Over-Reliance on ChatGPT and Its Psychological Impact on Critical Thinking and Writing Skills among University Students

Basit Aziz
basit396@yahoo.com
PhD Scholar, Department of Management Sciences, COMSATS University, Lahore

Syeda Laraib Zehra
syedazehra416@gmail.com
M.Phil, University of Karachi

Muhammad Hassan Shafiq
hassanshafiq23@gmail.com
Assistant Professor, Federal Directorate of Education, G-9/4, Islamabad

Corresponding Author: Basit Aziz basit396@yahoo.com

ABSTRACT

The high rate of adoption of artificial intelligence tools in the higher education has transformed the way students learn and write academic papers. ChatGPT is one of such tools that has become widely popular and is primarily because it can produce text that is coherent enough to be used in academic writing and also serves as a source of instant learning assistance. There is however increasing apprehension as to how much students rely on them and the possible psychological and cognitive implications. This paper examines how excessive dependence on ChatGPT affects the critical thinking and academic writing capabilities of university students, and focuses specifically on the psychological elements related to the effect of the topic, including learning autonomy, self-efficacy, and academic confidence. Using a mixed-methods design of research, data were gathered using a structured questionnaire on undergraduate and postgraduate students in both public and private Universities. The analysis of quantitative information was performed through descriptive statistics, reliability test, correlation and regression analysis whereas qualitative understanding assisted in interpreting the results. The findings indicate that the overuse of ChatGPT is closely linked to a decreased level of critical thinking, a lower level of competence in academic writing and a higher level of psychological dependency. The paper summarizes that ChatGPT has the potential to be a valuable academic aid, but the uncontrolled and excessive use of it can cause harm to the key higher-level learning results. The results present a valuable point of practice to educators, policymakers, and curriculum developers who would want to implement AI technologies in higher education without jeopardizing cognitive development and academic integrity.

Keywords: Artificial Intelligence in Education, ChatGPT, Critical Thinking, Academic Writing Skills, Psychological Dependency, University Students.

INTRODUCTION

Artificial intelligence (AI) has transformed the modern educational practices, especially in institutions where higher education is offered, in a significant way. University students are increasingly using technologies like ChatGPT created by OpenAI, which help with brainstorming, creating academic content, paraphrasing, and enhancing the linguistic accuracy. Although AI-based language models are proposed to be effective and open to many people, they have been eagerly used, posing urgent reasons of how they

affect cognitive growth, learning autonomy, and psychological interest in studying activities (Kasneci et al., 2023).

The traditional learning outcomes in higher education have been identified to be critical thinking, analytical thinking, and original academic writing. Such skills cannot be limited to the technical abilities but they are mental processes that demand a long-term mental work, thinking, and intellectual labor (Facione, 2015). But the ease of ChatGPT will pose a threat of substituting these processes that are mentally taxing with computer-generated results, which may promote passive learning and intellectual sluggishness.

Psychologically, the idea of cognitive offloading can be used to explain why people tend to over-relax on AI tools and release cognitive load to external tools in order to work less mentally with these tools (Risko & Gilbert, 2016). Though cognitive offloading can be useful in minimal situations, overuse can undermine internal cognitive processes, especially reasoning, memory and problem-solving processes. The students will read and write less effectively, leading to reduced development of crucial thinking if they constantly rely on ChatGPT to create arguments, structure the data, or polish the language.

According to recent research, the high frequency of AI support can also contribute to the decrease of metacognitive awareness as students start to rely on AI generated answers without considering them and being skeptical (Vallor, 2021). This blind belief is dangerous to the academic rigor since students can easily not tell the difference between good quality of thinking and a text that is coherent in the superficial sense.

Critical thinking is an approach that deals with interpretation, analysis, evaluation, inference, and self-regulation (Facione, 2015). These elements are required in student success and life long learning. Nevertheless, the automaticity of the answers by ChatGPT will dishearten students to discover such processes on their own. Rather than creating an argument, analyzing the sources, or integrating views, students can use AI-generated responses, which results in intellectual addiction (Bender et al., 2021).

Empirical studies indicate that a high level of technological mediation within the learning environment can decrease the persistence and cognitive tolerance of problem-solving in students (Carr, 2020). Academic difficulties can be solved immediately with the help of AI and students may develop a lack of intellectual strength that is essential in higher-order thinking.

