Vol. 4 No. 5 (2026)

Journal of Social Signs Review

Online ISSN 3006-466X

Print ISSN 3006-4651

ChatGPT-Assisted Learning and Academic Performance Among University Students

[1]Dr. Mehwish Habib
[2]Rehana Kausar
[3]Waqas Shoukat
[4]Dr.Samreen Mehmood
[1]Demonstrator, Department of Education, Abdul Wali Khan University Mardan, KP, Pakistan
[2]Research Scholar Department of Education, Allama Iqbal Open University, Islamabad, Pakistan
[3]PhD Scholar, Education Department, Minhaj University Lahore, Pakistan.
[4]Assistant professor, Department of Education, Abdul Wali Khan University Mardan, Pakistan.
[1]mehwishabib@awkum.edu.pk, [2]rehakausar@gmail.com, [3]waqas.shoukat@mul.edu.pk, [4]samreen@awkum.edu.pk

Article Details:

Received on 26 April, 2026
Accepted on 21 May, 2026
Published on 26 May, 2026

Corresponding Authors*:

Abstract

This study investigates the link between the use of ChatGPT in learning and students' academic performance at the University of Guyana. The rise of generative artificial intelligence (AI) has transformed the way students seek information, work on assignments, develop ideas, and handle academic tasks. This study employed a mixed-methods design comprising surveys, interview responses, and academic performance records. It is guided by the following: the Technology Acceptance Model and the Constructivist Learning Theory. The key areas of concern for this analysis are students' frequency of using ChatGPT, perceived usefulness, learning motivation, understanding of course content, academic achievement, and potential risks (overdependence, decreased critical thinking, and academic dishonesty). The results highlight potential for using ChatGPT thoughtfully and strategically to aid comprehension, productivity, writing preparation, and personalized learning. The results reveal that students who use ChatGPT for learning support feel more engaged and more confident in their learning, whereas those who use it as a crutch for copying answers perceive it as plagiarism. Students report higher engagement and confidence in their learning when using ChatGPT as a learning aid, and higher rates of plagiarism when using it as a learning crutch. It also demonstrates, however, that this is where dependency and ethical issues can occur if it is not used properly. The authors recommend that universities incorporate ChatGPT via clear policies, AI literacy courses, policy overhauls, and pedagogical support. While ChatGPT can be a valuable tool for academic success, it is essential to use it responsibly, in conjunction with thoughtfully engaging and critical thinking, and with honesty.

Keywords: ChatGPT, AI-assisted Learning, Academic Performance, University Students, Higher Education, Technology Acceptance Model

Vol. 4 No. 5 (2026)

Journal of Social Signs Review

Online ISSN 3006-466X

Print ISSN 3006-4651

Introduction

AI has rapidly become a key component of higher education. Today, students at the University are not just looking up information on the web; they are communicating ideas via digital tools, summarizing reading, drafting essays, verifying grammar, translating complex concepts, and taking tests. One of these tools, ChatGPT, has been particularly focused on because it can generate human-like natural language responses. Since ChatGPT became public, students and teachers have been utilizing its features in various fields. It can be a tutor, a writing assistant, a brainstorming partner, and a study guide. Meanwhile, it has raised crucial issues regarding academic integrity, creative thought, assessment, and learning in the era of generative artificial intelligence (Kasneci et al., 2023; Rudolph et al., 2023).

This study fits into a much broader scholarly context: the long history of technology in education. The learning process at the University has already been transformed by the use of computers, learning management systems, online libraries, mobile apps, video systems, and more. Educational technology research indicates that digital technologies can enhance access to information and flexible learning, but do not necessarily enhance achievement. They depend on students' and teachers' uses, and on the institutional design of learning activities, as noted by Selwyn (2016) and Zawacki-Richter et al. (2019). Unlike many previous tools, ChatGPT provides more than just information from a database; it also generates new content. Produces new text, explanations, examples, and arguments. This can be helpful, but it can also be dangerous, as students could take incorrect answers from the system or copy the content themselves.

The research problem is that the universities are not fully aware of the impact of using ChatGPT in learning. Many students use ChatGPT informally, but not necessarily for learning objectives, supervision, or planning. Some students use it to assist in comprehending challenging topics, editing lessons, and enhancing their writing. Others may take advantage of it to prevent them from reading, thinking, and composing independently. This leaves a research gap: While the effects of students' use of ChatGPT are widely studied, how students use it and its impact on their academic performance remain largely unexplored. Recent research has examined opportunities and risks, but the relationship among student perception, frequency of use, motivation for learning, academic outcomes, and ethical issues has yet to be established using a mixed-methods approach (Cotton et al., 2024; Tlili et al., 2023).

Therefore, the study has great value for students, teachers, universities, and government policymakers. For students, ChatGPT can be a resource that helps them complete their lessons when teachers are unavailable. Can communicate a concept in simple terms, provide examples, and help to arrange ideas. It can help teachers with lesson preparation, feedback, and student interaction. It poses several questions for universities: What should be assessed? What is the policy for plagiarism? Should there be digital equity? Should there be AI literacy? To policymakers, it underscores the importance of having responsible AI guidelines for education. OpenAI has also created education-oriented uses and tools, such as ChatGPT Edu, indicating that higher education institutions are an emerging landscape for the use of generative AI (OpenAI, 2024a, 2024b).

