchi, 2023].

Despite some of its benefits, there are challenges that have caused serious concerns over whether such AI tools will indeed improve teaching and learning. One of such main challenges is related to academic integrity. Students may often be tempted to use AI tools as a replacement rather than a supplementary tool and thus the work they produce may not reflect their true knowledge, thereby comprising the validity of current assessment practice [Zhai, 2022; Perkins, 2023] and such overreliance may compromise students' efforts to improve their writing skills [Warschauer et al., 2023; Barrot, 2023; Yan, 2023]. As a result, educators continue to look for solutions that can ensure that students use AI ethically to complete their academic assignments.

The perception of students, in this regard, should not be neglected since they are the final users of educational services. Many studies have focused on the application of AI tools in teaching and learning, but few have investigated students' attitudes towards AI in education [Umapathy et al., 2023]. Although students' perspectives play a crucial role in evaluating the potential impact of AI tools in the education sphere, students' voices are under-researched [Grugenhagen et al., 2024]. Thus, the following are the main research questions our study aims to address:

1. *How familiar are WIUT students with the concept of AI?*
2. *What are the main benefits and challenges associated with AI-use to complete academic assignments from the perspective of the students?*
3. *How should AI tools be integrated to higher education to enhance teaching and learning from the students' perspective?*

Literature review

AI

The definition of AI is a topic yet to be discussed. It is not easy to define what AI is when we cannot yet clearly define what intelligence means. Cambridge Dictionary [Cambridge Dictionary, n.d.], which is available online, defines AIas a particular computer system or machine that has some of the qualities that the human brain has, such as the ability to interpret and produce language in a way that seems human, recognize or create images, solve problems, and learn from data supplied to it. The definition of AI is also changing over time as AI develops. The Merriam-Webster [Merriam-Webster, n.d.]online dictionary defines AI as the capability of computer systems or algorithms to imitate intelligent human behavior and as a branch of computer science dealing with the simulation of intelligent human behavior by computers; similarly, the Oxford dictionary [Oxford English Dictionary, n.d.] defines AI as the study and development of computer systems that can copy intelligent human behavior, which are much stronger definitions because they are talking about imitating intelligent human behavior. Likewise, Whitby [cited in Chen, Chen, & Lin, 2020] defines it as the study of intelligent behavior in humans and animals and striving to engineer such behavior into computers or computer-related technologies.

Relevant theories that guide our work

This study is guided by relevant theories to gain a deeper understanding of the adoption of technology in higher education within the context of theoretical information systems research. Different theories have been proposed to better understand why certain technologies are adopted and used by different groups. One such prominent theory that aims to analyze individuals' intentions toward adopting new technologies is the Technology Acceptance Model (TAM), created by Davis in 1989. Originally developed from the theory of reasoned action (TRA) model by Fishbein and Ajzen [Duong et. al., 2023; Liu & Ma, 2023] [Lim and Zhang, 2022], TAM examines whether extrinsic motivations such as Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) impact individuals' intention and actual use of technology (ibid). Perceived Ease of Use (PEOU) refers to the degree to which an individual believes that using technology would be free of efforts, whereas Perceived Usefulness (PU) indicates that the technology use would enhance the job performance of an individual [Scherer et. al., 2019] [Duong et. al., 2023; Liu & Ma, 2023]. Individuals' intentions tend to be high if they believe that adopting a certain technology will be useful and enhance their experience. Hence, they feel that the use of technology does not require any specific knowledge and skills; they can learn how to use it quickly and easily. On the contrary, on condition that individuals' perception of technology adoption usefulness is limited, the utilization is difficult and time-consuming, the intention toward technology adoption will be low [Duong et. al., 2023; Liu & Ma, 2023]. PU and PEOU perceptions, whether positive or negative, shape individuals' attitude toward technology use, which in turn influences the behavioral intention and actual use of technology [Scherer et al., 2019] [Lim and Zhang, 2022] [Albayati, 2024].

