

*Research Article*

# Integrating ChatGPT in Higher Education: Insights into Student Usage, Critical Thinking, and Independent Learning

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## Abstract

This study aims to investigate how university students use ChatGPT in academic contexts and how they perceive its influence on critical thinking and independent learning. Using a descriptive survey method, data were collected from 156 university students through a structured questionnaire covering ChatGPT usage frequency, academic purposes, and perceptions related to critical and independent thinking. The findings reveal that 98.1% of students utilize ChatGPT for academic tasks such as research, essay writing, and problem-solving, with most using it either occasionally (55.1%) or weekly (20.5%). Students reported that ChatGPT supports their ability to analyze information and generate ideas, with over half agreeing that it enhances critical thinking. However, a notable portion also expressed concerns about potential overreliance on AI, suggesting it may hinder independent thought and problem-solving skills. Based on these insights, the study recommends integrating AI literacy into higher education curricula to promote mindful, ethical, and strategic use of tools like ChatGPT. This approach can help students balance the benefits of AI with the development of their autonomous academic skills.

## Keywords

ChatGPT; higher education; critical thinking; independent learning; artificial intelligence

## Introduction

The integration of artificial intelligence (AI) into higher education has created both opportunities and challenges for students, educators, and institutions (Fu, 2024; Nikolopoulou, 2024; Rozek, 2024)). With the advancement of natural language processing technologies, generative AI tools such as ChatGPT have become increasingly accessible and widely used in academic settings (Nikolopoulou, 2024). ChatGPT, developed by OpenAI, is capable of generating coherent and contextually appropriate text in response to user prompts, making it useful for a range of academic tasks, including writing assistance, idea generation, concept explanation, argument development, and summarization (Baskara, 2025; Zawacki-Richter et al., 2019). For many students, ChatGPT functions as an on-demand support system that complements their learning processes by providing immediate feedback or content suggestions (Chinonso et al., 2023; Zhai, 2022)(Chinonso et al., 2023; Zhai, 2022). However, their use also raises concerns about academic integrity, plagiarism, and the potential for students to become passive recipients of information (Dikilitaş et al., 2024; Rozek, 2024).

One area of interest in current educational research is the relationship between ChatGPT use and the development of critical thinking. This skill set, which is central to academic success, encompasses a range of higher-order cognitive processes, including analyzing information, comparing sources, forming reasoned arguments, solving problems, and making informed decisions (Hadley & Boon, 2022; Leighton et al., 2021). Moreover, these abilities are crucial not only within academic contexts but also for navigating complex, real-world situations (Braun et al., 2020). Closely linked to the development of critical thinking is the concept of academic autonomy, which refers to a student's ability to manage their own learning independently, without excessive reliance on external tools or assistance (Ding, 2017; Firat, 2016). Academic autonomy involves initiative, self-regulation, and the confidence to tackle academic challenges through one's own effort (Firat, 2016). In this context, as AI tools like ChatGPT become increasingly embedded in students' academic routines (Dikilitaş et al., 2024; Zawacki-Richter et al., 2019), it is essential to examine whether these technologies serve to support or potentially undermine the cultivation of critical thinking and academic autonomy. Thus, exploring this relationship offers valuable insights into the pedagogical implications of integrating generative AI into higher education.

On one hand, proponents contend that ChatGPT can function as an effective scaffolding tool, supporting students in exploring new ideas, organizing their thoughts, and engaging in critical reflection on the content they encounter (Baskara, 2025; Dikilitaş et al., 2024; Zhai, 2022). The model's capacity to simulate dialogic interactions may foster inquiry-based learning by encouraging learners to pose questions, test arguments, and consider alternative viewpoints (Rozek, 2024; Silva & Janes, 2022). On the other hand, critics raise concerns that frequent reliance on AI for academic tasks may contribute to cognitive offloading, whereby learners circumvent the mental effort required for deep processing by deferring to AI-generated outputs (Bae & Bozkurt, 2024; Islam & Islam, 2024). Such practices may undermine students' ability to construct arguments autonomously, critically assess sources, and persist through complex academic challenges without external support (Bai et al., 2023; Farrokhnia et al., 2024). Therefore, the potential for overreliance on AI highlights the need for a nuanced and empirically grounded investigation into its implications for student learning and academic development.

Despite increasing discourse on the role of AI in education, there remains a lack of empirical research focusing specifically on students' perceptions of how ChatGPT affects their thinking and learning behaviors (Das & J.V., 2024; Dragojević & Turudić, 2024). Much of the existing literature focuses on pedagogical applications, ethical concerns, or institutional policy responses. However, less attention has been paid to how students themselves interpret their experiences with AI in academic contexts, particularly regarding its influence on their critical thinking and independence (Schei et al., 2024; Xu et al., 2024). Understanding these perceptions is important for informing the responsible integration of



AI in higher education, ensuring that its use aligns with core educational objectives rather than unintentionally compromising them. This study aims to address this gap by examining university students' self-reported use of ChatGPT for academic purposes, as well as their perceptions of its influence on their critical thinking and academic autonomy. By investigating students' experiences and attitudes, the study contributes to ongoing conversations about the role of AI in shaping cognitive and behavioral dimensions of learning in higher education. The findings may have implications for educators, curriculum designers, and policymakers seeking to integrate AI responsibly while promoting essential academic skills.