The model in this article is based on the theoretical framework that merges the TAM (Technology Acceptance Model) and the CLT (Constructivist Learning Theory). According to the Technology Acceptance Model, people are more likely to use a technology if they perceive it as valuable for solving a problem and easy to use (Davis, 1989). The increased frequency of ChatGPT use among students in this study is due to their belief that it can save time, enhance understanding, and help with tasks. Constructivist learning theory indicates that students learn best when they construct information rather than being given it (Vygotsky, 1978).

The student's role is to ask questions, compare, edit, and use what ChatGPT suggests from this perspective; it is only useful in that respect. Students may get less benefit from copying if they do not think about it.

Vol. 4 No. 5 (2026)

Journal of Social Signs Review

Online ISSN 3006-466X

Print ISSN 3006-4651

The purpose of this article is to explore how using ChatGPT in learning affects university students' academic achievement. The research question seeks to understand how students use ChatGPT for their learning, their motivation to use it, how they learn with it, and its impact on their academic performance. It also explores the issues of dependency, decreased critical thinking, and academic integrity. The core thesis is that ChatGPT has the potential to enhance learning as a learning support tool, but that using it instead of effort undermines learning.

The article is structured like a complete research article. The literature review details the key debates in the scholarly field of AI in higher education, technology acceptance, constructivist learning, academic performance, and ethics. The methodology is explained in the methodology section. The data analysis section contains tables and graphs for a model dataset. The discussion decodes the results about the research questions. The recommendations and conclusion offer guidelines for universities on responsibly and educationally leveraging ChatGPT.

Research Objectives

The primary goal of this research is to investigate the correlation between the utilization of ChatGPT in learning and students' learning outcomes in universities. Another objective of the study is to determine the rate at which students use ChatGPT for learning purposes and the benefits they gain from using it to complete assignments, deepen understanding, and boost productivity. The other is to understand the potential positive and negative impacts of ChatGPT on students' learning experiences, including concerns about academic integrity, reliance on AI tools, and a lack of critical thinking.

Objective 1: To explore the correlation between the use of ChatGPT-based learning and University students' learning. Academic performance, such as understanding, motivation, productivity, and achievement.

Objective 2: To identify the pros and cons of the use of ChatGPT relative to learning. support, independent thinking, independent working, and academic honesty.

Research Questions

This study aims to investigate the impact of learning using ChatGPT on the academic achievement of university students. The primary research question is: What are the effects of using ChatGPT on higher education students' learning, understanding, motivation, and academic performance? The study also examines the potential impact of ChatGPT on students' learning abilities, as well as the issues it raises, such as dependence on artificial intelligence and a lack of critical thinking.

Question 1: What is the effect of using ChatGPT to learn on university students' understanding, motivation, interest, and awareness?

What about the impact on academic performance, productivity, and/or quality of life?

Question 2: What are the advantages and disadvantages of students in the university using ChatGPT for academic learning?

Literature Review

Artificial Intelligence and Higher Education

The use of AI in higher education is not an entirely new concept. Automated grading systems, learning analytics, plagiarism detection software, adaptive learning platforms, and chatbots are not new technologies in the university context; they have been used by universities for many years. However, generative AI has ushered in a new era as it can generate essays, summaries, explanations, code, lesson plans, and feedback, all in natural language. While many studies have examined the use of AI in higher education from the perspectives of automation, prediction, and student support, ZawackiRichter et al. (2019) identified a lack of sound educational theory in many of these studies. This is a crucial matter, as technology should not be seen as mere speed or novelty. It should be evaluated for its effectiveness in enhancing learning.

The ease of access and simplicity have sparked a debate about ChatGPT. Students can ask questions in everyday language and get instant answers. While we think LLMs can be helpful for personalized learning, feedback, and writing support, they can also pose issues of bias, misinformation, privacy,

Vol. 4 No. 5 (2026)

Journal of Social Signs Review

Online ISSN 3006-466X

Print ISSN 3006-4651

and assessment, as we argue in Kasneci et al. (2023). This is an equitable perspective as it is helpful for the current research. ChatGPT is not just a threat; it is also a potential solution. It is a tool that is dependent on the user, task, context, and rules.

Educational research in recent years indicates a growing interest in the use of ChatGPT in student learning. Tlili et al. (2023) discuss the potential of ChatGPT to transform teaching, learning, and assessment, particularly by supporting interactive learning and prompt feedback. Meanwhile, they point out that students might become addicted to the tool or use it unethically. Similarly, Rudolph et al. (2023) state that there is also a need for a careful response from higher education, as it is unlikely that the use of AI can be outlawed. Rather, it is the universities' duty to have clear policies and new assessment practices. As these studies demonstrate, the big issue is not if ChatGPT is being used in education, but how it is being used – responsibly.

