



The Emerging Technology (ChatGPT) AI and its Influence on Student Learning Performance: A Case Study of University of the Punjab Lahore

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ABSTRACT

Aim of the Study: Artificial intelligence (AI) programs have revolutionized education by providing learners easy ways to complete assignments and enhance learning. ChatGPT use grew in education as students received the opportunity to gain quick access to scholarly support. Yet, its overuse has been a matter of concern due to the possible adverse outcomes for students in terms of emotional aspects, cognitive capacity, motivation, critical thinking, and work ethic. The Plagiarism, academic dishonesty, and irresponsibility were also encouraged by over-dependence on ChatGPT.

Methodology: Using Media Dependency Theory, a qualitative research design was employed, incorporating semi-structured interviews and the purposive sampling method to gather detailed information from 20 students (BS and M.Phil) in the Mass Communication Department of Punjab University.

Findings: The results indicated that over-reliance on AI software such as ChatGPT also posed significant concerns with regard to educational quality, which is well-reflected in Goal SDGs 4 (Quality Education). Through the study, students became aware of the strategies that can help to reduce the negative effects of ChatGPT and ensure ethical use in higher educational institutions.

Conclusion: The current paper concludes that although ChatGPT is useful in terms of study and comprehension of challenging academic subjects, a severe challenge to originality, ethics, and emotional stability among college students is also revealed. It provides them with fast access to information and less independent thought. The results highlight that the educational system should be aware of the benefits and drawbacks of AI tools. The growing reliance of students on ChatGPT is an indication of learning behavior changing to passive consumption of information instead of active participation in learning. The trend compromises academic honesty and cognitive processes in higher learning institutions.

Keywords: Artificial Intelligence, ChatGPT, Cognitive Skills, Emotional Well-being, Academic Integrity.

Article History

Received:
September 19, 2025

Revised:
November 27, 2025

Accepted:
December 03, 2025

Online:
December 10, 2025

1. INTRODUCTION

Chat GPT AI tool issued in November 2022 is ChatGPT-3, which quickly gained popularity in the field of higher education institutions because of its perceived potential and the high number of university students using this tool (Enriquez et al. 2024). This high rate of growth has elicited a lot of debate on how it can be leveraged and used in educational institutions, especially on the effect that it may have on student participation and performance (Yasin & Safdar, 2025; Imran et al., 2025).

1.1 Development of AI Models and Educational Integration

The further versions of ChatGPT-3 -3, such as GPT-3.5 and GPT-4 -4 have developed their linguistic and contextual knowledge step by step, continuing to integrate AI into the education system. These models are becoming sophisticated necessitates a closer analysis of their ethical complications and the need to come up with strong frameworks that lead to ethical integration of these AI systems into educational Systems. Ethical frameworks are compulsory for responsible integration. Artificial Intelligence offers high efficiency rates, customized experiences, and augmented productivity, the widespread implementation of the technology also drawn out major issues, especially along with the effect on critical-thinking skills; reduce human interaction (Szmyd & Mitera, 2024; Safdar et al., 2020; Safdar et al., 2020a).

1.2 Ethical and Academic Challenges

AI gives access to complete every academic task but also poses significant ethical problems in terms of academic integrity, as well as will likely lead to even higher rates of academic cheating by students (Tan & Maravilla, 2024). The prevalence of generative AI tools, which can be used to create academic assignments that lack any true participation by the student and raise doubts about submission authenticity (Sadeghpour et al., 2025;).

1.3 Problem Statement

The given research is linked with the necessity to explore the multidimensional problem of the impact of the intensive penetration of AI in the sphere of advanced education, particularly focusing on the negative effect on academic results of the students and the general repercussions of academic integrity and pedagogical effectiveness observed in university of the Punjab Lahore, Pakistan.