## Method

### Research Design

This study employed a quantitative descriptive research design, which is used to systematically collect and analyze numerical data to describe characteristics, behaviors, or perceptions of a population without manipulating variables (Bryman, 2016). Using a survey method, the study explored university students' perceptions of the impact of ChatGPT on their critical thinking and academic autonomy. The survey approach aligns with attitude-behavior theory, which suggests that individuals' self-reported beliefs and attitudes can provide meaningful insights into their behaviors and decision-making processes (Bryman, 2016). Therefore, surveys are particularly useful for capturing subjective experiences related to cognitive and autonomous learning processes. This research aimed to describe patterns of ChatGPT use in academic contexts and examine how students perceive its role in shaping their thinking and self-directed learning. A self-administered online questionnaire was used to collect data, enabling efficient and wide-reaching data collection from a large number of respondents within a limited time frame.

### Population and Sample

The population of this study consisted of undergraduate students enrolled in the Faculty of Education and Teacher Training, majoring in the English Education Department at Samudra University, Indonesia. A total of 156 students voluntarily participated in the study by completing the online survey. The study employed a convenience sampling technique, which involves selecting participants who are readily available and willing to take part in the research (Etikan et al., 2016). This non-probability sampling method was appropriate for the current research, as the goal was to collect data from students who had prior experience using ChatGPT for academic purposes. All participants were clearly informed about the voluntary nature of the study and provided their consent before completing the survey.

### Instruments

Data were collected using a structured online questionnaire developed by the researcher, grounded in the existing literature. The instrument combined multiple-choice and Likert-scale items to explore students' experiences and perceptions across four key areas. These included the frequency and purpose of ChatGPT use for academic tasks, the perceived influence on critical thinking (such as analysis, reasoning, and questioning), the perceived influence on academic autonomy (including independent thinking and the ability to complete tasks without assistance), and concerns about dependency on AI tools in academic settings. The Likert-scale items followed a five-point scale, ranging from *Strongly Disagree* to *Strongly Agree*, allowing for the measurement of varying degrees of agreement (Saputra et al., 2024). To ensure the quality of the instrument, the questionnaire underwent content validation by two experts in educational technology and English language education. In addition, a pilot test was conducted with a small group of students to assess the clarity, readability, and reliability of the items prior to full distribution.

## Data Analysis

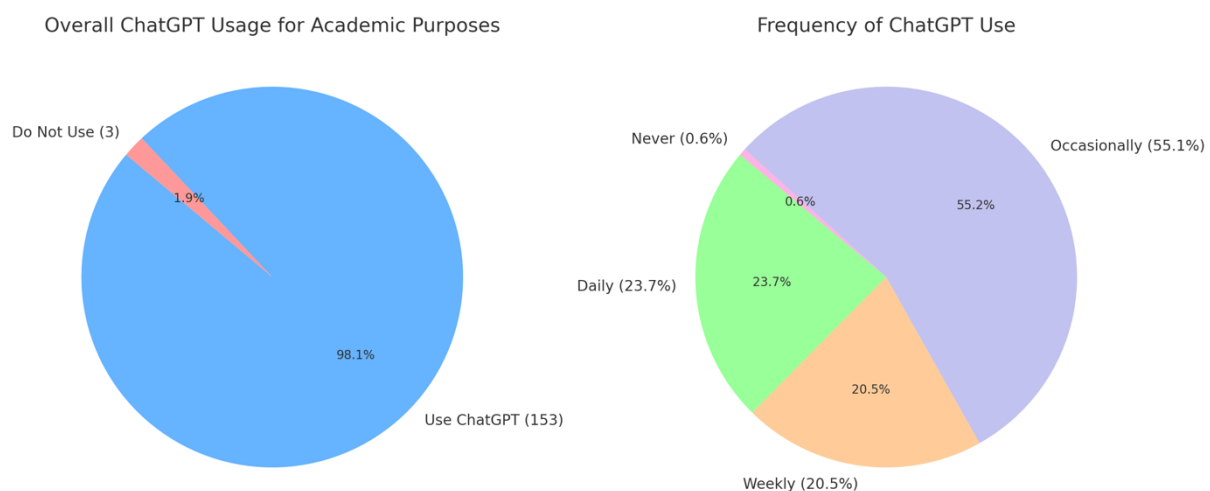
The collected data were analyzed using descriptive statistical methods, with the researcher focusing on mode and percentage to examine response frequencies. This approach aligns with the recommendation of (Bryman, 2016), who argue that Likert scale data, being ordinal in nature, are best interpreted using measures such as median, mode, or percentage to accurately reflect participants' attitudes. Accordingly, the researcher examined the mode and percentage for each survey item to gain insights into students' perceptions regarding the use of L1 in English Language Teaching (ELT).

