Impact Of Artificial Intelligence on Student Learning and Education.

Miss Tasmiya Mirza.

Miss Shah Amreen.

Bachelor Of Management Studies (Sybms)

Supervisor: Dr. Sabina Shaikh.

IQAC Coordinator

K.H.M.W Degree College.

Abstract

Artificial intelligence (AI) has increasingly impacted contemporary education and by altering the methods through which students learn and interact with academic material. This research paper investigates the role of tools such as chatbots, virtual tutors, and adaptive learning systems in enhancing student performance and motivation and also aware them about that they should not fully depend on AI which reduced their ability, thinking, and creativity and their capability to learn at their own. The study also addresses the challenges related to the use of AI, including overreliance, ethical issues, and digital inequality. A mixed-method research approach—comprising surveys and observations—was employed to evaluate students & engagement with AI in their academic pursuits. The findings indicate that AI fosters a personalized, interactive, and accessible learning experience, while also underscoring the necessity for teacher training and ethical consciousness and also about the ethical use of AI.

The study concludes that AI can significantly improve educational quality when integrated thoughtfully and accompanied by human support and also believe replace teachers in future.

Keywords: AI, education, learners, tailored learning experiences, monitoring, technological advancements in education, overdependence, creative-thinking.

Introduction.

Artificial intelligence (AI) is among the most revolutionary technologies of the twenty-first century. In the realm of education, AI has brought forth innovative solutions through intelligent tutoring systems, adaptive learning platforms, and personalized learning applications which make students fully . These resources allow students to progress at their own pace and according to their individual skill levels while providing immediate feedback and academic assistance this individualized approach increases student confidence and help reduce learning gaps that often occurs in traditional classroom. AI tools such as ChatGPT, Google Bard, gemini, and various other digital learning platforms are extensively utilized by students for completing assignments, clarifying concepts, and solving problem. This tools not only support academic work but also helps develop critical thinking creativity and problem- solving skills.

Despite these benefits, AI also poses challenges, including an overreliance on technology, diminished creativity, and ethical concerns such as plagiarism and the misuse of information. Consequently, it is crucial to examine the effects of AI on students & learning and education to comprehend both its positive impacts and the potential issues that may arise from its use.

Review Of Literature:

Researchers globally have investigated the impact of Artificial Intelligence (AI) on enhancing students' learning and teaching methodologies. This review outlines key studies that illustrate the advantages, obstacles, and contemporary trends in AI-driven education. Many of these studies highlight how AI driven tools are becoming essential component of modern classroom and digital learning environments.

Popenici and Kerr (2017) examined the initial integration of AI in higher education. Their study addressed how AI can facilitate teaching, automate academic responsibilities, and generate new educational opportunities. They also pointed out challenges such as the rapid evolution of technology and insufficient teacher readiness. While AI offers several education benefits researchers also emphasize the needs to evaluate its long term effects on student learning behaviour.

Robert, Potter, & Frank (2024) analyzed the effect of AI on students' learning experiences. The authors discovered that AI tools provide personalized learning, prompt feedback, and heightened motivation. Furthermore, AI assists educators in more effectively identifying students' strengths and weaknesses .

Garzon, Patino, & Marulanda (2025) - Systematic Review (MDPI) This systematic review evaluated 155 publications from 2015 to 2025. This review demonstrate that AI significantly grow due to digital transformation in education. It concluded that AI enhances learning outcomes, supports individualized learning, and boosts student engagement. Nonetheless, it also recognized challenges such as ethical risks, teacher resistance, and digital dependency, providing substantial evidence regarding both the advantages and challenges of AI in education.

Garzon et al. (2025) investigated recent trends in AI application. It revealed that generative AI tools (notably ChatGPT) have rapidly expanded since 2022. This tools helps in reducing doubts, exam preparation, findings notes, language translataion,etc. Benefits include improved performance, tailored support, and adaptable learning opportunities. Significant challenges persist, including ethical issues, inadequate teacher training, and unequal access to technology.

Overall Summary of Literature.