1.4 Study Rationale

The main reason for conducting this study is to understand the effects of artificial intelligence tools like ChatGPT on students. Because AI ChatGPT has become very popular in educational institutions. These tools are easily available for every student. That's why students rely on them excessively, which can damage their own critical thinking skills, hinder their motivation, and degrade the standard of their education. This study gives awareness of balanced use of AI ChatGPT and draw solutions to these problems. For many stakeholders, this study is significant. For educators, they can better prepare classes and develop their teaching strategies of how ChatGPT impacts students' learning, and thinking abilities. It emphasizes the necessity for students to maintain a good balance between employing AI ChatGPT and put their own critical thinking and learning skills. This study contribute effective ways for educational settings by offering applications that enhance learning without promoting academic dishonesty. This study make sure responsible and ethical use in higher education institution.

1.5 Objectives of the Study

This study is to explore the perceptions of the students of Punjab University concerning the ChatGPT influence on cognitive skills. And also examine the impact that the constant use of ChatGPT can have on the emotional state of the students. Additionally, this study investigates to how ChatGPT can affect the academic integrity of students. Finally recommend viable practices that faculty and higher education

institutions (HEIs) can implement to ensure the responsible adoption of AI tools, specifically using ChatGPT, in educational institutions.

2. LITERATURE REVIEW

ChatGPT has now become a revolutionary AI application, and it is causing a shift in the normative approach and measurement benchmarks in the education facilities (Gill et al., 2023). Such an advanced AI model, represented by ChatGPT, has a huge potential in customizing the learning material according to the needs of individual students and, therefore, improving their understanding and retention (Hasanein & Sobaih, 2023).

Students with learning disabilities are also at risk of being particularly disadvantaged by the indiscriminate use of AI, as they may succumb to using it instead of developing foundational coping and learning skills, that can support them academically in the long run (Dickey et al., 2023; Zhai et al., 2024). user can make some mistakes in the tasks they perform and fail to develop the ability to make independent decisions when they simply accept the recommendations that the AI created (Zhai et al., 2024). Such an over-dependence on the AI-generated output, despite its practical efficiency, may end up result in avoiding the necessary cognitive effort required for deep learning and, on the contrary, may lead to a more superficial interaction with information rather than genuine learning and memory (Pitts et al., 2025). This mental laziness may be in the form of an academic self-efficacy through academic stress and academic performance expectations, further contributing to AI dependency (Zhang et al., 2024). This has been a growing problem of academic dishonesty since the proliferation of advanced artificial intelligence writing assistants, with a large proportion of students not only citing engagement with them but also doing so to further harm academic integrity (Tan & Maravilla, 2024). The availability of the advanced writing assistants leads to the increased occurrence of academic dishonesty, and there is a strong tendency that a significant part of students admit they use those tools in order to abuse academic integrity (Ateeq et al., 2024). The generative AI can also cause so-called AI guilt in students, resulting in the moral discomfort of engaging AI in the performance of tasks that are traditionally performed by humans, thus influencing self-perception and mental health (Chan, 2024). In addition, multiple studies show that too much screen exposure, which is sometimes enhanced through the use of artificial intelligence-supported applications used both in studies and leisure time, leads to digital exhaustion, loneliness, stress, and worsened overall mental integrity (Klímova & Pikhart, 2025). Students report a general lack of empathy, trust, and flexibility in communication with AI, which indicates the inability to identify many emotional demands in various situations, which, in turn, confirms the significant importance of human supervision and in-person assistance through AI-saturated mental health care (Chan, 2025). Such an intensification of reliance on AI, in turn, can result in the development of emotional pressure as the student copes with the demands of their academic identity and performance and turns to greater stress and a lack of intrinsic motivation (Teng, Lee & Ko, 2025). Such a challenge requires the reconsideration of the pedagogical strategies with a focus on the development of real interest in the intellectual activity and critical thinking instead of the rote material production (Aljuaid, 2024). This highlights the urgent necessity of longitudinal research that will carefully follow the academic progression of students and extend on their cognitive and instrumental growth towards conquering the AI-saturated learning space to affect the evidence-based pedagogy (Ward et al., 2024; Pacheco-Mendoza et al., 2023). The given multidimensional approach is supposed to moderate policy-makers and instructors about how to fully integrate AI in a responsible manner, using its positive power and protecting academic integrity and the experience of real intellectual growth (Liang et al., 2025).