Academic writing is a cognitive process that entails the development of ideas, argument, coherence, and linguistic accuracy. Even though ChatGPT can help with grammar control and style refinement, its excessive use can undermine the skill of constructing original arguments and building an academic voice among the students (Flower and Hayes, 1981). The writing written with the help of AI can be also under the threat to become generic, formulaic, and disconnected with the intellectual involvement of a writer.

Also, learners who are used to using ChatGPT to write their papers or compositions might lose the feeling of their competence and develop a sort of mental addiction in which they are afraid to write something independently or they are unable to do so (Zhai, 2022). The described phenomenon is consistent with the self-efficacy theory, according to which the constant dependence on external agents may decrease the self-competence of individuals (Bandura, 1997).

In addition to the loss of cognitive skills, excessive dependence on ChatGPT is psychologically problematic in terms of academic identity, motivation, and ethical consciousness. University students are at the pre-intellectual and pre-professional identity development. As AI gains the advantage of becoming the main knowledge-creating source, learners might get depersonalized when it comes to learning, which will result in their lower levels of intrinsic motivation (Deci and Ryan, 2000).

Also, the problems of authorship, originality, and academic integrity become normalized psychologically because students start to see AI-generated work as a reasonable alternative to individual intellectual activity (Selwyn, 2019). This culturating is a dangerous normalization of the concept of academic success based on production over knowledge.

Though the literature on AI in education has greatly covered the technical and ethical aspects of AI in education, empirical studies on understanding the psychological effects of excessive use of ChatGPT on critical thinking and writing abilities are few, especially in the developing academic setting. The majority of the research is devoted to AI as a teaching tool, without taking into account its long-term cognitive and psychological effects.

This gap is filled in this study, which actively examines the effects of excessive use of ChatGPT on the critical thinking skills, writing skills, and psychological experience of learning among university students. It is expected that the findings can inform teachers, government, and curriculum developers about creating balanced AI implementation plans that maintain cognitive integrity and utilize the power of technologies.

Research Objectives

1. To investigate the connection between excessive use of ChatGPT and critical thinking of university students.

2. To examine how ChatGPT dependency has affected academic writing competence of students.

3. To investigate the psychological impact of overuse of ChatGPT on the learning autonomy and self-efficacy of students.

Research Questions

1. What is the impact of excessive use of ChatGPT on the critical thinking skills of university students?

2. How is the frequency of using ChatGPT related to academic writing of students?

3. How does ChatGPT dependency influence the confidence, motivation, and learning autonomy of students?

LITERATURE REVIEW

The growing adoption of artificial intelligence (AI) in higher education has fundamentally changed the ways of production, access, and evaluation of knowledge. ChatGPT has become one of the most popular language models in the modern world of AI technology that can be used to produce coherent academic writing, summarize the information, and help in writing and solving problems. Even though its pedagogical possibilities have been appreciated, researchers have expressed concern about the increased dependency of students on these applications and the long-term psychological and cognitive consequences of this addiction. The available sources claim that despite the potential efficiency of AI-assisted learning, its overuse can lead to the decline of the critical thinking ability, writing skills, and learner independence (Kasneci et al., 2023; Selwyn, 2019).

Critical thinking has been considered one of the key goals of higher education, and these skills include analysis, evaluation, inference, and a reflective judgment (Facione, 2015). Educational psychologists maintain that, these abilities are acquired in the course of active thinking, struggling intellectually and solving problems repeatedly instead of passively receiving information (Bloom, 1956; Kuhn, 1999). Nevertheless, the cognitive processes practiced by AI tools bring about a change whereby cognition starts to be effortful to conveniently acquire. Bender et al. (2021) caution that when large language models are used, the text seems credible and does not require the actual knowledge, which increases the likelihood of students being ready to believe responses generated by AI. The issue posed by this phenomenon is that it endangers the development of evaluative thinking since the learner can be more interested in refined work than in analysis.