## Results

This research findings section is divided into two parts, corresponding to the research questions. The first part presents findings on university students' use of ChatGPT, while the second explores students' perceptions of its impact on their critical thinking and academic autonomy.

### University Students' Use of ChatGPT

A significant majority of university students reported using ChatGPT for various academic tasks, as illustrated in Figure 1. These tasks include essay writing, research, and critical analysis. Specifically, 98.1% of respondents (153 students) indicated that they incorporate ChatGPT into their academic activities, whereas only 1.9% (3 students) reported not using the tool at all. Among those who do use ChatGPT, the frequency of engagement varies: 23.7% reported daily use, 20.5% use it weekly, and the largest group (55.1%) use it occasionally. Only 0.6% indicated that they never use ChatGPT. These findings underscore ChatGPT's emerging role as a widely adopted academic support tool, with occasional usage representing the most common pattern among students.



*Figure 1. Overall ChatGPT usage and the frequency of use*

Furthermore, the findings indicate that students engage with ChatGPT for a wide range of academic tasks, as presented in Table 1. The most frequently reported uses include researching topics (57.1%, or 89 students) and problem-solving or answering academic questions (50.6%, or 79 students). Other notable applications include brainstorming ideas (39.1%, or 61 students) and checking grammar and writing style (36.5%, or 57 students). Additionally, students reported using ChatGPT for analyzing texts (28.8%, or 45 students), generating summaries (24.4%, or 38 students), and writing essays (23.1%, or 36 students). A small proportion (2.6%, or 4 students) indicated using the tool for other unspecified academic purposes. These results underscore the diverse and multifaceted ways in which students integrate AI into their academic routines, with particular emphasis on tasks related to research and problem-solving.

*Table 1. Reasons for Using ChatGPT in Academic Contexts*

No.	Academic Task	Number of Students	Percentage (%)
1	Researching Topics	89	57.1%
2	Problem Solving / Answering Questions	79	50.6%
3	Brainstorming Ideas	61	39.1%
4	Grammar and Style Checking	57	36.5%
5	Analyzing Text	45	28.8%
6	Generating Summaries	38	24.4%
7	Writing essays	36	23.1%
8	Others	4	2.6%

## Students' Perceptions of ChatGPT's Influence on Critical Thinking Skills and Independent Thinking

As illustrated in Table 2, the survey results indicate that university students generally perceive ChatGPT as a valuable tool for enhancing their critical thinking and academic reasoning skills. A majority of respondents (54.2%) agreed or strongly agreed that ChatGPT helps them think more critically about academic tasks, such as essay writing and research analysis, while 43.2% remained neutral and only 2.5% disagreed. With regard to the critical evaluation of information, such as comparing sources or constructing arguments, 67.1% responded positively, suggesting that ChatGPT plays a notable role in supporting analytical engagement. Similarly, 57.1% of students reported that the tool encouraged them to question and critically reflect on the information it provided, with only 2.6% expressing disagreement.

*Table 2. Students' Perceptions of ChatGPT's Influence on Critical Thinking Skills*

Item	SD	D	N	A	SA
Using ChatGPT helps me think more critically about academic topics.	0.6%	1.9%	43.2%	43.2%	11%
ChatGPT helps me analyze information more critically (e.g., comparing sources, forming arguments)	0	1.9%	31%	61.9%	5.2%
Using ChatGPT encourages me to question or critically evaluate the information provided.	0	2.6	40%	50%	7.1%
ChatGPT has improved my ability to construct logical arguments and make reasoned decisions.	0.6	6.5%	46.1%	40.3%	6.5%
Using ChatGPT has made me more dependent on AI for completing academic tasks.	5.8%	23.2%	36.1%	31%	3.9%
ChatGPT has helped me develop my argumentative and critical thinking skills.	1.3%	5.8%	48.7%	41%	3.2%
I believe ChatGPT is a useful tool for enhancing my critical thinking skills in my academic work.	0	5.1%	49.4%	39.1%	6.4

In terms of constructing logical arguments and making reasoned academic decisions, 46.8% of students agreed or strongly agreed that ChatGPT contributed positively, whereas 46.1% maintained a neutral stance, indicating mixed perceptions or limited recognition of improvement in this area. The data also highlight concerns around dependency: 34.9% of students acknowledged becoming more reliant on ChatGPT for completing academic tasks, while 29% disagreed and 36.1% expressed neutrality, suggesting a divergence in attitudes toward AI reliance.

Additionally, 44.2% of students believed that ChatGPT supported the development of their argumentative and critical thinking skills, although nearly half (48.7%) were neutral. Finally, when asked whether ChatGPT is a useful tool for enhancing critical thinking in academic contexts, 45.5% responded affirmatively, while 49.4% remained neutral. These findings underscore the dual perception of ChatGPT as both a beneficial cognitive aid and a potentially overused tool, highlighting the importance of promoting reflective and guided AI use in higher education.