2.1 Research Gap

This shows that there is a significant lack of research on the topic of the cognitive and academic implications of massive usage of AI, with the application of its capability to redefine the mechanisms of learning and knowledge as strongly exercised in the long-term outcomes.

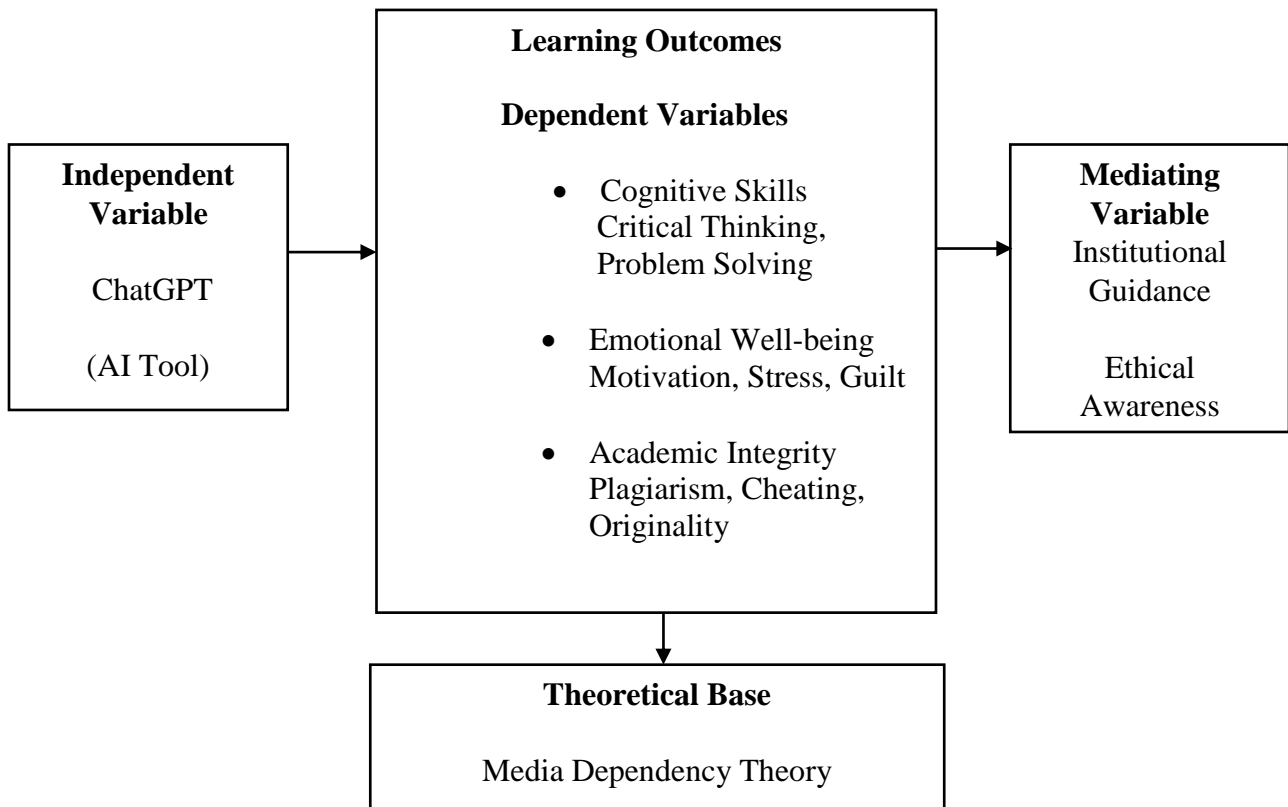
3. THEORITICAL FRAMEWORK

The theory that was selected in this study is Media Dependency Theory (Ball-Rokeach and DeFleur 1976) which describes how people become dependent on media to satisfy their needs. The theory explains the growing reliance of students on AI applications such as (ChatGPT) in doing their academic assignments. The more students rely on AI to learn and solve their problems as well as to do their homework, the stronger the impact on the critical thinking, working abilities, intellectual autonomy, academic dishonesty as they usually believe the information offered by AI without further consideration.