With the rapid advancement of technology in recent years, TAM has also extended and been modified. Albayati [2024] states that external factors, such as demographic characteristics, social influence, and organisational culture, have an impact on the perceived usefulness and perceived ease of use of technology adoption. Individuals tend to make decisions on technology use, looking to their social networks and peers. Positive experiences with peers and online networks on social media may motivate individuals to adopt technology [Menon and Shilpa, 2023].

Previous studies on students' perception of AI use in the educational context

Different studies have investigated students' perceptions of AI use for academic purposes. Research findings conducted by Lepp and Kaimre [2025] indicate that 72% of students highlighted perceived usefulness of AI tools, indicating the value of AI's speed, availability, and understanding of various languages. Similarly, Kohnke et al. [2024] reported that 83.7% of student participants also stated that GenAI tools helped them enhance their learning quality and abilities. In addition, the research done by Stohr et. al. [2024] reveals the perceived usefulness of technology adoption. 47.7% of respondents highlighted having learning efficiency, 17.3% confirmed to have improved grades, 26.8% of respondents enhanced their language skills, and 17.9% stated that AI tools generate better outcomes than students' original work. Furthermore, Chellappa and Luximon [2024] found that design students from Amity University (Noida campus) described GenAI tools such as ChatGPT as easy to use, engaging, and user-friendly, indicating perceived ease of use towards the technology use.

METHODS

The study employed mixed methods to collect data from the students at Westminster International University in Tashkent to explore their perceptions of AI use to complete academic assignments. The survey was via an online questionnaire, which included both closed and open-ended questions to reach a larger number of students. Survey questions were developed drawing upon similar studies that explored students' perceptions of AI use. Before sending the survey to students, the authors conducted pilot testing to check the relevance of responses and clarity of questions. Based on the feedback obtained, the questions were revised and improved. The modified version of the questionnaire in our survey form consisted of 15 questions, of which 6 were closed, and 9 were open-ended questions. The question topics in the survey covered students' self-reported familiarity with the concept of AI, perceived benefits/drawbacks, ways in which students utilize AI tools, and factors that motivate AI use, along with students' attitudes towards the integration of AI into higher education.

A convenience sampling method was used to involve students based on their availability and their willingness to participate in the study. The participants were recruited through an online Google survey form, which included information on how the data would be processed and that the participation was anonymous and voluntary. All the respondents gave informed consent to participate before starting to complete the survey. A total of 257 students enrolled both in undergraduate and post-graduate

studies took part in the survey. Descriptive analyses were used to analyze the closed-ended questions, whereas thematic analysis was applied to analyze the responses to open-ended questions.

To gain deeper insights, semi-structured interviews were conducted with 12 students. During the interview, participants were primarily asked to discuss their in-depth use of AI tools to complete academic assignments. Additionally, the interviewees were asked about their primary concerns related to AI integration. The participants' responses were then analyzed using thematic analysis.

RESULTS

Demographics

Overall, 257 students from foundation, undergraduate, and postgraduate levels participated in the survey. Students were from different courses such as Certificate of International Foundation Studies (79,4%), Economics with Finance (10,1%), Business Management (1,9%), Business Information Systems (2,8%), Commercial Law (1,2%), MCs Research Methods (0,4%), MA in TESOL (0,4%), and Finance (1,6%). Regarding gender, 48 % of the participants were female and 52 % were male. 72% of all participants reported using AI tools to complete academic assignments, with 25.7% using AI tools rarely, 41.6% using them occasionally, 15.6% using them frequently, and 12.1% using AI tools regularly.

Self-reported knowledge of the concept of AI

Students generally report being familiar with the concept of AI, with a mean score of 3,345 (SD = 0.942) (see Table 1). These results suggest that although students feel they have a decent level of understanding of the concept of AI, they feel they do not have extensive knowledge of it. The variability identified in how familiar respondents feel with the concept of AI in their responses (SD = 0.942) suggests that there is a range of understanding among students, indicating that they believe there is a need for more education to increase their understanding of AI tools.

Table 1.