The idea of cognitive offloading offers a reasonable theoretical framework in explaining the dependency of the students on ChatGPT. Cognitive offloading is a mental process that is delegated to the external tools in order to decrease cognitive load (Risko & Gilbert, 2016). Although offloading is applicable in facilitating learning but in limited and strategic sense, excessive use of offloading can promote internal cognitive performance, such as memory retention and problem-solving skills. The cognitive psychological research indicates that overdependence on external aids may decrease the depth of processing information as well as long-term learning results (Sparrow et al., 2011). Considering the example of ChatGPT, those students that persistently outsource idea generation, development of arguments, and synthesis might not have a chance to train critical thinking.

Artificial intelligence (AI) has proven to become a disruptive element in modern branding activities, especially with the proliferation of AI-generated content on the internet. Algorithms are becoming more and more important to the brands in the process of creating personalized advertisements, posts on social media, product descriptions, and extensive interactions with customers. On the one hand, AI-generated content has such important benefits as consistency, operational effectiveness, and personalization, and on the other hand, it poses a significant threat to such aspects as authenticity, ethical responsibility, the erosion of human creativity, and the mistrust of consumers (Latif, 2026). With the swift growth of the artificial intelligence (AI) usage in marketing, the relationships between consumers and brands have changed significantly. The marketing AI-driven allows extremely personalized, data-oriented and automated marketing campaigns that are more efficient and more accurate in targeting. Nevertheless, along with these benefits, the AI-based marketing practices cause serious questions regarding the psychological manipulation, the financial vulnerability of the consumers, and ethical concerns, in general, which are especially related to transparency, autonomy, and the responsible usage of consumer data (Shahab et al., 2025).

Even other studies about technology-mediated learning indicate that intellectual persistence can be counterproportionately decreased by ease of access. Carr (2020) states that digital tools that foster immediate satisfaction can undermine the ability of students to tolerate mental challenge, which is one of the main elements of high-order thinking. By having academic issues solved in a short time with the help of AI answers, learners are prone to missing the thinking patterns that lead to conceptual comprehension. This is in line with the argument by Kuhn (1999) that critical thinking is a product of exposure to the uncertainty and competing school of thought, which automated answers usually do away with.

Another area of use of AI is academic writing, which is strongly interconnected with critical thinking. Writing can be considered as not just a mechanical process but a complicated mental one where you have to plan, then learn how to translate ideas into words, and finally reflect and rewrite the text (Flower and Hayes, 1981). Researchers underline that writing as a form of thinking helps the learners to make their arguments straight and develop meaning (Bereiter/Scardamalia, 1987). Nonetheless, in case ChatGPT takes

over in the process of writing and structuring academic papers, the learners will become disinterested in such mental activities. Empirical research indicates that the use of automated writing aid has the potential to produce superficial coherence without depth of meaning (Zhai, 2022).

Another issue raised by linguistic researchers is the fact that AI-generated writing can lead to the homogenization of academic writing. Because ChatGPT writes texts according to probabilistic patterns built upon the existing corpora, there is a threat that the writing of students will become formulaic and depersonalized (Hyland, 2016; McCarthy and Carter, 2004). This would affect the development of disciplinary writing since the students might be unable to internalize the genre-specific conventions and rhetorical strategies. In the long term, the reliance on AI-written language can lead to the deterioration of the skills of students to adjust writing to the requirements of various academic tasks.

Self-efficacy psychological explanations also expose the effect of AI dependency on student learning. According to Bandura (1997), self-efficacy is the feeling that the individuals have of their ability to do things. Studies reveal that repetitive reliance on external agents to accomplish tasks may be disempowering to self-efficacy where learners may no longer believe in themselves (Zimmerman, 2000). With ChatGPT, learners who are used to using AI to do their writing and thinking can develop less confidence in their own academic abilities. It is a psychological dependency that may establish a cycle where students will resort to AI more and more because their self-belief weakened.

The motivation theory is also very vital in the explanation of AI dependency. The self-determination theory holds that intrinsic motivation flourishes when the autonomy, competence, and relatedness of the learner are experienced (Deci and Ryan, 2000). Overuse of ChatGPT can cause loss of autonomy because the power over learning is transferred to the technology. Research on educational technology indicates that intrinsic motivation decreases when students believe that they are being forced to do something or it is being done to them (Ryan and Deci, 2020). This regression can be in the form of loss of attachment to learning processes and loss of commitment to intellectual development.