3.1 Conceptual Framework

The five major aspects that the conceptual framework was built upon included: 1 independent variable, 3 dependent variables, 1 mediating variable and the theoretical foundation of the study. The combination of all of these factors helps to explain the dynamic interaction of AI adoption and student behaviour (see figure 1).

Figure 1: *Conceptual Framework of the study*



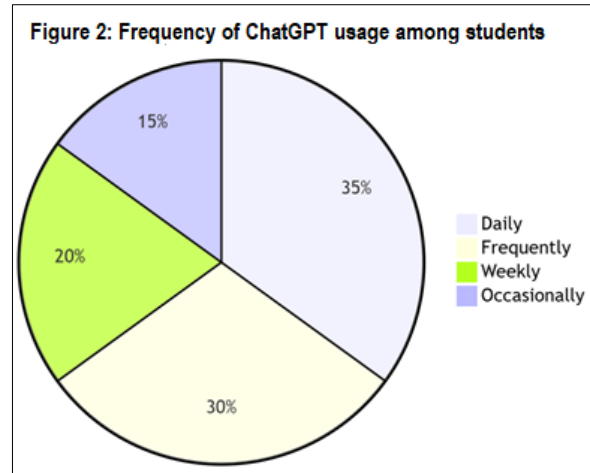
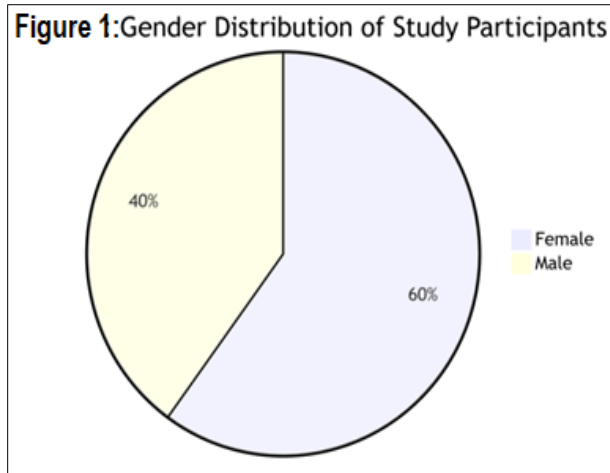
4. METHODS

To examine the perceptions, experiences, and opinions of BS and M.Phil students on the use of ChatGPT in learning, the qualitative primary research design was utilized in this study. The sample size consisted of 20 students who participated in the study selected using a purposive sampling method in the Department of Public Relations, University of the Punjab, Lahore, and (most importantly) had prior experience with ChatGPT as a learning tool. Using semi-structured interviews to gather detailed information, all interviews were recorded, and then transcribed for analysis and to maintain ethical standards. Through

thematic analysis, identifying patterns and arranging them into meaningful themes and sub-themes to interpret how ChatGPT affects students' academic performance, learning behavior, and integrity.

5. RESULTS

5.1 Demographic Profile of Participants



As mention in Figure 1, shows that (60%) were female, while 40% were male. This suggests a slightly higher involvement of female students in the study, which may reflect the overall gender composition of the Mass Communication Department.

Figure 2 shows how often the students used ChatGPT. It turns out that 35% of the students used ChatGPT every day, and 30% used it frequently. Mostly (M.phil students) 20% used it weekly, and 15% used it occasionally.