The research reviewed indicates that AI has a markedly positive effect on student learning by offering personalized feedback, enhancing engagement, and improving overall learning outcomes. However, challenges such as ethical dilemmas, reliance on AI tools, and insufficient
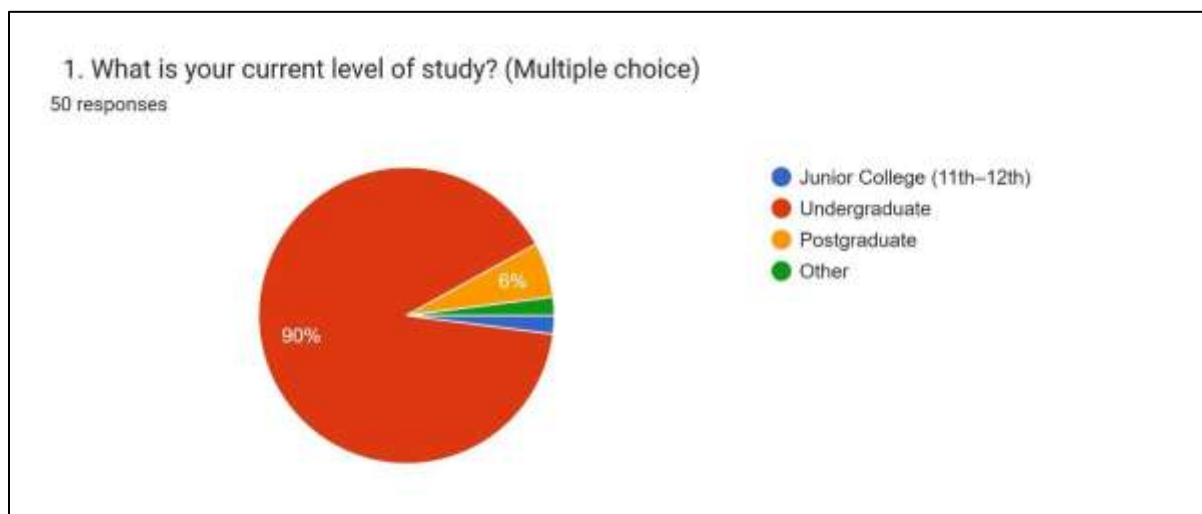
teacher training remain. .Therefore future research should focus on developing about the ethical use of AI.

Table 1:current level of study.

Level of study.	Percentage.
Junior college.	2%
Undergraduate.	90%
Postgraduate.	6%
Other.	2%

Figure 1:current level of study.

The data shows that a majority of the respondents are undergraduate student's, making up approximately 90% of the total sample . A smaller portion belongs to junior college 2% and post graduate level 2%. This indicates that most responses represent the views of undergraduate learners, who are likely the primary users of AI tools for academic purposes.
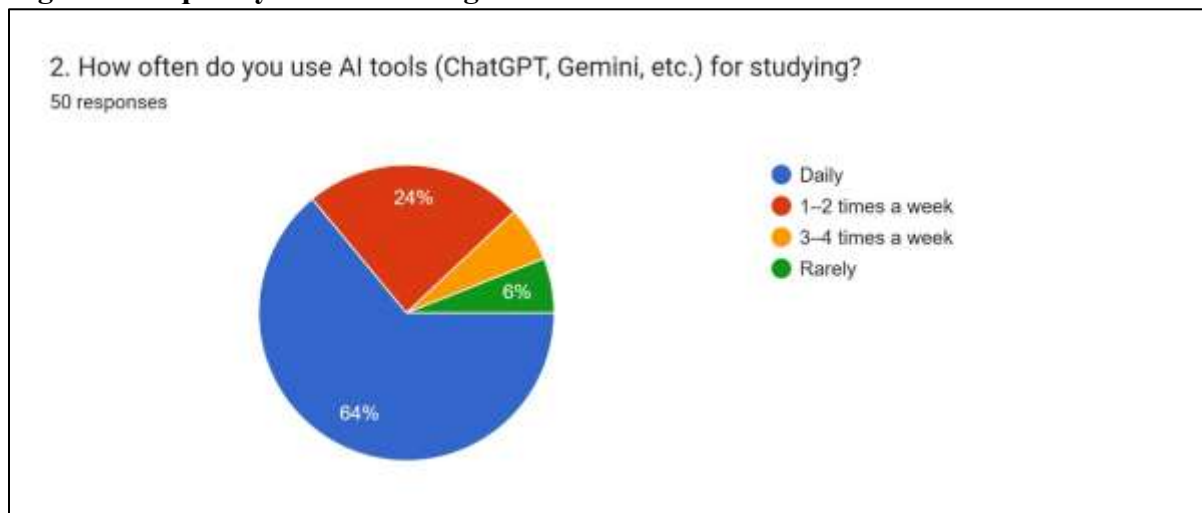
Table 2:frequency of AI tool usage.

Frequency.	Percentage.	Number of respondents.
Daily.	64%	32
1-2 times a week.	24%	12

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3-4 times a week.	6%	3
Rarely.	6%	3