*Table 3. Students' perceptions of ChatGPT's influence on independent thinking*

Item	SD	D	N	A	SA
I rely more on my own thinking than on ChatGPT when working on assignments.	0.6%	1.9%	43.2%	43.2%	11%
ChatGPT encourages me to engage in independent thinking and idea generation.	0	1.9%	31%	61.9%	5.2%
ChatGPT hinders my ability to think independently and solve problems on my own.	0	2.6	40%	50%	7.1%
I am concerned that using ChatGPT may reduce my ability to work independently.	1.3%	9%	41.7%	37.8%	10.3%

As illustrated in Table 3, the data presents a nuanced perspective on how university students perceive the impact of ChatGPT on their independent thinking and academic autonomy. A combined total of 54.2% of students (43.2% agreeing and 11% strongly agreeing) indicated that they rely more on their own thinking than on ChatGPT when completing academic assignments, whereas only 2.5% expressed disagreement. Notably, 43.2% of respondents adopted a neutral stance, suggesting that while a substantial proportion of students remain cognitively engaged, many are still navigating the balance between personal effort and AI assistance.

In addition, a strong majority (67.1%) of students (61.9% agreeing and 5.2% strongly agreeing) believed that ChatGPT supports independent thinking and the generation of original ideas. Only 1.9% disagreed with this statement, and 31% remained neutral. These responses indicate a generally positive perception of ChatGPT as a tool that can stimulate creativity and self-directed learning.

However, concerns regarding the potential negative effects of AI on academic independence were also evident. More than half of the students (57.1%) agreed or strongly agreed that ChatGPT may impede their ability to think independently and solve problems autonomously, while 40% remained neutral. Only a small minority (2.6%) disagreed, suggesting that although students find value in using the tool, many are aware of the possible trade-offs in cognitive autonomy.

Similarly, 48.1% of respondents (37.8% agreeing and 10.3% strongly agreeing) expressed concern that reliance on ChatGPT could diminish their capacity to work independently. In contrast, 41.7% were neutral on the matter, and 10.3% disagreed. Overall, these findings reflect a complex relationship: students recognize the supportive role of ChatGPT in academic tasks, yet many remain cautious about its potential to undermine the development of essential independent thinking skills over time.

## Discussion

### University Students' Use of ChatGPT

The findings of this study underscore the widespread integration of ChatGPT into the academic routines of university students. With 98.1% of respondents indicating that they use ChatGPT for tasks such as essay writing, research, and critical analysis, it is clear that the tool has become a mainstream academic aid. This high adoption rate reflects the increasing normalization of AI-powered platforms in higher education, aligning with recent studies that highlight how generative AI tools are being embraced by students for their convenience and perceived effectiveness (Almassaad et al., 2024). These results suggest that students view ChatGPT not only as a helpful and accessible resource but also as an efficient means of academic support in managing complex tasks and information.

Interestingly, the frequency of use reveals varying levels of reliance. While 23.7% of students reported daily use, implying high dependency or consistent engagement, more than half (55.1%) indicated they use ChatGPT occasionally. This suggests that while the tool is valued, it is often employed selectively or in specific academic contexts, such as during complex assignments or time-sensitive tasks (Dong & Shi, 2021). The fact that only a small fraction of students (0.6%) reported never using ChatGPT



reinforces the perception that the tool is both widely accepted and considered beneficial across academic disciplines, mirroring broader trends of AI integration in higher education (Malik et al., 2023; Yusuf et al., 2024).

These patterns also raise important questions about the evolving nature of academic work and digital literacy. The preference for occasional use may reflect students' attempts to balance AI support with independent thinking, a notion supported by concerns raised in other parts of the data (Daher & Hussein, 2024). Moreover, the presence of daily and weekly users signals the potential for habitual or even dependent use, which universities may need to address through clear guidelines on responsible AI integration (Kim, 2023; Kwon, 2024). Overall, the data points to a shift in student behavior and study habits, with ChatGPT playing a significant and growing role in shaping how students access, process, and produce academic content (Zawacki-Richter et al., 2019).

Furthermore, the results indicate that university students are leveraging ChatGPT in multifaceted ways to support a wide range of academic tasks. The most prominent uses, such as researching topics (57.1%) and problem-solving or answering questions (50.6%), demonstrate that students view ChatGPT not only as a content generator but also as a cognitive tool that aids in understanding complex academic material and exploring new ideas (Nikolopoulou, 2024; Marchandot et al., 2023). These high usage rates suggest that ChatGPT is effectively filling the role of a digital academic assistant, particularly in areas that require quick access to information or conceptual clarification (Zawacki-Richter et al., 2019).