How familiar students feel with the concept of AI

Familiarity Level	Percentage (%)	Value
Completely Unfamiliar	3,9	1
Slightly Familiar	12,5	2
Moderately Familiar	37,7	3
Very Familiar	37,0	4
Extremely familiar	8,9	5

A weak positive correlation was found between students' self-reported familiarity with AI and their frequency of AI tool usage (Spearman's $\rho = 0.23$), which was computed by ranking Likert-scale responses and applying rank-based correlation analysis. While the results suggest that more familiar students use AI slightly more often, the low coefficient indicates that students' self-reported familiarity alone explains minimal variation in usage behaviour. While prior research [Chan & Hu, 2023]

found a strong link between AI conceptual knowledge and usage, our study-using self-reported familiarity-revealed only a weak correlation. This discrepancy suggests that subjective confidence in AI may not translate to practical adoption unless paired with a deeper understanding.

Table 2.

Frequency of AI use by students to complete academic assignments

Frequency	Percentage (%)
Never	5,1
Rarely	25,7
Occasionally	41,6
Frequently	15,6
Regularly	12,1

Students' Attitude Towards the Integration of AI into Teaching and Learning

Students generally seem to be positive about the integration of AI tools into teaching and learning, and the majority think that the use of AI by students should not be banned, which conforms to other studies that investigated the perception and usage of AI chatbots among students in higher Education [Stohr et. al., 2024]. To count the mean score, we assigned numerical values to the response options provided in Table 3. The results suggest that students seem to lean towards AI tools "being allowed with strict regulations/restrictions" by Universities (Mean=2.48, SD = 0.84). Although the results suggest that there is moderate consensus among students about AI integration with strict regulations and guidelines, 20,3 % of students opting for allowing AI use without any restrictions show that there is need for further discussion between students and policymakers in relation to the integration of AI technologies. While the survey results showed 66,4% supported regulated AI use; interviews conducted with students elaborated on this, with participants advocating for course-specific guidelines (e.g. *"It should be allowed because it's human nature. We love to use something which is prohibited... but to a certain extent that will use the capabilities of our mind and the best use of AI. So, kind of combining it... there should be regulations that make us not over-depend on it"*.)

Table 3.

Responses to the question of whether AI should be allowed by universities

Response Option	Percentage (%)	Frequency(n)
Banned completely	2,7	7
Allowed with strict regulations	66,4	171
Undecided/No strong opinion	10,5	27
Allowed without restrictions	20,3	52

Students' Perceptions on the Negative Effects of AI Technologies

Despite students being in favor of integrating AI tools into teaching and learning, they also reported concerns about the negative impacts of AI technologies on their learning (see Table 4). The results show that reduced critical thinking (39,5%) and originality (37.9%) are the most cited risks. Students also seem to be anxious

about losing autonomous learning skills as 34 % of respondents indicated overdependence as one of the possible negative impacts of AI technologies. The results also indicate a divergent view about the negative impacts of AI technologies as 23.4 % (60 respondents) believed AI technologies have no negative impact on students. Although reduced writing skill (22.3 %) and engagement (21.5%) with class materials were reported less, they are still notable.

An insignificant number of respondents added in their own responses in addition to the response options provided by the researchers. Some students mentioned that answers that are provided by AI tools can be superficial. For example, one of the respondents say: *"AI does not provide profound answers... students must think analytically themselves."* Interestingly, some students dismissed AI tools, noting them as 'useless' or 'ineffective' in their current state (Example, *"It's the earliest stage of AI, and sometimes there are errors in the answers.").*

Table 4.

Perceived negative impact of AI technologies on student learning

Perceived Impact	Percentage (%)	Frequency
Reduced Critical Thinking	39,5	101
Lack of originality in assignments	37,9	97
Overdependence on AI	34,0	87
Limited Engagement with coursework materials	21,5	55
Negative impact on writing skills	22,3	57
No negative impacts ('None")	23,4	60

Several students whom we interviewed reported that they feared plagiarism issues, reporting confusion about citation tools and false Turnitin flags. One student stated:

"When they said your assessment will be checked by Turnitin, I feel some kind of worries. What if I don't use ChatGPT, but Turnitin somehow shows that it was written by ChatGPT? For example, Jahangir faced this problem—he said he didn't use any AI tools for his coursework, but Turnitin showed his full reflection part was written by ChatGPT. He blamed it, but I have no idea why Turnitin shows like that. Which is why I also worry...".