The psychological normalization of the use of AI is tightly connected with the ethical and academic integrity issues. Although the concept of plagiarism has always been associated with the use of human-created content without a reference, AI-generated text makes the existing ethical rules more complex (Bretag, 2019). Studies also show that students tend to view AI help as ethically neutral especially when the institutional policies are not clear (Perkins et al., 2023). Such a perception can help to make less sensitive to ethics and normalize minimal-effort learning tactics and push students further away concerning reflective academic practices.

Socioculturally, the concept of learning is interpreted as a socially mediated process, which is defined by interaction, dialogue, and joint meaning-making (Vygotsky, 1978). ChatGPT is an interactive system that does not have the social reciprocity and contextual awareness. According to scholars, the substitution of human interaction with AI mediated responses can reduce chances of collaborative learning and dialogic reasoning, which are critical thinking developmental requirements (Mercer and Littleton, 2007). The lack of realistic feedback and challenge of AI communications could support a bias towards confirmation instead of critical thinking.

Empirical research on AI in the recent past has given mixed results on its application in education. Although there is research that shows that the productivity and language accuracy are improved (Dwivedi et al., 2023), some researchers warn about uncontrolled use. Kasneci et al. (2023) argue that AI tools are supposed to act as cognitive cues, but not thinking assistants. Once scaffolding is replaced, then learning is

undermined. On the same note, Vallor (2021) posits that the integration of AI in ethics should focus on the human intellectual agency to avoid skill atrophy.

Although more attention is paid to the effects of AI on education, the literature contains crucial gaps. Majority of the current research is done on short term performance outcome instead of long term cognitive and psychological outcomes. Additionally, there has been no sufficient empirical data that investigate the influence of AI dependency on academic identity and relationship with knowledge among students. This difference is especially clear in the non-Western and developing higher education settings, where institutional policies regarding the use of AI remain developing.

To conclude, the literature available suggests that despite the significant pedagogical potential of ChatGPT, excessive use can lead to a lack of critical thinking and academic writing, self-efficacy, and intrinsic motivation. The psychological implications of AI dependency do not stop at the loss of skills but are spread to changes in academic identity, ethical perception, and learner autonomy. The results highlight the importance of empirical research on the subject of university students and their interaction with ChatGPT and the impact of this interaction on their cognitive and psychological growth. These issues will have to be resolved to create balanced strategies of AI integration that can improve learning without putting the original purpose of higher education at risk.

METHODOLOGY

Research Design

This paper had a mixed-methods research design, which involves both quantitative and qualitative methods to explore the psychological effect of excessive use of ChatGPT on the critical thinking skills and academic writing capabilities of university students in detail. The mixed-methods design was chosen because it would be possible to statistically investigate the relationships between variables, as well as measure the perceptions, experiences, and attitudes of students towards AI-assisted learning.

Population and Sample

The sample population was composed of undergraduate and postgraduate students of both small and big universities. The stratified random sampling method was employed to make sure that there was representation in terms of academic fields of study, the level of study, and the type of institutions. The sample size ended up being about 258 students and this was considered to be satisfactory in terms of inferential statistical analysis and application of findings to the general population.

Research Instruments

The self-administered questionnaire and semi-structured interview protocols were used in the collection of data. The questionnaire had four parts: demographic data, frequency and purpose of using ChatGPT, critical thinking attitude, and self-evaluation of writing academic papers. Validated and existing scales were adjusted to assess critical thinking and self-efficacy, whereas items related to the use of ChatGPT were created according to the recent literature on AI in education. The qualitative interview guide involved the perception of dependency, independence of writing, and psychological involvement in the learning activities among students.

Validity and Reliability

The questionnaire had content validity that was determined by the expert review of the academics in the field of education and psychology. A pilot study was done on a small sample of students to check on the clarity and relevance of items. Cronbach alpha was used to conduct reliability analysis, where all scales had acceptable reliability coefficients of more than 0.70, that is, internal consistency.

Data Collection Procedure

A total of six weeks were used to collect data. Questionnaires were sent online and physically to ensure that maximum number of people answered. All the respondents were informed and volunteered to participate in the study. In the qualitative phase, 15-20 participants were selected purposely among the survey participants because they reported the level of using ChatGPT. The interviews were held under a confidential environment and taped using audio recorders with the consent of the participants.