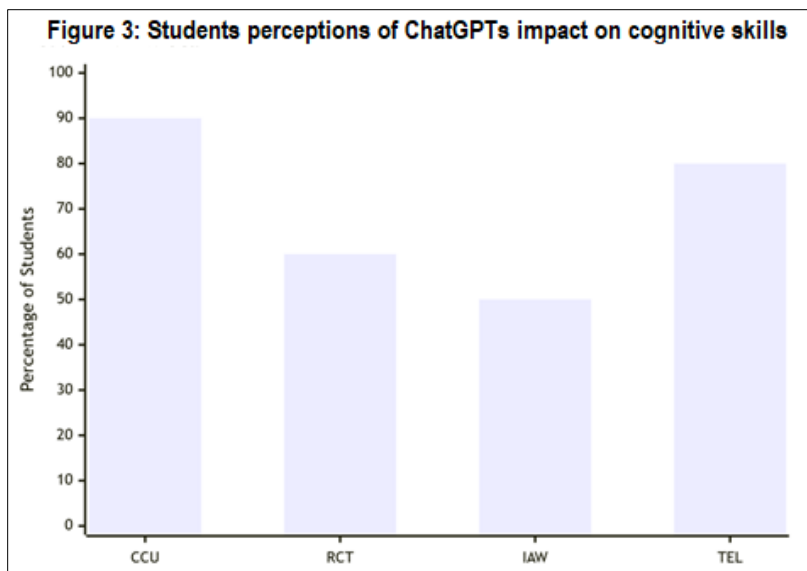
Table 1: Impact of ChatGPT on Students Cognitive Skills

Sub- themes	Participant Views Summary	Interpretation
Conceptual Clarity and Learning Support	Majority of participants mentioned that ChatGPT helped them in understanding difficult topics and improving their conceptual clarity. It provided quick explanations and simplified complex theories. For instance, students reported that “ChatGPT makes it easy to grasp new concepts quickly	ChatGPT serves as a learning aid that enhances understanding and provides academic support, especially when teachers or peers are unavailable.
Reduced Critical Thinking and Over-dependence	Several students acknowledged that frequent use of ChatGPT reduced their independent thinking skills. They felt they relied more on ready-made answers rather than generating their own ideas.	The over-reliance on ChatGPT can hinder students’ analytical and problem-solving abilities, making them passive learners rather than critical thinkers.
Improved Academic Writing and Expression	Some students expressed that ChatGPT improved their writing skills by suggesting vocabulary and sentence structures.	ChatGPT acts as a supportive writing tool that helps students present their ideas more clearly, though excessive reliance may

		affect originality.
Time Efficiency in Learning	Many students appreciated the quick responses and time-saving nature of ChatGPT for academic tasks such as research summaries, brainstorming, or preparing notes.	The tool enhances productivity and efficiency in learning, allowing students to manage their academic workload more effectively.

Figure 3: Students Perceptions of ChatGPTs Impact on Cognitive Skills

Conceptual Clarity and Understanding (CCU) 90%, Reduced Critical Thinking (RCT) 60% Improved Academic Writing (IAW) 50%, Time Efficiency in Learning (TEL) 80%



As shown in Graph 3 the majority of students (90%) thought ChatGPT was very helpful for increasing conceptual clarity, 80% agreed that it improved time efficiency, 50% reported an improvement in writing abilities, and 60% believed it diminished their critical thinking.

Table 2: Impact of ChatGPT on Students' Emotional Well-being

Sub-theme	Student Responses (Summary)	Overall Interpretation
Motivation and Confidence	Most students shared that ChatGPT increased their motivation to study. It provided instant help, which made them feel more confident while completing assignments or understanding new topics.	ChatGPT acts as a motivational aid by giving students academic confidence and reducing frustration when facing difficult content.
Stress and Anxiety Reduction	Many students (especially M.Phil) mentioned that using ChatGPT reduced their exam stress and anxiety. It helped them manage academic workload and deadlines.	The tool positively impacted emotional stability by reducing academic pressure and fear of failure.
Overdependence and Guilt	A few students admitted that they feel guilty about relying too much on	Over-reliance created mixed emotions — short-term comfort

ChatGPT. They feared it might make them lazy or less capable in the long term. but long-term guilt or dependency.