The respondents were also asked to report on how comfortable they feel regarding disclosing their use of AI to complete academic assignments to their peers and instructors. The data reveals that 62.4% felt neutral about disclosing their use of AI to peers and instructors, indicating considerable uncertainty or hesitation. This neutrality may reflect a lack of clear institutional messaging or shared peer norms about acceptable AI use in academic settings. Notably, more students reported feeling comfortable (29.4%) than uncomfortable (8.2%) with disclosure, suggesting a tentative openness toward AI use. However, there seems to be a gap in awareness or confidence regarding when and how such disclosures are appropriate, which could influence students' transparency in academic contexts.

Students' Perceptions of the Benefits of AI Technologies

Regarding the benefits of AI technologies, the results show that students believe there are numerous benefits to these technologies. Two top benefits that were reported significantly more compared to other benefits are the use of AI tools to support in research/information gathering (56.4%, n=145), and time management & organization (53,3%, n=137). Language translation/interpretation (39,7%, n=102), data analysis and visualization (38,1%, n=98) and writing and content development (32,3 %, n=83) were also reported by a notable number of students. The results indicate that students seem to particularly appreciate AI's role in efficiency and information processing as they help students in quickly summarizing sources, finding relevant papers, and extracting key information along with overcoming procrastination. Interestingly, a small fraction of students (4.3%, n=11) saw no benefits in using AI tools to complete academic assignments.

Table 5.

Perceived Benefits of AI Technologies in Completing Academic Assignments

Perceived Benefits	Percentage (%)	Frequency(n)
Research & Information Gathering	56,4	145
Time Management & Organization	53,3	137
Language Translation & Interpretation	39,7	102
Data Analysis & Visualization	38,1	98
Writing or Content Development	32,3	83
Image or Video Analysis	14,8	38
Simulation or Modeling	12,8	33
None (no perceived benefits)	4,3	11

Reasons Why Students Choose to Use AI Technologies

Interviews were conducted to understand why students choose to use AI technologies (if they use them) to complete academic assignments. The analysis revealed seven key themes, reflecting a range of psychological, behavioral, and academic factors influencing students' decisions to use AI tools. To obtain a more objective response, we posed this question in the third person (i.e., *Why do you think students use AI tools to complete academic assignments*?)

1. *Procrastination and laziness*. Interestingly, one of the most dominant themes was procrastination and perceived laziness. Several students admitted to delaying their work until the last minute and turning to AI as a quick solution. This theme emerged across multiple interviews (4 out of 10 interviews), where students described a tendency to postpone assignments and rely on AI to complete them under time pressure. For example, one participant (I10) explained, "I think the main issue is their laziness and they just delay the time that's set." Similarly, another (I6) noted, "Students may use AI in order to save their time... to make their assignments done easy." ate themselves. That's why they may think a generated assignment will give them higher marks." This is an important finding because, while the survey identified 'time saving' and enhanced accuracy and productivity as the main motivation factors for using AI tools, this finding seems to have uncovered underlying procrastination.

2. *Time management and efficiency*. Closely related to procrastination, a significant number of students cited timesaving and efficiency as primary motivators. AI was perceived as a tool that allowed them to complete assignments more quickly, particularly when deadlines were close. One student (I9) emphasized, "Using it helps us to save time and ensure that our work will somehow stand out." The convenience and speed of AI tools were seen as a practical solution to academic workload management, which aligns with other studies on the role of AI in reducing academic workload [Zawacki-Richter et al., 2019]

3. *Academic anxiety and desire for better grades*. Another repeating theme, which was not captured by the survey, was students' lack of confidence in their own academic abilities and a belief that AI-generated work helps them achieve higher grades. Some students expressed concerns that their own writing or ideas would not be sufficient. One participant (I4) stated, "People think that AI is so good... it can generate better than they can create themselves."

4. *Lack of engagement and motivation*. 2 students at a foundation level believe a general disinterest in academic tasks could be one of the reasons why students resort to using AI tools to complete academic assignments. One student (I8) explained, "They just want to take an okay or normal grade and just finish the module... There is no willingness to really study." This theme suggests that AI may be enabling disengagement by providing an easy way to bypass active learning.