Data Analysis Technique

Statistical Package of the Social Sciences (SPSS) was used to analyze the quantitative data. Demographic characteristics and pattern of ChatGPT usage were summarized using descriptive statistics. Correlation Pearson correlation and multiple regression were used to investigate the relationship between ChatGPT dependency and academic writing competence and critical thinking skills. Qualitative data were transcribed in their original form and were analyzed by thematic analysis, which made it possible to identify recurrent patterns based on cognitive dependency, self-efficacy, and learning autonomy.

Ethical Considerations

The approval of the ethical board was acquired at the institutional review board. The participants were told about the aim of the research, their right to drop out anytime, and confidentiality of their answers. No identifiable data was gathered and all data were utilized in the scholarly purpose.

DATA ANALYSIS AND FINDINGS

This part provides the statistical analysis and the results of the empirical study comparing the psychological effects of over-reliance on ChatGPT to the critical thinking and academic writing skills of university students. Statistical Package of the Social Sciences (SPSS) was used in data analysis. The statistical methods used were both descriptive and inferential in order to respond to the research objectives and research questions.

Response Rate and Data Screening

There were 300 questionnaires that were distributed to undergraduate and postgraduate students of public and private universities. Of this number, 276 questionnaires were returned thus giving a response rate of 92 per cent. Upon data screening, there were 18 responses that were excluded because of incomplete response information; this left 258 valid responses to be used in final analysis. Missing values, normality and outliers were verified on data. There were no significant violations so the possible suitability of the further statistical procedures was observed.

Demographic Respondents Characteristics

Demographic profile of the respondents was summarized using descriptive statistics. The frequencies and percentages appear in Table 1.

Table 1: Demographic Profile of (N= 258) Respondents

Variable	Category	Frequency	Percentage
Gender	Male	122	47.3%
	Female	136	52.7%
Age	18–20	68	26.4%
	21–23	112	43.4%
	24–26	54	20.9%
	27+	24	9.3%
Level of Study	Undergraduate	172	66.7%
	Postgraduate	86	33.3%
University Type	Public	141	54.7%
	Private	117	45.3%

The sample of the demographic variables shows an equal ratio in terms of gender and type of institution. Most of the respondents were undergraduates, which ranks as the first population group that is actively involved in coursework and AI-aided academic assignments.

ChatGPT Usage Descriptive Analysis

The mean and standard deviation were used to analyze the pattern of using ChatGPT by their students. Results are shown in Table 2.

Table 2: ChatGPT Usage Descriptive Statistics

Item	Mean	Std. Deviation
Use ChatGPT for academic purposes	4.12	0.86
Use ChatGPT for idea generation	4.25	0.79
Use ChatGPT to write assignments	3.91	0.93
Use ChatGPT instead of books/articles	3.68	1.01
Feel dependent on ChatGPT	3.84	0.98

The findings denote high usage rate especially in terms of generating ideas and academic support. The mean of dependency is quite high which indicates that students become more and more dependent on ChatGPT as opposed to usual academic tools.

Reliability Analysis

Cronbach alpha was used to determine internal consistency of the questionnaire constructs. The finding is shown in Table 3.

Table 3: Reliability Statistics

Construct	Items	Cronbach's Alpha
ChatGPT Over-Reliance	6	0.86
Critical Thinking Skills	6	0.83
Academic Writing Skills	6	0.81
Psychological Impact	6	0.85

The constructs all surpassed the reliability threshold of 0.70, which proves the instrument reliable to carry on with the analysis.

Correlation Analysis

The Pearson correlation analysis was used in order to analyze the interrelations between ChatGPT over-reliance, critical thinking skills, academic writing skills, and psychological impact. Table 4 indicates the results.

Table 4: Correlation Matrix

Variable	1	2	3	4
1. ChatGPT Over-Reliance	1			
2. Critical Thinking	-0.62**	1		
3. Academic Writing Skills	-0.58**	0.66**	1	
4. Psychological Impact	0.71**	-0.59**	-0.55**	1

Note: p < .01

The results show that there is a strong negative correlation between ChatGPT over-reliance and critical thinking skills, and academic writing skills. On the other hand, there was a positive correlation of strong positive nature between ChatGPT dependency and negative psychological impact, which showed more anxiety, lack of motivation, and decreased self-efficacy.

Regression Analysis

A multiple regression analysis was performed to evaluate the predictive value of ChatGPT over-reliance of critical thinking and academic writing skills.