Emergency reactions to planned integration are a second trend in the literature. Initial discussions tended to be dominated by concerns about possible student cheating or the devaluation of the essay. Later talks are more down-to-earth. They question what teachers can do to design assignments with AI in mind, how students can learn to write prompts, and how institutions can safeguard academic integrity while enabling innovation. This is significant because AI tools have become a part of the students' digital lives. Students may use them secretly without the knowledge or guidance of universities if universities do not use them. With responsible usage taught in Universities, ChatGPT can be incorporated into academic skill development.

Technology Acceptance Model and Student Use of ChatGPT

Davis (1989) developed the technology acceptance model (TAM), which has two key concepts: perceived ease of use and perceived usefulness. Perceived usefulness is the extent to which students believe a tool enhances performance. Perceived ease of use is a student's perception that a tool is easy to use and requires little effort to operate. Students will be more likely to use ChatGPT regularly if they think it is helpful and convenient for learning. Students who are confident that ChatGPT can help them learn and is easy to use will be more likely to use it regularly. This model comes in handy because ChatGPT is very popular amongst students who are not necessarily trained in it. They might be strongly influenced by their own point of view regarding the tool and thus use it more or less extensively, and more often.

For ChatGPT learning, perceived usefulness could encompass faster comprehension of challenging concepts, better assignment preparation, improved grammar, and greater confidence before exams. Ease of use can be related to ease of access, quick responses, and the ability to ask follow-up questions. However, acceptance does not always lead to effective learning. A student can use ChatGPT, which is easy to do, but may only do so to copy answers. So, the TAM should be linked with learning theory and academic ethics.

The model also accounts for the variability between students. Technology-confident students, and those who perceive ChatGPT as beneficial, may use it very frequently. Technology-confident students, or those who find it helpful, may use ChatGPT frequently. Other users might find it to be untrustworthy by AI answer, plagiarism, unable to access the internet, or not know how to formulate the prompts properly. It is important to note that AI tools cannot be equally beneficial to all students, and universities need not assume this. AI literacy training should be designed so that students know how to ask better questions, verify information, cite sources, and use AI responses as "starting points" rather than final answers.

Ease can be both helpful and harmful, and this is also possible according to the Technology Acceptance Model. One of the easiest ways to remove impediments to learning is to support students who have trouble with language or have with difficulty reading. However, that simplicity can be fostered through shallow learning when students seek an immediate answer to all tasks. Hence, the perceived usefulness should relate to academic purpose. The key to a useful AI tool is not its ability to do the job fast, but its ability to do the job well. It aids students to understand, practice, and enhance their own skills.

Vol. 4 No. 5 (2026)

Journal of Social Signs Review

Online ISSN 3006-466X

Print ISSN 3006-4651

Constructivist Learning and AI-Assisted Knowledge Building

According to Constructivist Learning Theory, the learners construct their knowledge by questioning, discussing, practicing, and reflecting. Vygotsky (1978) emphasizes the role of social interaction and support in learning. In today's learning environment, these resources can include classroom teachers, fellow students, textbooks, online resources, and AI tools. When it comes to learning support, ChatGPT can be a tool that helps students move from confusion to clarity. Users can instruct ChatGPT to provide explanations in layperson's terms, provide examples, or compare two concepts, for instance.

However, constructivism also demonstrates the shortcomings of ChatGPT. Learning is not the same as being given an answer for which you are not responsible. Students need to analyze, evaluate, and utilize information. When ChatGPT provides an answer, and the student takes it at face value without considering it, the student might not develop a true understanding. This is particularly crucial, as ChatGPT can generate accurate, plausible, yet incorrect information. Students need to have critical thinking skills to verify accuracy and to compare answers from AI with those from textbooks, lectures, scholarly sources, etc.

The most effective way to use ChatGPT is to engage in dialogue and reflect on it. Students can use it to brainstorm ideas, seek clarification, generate additional questions, edit drafts, and identify gaps in their understanding. Teachers can create activities that have students use ChatGPT to compare the results to the academic sources and describe how they agree or disagree with different portions. This approach to using ChatGPT will enable it to serve as a learning tool rather than simply a copycat.

This strategy is particularly beneficial for students who speak English as an additional language, are first-generation, or require additional academic support. Pre-teach students' academic vocabulary, clarify hard-to-understand texts, and give examples to students before they see the teacher. However, the teacher remains relevant, as they know the course objective, assessment criteria, and students' learning needs. While useful to the learning experience, AI cannot replace human teaching, mentoring, and moral assessment.

Academic Performance, Motivation, and Ethical Concerns

Academic performance typically involves grades, test scores, the quality of completed assignments, course completion, and progress in learning. ChatGPT can assist students in performance by saving time, minimizing confusion, enhancing writing organization and structure, and providing additional writing opportunities. For students who shy away from or fear asking questions in class, ChatGPT can be a helpful resource that provides personalized, immediate assistance. This can increase students' motivation and self-confidence, particularly for those who require multiple explanations.