5. *Cognitive support and idea generation*. Conversely, a smaller but significant group of students used AI as a cognitive aid, helping them understand content or brainstorm ideas. These students viewed AI as a tool to enhance their academic process, rather than replace it. One student (I2) noted, "It helps me to understand the material... I get broader knowledge about the topic." Another (I3) described how AI helps when struggling with idea generation, saying, "AI can be a great help... it's better than nothing.". While the AI role as supporting learning has been reported by multiple researchers, we find it interesting that it was reported by a small number of students in our research.

6. *Language and expression challenges*. Some students (our interviewees are non-native English speakers) described using AI to overcome language barriers. For these individuals, AI helped refine their writing and improve the clarity of their ideas. As one student (I3) explained, "There are smart people, but they have difficulties delivering it... I would say it's a language issue."

7. *Accessibility and ease of use*. Finally, several students emphasized the easy accessibility and usability of AI tools, which made them an appealing choice. One participant (I7) said, "It's easy access and getting information fast... making your homework faster." The simplicity of interacting with AI was an enabling factor, lowering the threshold for its use.

Students' views regarding what support is needed for more effective use of AI technologies

In addition, we inquired what support students think should be provided by

Universities regarding the use of AI technologies. The thematic analysis revealed five key themes, yielding diverse perspectives on the types of institutional, pedagogical, and informational support students require for effective and ethical engagement with AI tools.

1. Practical guidance on AI use. Several students emphasized the need for hands-on, practical support in learning how to use AI effectively for academic purposes. While acknowledging that basic seminars are already offered, students expressed a desire for clear demonstrations, relevant examples, and structured guidelines for integrating AI into coursework. One student stated, "More practical information… how to get the insight, how to get opinions… how to use it in the right way" (I10). This finding suggests that general awareness is insufficient; students require support that is actionable and context-specific.

2. Clarification of rules and expectations. A notable concern among participants was the lack of clarity around institutional rules regarding AI use. Students expressed the need for course-specific guidance that outlines acceptable practices, with some suggesting that AI policies should be embedded in individual course materials rather than presented in generic documents, which we find to be an important finding, as this is something the University where research was conducted, has not implemented yet. One of the respondents said, "Most of the times the new generation are lazy to read all the points… it would be easier to show the regulations related to the course work itself by every course" (I9). This suggests that general guidelines that are provided by university do not seem to be sufficient in helping students understand what is allowed and what is not allowed when assessment tasks change from semester to semester.

3. Developing critical AI literacy. Some students indicated a need for support that extends beyond technical skills, emphasizing the importance of critical thinking and judgment in utilizing AI tools. They pointed out that AI often provides overly general answers and that students must learn when and how to trust or refine these outputs. As a sample, two of the students at Foundation level said, "There are some situations I cannot ask from AI because it always understands generally, not specifically. In this situation, I ask from lecturers" (I2), and "Students should acknowledge the bad sides of using AI... it does not help you in academic performance or learning outcomes" (I8) It can be concluded by these findings that Universities should promote reflective use of AI, rather than simply listing what is allowed and what is not allowed.

4. No additional support needed. In contrast, some students felt that no further support was necessary, either because they believed current seminars were sufficient or because they felt more digitally literate than the institution. While some believed that students are more competent in AI use than lecturers and the administration, one of the respondents was generally against the integration of AI. ("Seminars are enough. For me, I don't know about anyone" (I5)/ "Students do not need any support… they know AI better than administration" (I7)/ "We shouldn't support AI at all" (I3)).

5. Inconsistent messaging from faculty. One student noted that lecturers' messaging regarding AI use was confusing or ineffective. Simply warning students of AI's harms, without offering alternatives or constructive advice, was seen as unhelpful. A student from the foundation level noted, "A lecturer came and said using AI is bad, stop using it… but peers didn't care" (I8). Similarly, another student said, "Just saying it will harm is not enough… some actions should be taken" (I8). We can conclude that it is essential to equip faculty with the necessary tools and training to offer nuanced, supportive, and pedagogically sound guidance on AI.