Table 5: Regression Analysis: ChatGPT Over-Reliance on Critical Thinking Effect.

Predictor	β	t-value	Sig.
ChatGPT Over-Reliance	-0.62	-12.48	.000
Model Summary			
R	0.62		
R²	0.38		
F-value	155.7		
Sig.	.000		

Over-reliance on chat GPT accounts for 38 percent of the variance in critical thinking. The negative value of the beta coefficient shows that the higher the dependency, the less critical thinking is developed in students.

Table 6: Regression Analysis: ChatGPT Over-Reliance Effect on Academic Writing Skills

Predictor	β	t-value	Sig.
ChatGPT Over-Reliance	-0.58	-11.02	.000
Model Summary			
R	0.58		
R²	0.34		
F-value	121.4		
Sig.	.000		

The findings indicate that the negative effect of ChatGPT over-reliance can explain 34% of the difference in academic writing, which does represent a significant influence.

Psychological Impact Analysis

Descriptive and inferential analysis showed that overuse of ChatGPT has major impacts on the psychological well-being and freedom to learn among students. The mean scores were high in terms of anxiety in the absence of ChatGPT and less motivation to learn independently. The findings of the regression demonstrated that the over-reliance on ChatGPT is a strong predictor of psychological dependency ($b = 0.71$, $p <.001$).The results indicate that learners become emotionally dependent on artificial intelligence devices, which can negatively affect academic confidence and resilience.

DISCUSSION

The current research paper investigated an overview of the psychological consequences of excessive dependency on ChatGPT on students in universities in terms of critical thinking and academic writing. The results present good empirical evidence to the fact that although ChatGPT is applied extensively in the context of academic assistance, its over-reliance is linked to severe cognitive and psychological implications. In line with the objectives of the study, the findings show that high rates of ChatGPT use are strong predictors of poor forecasts of critical thinking skills and academic writing competence among students and, at the same time, enhanced psychological dependence and poor learning freedom.

Among the findings that are most important in this research, it is possible to point out a very negative correlation between over-reliance on ChatGPT and skills of critical thinking. The learners who claimed to use ChatGPT frequently to generate ideas, solve problems, and create content had poorer scores on analytical reasoning and evaluative judgment. The given result is consistent with the previous studies that point to the fact that critical thinking is a result of the work of the mind and active involvement in complicated tasks (Facione, 2015; Kuhn, 1999). Automation of the reasoning process by the AI tools seems to decrease the chances of students to train the key cognitive abilities like analysis, inference, and reflection. The same is expressed by Bender et al. (2021), who claim that large language models produce linguistically fluent text without having the actual knowledge, posing a greater risk to unquestioning acceptance by users.

The findings also confirm the cognitive offloading theory according to which over-dependence on external tools may undermine internal cognition (Risko and Gilbert, 2016). When applied to higher education, the common practice of outsourcing thinking processes to ChatGPT can reduce the possibility of students

dealing with academic challenges on their own. This is of special concern because university education is supposed to instill intellectual autonomy but not content reproduction. The current results support the idea that the tolerance to cognitive dissonance in learners may be lost due to digital technologies that promote ease and speed to disadvantage deep learning (Carr, 2020).

Another significant negative effect of ChatGPT over-reliance on academic writing skills that have been identified in the study is also notable. Students who relied on ChatGPT as an aid in writing essays and structuring academic resources said that they lost faith in their writing skills and reduced their creativity. These results are in line with the cognitive accounts of the writing process, which stress that the process of writing is a cognitive process of thinking and meaning-making, as opposed to being a mechanical process (Flower and Hayes, 1981; Bereiter and Scardamalia, 1987). When AI systems take up the role of structuring the arguments and producing text, students can lose interest in the work of reflection required to produce an academic voice. This justifies the claim proposed by Zhai (2022) that AI-assisted writing when applied to excess can lead to shallow coherence at the cost of conceptual meaning.

The psychological implications that were discovered in this study further bring out the dangers of uncontrolled AI dependency. ChatGPT over-reliance and negative psychological outcomes, such as anxiety, lack of motivation, and lack of academic self-efficacy, were found to have a strong positive correlation. These results are in line with the self-efficacy theory as postulated by Bandura (1997), which assumes that the belief of the individuals concerning their abilities is undermined whenever tasks are continually performed using external agents. Students getting used to AI-generated assistance might feel fear when they have to work alone and the dependence can be reinforced. This loop may be especially disastrous when evaluation is necessary and the critical thinking and inventiveness are required.