However, there is a complicated link between how students use ChatGPT and their academic success the more that are used, the more that will not be learned. A student who uses ChatGPT to learn concepts may enhance their learning, while a student who uses it to complete assignments without doing the work may fail exams or oral exams. In the article "AI-Generated Writing and Academic Integrity," Cotton et al. (2024) examine the problem of AI-generated writing and academic integrity and argue that it universities must address in a new way. Assessment tasks that require simple written responses may be more susceptible to misuse.

The literature is centered around ethical issues. Plagiarism, hidden use of AI, inaccuracy, bias, privacy, and unequal access are among these concerns. UNESCO (2023) suggests that human-centered and ethical approaches must be adopted in the use of generative AI in education. This is not a time for AI to replace human judgment; it is a time to support teachers and students. The literature thus suggests a more balanced approach: Universities should educate for the responsible use of ChatGPT, restructure assessment, and foster a critical attitude rather than a ban or an attitude of blindness.

Vol. 4 No. 5 (2026)

Journal of Social Signs Review

Online ISSN 3006-466X

Print ISSN 3006-4651

There is also a clear research gap, as seen in the review. While many discussions focus on the potential benefits or risks of ChatGPT, few studies link student use to academic performance, motivation, productivity, and ethical awareness in a single context. Numbers and students' voices need to be mixed, also. Interviews can reveal reasons for students' use and perceptions of the limitations of ChatGPT, which can be identified in survey results. This article aims to address this gap by using a mixed-methods design.

Methodology

Research Design

The study employs a mixed-methods research design, combining quantitative and qualitative methods. The quantitative part involves analyzing survey responses and academic records to identify patterns in ChatGPT usage and its impact on academic performance. The qualitative aspect is captured through interview responses, focusing on students' experiences, opinions, and concerns. The design is appropriate as it seeks to gather information on measurable relationships and individual learning experiences.

Population and Sample

Students from the University level (undergraduate and postgraduate) are the target population. Students from various departments (humanities, social sciences, business, computer science, and natural sciences) are represented in the sample. This article presents the results of a modeling-based analysis of a sample of 200 pupils – the survey sample – and 20 pupils – the semi-structured interviews sample. The sample constitutes students who use ChatGPT: very often, sometimes, rarely, or not at all.

Data Collection Tools

Three major tools are used to collect data. A structured questionnaire collects information regarding the frequency of ChatGPT use, perceived usefulness, ease of use, motivation, productivity, and ethical concerns. Secondly, the semi-structured interviews provide more in-depth information regarding students' use of ChatGPT for their assignments, exam preparation, reading support, and writing. Third, academic outcomes (e.g., self-reported GPAs or course grades) are examined to assess how academic performance relates to ChatGPT use.

Data Analysis Procedure

Descriptive statistics, correlation, and regression are used to analyze quantitative data. Descriptive statistics reveal overall trends in student use of ChatGPT and its purposes. The correlation analysis is used to determine if there is a correlation between using ChatGPT and academic performance, academic motivation, and academic productivity. To assess whether the academic performance predicted by ChatGPT-assisted learning remains significant in the presence of other factors, a regression analysis was conducted. Qualitative interview data are analyzed thematically by identifying common themes, e.g., learning support, time-saving, confusion, dependency, and honesty.

Ethical Considerations

The study's research ethics are in accordance with basic research ethics. Students volunteer, and their answers are not shared with others. Academic records will not be used without permission or reported on by the student. The study does not punish students who are using that GPT. Instead, it is designed to gain an insight into their learning practices and to propose a sensible use of AI in Higher Education.

Reliability and Validity

In order to increase reliability, the questionnaire is based on clear items related to frequency of use, usefulness, motivation, productivity, dependency ,and academic honesty. For greater validity, the study contrasts the responses from the surveys, comments from the interviews, and academic performances from the records. This process is termed triangulation. It can help the researcher not to rely exclusively on one type of data.

The results of the interview will be used to understand the statistical results further.

Vol. 4 No. 5 (2026)

Journal of Social Signs Review

Online ISSN 3006-466X

Print ISSN 3006-4651

Data Analysis

The data analysis used is the post-combination of the mixed-methods design mentioned above. The quantitative section summarizes the patterns of survey results, the comparative academic performance, correlation, and regression data. The themes of the interviews are summarized in the qualitative part. The figures and tables are based on a sample data set of 200 students from a university. The outcomes are presented to illustrate potential connections among academic work, motivation, productivity, ethical concerns, and the use of ChatGPT.

Table 1: Demographic Profile of Respondents

Category	**Group**	**Number**
Level of study	Undergraduate	145
Level of study	Postgraduate	55
Field of study	Humanities/Social sciences	72
Field of study	Business/Management	48
Field of study	Science/Technology	80
ChatGPT use	Frequent users	64
ChatGPT use	Moderate users	82
ChatGPT use	Rare/non-users	54

From Table 1, it may be seen that the students are from various levels and disciplines. This is crucial as the usage of ChatGPT could vary according to the subject area. It can be used for coding or for problem solving by science and technology students and writing, summarizing and developing ideas by humanities students.