Beyond research and problem-solving, students also turn to ChatGPT for creative and language-based support. Activities such as brainstorming ideas (39.1%) and checking grammar and style (36.5%) reveal that students use ChatGPT to enhance the clarity, coherence, and originality of their academic writing. This aligns with the growing recognition of AI as a valuable tool in the pre-writing and revision stages, where it can scaffold students' thinking and assist in refining their language use (Zawacki-Richter et al., 2019; Khojasteh, 2025). Such uses reflect broader pedagogical shifts that acknowledge the role of AI in supporting iterative, reflective academic composition processes (Hutson, Plate, & Berry, 2024), helping learners not only to generate content but also to improve linguistic precision and conceptual organization.

Furthermore, the use of ChatGPT for text analysis (28.8%), summary generation (24.4%), and essay writing (23.1%) indicates a more advanced engagement with AI, where students rely on the tool for critical reading and synthesis tasks. These uses align with emerging literature that highlights AI's potential to support higher-order thinking and academic writing skills when appropriately guided (Malik et al., 2023; Khalifa & Albadawy, 2024). Although these functions are used by a smaller proportion of students, they represent important academic practices that benefit from structured support, particularly in tasks requiring critical thinking, paraphrasing, and concise expression (Braun et al., 2020).

The relatively low percentage of students who reported using ChatGPT for other, unspecified tasks (2.6%) may suggest either the limited scope of current use or underreported innovative applications. This underscores a growing need for further research on emerging and less conventional applications of AI in academic settings (Zawacki-Richter et al., 2019). Overall, the findings highlight the flexibility and perceived usefulness of ChatGPT in academic contexts. They also suggest a need for deeper exploration into how AI can be ethically and effectively integrated into higher education curricula to enhance, not replace, students' cognitive and academic development (Sanusi et al., 2024; Zawacki-Richter et al., 2019).



## Students' Perceptions of ChatGPT's Influence on Critical Thinking Skills

The survey findings provide valuable insights into university students' perceptions of ChatGPT's role in supporting critical thinking and academic reasoning. A notable portion of students expressed positive views, with more than half (54.2%) agreeing that ChatGPT helps them think more critically about academic topics such as essay writing and research analysis. This perception was even stronger regarding ChatGPT's role in analyzing information critically; 67.1% of respondents felt that the tool supported their ability to compare sources, form arguments, and engage with content more deeply. These responses highlight students' recognition of ChatGPT not just as a source of information, but as a scaffold that aids higher-order thinking, which aligns with studies suggesting that generative AI tools can enhance metacognitive engagement and support critical reasoning when used reflectively (Holmes, Bialik, & Fadel, 2019; Mollick & Mollick, 2023; Zawacki-Richter et al., 2019).

Encouragingly, 57.1% of students also indicated that ChatGPT prompts them to question or critically evaluate information, an essential component of academic inquiry. This suggests that, for many students, the use of AI tools may be fostering not only passive reception of information but also active, reflective engagement with academic content (Kasneci et al., 2023). This aligns with recent findings that highlight how AI, when used mindfully, can support metacognitive processes and help learners approach information more critically and analytically.

However, there is less consensus on the tool's role in improving students' abilities to construct logical arguments and make reasoned decisions. While 46.8% agreed or strongly agreed with this benefit, a nearly equal number (46.1%) remained neutral. This division may reflect differing levels of proficiency in using ChatGPT effectively, or the challenge of attributing improvement in such skills directly to the tool itself. Previous studies have highlighted similar concerns, suggesting that while AI can aid in structuring arguments, its effectiveness depends on how critically and interactively it is used by students (Lawasi et al., 2024; Shibani et al., 2024).

The data also points to concerns about overreliance on AI. A third of students (34.9%) acknowledged becoming more dependent on ChatGPT, which raises important questions about the balance between AI assistance and independent thinking. While some students embrace ChatGPT as a productivity and learning aid, others may be wary of its impact on their academic autonomy. This ambivalence aligns with previous studies that caution against excessive dependence on AI tools, highlighting the risk of diminishing learners' self-regulation and critical thinking capabilities when AI is used without proper guidance (Holmes et al., 2019; Mollick & Mollick, 2023).

Interestingly, although 44.2% of students felt ChatGPT helped develop their argumentative and critical thinking skills, nearly half (48.7%) remained neutral. Similarly, when asked if ChatGPT is a useful tool for enhancing critical thinking more generally, 45.5% responded positively, while 49.4% were neutral. These patterns of neutrality suggest that while many students see promise in using ChatGPT, others may be unsure of its benefits, possibly due to limited experience, inconsistent outcomes, or lack of guided use. This uncertainty is echoed in recent studies that highlight the need for structured integration of generative AI into the curriculum, emphasizing that without proper scaffolding, students may struggle to unlock the full cognitive benefits of such tools (Zawacki-Richter et al., 2019).

Overall, these findings point to a dual reality: students are increasingly integrating ChatGPT into their academic workflows and recognizing its potential to enhance critical thinking, yet many remain ambivalent or cautious. This underscores the need for more structured support and reflective practice in the use of AI tools within educational contexts. Educators might consider developing instructional strategies that help students use ChatGPT more intentionally, ensuring that it complements rather than replaces their cognitive engagement.