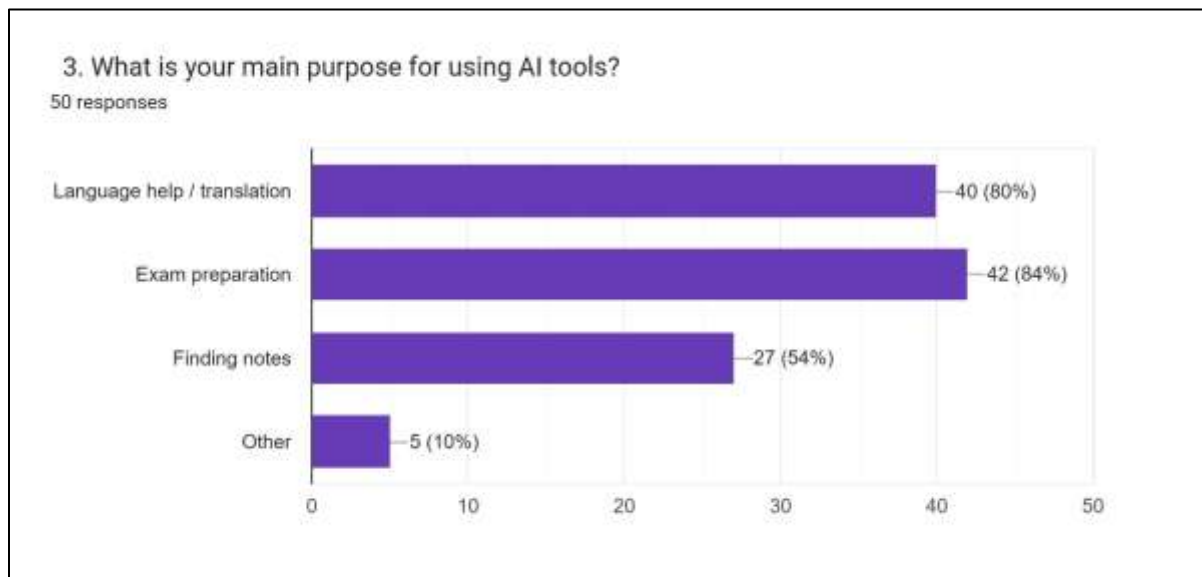**Figure 2:frequency of AI tool usage.**

The data indicates that AI usage is very high among students, with 64% using AI tools daily. Another 24% use them weekly, showing regular dependency. Only a small portion use ai occasionally (6%)or rarely (6%). This demonstrates that AI has become an essential part of students study habits, especially for daily academic tasks.

Table 3:main purpose of using AI Tools.

Purpose.	Number of responses.	Percentage.
Exam preparation.	42	84%
Language help/translation.	40	80%
Finding notes.	27	54%
Other purposes.	5	10%

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Figure 3:main purpose of using AI tools.

The results reveal that exam preparation (84%) is the most common use of AI tools, followed closely by language help/translation(80%). More than half of the students (54%) use AI to find notes and study resources. This suggests students mainly rely on AI for academic improvements, understanding concepts, and preparing for exams. AI tools are functioning as digital tutors that support learning efficiency.

Table 4:how helpful is AI for your studies.

Rating.	Responses.	Percentage.
1	0	0%
2	1	2%
3	4	8%
4	23	46%
5	22	44%

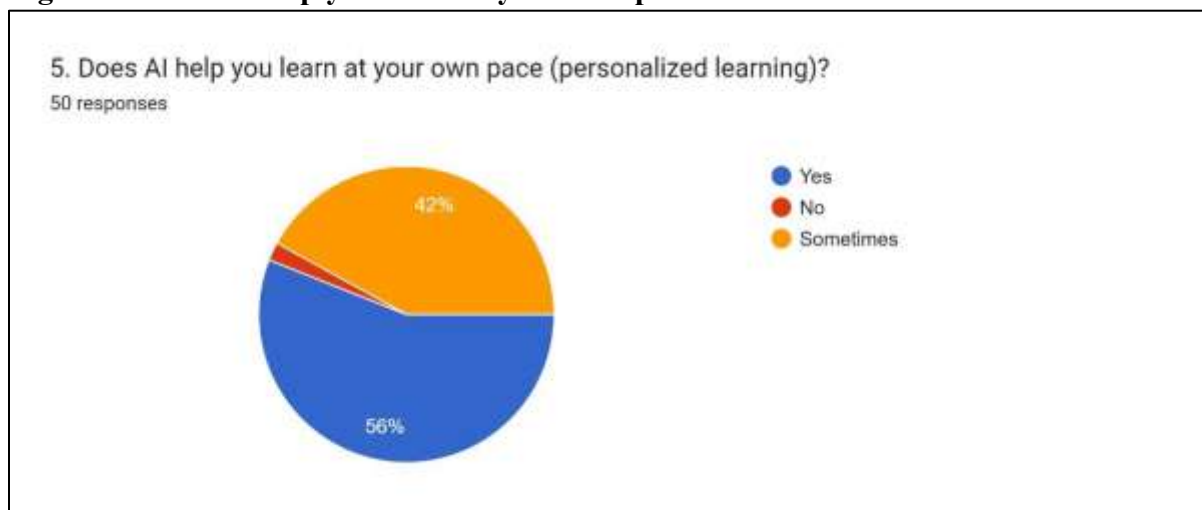**Figure 4:how helpful is AI for your studies.**
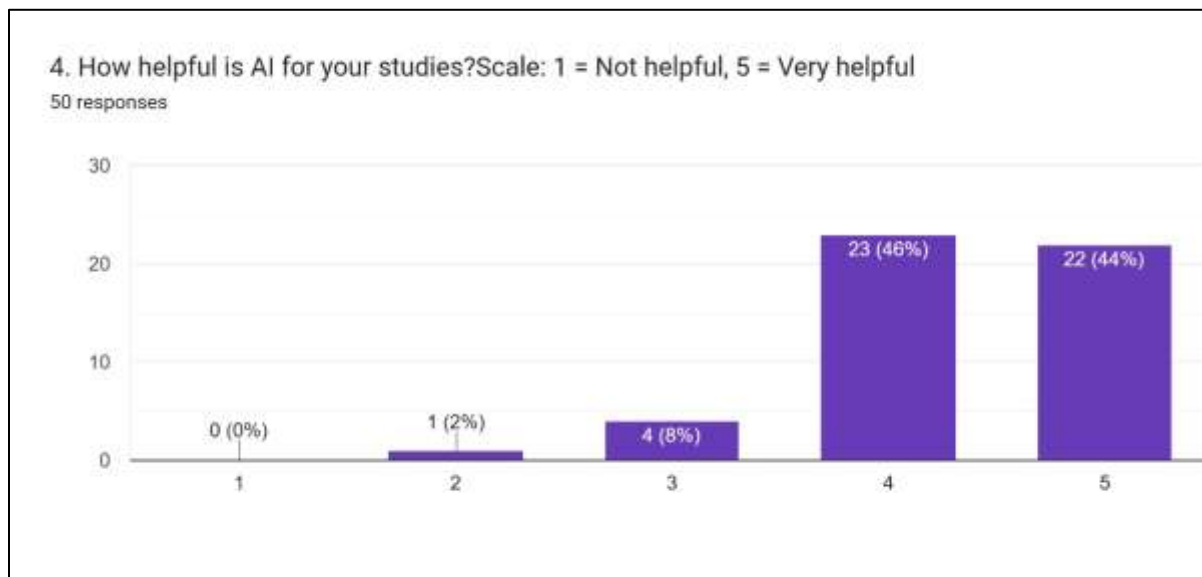
A very high number of students rated AI as 4 or 5 on the helpfulness scale (90% combined). This indicates that AI is considered extremely helpful in academics.