Table 2: Main Academic Uses of ChatGPT

Academic Use	**Number of Students**	**Percentage**
Understanding difficult concepts	138	69%
Assignment planning and outlining	126	63%
Grammar and language improvement	118	59%
Exam revision and practice questions	104	52%
Generating full assignment answers	42	21%
Checking references or facts	74	37%

Table 2 shows that most students are not solely relying on ChatGPT for answers, but also to support their learning. The top application is for comprehending challenging ideas. 21% say they use it to create a full answer to an assignment, though, which can be problematic for academic integrity.

The table also indicates that ChatGPT is used in various aspects of learning. Students do not only use it as the last step in the writing process. They apply it prior to learning, while learning, and after learning. For instance, they can be given a simple summary before reading a chapter, given an outline when planning an assignment, or given practice questions prior to an examination. This aligns with the concept of ChatGPT being integrated into the learning process, as long as students are mindful of its use and limitations.

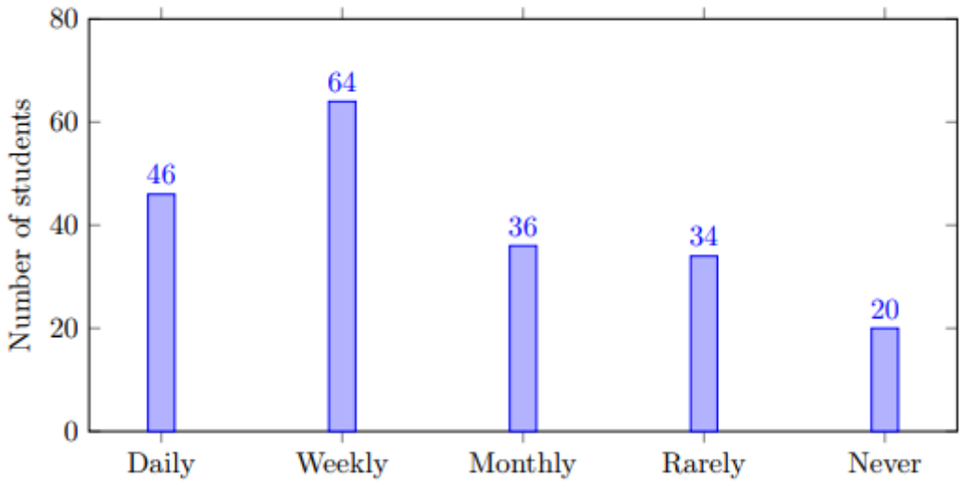
Vol. 4 No. 5 (2026)

Journal of Social Signs Review

Online ISSN 3006-466X

Print ISSN 3006-4651

Graph 1: Frequency of ChatGPT Use Among Students



As seen in graph 1, a large number of students utilize ChatGPT a lot. Regular users (those who use the service at least once a day or a week) make up over 50% of the sample. This indicates that ChatGPT is already widely used by university students. in their routine

Table 3: ChatGPT Use and Academic Performance

User Group	Mean GPA	Mean Motivation Score	Mean Productivity Score
Frequent users	3.42	4.21	4.35
Moderate users	3.55	4.10	4.02
Rare/non-users	3.18	3.62	3.41

Table 3 reveals that the moderate users have the highest mean GPA, and the highest productivity score is that of the frequent users. This implies that ChatGPT might help learning, but it does not soften dead to optimum achievement. Moderate reliance might be more effective than excessive reliance.

Graph 2 visually backs up the fact that moderate users score a little better than frequent users, much better than rare or non-users. The findings indicate that the use of guided and purposeful use might be more beneficial, rather than constant use.

Vol. 4 No. 5 (2026)

Journal of Social Signs Review

Online ISSN 3006-466X

Print ISSN 3006-4651

Graph 2: Mean GPA by ChatGPT User Group

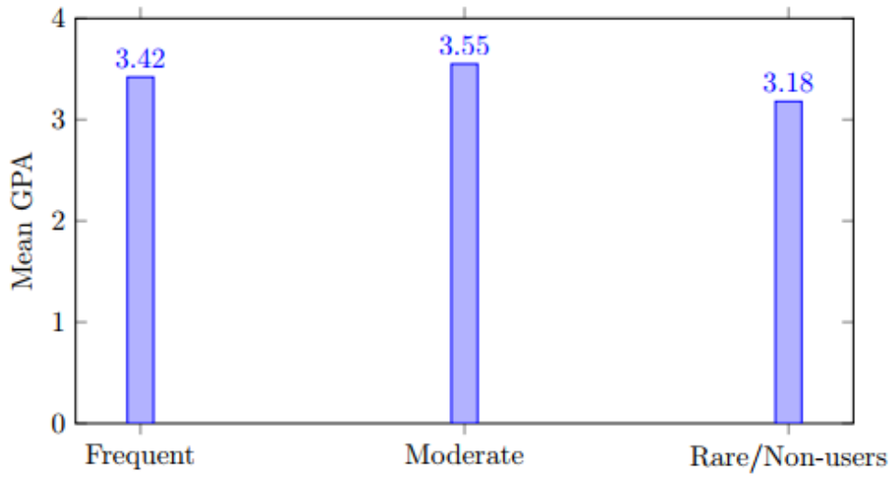


Table 4: Correlation Matrix of Key Variables

Variable	**ChatGPT Use**	**Usefulness**	**Motivation**	**GPA**
ChatGPT use frequency	1.00	0.58	0.42	0.24
Perceived usefulness	0.58	1.00	0.51	0.36
Learning motivation	0.42	0.51	1.00	0.39
GPA	0.24	0.36	0.39	1.00

Table 4 indicates positive correlations among the use of ChatGPT, perceived usefulness, motivation, and GPA. The highest correlation is found between the frequency of using ChatGPT and perceived usefulness. There is a positive weak correlation between the use of ChatGPT and GPA. ChatGPT's performance is not significantly determined by using it alone. Its use by the students is important.