## Students' Perceptions of ChatGPT's Influence on Independent Thinking

The findings reveal a complex and reflective stance among university students concerning the role of ChatGPT in fostering or hindering their independent thinking and academic autonomy. On one hand, a notable 54.2% of students reported that they continue to rely more on their own thinking than on ChatGPT when completing assignments. This suggests that, for a majority of students, AI is used as a supplementary tool rather than a substitute for personal effort and reasoning, a finding that aligns with research emphasizing the value of scaffolding over substitution in educational AI use (Al-Abdullatif & Alsubaie, 2024; Chen, Tallant, & Selig, 2025). However, the large percentage of neutral responses (43.2%) highlights ongoing ambiguity; many students may still be negotiating the boundaries between using ChatGPT as support and maintaining full cognitive ownership of their academic work. This tension is echoed in recent literature, which points to the importance of fostering AI literacy and metacognitive awareness to ensure that students critically engage with AI outputs rather than passively accept them (Baskara, 2025; Zawacki-Richter et al., 2019).

A more clearly positive perception emerged regarding ChatGPT's role in stimulating original thought. A strong majority (67.1%) agreed that the tool encourages independent thinking and idea generation, indicating that students often see ChatGPT as a springboard for creativity rather than a crutch. The low level of disagreement (1.9%) supports this notion, suggesting that most students value the generative possibilities AI can offer. These findings are consistent with prior research indicating that students use ChatGPT not only for information retrieval but also as a catalyst for brainstorming and ideation (Kasneci et al., 2023).

Despite this optimism, students also expressed notable concern about potential drawbacks. Over half (57.1%) agreed that ChatGPT could hinder their ability to think independently and solve problems without assistance. The high percentage of neutral responses (40%) further underscores the uncertainty students feel about the long-term cognitive impact of AI usage. This concern is echoed by 48.1% of respondents who agreed that relying on ChatGPT might reduce their capacity to work independently. While only a small portion (10.3%) outright disagreed, the substantial number of neutral responses (41.7%) again reflects ambivalence and perhaps a lack of clear guidance on how to integrate AI effectively without undermining academic autonomy. These findings are consistent with existing literature that warns about the risk of overdependence on AI tools, which can potentially weaken learners' critical thinking and problem-solving capacities if not accompanied by proper pedagogical support (Bae & Bozkurt, 2024; Çela et al., 2024).

These findings suggest that while ChatGPT is generally perceived as a helpful and inspiring tool, students remain cautious about its influence on their independence. This tension highlights a critical need for educators to promote AI literacy, not just in terms of how to use tools like ChatGPT, but also how to use them responsibly and reflectively (Mah et al., 2024). Instructional strategies that emphasize metacognition, critical reflection, and task ownership could help students better manage the balance between AI assistance and self-driven learning (Walter, 2024). By fostering awareness of both the affordances and limitations of AI, educators can help students develop the skills needed to engage with such tools meaningfully, without compromising their autonomy or problem-solving abilities.

## Conclusion

The findings of this study highlight that ChatGPT has become a widely adopted tool among university students, especially for academic tasks such as researching topics, solving problems, and generating ideas. A substantial number of students recognize ChatGPT's value in supporting their critical thinking, analytical reasoning, and argument construction. However, the results also reveal a level of ambivalence, with many students expressing concern about the potential negative impact of AI tools on their ability to think and work independently. While students appreciate the efficiency and support



ChatGPT offers, there is a clear tension between benefiting from AI assistance and maintaining academic autonomy. In light of these insights, it is recommended that universities take a proactive role in guiding students' use of generative AI. Integrating AI literacy into the curriculum would help students use tools like ChatGPT critically and ethically, fostering an understanding of both its capabilities and limitations. Educators should encourage reflective practices by designing assignments that require students to evaluate their use of AI tools and to critically assess AI-generated content. Promoting independent task ownership is also crucial; learning activities should be structured to ensure that students rely primarily on their own thinking, with ChatGPT serving as a supplementary aid. Additionally, institutions should provide clear guidelines regarding the ethical use of AI in academic contexts to uphold academic integrity. By taking these steps, higher education can ensure that ChatGPT is used as a tool to enhance rather than replace students' cognitive and academic development.