Table 5:Does AI help you learn at your own pace.

Opinion.	Responses.	percentage.
Yes	28	56%
Sometimes	21	42%
No	1	2%

**Figure 5: Does AI help you learn at your own pace.**

most students (56%)feel that AI helps learn at their own pace, and 42% feel helps sometimes. only 1 student said it does not help**.**

**Table 6:Do you feel dependent on AI for completing academic work.**

Option.	Responses.	Percentage.
Yes	32	64%
No	8	16%
Not at all	4	8%
Strongly yes	6	12%

6. Do you feel dependent on AI for completing academic work?
50 responses
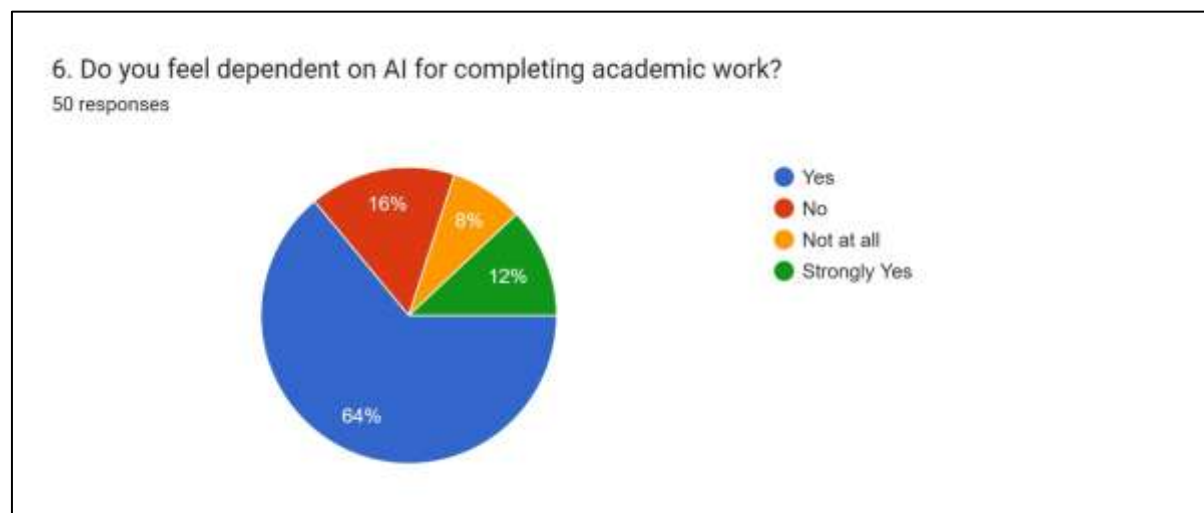
Around 76% (yes + strongly yes) of students feel same level of dependence on AI, showing increasing reliance on AI tools for academic tasks.