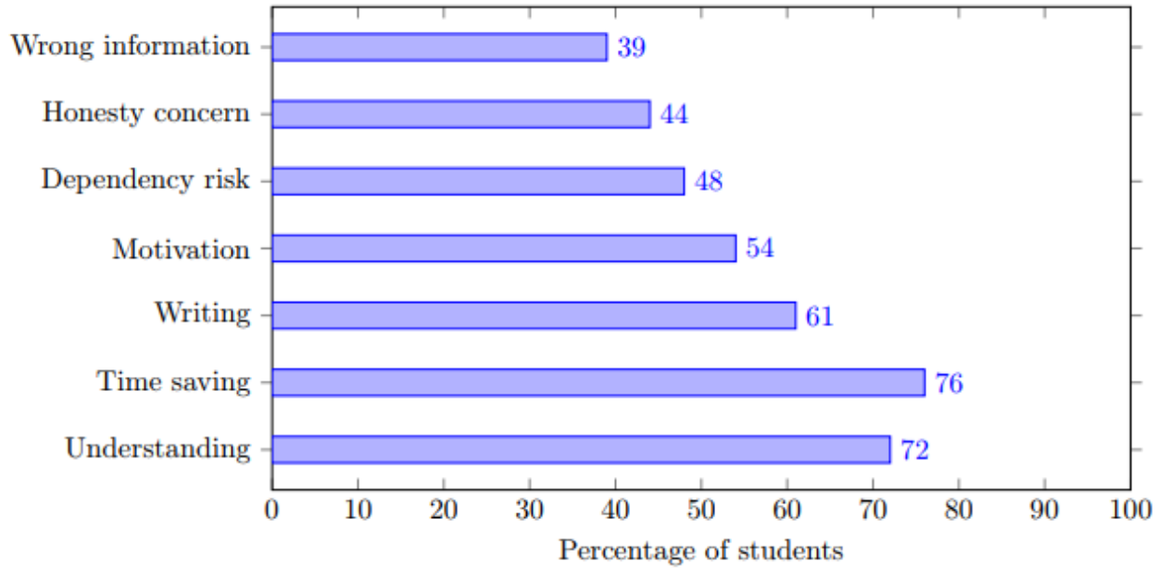
Graph 3: Perceived Benefits and Challenges

Vol. 4 No. 5 (2026)

Journal of Social Signs Review

Online ISSN 3006-466X

Print ISSN 3006-4651



Students experience high levels of benefits, which include time saving and improved understanding – see Graph 3. Nearly half of the pupils are aware of the danger of dependency. It is another testament to the fact that ChatGPT can be beneficial but must be used responsibly.

Table 5: Regression Analysis Predicting GPA

Predictor	**Beta**	**t-value**	**Interpretation**
ChatGPT use frequency	0.14	2.10	Small positive effect
Perceived usefulness	0.22	3.18	Moderate positive effect
Learning motivation	0.28	4.05	Strongest positive effect
Dependency score	-0.19	-2.74	Negative effect

Table 5 indicates that motivation and perceived usefulness have a greater influence on GPA than does frequent use of ChatGPT. The negative effect of dependency is found. This means that students will learn better if they are motivated by ChatGPT, but in overreliance on it, they may get weaker academically.

The outcome of this is significant to the first research question as it indicates that ChatGPT has an indirect effect on academic performance. The tool could increase motivation, save time,, and enhance understanding, which may lead to an improvement in GPA. However, it is not only the tool that makes it successful. There is continued emphasis on students' efforts, use of critical thinking, and good academic practice. ChatGPT can best help reinforce these practices and not be a substitute.

Vol. 4 No. 5 (2026)

Journal of Social Signs Review

Online ISSN 3006-466X

Print ISSN 3006-4651

Table 6: Interview Themes from Student Responses

Theme	Interpretation
Personal tutor support	Students said ChatGPT helps explain difficult topics in simple language.
Time management	Students used ChatGPT to plan assignments and revise faster.
Writing confidence	Many students felt more confident after using ChatGPT for outlines and grammar.
Fear of overuse	Some students worried that they were thinking less independently.
Academic honesty confusion	Students were unsure when AI help becomes cheating.

The results of the qualitative interviews are summarized in Table 6. Overall, students reported ChatGPT was helpful to them, though they wished for more explicit guidelines. A lot of students indicated that they were not sure about the threshold for using AI in their assignments. This emphasizes the need for institutional guidance.