## References

- Al-Abdullatif, A. M., & Alsubaie, M. A. (2024). ChatGPT in learning: Assessing students' use intentions through the lens of perceived value and the influence of AI literacy. *Behavioral Sciences*, 14(9), 845. <https://doi.org/10.3390/bs14090845>
- Almassaad, A., Alajlan, H., & Alebaikan, R. (2024). Student perceptions of generative Artificial Intelligence: Investigating utilization, benefits, and challenges in higher education. *Systems*, 12(10), 385. <https://doi.org/10.3390/systems12100385>
- Bae, H., & Bozkurt, A. (2024). The untold story of training students with generative AI: Are we preparing students for true learning or just personalization? *Online Learning*, 28(3). <https://doi.org/10.24059/olj.v28i3.4689>
- Bai, L., Liu, X., & Su, J. (2023). ChatGPT: The cognitive effects on learning and memory. *Brain-X*, 1(3), e30. <https://doi.org/10.1002/brx2.30>
- Baskara, FX. R. (2025). Conceptualizing digital literacy for the AI era: A framework for preparing students in an AI-driven world. *Data and Metadata*, 4, 530. <https://doi.org/10.56294/dm2025530>
- Braun, H. I., Shavelson, R. J., Zlatkin-Troitschanskaia, O., & Borowiec, K. (2020). Performance assessment of critical thinking: Conceptualization, design, and implementation. *Frontiers in Education*, 5, 156. <https://doi.org/10.3389/feduc.2020.00156>
- Bryman, A. (2016). *Social research methods*. Oxford University Press.
- Chen, K., Tallant, A. C., & Selig, I. (2025). Exploring generative AI literacy in higher education: student adoption, interaction, evaluation and ethical perceptions. *Information and Learning Science*, 126(1/2), 132–148. <https://doi.org/10.1108/ILS-10-2023-0160>
- Chinonso, O. E., Theresa, A. M.-E., & Aduke, T. C. (2023). ChatGPT for teaching, learning and research: Prospects and challenges. *Global Academic Journal of Humanities and Social Sciences*, 5(02), 33–40. <https://doi.org/10.36348/gajhss.2023.v05i02.001>
- Daher, W., & Hussein, A. (2024). Higher education students' perceptions of GenAI tools for learning. *Information (2078-2489)*, 15(7).
- Das, S. R., & J.V., M. (2024). Perceptions of higher education students towards ChatGPT usage. *International Journal of Technology in Education*, 7(1), 86–106. <https://doi.org/10.46328/ijte.583>
- Dikilitaş, K., Furenes Klippen, M. I., & Keles, S. (2024). A Systematic rapid review of empirical research on students' use of ChatGPT in higher education. *Nordic Journal of Systematic Reviews in Education*, 2. <https://doi.org/10.23865/njsre.v2.6227>
- Ding, F. (2017). 'Free in time, not free in mind': First-year university students becoming more independent. *Journal of College Student Development*, 58(4), 601–617. <https://doi.org/10.1353/csd.2017.0045>



- Dong, Y., & Shi, L. (2021). Using Grammarly to support students' source-based writing practices. *Assessing Writing*, 50, 100564. <https://doi.org/10.1016/j.asw.2021.100564>
- Dragojević, T., & Turudić, J. (2024). The use of ChatGPT in higher education: Students' perceptions. *Nastava i vaspitanje*, 73(3), 315–325. <https://doi.org/10.5937/nasvas2403315D>
- Etikan, I., Musa, S.A., & Alkasim, R.S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Farrokhnia, M., Banihashem, S. K., Noroozi, O., & Wals, A. (2024). A SWOT analysis of ChatGPT: Implications for educational practice and research. *Innovations in Education and Teaching International*, 61(3), 460–474. <https://doi.org/10.1080/14703297.2023.2195846>
- Firat, M. (2016). Measuring the e-learning autonomy of distance education students. *Open Praxis*, 8(3), 191-201. <https://doi.org/10.5944/openpraxis.8.3.310>
- Fu, Y. (2024). A research of the impact of ChatGPT on education. *Applied and Computational Engineering*, 35(1), 26–31. <https://doi.org/10.54254/2755-2721/35/20230354>
- Hadley, G., & Boon, A. (2022). *Critical Thinking* (1st ed.). Routledge. <https://doi.org/10.4324/9780429059865>
- Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education promises and implications for teaching and learning*. Center for Curriculum Redesign.
- Hutson, J., Plate, D., & Berry, K. (2024). Embracing AI in English composition: Insights and innovations in hybrid pedagogical practices. *International Journal of Changes in Education*, 1(1), 19-31.
- Islam, I., & Islam, M. N. (2024). Exploring the opportunities and challenges of ChatGPT in academia. *Discover Education*, 3(1), 31. <https://doi.org/10.1007/s44217-024-00114-w>
- Kasneci, E., Seßler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., ... & Kasneci, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and individual differences*, 103, 102274.
- Khalifa, M., & Albadawy, M. (2024). Using artificial intelligence in academic writing and research: An essential productivity tool. *Computer Methods and Programs in Biomedicine Update*, 100145.
- Khojasteh, L., Kafipour, R., Pakdel, F., & Mukundan, J. (2025). Empowering medical students with AI writing co-pilots: Design and validation of AI self-assessment toolkit. *BMC Medical Education*, 25(1), 159–22. <https://doi.org/10.1186/s12909-025-06753-3>
- Kim, S. C. (2023). Current status and future directions of AI utilization guidelines in universities. *Knowledge & Liberal arts (KL)*, 13, 11-44.
- Kwon, J. (2024). Establishing essential guidelines for the educational use of generative AI. *Asia-Pacific Journal of Convergent Research Interchange (APJCRI)*, 683-693.
- Lawasi, M. C., Rohman, V. A., & Shoreamanis, M. (2024). The use of AI in improving student's critical thinking skills. *Proceedings Series on Social Sciences & Humanities*, 18, 366-370
- Leighton, J. P., Cui, Y., & Cutumisu, M. (2021). Key information processes for thinking critically in data-rich environments. *Frontiers in Education*, 6, Article 561847. <https://doi.org/10.3389/feduc.2021.561847>
- Mah, C., Walker, H., Phalen, L., Levine, S., Beck, S. W., & Pittman, J. (2024). Beyond CheatBots: Examining tensions in teachers' and students' perceptions of cheating and learning with ChatGPT. *Education sciences*, 14(5), 500.
- Malik, A. R., Pratiwi, Y., Andajani, K., Numertayasa, I. W., Suharti, S., & Darwis, A. (2023). Exploring artificial intelligence in academic essay: Higher education student's perspective. *International Journal of Educational Research Open*, 5, 100296.
- Marchandot, B., Matsushita, K., Carmona, A., Trimaille, A., & Morel, O. (2023). ChatGPT: the next frontier in academic writing for cardiologists or a Pandora's box of ethical dilemmas. *European Heart Journal Open*, 3(2), Article oead007. <https://doi.org/10.1093/ehjopen/oead007>
- Mollick, E. R., & Mollick, L. (2023). Using AI to implement effective teaching strategies in classrooms: Five strategies, including prompts. *The Wharton School Research Paper*.