Table 7:Do you using AI reduces your creativity or thinking ability.

| Option.	Responses.	Percentage.
Yes	31	62%
No	5	10%
sometimes	14	28%
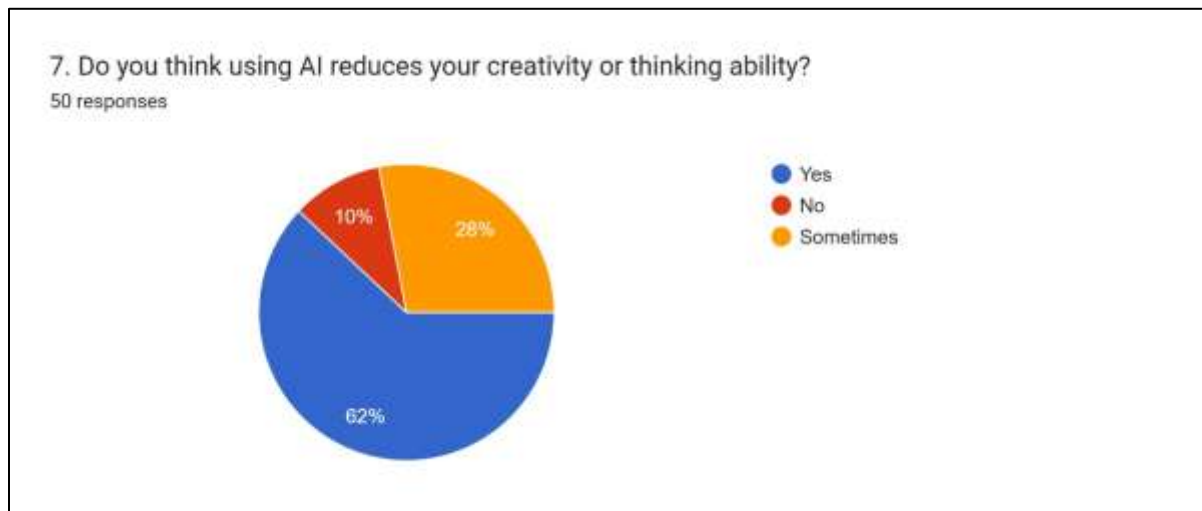
A majority of students (62%) believe that AI reduces their creativity or thinking ability, indicating concern about over-reliance on AI tools. Meanwhile, 28% feel that AI affects creativity only sometimes. A small group (10%) disagrees, suggesting that not all students feel negatively affected. Overall, the data shows a strong perception that AI may influence critical thinking skills.

Table 8 :challenges.

| Challenge.	Responses.	Percentage.
Privacy concern	17	34%
Ethical issues	38	76%
Over dependence	22	44%
No challenges	20	40%
Incorrect or confusing answers	20	421%
Lack of proper internet	20	40%

Figure 8:challenges.
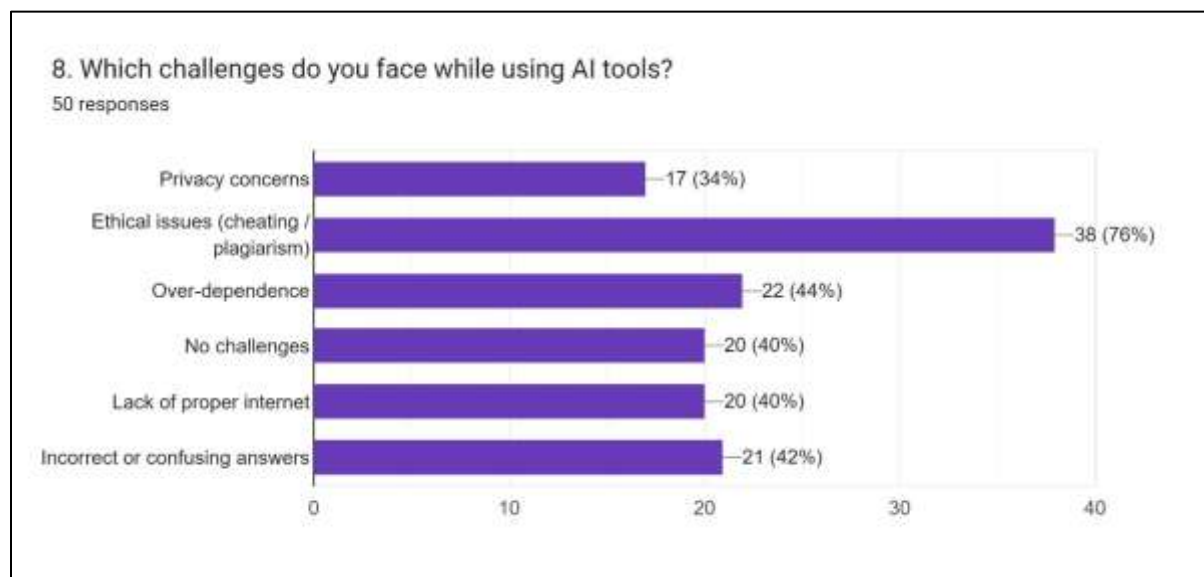
The most common challenge reported is ethical issue such as cheating or plagiarism(76%), showing that students are highly aware of the moral risks of using AI dependence (44%), and internet issues (40%) are also major concerns. Increasingly, 40% of students feel they face no challenges, which shows a mixed user experience. Overall, the data highlights that AI is widely used, student recognize significant risks and limitation.