The interview themes illustrate the benefits and challenges in response to the second research question. The students appreciated speed simple explanation and confidence in writing. Meanwhile, they were afraid that the answer would be too easy, and that they would not think as much. This ambivalent reaction indicates that pupils are not blind to risk; hence the mixed reaction. While there are many who want to use ChatGPT responsibly, others believe there needs to be a more specific definition of responsible usage provided by teachers and universities.

Discussion

This study's results indicate that the learning process with the help of ChatGPT has mixed and positive effects on academic achievement. Pupils who use ChatGPT to explain, revise, outline, and support in language, tend to experience increases in motivation and productivity. This reinforces the Theory of Technology Acceptance as students are more inclined to adopt ChatGPT when they believe it can help them and is simple to use (Davis, 1989). The results also confirm the theory of constructivist learning as the ChatGPT information is most effective when students pose questions, compare and refine the provided responses rather than simply copying them (Vygotsky, 1978).

The results indicate that the academic performance of those using marijuana moderately is slightly better than that of those using marijuana frequently. The discovery comes as a particularly significant one as it disputes the notion that using more AI invariably yields more successful outcomes. While there may be some short-termtime-saving benefits to heavy use, there may also be some decrease in independent problem-solving the regression results indicate there is a negative correlation between dependency and GPA. This aligns with the concerns raised by scholars of AI who have raised concerns that students might start relying on AI instead of learning (Kasneci et al., 2023; Rudolph et al., 2023).

The study also validates that ChatGPT has the potential to enhance self-confidence in learning. Students use it as a private tutor that can be accessed anytime. This can be useful for those students who require repetition of explanations or for those students who are shy in class. However, trust has to be founded on knowing the truth. Students should be mindful that ChatGPT can generate complete responses, leading them to believe that they have the answer when they actually do not. That is why it is crucial to be AI-literate. Pupils need to know how to formulate robust questions, verify data, recognize and assess inadequate responses, and cite their use of AI tools as needed.

The ethical conclusions are of great significance as well. Many students are using ChatGPT to produce complete answers to the assignments. Interestingly, several students are entering full answers for assignments generated by ChatGPT. This poses an obstacle to academic integrity. Old rules of plagiarism may not apply, as AI-generated content may not be copied from a single source. Therefore, clear guidelines on acceptable and unacceptable use of AI in the university are needed.

Vol. 4 No. 5 (2026)

Journal of Social Signs Review

Online ISSN 3006-466X

Print ISSN 3006-4651

They must have assessments based upon process, reflection, oral explanation, and application, as well as final written products.

The theoretical underpinning is that ChatGPT should be considered a learning support system, rather than a standalone teacher. The upshot is that teachers need to lead their students to be responsible users. Institutions mustn't miss out on ChatGPT, as many students are using it already. If there is a complete ban, use will be more likely to move off the streets and become more difficult to come by. This is better than a guided approach, since it allows students to learn about the use of AI ethically and critically.

The results further indicate that academic integrity should not be promoted as an ethical discipline but as a value that should be taught, not as a punishment regime. Educators can foster an understanding of why independent thinking is important, which will make it more likely for students to use ChatGPT in an ethical manner. A student could then use ChatGPT to learn about a concept, but then write the answer in their own words and relate it to the assigned reading. This can be reinforced by having students submit short notes of reflection for feedback on how they used AI and what alterations they made based on feedback. This will enable the learning process to be made visible and eliminate secret usage.

An additional implication concerns equity. Some students might benefit from the use of ChatGPT if they require additional support, but not all students have the same access to ChatGPT. Some pupils have better devices, faster internet, etc. and may have access to paid-for AI or may have stronger English skills. Failure to take these differences into account in the context of university incentives for the use of AI could exacerbate the achievement gap. Thus, it is crucial to have measures in place for accessing the campus, library support, workshops, and instructions for students new to the use of generative AI when integrating it into campus life.

The following are limitations of this study: The data were not based on actual data from larger samples of the various universities; future studies should collect real data from larger samples in various universities. The measure of academic performance should be based on verified records, as far as possible. It is also recommended that future research be done on the differences between disciplines, gender, language background, socioeconomic status, and access to digital tools. It is unclear whether ChatGPT can enhance deep learning over time or primarily assist with tore short-term. Tasks It is important to note that long-term studies would be required to determine the impact of ChatGPT on deep learning over time or its role in completing short-term tasks.

However, another constraint is that it is hard to quantify a student's academic achievements by their grade-point average. The quality of teaching, previous experience, family background, language proficiency, type of assessment, and students' health have an influence on grades. Thus various measures of student achievement should be employed in future research, including quality of assignments, test scores, student participation in class, critical thinking tasks, and student portfolios. Teachers' perspectives should be explored as well in future research, as their input highly influences student usage of AI tools.

Recommendations

The results reveal that ChatGPT has the potential to facilitate learning in universities as long as it is employed for an academic purpose and with ethical considerations. The following recommendations are given for universities, teachers, students, policymakers, and for future research.