Students' perceptions on the effect of AI tools on their learning and academic performance

Overall, students seem to believe that AI tools have a positive impact on their learning and academic performance. The results (Mean=3.71, SD=0.78) indicate that there seems to be a widespread acceptance of AI technologies as a tool with a positive impact on learning and their academic performance. The SD of 0,78 indicates strong agreement around AI tools having a positive impact.

To gain a deeper understanding, we asked students to report how AI has influenced their learning and academic performance. Most students praised AI tools for increasing resource access (40,1%, n=103), improved time management and organization (43,2%, n=111), enhanced accuracy and quality of work (33,5%, n=86), and increased efficiency (31,9%, n=82). However, a notable percentage of students also reported a decreased reliance on critical thinking (12.8%, n=33) and that AI tools occasionally provided misleading and inaccurate information (13.6%, n=35).

DISCUSSION

This study reveals some important findings that will inform both teachers and policymakers in education regarding what students think about how AI technologies should be integrated into higher education. The results show that while the majority of students are in favor of integrating AI tools, there are some significant concerns that should not be neglected. It is evident from the results that students feel familiar with the concept of AI, but at the same time, they also feel that they lack extensive knowledge of it. This suggests that students understand that they need more education about the benefits and limitations of AI tools, in line with the study results by Pitts et al., [2025]. On the other hand, nearly a quarter of respondents saw no negative impacts of AI on their learning. This is an important finding as it shows different levels of understanding of potential risks associated with AI use

The results also show that students predominantly use AI tools for time-saving, productivity, and accuracy, with minor motivations such as curiosity. This aligns with Zhou et al. (2024), who found that students in a business school setting utilized AI tools to enhance productivity and personalized learning experiences, while also expressing concerns about academic integrity and over-reliance on AI. Their study similarly underscores the need for clear guidelines to ensure ethical and balanced use of AI in higher education. In addition, the results also suggest that students tend to use AI tools to complete academic assignments rather than for engagement or deep learning.

Triangulation of methods also revealed some concerns about overreliance (e.g., "AI limits original thought"). Interestingly, the results also challenge the claims regarding AI tools being as ‘a learning partner’ because the "curiosity driven use” was reported only by a modest percentage of respondents (14.4%). An earlier report by Stohr et al. [2024] indicates that almost half of the respondents acknowledged the effectiveness and ease of utilizing ChatGPT, referring to it as a “facilitator or assistant for learning,” highlighting the discrepancy in the research findings.

The interviews revealed deeper reasons why students use AI tools to save time. Many students turn to AI because they put off work until the last minute (procrastinate), doubt their own abilities and believe AI will give them better grades than they could get on their own. This finding suggests educators should think about helping students with time management to prevent last-minute work as this often leads to surface learning. Students seem to be postponing their work, and as a result, they may be over-relying on AI tools to complete academic assignments. As Jones and Blankenship [2021] found, procrastination negatively affects academic achievement.

The findings also point to the critical need for structured guidance on the appropriate use of AI tools to mitigate potential skill degradation. This conclusion is made based on the dominant preference for time-saving applications (74.7% of respondents), reduced critical thinking (39,5%) and originality (37,9%) combined with qualitative evidence suggesting growing dependence, as exemplified by student responses such as, "I can't imagine writing without AI.” Both quantitative and qualitative results indicate that students are concerned that over-reliance on AI tools may negatively impact their critical thinking. In addition, nearly one-fifth of respondents reported negative impacts on writing skills. Nevertheless, these findings contradict prior research [Kohnke et. al., 2025] stating that GenAI tools’ perceived usefulness was high for Grammar, Writing, Vocabulary, and Reading skills, improving their linguistic competencies. This discrepancy in findings may be due to the fact that this research findings illustrated the responses of first-year EAP students who shared their experiences and perceptions of GenAI for personalized English teaching, whereas our research has not emphasised one specific subject, mostly focused on overall students’ perception of AI use to complete academic assignments from different levels. These all point to the need for curriculum adjustments to preserve writing skills, critical thinking and originality with the course materials.