Table 9:Guidance on ethical use of AI.

Option.	Response.	Percentage.
Agree	29	58%
Strongly agree	17	34%
Disagree	0	0%
Strongly disagree	1	2%
Neutral	6	6%

**Figure 9 :Guidance on ethical use of AI** .
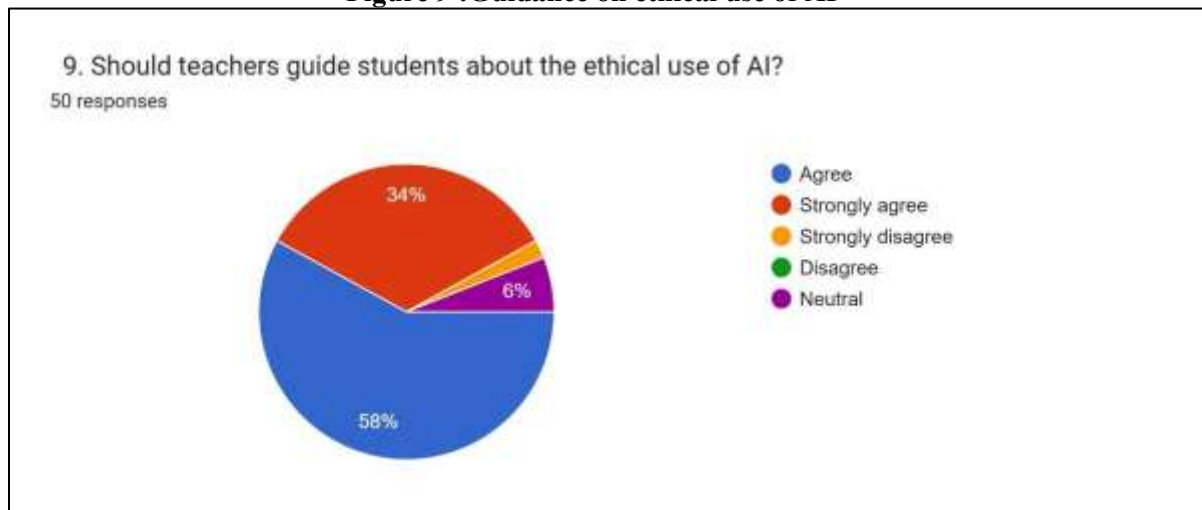
Showing a strong consensus towards the need for ethical guidance. Only a small percentage expressed disagreement or neutral, about 2-4% disagreed or strongly disagreed this indicates that student overwhelmingly support teacher involvement in promoting responsible and ethical AI usage.

Table 10:AI improve exam preparation.

| Option.	Responses.	Percentage.
Yes, very much	31	62%
Yes. To some extent	16	32%
Not really	2	4%
Not at all	1	2%

Figure 10:AI imrove exam preparation.
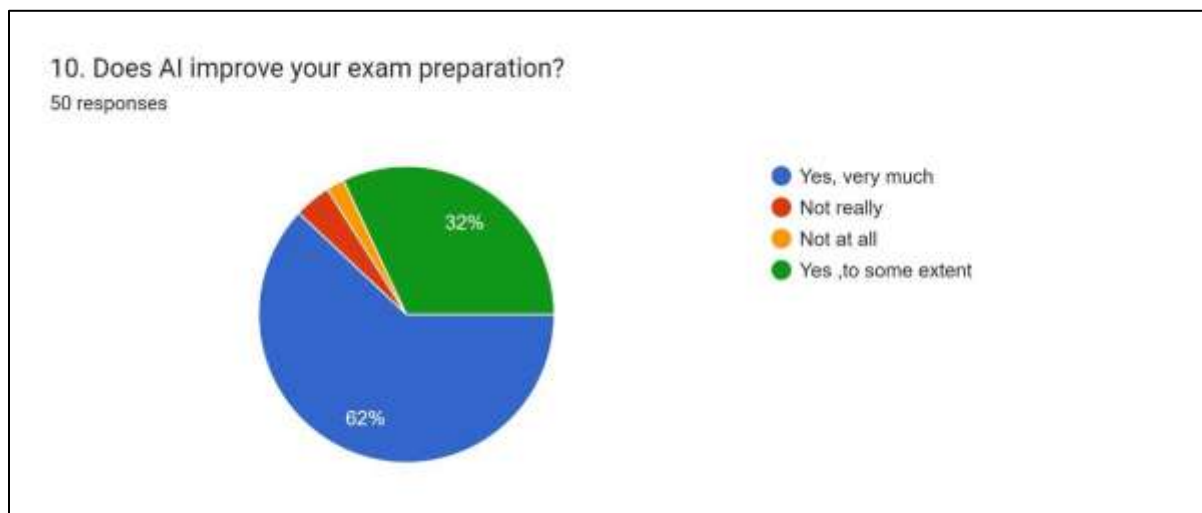
Most students (62%) report that AI significantly improves their exam preparation, while another 32% say it helps to some extent. Only a small percentage (6% combined) feel that AI does not improve their preparation. Overall, the findings show that AI is widely perceived as a valuable tool for exam readiness.