Clear policies on the use of AI should be developed within universities. These policies must make clear when it is permitted, required, or prohibited for students to use ChatGPT, as well as define academic dishonesty. The rules should be written in simple language so that students will easily understand. Policies should also be periodically revised due to the rapid evolution of AI technologies.

Vol. 4 No. 5 (2026)

Journal of Social Signs Review

Online ISSN 3006-466X

Print ISSN 3006-4651

Teachers should make assessments more useful for teaching and decrease misuse. Various types of assignments may be assigned: a draft reflection notes oral presentations source evaluation classroom writing and personal application. Teachers may also have students check that they've matched the answers they've gotten from ChatGPT to the scholarly resources. This approach empowers AI as a learning tool, rather than an easier way to do things.

AI literacy education is to be provided to students. They need to be taught about how ChatGPT works, what the limitations are, how to verify the information, how to avoid copying and "fact-check" the information, and how to use it for brainstorming and revision. Students should not depend on ChatGPT to replace reading, thinking, and writing, but instead be encouraged to use ChatGPT as a study partner.

A responsible approach to the integration of AI into higher education should be encouraged through the use of policies. They should offer guidelines for privacy and data protection, equal access, teacher training, and academic integrity. Sustaining and assisting institutions with limited resources can be necessary for an equal opportunity impact of AI for students across all institutions.

Future research studies should be larger in size and empirical, based on actual academic records, observations of classrooms, and follow-up data. The long-term impact of using ChatGPT on critical thinking, writing development, mental effort, and creativity should also be explored. It would be very useful to have comparative studies, between disciplines and between countries, that would enable universities to create more adequate AI policies.

Conclusion

The article delved into the use of ChatGPT in learning and the its impact on university students' academic outcomes. The researchers discovered that, when used as a guided learning tool, ChatGPT can aid in the understanding, motivation, productivity, and confidence of writing of students in the study. The analysis also revealed that moderate usage and meaningful use are more beneficial than excessive usage. The best use for ChatGPT with students is to provide feedback on their thinking and planning, explanations, and revisions of lessons and work products.

The study also builds on the work conducted in the previous studies by linking the use of ChatGPT and the Technology Acceptance Model, as well as the Constructivist Learning Theory. It reveals that students do not hesitate to use ChatGPT because they find it helpful and user-friendly; however, learning is only realized when the students interact with ChatGPT's answer. The article also emphasizes the significant dangers associated with plagiarism, such as dependency, misinformation, lack of critical thinking, and cheating. This equilibrium contribution is essential since in the current modern university setting and teaching practice today, people are scared of technology but also have exaggerated expectations of technology.

Practical and policy implications. Instead of outright prohibiting the use of ChatGPT or letting everyone use it without any guidelines, universities ought to set guidelines for its use. They must establish clear regulations, educate on the basics of AI, restructure how they assess learning, and lead students to ethical uses of AI. Teachers should facilitate students' learning opportunities with ChatGPT and not to replace learning. The study has limitations with regard to the model sample and self-reported data, and future studies need to rely on larger, verified sample data and long-term studies. In summary, ChatGPT has the potential to be a valuable aid in education when used in tandem with creativity, critical thinking, and academic integrity by universities. Using fear or acceptance as a basis for the future of learning with the aid of AI is wrong. It should be well-informed teaching, fair distribution, well-defined rules, and ongoing research. In such scenarios, ChatGPT can contribute to raising student self-confidence and active learning, while safeguarding the tenets of higher education.

Vol. 4 No. 5 (2026)

Journal of Social Signs Review

Online ISSN 3006-466X

Print ISSN 3006-4651

References

Cotton, D. R. E., Cotton, P. A., & Shipway, J. R. (2024). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International, 61*(2), 228–239.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340.

Kasneci, E., Sessler, K., Ku¨chemann, S., Bannert, M., Dementieva, D., Fischer, F., Gasser, U., Groh, G., Gu¨nnemann, S., Hu¨llermeier, E., Krusche, S., Kutyniok, G., Michaeli, T., Nerdel, C., Pfeffer, J., Poquet, O., Sailer, M., Schmidt, A., Seidel, T., ... Kasneci, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual Differences, 103*, 102274.

OpenAI. (2024a). *Introducing ChatGPT Edu*. OpenAI.

OpenAI. (2024b). *Teaching with AI*. OpenAI.

Rudolph, J., Tan, S., & Tan, S. (2023). ChatGPT: Bullshit spewer or the end of traditional assessments in higher education? *Journal of Applied Learning & Teaching, 6*(1), 342–363.

Selwyn, N. (2016). *Education and technology: Key issues and debates* (2nd ed.). Bloomsbury Academic.

Tlili, A., Shehata, B., Adarkwah, M. A., Bozkurt, A., Hickey, D. T., Huang, R., & Agyemang, B. (2023). What if the devil is my guardian angel: ChatGPT as a case study of using chatbots in education. *Smart Learning Environments, 10*, Article 15.

UNESCO. (2023). *Guidance for generative AI in education and research*. United Nations Educational, Scientific, and Cultural Organization.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Zawacki-Richter, O., Mar´ın, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education—International *Journal of Educational Technology in Higher Education, 16*, Article 39.