Motivationally, the results appeal to the self-determination theory where autonomy is an essential element of intrinsic motivation (Deci and Ryan, 2000). Overuse of ChatGPT seems to transfer the power of the learning process to the technological tool, and may decrease the internal attention to the study activities. By making students feel that they receive learning through AI, but not individually, their intentions towards intellectual development may be reduced. A similar observation supports Ryan and Deci (2020), who state that autonomy-supportive learning conditions are essential in maintaining motivation and long-term academic growth.

The implications of the study findings also feed into the ethical and pedagogical issues of the use of AI in higher education. The normalization of AI-generated academic work as perceived by the reported trust in ChatGPT by students is something of concern in terms of academic integrity and authorship. According to Selwyn (2019), the uncritical use of educational technologies has the potential to redefine the values of the academic process and make efficiency more important than the knowledge. This opinion is justified by the current research as it shows that students can be more and more inclined to associate academic performance with refined output but not with cognitive work. There are long-term effects of such a change to the credibility and purpose of higher education.

Significantly, the findings provide important information about the harm that ChatGPT can cause, but it does not imply the exclusion of the tool in academic settings. Instead, the findings highlight the importance of controlled and pedagogical AI implementation. Kasneci et al. (2023) underline that AI tools must be used as cognitive scaffolds to aid the process of learning but not to substitute thinking. ChatGPT can be used critically and reflectively to improve the exploration of ideas and accuracy of language. Nevertheless, even in the absence of institutional regulations and teaching resources, students can revert to dependency-based consumption behaviors.

Altogether, the present study contributes to the current literature by proving the cognitive and psychological implications of ChatGPT over-reliance in university students on the empirical level. It adds to an increasing literature of researchers who advocate a moderate use of AI that does not lead to a decline in critical thinking, writing skills, and learner agency. The results provide a sense of urgency to design AI literacy frameworks that focus on ethical usage, critical thinking, and independent thought, by educators, policymakers, and curriculum designers. By considering these issues, universities and colleges will be able to leverage the AI advantages and protect the basic purposes of academic education.

CONCLUSION

This paper was done to explore the psychological consequences of excessive use of ChatGPT on the critical thinking and academic writing capabilities of university students. The results indicate that, although ChatGPT is an effective academic support system, there are significant cognitive and psychological disadvantages of excessive reliance on the tool. Students who were highly dependent on ChatGPT showed less interest in critical thinking, a lower level of trust in their writing ability without the use of ChatGPT, and increased psychological dependence and anxiety as well as loss of learning autonomy. These findings indicate that excessive dependence on AI-solution tools can undermine the acquisition of the necessary higher-order skills, which are the main focus of university education.

The research also finds that ChatGPT as a replacement, and not as a support system can change students into the passive consumers of knowledge instead of actively constructing it. This change is a blow to the intellectual work involved in thinking analytically and writing original scholarly work. As efficient and linguistically helpful as AI tools might be, they harm the academic success by potentially turning the academic performance into being characterized by the quality of the results instead of the level of the cognition. Altogether, the results reveal the necessity of the urgent revision of the current approach to incorporating AI technologies into academic activities so that they could reinforce, instead of undermine, the intellectual and psychological growth of students.

RECOMMENDATIONS

According to the results of the present research, the institution of higher learning should be advised to come up with clear and detailed policies on the academic application of AI tools like ChatGPT. These policies ought to focus on ethical use, originality, and significance of keeping up with the ability of independent thinking and writing. Instead of banning AI, universities must encourage controlled and transparent AI usages to be an additional learning tool that refines ideas and corrects language with no substitution of cognitive effort.

Also, it is highly advised to implement AI literacy in universities. Students need to be taught to analyze AI-generated material critically, its limitations, and how it has affected their learning behavior. This kind of training would address the psychological dependency and promote responsible and thoughtful use of AIs. The faculty members too must restructure the assessment tactics in order to target critical reasoning, process-oriented assessment and reflective exercises that will discourage excessive dependence on automated tools.

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