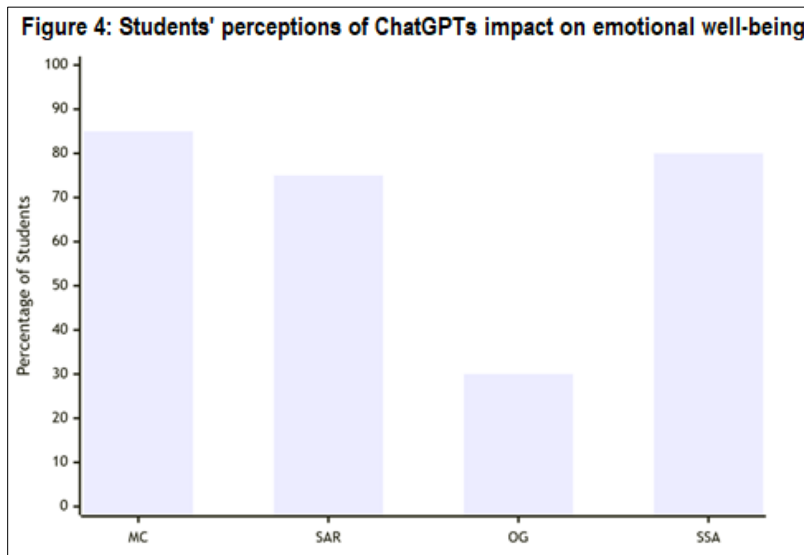
Sense of Support and Accessibility

Several students described ChatGPT as a “24/7 study partner,” giving them emotional support when teachers or peers were not available.

The accessibility of ChatGPT created a sense of academic and emotional support, enhancing students’ confidence and comfort.

Figure 4: *Students’ Perceptions of ChatGPT’s Impact on Emotional Well-being*

Motivation and Confidence (MC) 85%, Stress and Anxiety Reduction (SAR) 75%, Overdependence and Guilt (OG) 30%, Sense of Support and Accessibility (SSA) 80%



As shown in Figure 4 The majority of students (85%) reported feeling more motivated and confident after using ChatGPT, as shown in Figure 5.3.2. Approximately 75% reported felt reduced stressed and anxiety, and 80% appreciated its accessibility and emotional support. However, because of their over-reliance, 30% felt a little guilty.

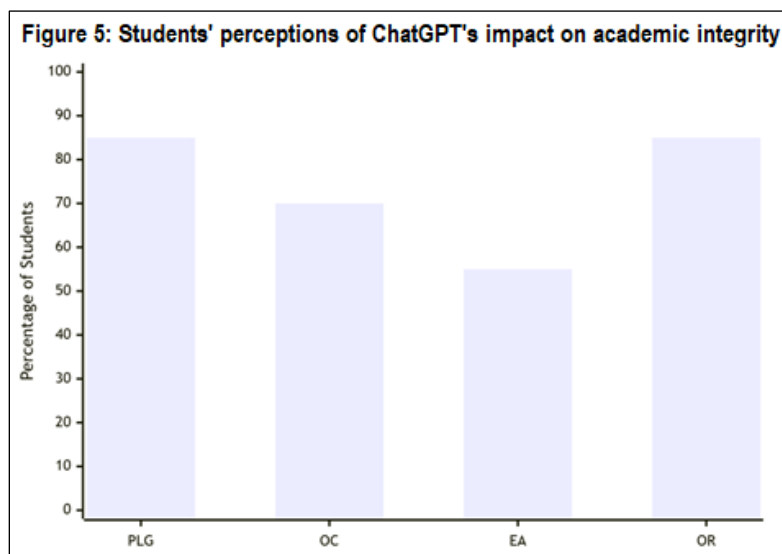
Table 3: *Students’ Perceptions of Academic Integrity*

Sub-theme	Student Responses (Summary)	Overall Interpretation
Plagiarism	Many students shared that they copy and paste directly from ChatGPT while writing assignments. The frequent and uncritical use of ChatGPT often leads to plagiarism.	Overuse of ChatGPT promotes unintentional plagiarism and reduces originality in students’ work.
Originality Concerns	Several students admitted that frequent ChatGPT use reduces their originality and creative input.	Excessive use of AI limits independent thought and personal expression.
Ethical Awareness	Several students said they know that copying AI-generated content without citation is wrong, but they	Students are ethically aware but often face moral confusion about where responsible use ends and

	still find it difficult to draw the line between learning support and unethical use.	dishonesty begins.
Over-Reliance on AI	Students mentioned that easy access to ChatGPT makes them tempted to depend on it rather than their own ideas or writing themselves.	Convenience of AI lead to reduced personal effort and weaker adherence to academic standards.