While there is no need for extensive evidence to demonstrate the widespread adoption of Generative AI tools, this study helps us better understand the reasons behind this trend. This study indicates that students perceive AI tools as beneficial for saving time and enhancing productivity, which aligns with the Technology Acceptance Model (TAM), which posits that perceived usefulness influences technology acceptance. However, the results also show that students’ AI literacy is largely operational rather than critical, meaning that students seem to know how to use AI tools but lack knowledge in how and when to use AI tools. 23.4% who perceive no AI risks can be evidence to support the claim, as it represents a concerning naïve adoption.

Another factor that contributes to technology acceptance by users (in our con-

text, it is 'students') is perceived ease of use. The significant number of students reporting familiarity with the concept of AI use suggests that students find it relatively easy to use.

CONCLUSION

This study highlights the dual nature of AI adoption in higher education, revealing that while students generally perceive AI tools as beneficial for efficiency and academic performance, concerns persist about the erosion of critical thinking, overdependence, and ethical ambiguity. The disconnect between students' pragmatic use of AI (e.g., for procrastination management or compensating for academic insecurity) and the lack of institutional guidance highlights an urgent need for structured interventions.

IMPLICATIONS

The results of this study suggest several important implications for successful AI integration into teaching and learning in higher education. Since many students demonstrate operational knowledge of AI tools but lack understanding of when and why to use them, it is essential for higher education institutions to integrate structured AI education into their curricula. The changes in the curricula should emphasize more about when and why to use AI tools, emphasizing ethical considerations, limitations, and risks (e.g., overreliance, reduced critical thinking). Students should be encouraged to critically evaluate their AI use as they choose to use them to complete different academic assignments. Similarly, Kumar et. al [2024] cited in Gruenhagen et. al [2024] and Su et al., [2023] suggest adapting academic misconduct policies and frameworks of academic integrity in educational institutions by reflecting nuances introduced by AI technologies.

In addition, since students seem to be using AI tools mainly for its productivity and timesaving rather than for genuine engagement with the content to understand the concepts in more depth, educators should carefully design assessment tasks so that they discourage surface-level AI-dependency. Such an assessment may require more process-oriented tasks, such as draft submission and reflections. To preserve essential skills such as critical thinking and writing, educators may at times have to restrict AI use. Since procrastination seems to be one of the drivers of AI overuse, scaffolding deadlines and offering time management workshops may be necessary to prevent last-minute AI-dependency.

The results also show that the majority of students already use AI tools to complete academic assignments. Thus, rather than simply banning AI use, educators should aim to teach students to critically evaluate the AI outcome and be encouraged to compare it with human-generated work.

Future research should focus more on tracking the impact of AI tools on students' learning, especially focusing on skills like critical thinking and writing. This is because many students reported valid concerns about the potential negative impacts of AI use may have on these vital skills. Another area that requires research is the impact of cultural, disciplinary, and institutional differences on AI adoption. The results

of this study may be unique to our context and may differ as the context changes. Finally, since very few students report using AI to engage with the content, there is a need for research that explores pedagogical models to encourage deep learning while utilizing AI technologies.

LIMITATIONS

The study findings should be interpreted considering their several limitations. First, the sample size was relatively small, and thus the results may not capture cultural, institutional, and regional differences in AI adoption. The use of a convenience sample also limits the generalizability of findings. Students with strong opinions on AI, either positive or negative, may be overrepresented as participants were self-selected. Moreover, the findings may not fully reflect the perspectives of students in more research-intensive or technical fields, as the majority of participants were foundation-level students. Only 10 students were interviewed, which may not fully capture the full spectrum of student experiences.

The self-reported nature of the design also needs to be considered when interpreting the data. This is because students may have underreported unethical AI use (e.g., plagiarism) or overreported familiarity with AI to appear more competent. The findings also may not truly reflect students' actual use, as they relied on self-reported AI-usage rather than observational or behavioral data. The study did not distinguish between different AI applications (e.g., text generators vs. coding assistants), which may influence perceptions differently. Finally, the results may become outdated as new features of AI technologies evolve.

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