Table 11:AI replace teacher in future.

Option.	Responses.	Percentage.
Yes	29	58%
No	12	24%
Maybe	5	10%
Not sure	4	8%
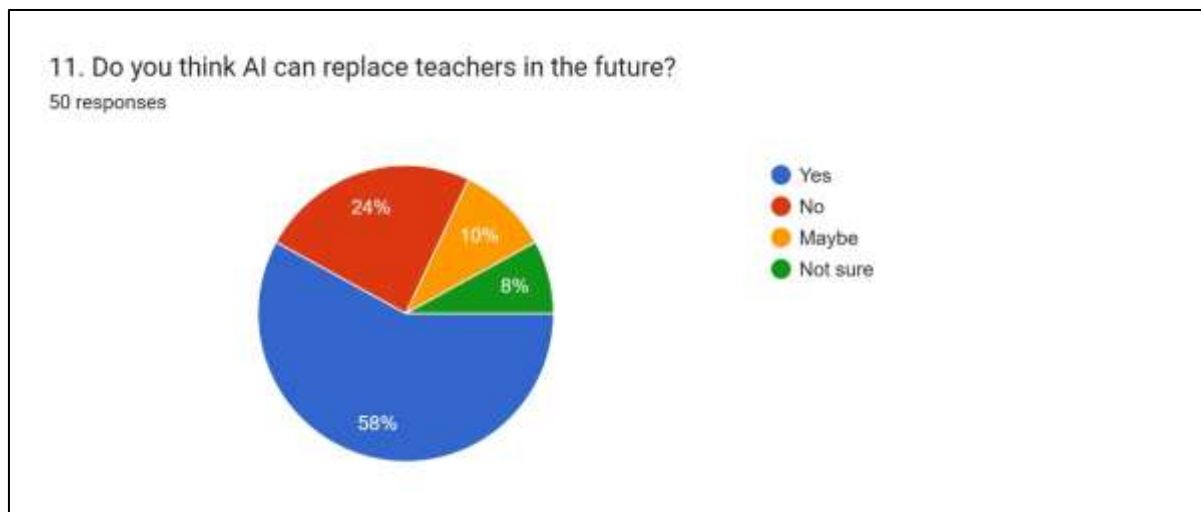
A majority of students (58%) believe that AI could replace teacher in the future, indicating a perception that AI has strong teaching potential. However, 24% disagree and still value human educators. The remaining students (18%) are uncertain or think it might be possible.

Table 12:Rate the overall impact of AI on education.

Rating.	Responses.	Percentage.
1	0	0%
2	2	4%
3	2	44%
4	22	24%
5	24	48%

Findings of the study

Total respondents: 50 students.

1.Awareness and use of AI:

Most students are aware of AI tools and actively use them in their academic tasks .A majority Reported using AI for quick explanations, doubt-solving and generating summaries, indicating High adoption among students. This clearly shows student also want to use AI ethically.

2.AI and academic performance:

The majority agreed that AI positively influence their academic performance. Students feel AI helps them prepare better for exams and complete assignments more efficiently. This tools help student to score better and clear doubts.

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3.Helpfulness of AI studies:

The majority agreed that AI makes learning easier. Students find AI useful in understanding difficult topics, generating ideas, and saving study time. This mean whenever a student have a doubt AI help them quickly and clear their doubts.

4.Overdependence risks:

Some student show concern about over-dependence on AI. A small portion felt that excessive use may reduce their own thinking or problem- solving skills.it is so true that AI may also negatively affect student about their own thinking and student become completely dependent to AI.

5.Accuracy and reliability of AI:

Most students believe AI gives accurate information, but a few respondents expressed doubts and mentioned that AI can occasionally provide incorrect or incomplete answers. Sometimes AI give wrong information so most student not easily trust AI.

6 Clarity of AI generated content:

Student largely agreed that AI provides clear and understandable explanations. Only a small number felt the explanations were unclear or confusing at time.

7.Ethical use of AI:

A majority agreed that there should guidelines for using AI supports ethically. Many students believe teacher must guide them on proper and responsible use of AI, including avoiding plagiarism and cheating. sometimes students use AI to copy and teacher even don't know so many of agree that use AI ethically not for cheating.

8.AI and creativity:

Responses showed mixed opinions. While many students believe AI supports creativity by offering ideas, others worry that it may reduce original thinking if used excessively. Responses revealed varied viewpoints.