Figure 5: *Students' Perceptions of ChatGPT's Impact on Academic Integrity*

Plagiarism (PLG) 85%, Originality Concerns (OC) 70%, Ethical Awareness (EA) 55%, Over-Reliance on AI (OR) 85%



As shown in Figure 5 that 85% of students believe that utilising ChatGPT excessively can lead to plagiarism as well as over-reliance, 70% acknowledge that it affects originality, and 55% talk about how difficult it is to use AI technologies in an ethically balanced manner.

Table 4: *Students' opinions on Responsible Use of AI*

Sub-theme	Student Responses (Summary)	Overall Interpretation
Policies & Guidelines	Students suggested that universities should create clear policies and rules for AI usage, including limits on how much AI can be used in assignments and exams. They emphasized the need for institutional guidelines to prevent misuse and ensure ethical engagement.	Clear policies and guidelines are essential to regulate AI use, prevent over-reliance, and promote responsible academic behavior.
Workshops & Training	Many students recommended workshops, seminars, or training sessions to teach students how to use ChatGPT ethically and effectively.	Hands-on training ensures students understand ethical boundaries and apply AI responsibly in their learning.
Balanced Use	Students highlighted the importance of using AI as a supportive tool, not a	Encouraging moderate and guided use helps students benefit

replacement for personal effort. Some from AI while preserving suggested measuring AI contribution independent thinking (e.g., percentage of assignment) to and originality. maintain balance.

Figure 6: *Students' Perceptions on the Responsible Use of AI*

Policies & Guidelines (PG) 80%, Workshops & Training (WT) 70%, Balanced Use (BU) 85%

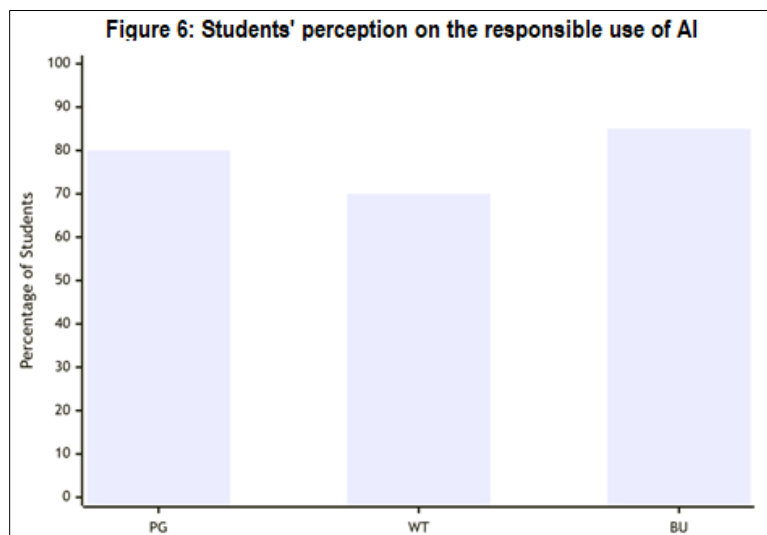


Figure 6 shows that most students (85%) believe in maintaining a balanced use of AI, 80% support institutional policies for responsible usage, and 70% recommend training or workshops to ensure ethical AI application in education.