- Nikolopoulou, K. (2024). Generative Artificial Intelligence in higher education: Exploring ways of harnessing pedagogical practices with the assistance of ChatGPT. *International Journal of Changes in Education*, 1(2), 103–111. <https://doi.org/10.47852/bonviewIJCE42022489>
- Perry, K. H. (2012). What is literacy? – A critical overview of sociocultural perspectives. *Journal of Language and Literacy Education*, 8(1), 50–71.
- Rozeek, K. (2024). GPT models in higher education: challenges and opportunities. In *Proceedings of the 24<sup>th</sup> International Multidisciplinary Scientific GeoConference SGEM 2024* (pp. 729–734). <https://doi.org/10.5593/sgem2024/5.1/s22.881>
- Sanusi, I. T., Agbo, F. J., Dada, O. A., Yunusa, A. A., Aruleba, K. D., Obaido, G., Olawumi, O., & Oyelere, S. S. (2024). Stakeholders' insights on artificial intelligence education: Perspectives of teachers, students, and policymakers. *Computers and Education Open*, 7, 100212.
- Saputra, N., Mulyani, & Asirah. (2024). Factors affecting Indonesian university students' participation in synchronous vs asynchronous online English classess: A perceptual analysis. *JET (Journal of English Teaching)*, 10(1), 15–26. <https://doi.org/10.33541/jet.v10i1.5473>
- Schei, O. M., Møgelvang, A., & Ludvigsen, K. (2024). Perceptions and use of AI chatbots among students in higher education: A scoping review of empirical studies. *Education Sciences*, 14(8), 922. <https://doi.org/10.3390/educsci14080922>
- Šedlbauer, J., Činčera, J., Slavík, M., & Hartlová, A. (2024). Students' reflections on their experience with ChatGPT. *Journal of Computer Assisted Learning*, 40(4), 1526-1534.
- Shibani, A., Knight, S., Kitto, K., Karunanayake, A., Buckingham Shum, S., Sas, C., Mueller, F. F., Williamson, J. R., & Kyburz, P. (2024). Untangling critical interaction with AI in students' written assessment. *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems*, 1–6. <https://doi.org/10.1145/3613905.3651083>
- Silva, A. D. O., & Janes, D. D. S. (2022). The emergence of ChatGPT and its implications for education and academic research in the 21st century. *Review of Artificial Intelligence in Education*, 3, Article e06. <https://doi.org/10.37497/rev.artif.intell.educ.v3i00.6>
- Xu, X., Su, Y., Zhang, Y., Wu, Y., & Xu, X. (2024). Understanding learners' perceptions of ChatGPT: A thematic analysis of peer interviews among undergraduates and postgraduates in China. *Heliyon*, 10(4), Article e26239. <https://doi.org/10.1016/j.heliyon.2024.e26239>
- Walter, Y. (2024). Embracing the future of Artificial Intelligence in the classroom: The relevance of AI literacy, prompt engineering, and critical thinking in modern education. *International Journal of Educational Technology in Higher Education*, 21(1), 15.
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education – where are the educators? *International Journal of Educational Technology in Higher Education*, 16(1), 39. <https://doi.org/10.1186/s41239-019-0171-0>
- Zhai, X. (2022). ChatGPT user experience: Implications for education. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4312418>