6. DISCUSSION

The research results presented in this paper based on the fact that ChatGPT has become a popular one among college students. The majority of students perceived it as a productive tool when it comes to learning intricate issues, developing ideas, and doing their tasks much more effectively. These results are align with Gill et al. (2023) and Hasanein & Sobaih (2023), who discussed the effectiveness and instructional support of AI enabled tools such as ChatGPT in higher education). This is why it shows the increasing reliance and trust in using artificial intelligence tools to complete academic tasks. Yet, these results also confirm the concerns reported by Szmyd & Mitera (2024) and Zhai et al. (2024) suggested that students' critical thinking and problem solving can be decreased because of overconfident AI. Cause for concern results are also reflected in the results. The students who largely depend on ChatGPT were less involved in deep learning processes, working hard and critical thinking. Rather than exert their own efforts, students rely on such AI-generated tools and accepted responses given by AI-generated answers without thinking.

The study by Pitts and colleagues (2025) showed that students that extensively used ChatGPT demonstrated less engagement with deep learning, individual tasks, and critical thinking processes. Instead of doing the tasks by themselves, students used AI to do the work and took the response as is. The findings are consistent with (Sadeghpour et al.2025) the use of generative AI regarding the passive learning and excessive reliance that can stem from using generative AI.

The Media Dependency Theory explains that more dependence on the media AI like ChatGPT has effects on how students think and behave. According to Ball-Rokeach and DeFleur from 1976, it is presented

that too much AI usage changes intellectual autonomy and also the learning styles. Some students stated ambivalent feelings emotionally. ChatGPT alleviated the stress associated with studies through instant responses, some of them felt guilty after using ChatGPT and some were anxious about using AI to do academic work. These sorts of feelings were also found by Chan (2024, 2025) who described “AI guilt” and mental health consequences coming from generative AI.

6.1 Theoretical Implication

This research supports the basic tenets of Media Dependency Theory by demonstrating that as students become more dependent on Artificial Intelligence (AI) tools (examples include ChatGPT), their learning behaviors will change and so will their ability to think independently and take responsibility for their own intellectual growth; if students depend too heavily on these types of tools, they may lose their ability to think critically, solve problems, and be creative which supports the theory's assertion regarding how media can affect our cognitive processes and behaviours. In addition, this study demonstrates how the tenets of Media Dependency Theory can be applied to AI in higher education; it emphasises both cognitive and emotional consequences of AI use. The findings of this research indicate that Media Dependency Theory may be used by policymakers as they develop policies that optimise the use of AI while maintaining the integrity of students' academic work.

7. CONCLUSION

The current paper concludes that although ChatGPT is useful in terms of study and comprehension of challenging academic subjects, a severe challenge to originality, ethics, and emotional stability among college students is also revealed. It provides them with fast access to information and less independent thought on their part. The results highlight the idea that the educational system should be aware of the benefits and drawbacks of AI tools. The growing reliance of students on ChatGPT that is an indication of learning behavior changing to passive consumption of information instead of active participation in learning. The trend compromises academic honesty and cognitive processes in higher learning institutions.

8. RECOMMENDATIONS

The following recommendations are made on the basis of the findings and theory:

Institutional Policy Frameworks: Universities and colleges are recommended to create written regulations that will delineate the ethical limits and the acceptable usage of artificial intelligence technologies like ChatGPT. They should also specify the forms of plagiarism, citation methods, and the nature of the ethical AI partnerships in their regulations.

AI Literacy and Student Training: The primary emphasis should be on conducting workshops on a regular basis to develop students' capability of using AI responsibly. Throughout the training, AI literacy and academic ethics will be focused on, and, of course, critical thinking and originality will also be supported. The students' proper and ethical usage of these technologies will be ensured through them being incorporated into the academic curriculum.

Faculty Engagement: The instructors should first receive proper AI tools training before these are used in class as a learning aid instead of replacement for the instructor's teaching. Moreover, the faculty should keep an eye on student reliance and initiate practices that encourage self-learning.

Balanced Usage: Students should use AI tools like ChatGPT as a guiding tool, not use as replacement for their own analytical and critical thinking.

Acknowledgements

None.

Conflict of Interest

Authors declared NO conflict of interest.

Funding Source

The authors received NO funding to conduct this study.

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