9.Teacher's role:

Around 90%+ of respondents (Agree + strongly Agree) said teachers should guide students about ethical AI use, showing clear demand for teacher involvement. Nearly 90% of respondents teacher must guide ethical use of AI.

10.AI in exam preparation:

Most students said AI help them prepare for exams, either very much or to some extent. Only a small number said AI does not help. Majority of students believe AI help them in exam preparation.

11.AI and Time management:

Many students reported that AI saves study time and helps them finish tasks faster, showing its efficiently benefit. they also believe AI saves a lot time and help them in learning.

12.Overall Attitude toward AI:

Overall, students have a positive attitude toward using AI in education. They see it as beneficial, time-saving, and effective, but they also acknowledge the need for ethical guidance and balanced use. They consider it useful, efficient , and save time.

Suggestions:

Promote the ethical application of AI in educational settings.Considering that a significant number of students regard ethical guidance as crucial, educational institutions and educators ought to implement explicit regulations concerning the use of AI, especially to reduce instances of plagiarism and misuse.Integrate workshops aimed at AI training for students.Many students engage with AI on a daily basis but may not fully understand its limitations. Launching training programs can help students learn the appropriate and effective ways to utilize AI.As some students perceive that AI undermines creativity, educators should encourage students to use AI strictly as a supportive tool—not as a replacement for original thought.Enhance digital literacy skills. Students should be instructed on how to verify the accuracy of AI-generated content to avoid confusion or misinformation. Improve internet access and digital infrastructure. Strengthen digital awareness and enhance technological infrastructure for effective AI integration.

Given that some students have reported challenges related to internet connectivity, educational institutions should endeavor to improve their digital facilities.Utilize AI to enable personalized learning. Since many students believe that AI assists them in learning at their own pace, teachers can incorporate AI learning tools to address the needs of both slower and faster learners in different ways.

Teacher involvement should be emphasized. Educators should regularly evaluate how students are using AI, provide guidance, and promote ethical academic practices.Combine AI with traditional learning methods. AI should not supplant teachers. Rather, it should serve as a tool to augment classroom instruction, assignments, and exam preparation. Monitor excessive reliance on AI; students who depend heavily on AI should be encouraged to tackle problems independently to preserve their critical thinking abilities. Encourage creative activities without AI. To ensure that creativity is not stifled, teachers can assign tasks that necessitate manual thought, brainstorming, and original writing without the aid of AI.

Conclusion

The research indicates that Artificial Intelligence significantly improves student learning by offering immediate feedback, tailored assistance, and enhanced exam readiness. A majority of students perceive AI as beneficial in clarifying complex subjects and facilitating self-directed learning.

Nevertheless, issues such as excessive reliance, diminished creativity, ethical concerns, and the potential for misinformation persist as important challenges. The results emphasize the necessity

for responsible AI usage, with educators providing direction on ethical and balanced application. When utilized appropriately, AI has the potential to elevate the overall educational experience while augmenting, rather than substituting, human instructors .overall the study suggested that AI has the potential to enhanced education.

References

1. Shaikh, S. A., & Jagirdar, A. H. (2026). *Beyond AI dependence: Pedagogical approaches to strengthen student reasoning and analytical skills*. In S. Khan & P. Pringuet (Eds.), *Empowering learners with AI: Strategies, ethics, and frameworks* (Chapter 8, pp. 1–16). IGI Global. https://doi.org/10.4018/979-8-3373-7386-7.ch008

2. Shaikh, S. A. (2024). *Empowering Gen Z and Gen Alpha: A comprehensive approach to cultivating future leaders*. In *Futuristic Trends in Management* (IIP Series, Vol. 3, Book 9, Part 2, Chapter 2). IIP Series. https://doi.org/10.58532/V3BHMA9P2CH2

3. Chougle, Z. S., & Shaikh, S. (2022). *To understand the impact of Ayurvedic health-care business & its importance during COVID-19 with special reference to "Patanjali Products"*. In *Proceedings of the National Conference on Sustainability of Business during COVID-19, IJCRT*, 10(1),

4. Bhagat, P. H., & Shaikh, S. A. (2025). *Managing health care in the digital world: A comparative analysis on customers using health care services in Mumbai suburbs and Pune city*. IJCRT. Registration ID: IJCRT_216557.

5. P. Devi, H. Kaur, R. Kumar, S. Aluvala and S. Singh, "Artificial Intelligence is Revolution or Devolution for Employability," 2023 3rd International Conference on Innovative Mechanisms for Industry Applications (ICIMIA), Bengaluru, India, 2023, pp. 367-371, doi: 10.1109/ICIMIA60377.2023.10425850.

6. R. Kumar, P. Devi, M. K. Mishra and S. S. Chauhan, "Artificial Intelligence in Goods and Services Network (GSTN) Application: Scope of Implementation," 2025 First International Conference on Advances in Computer Science, Electrical, Electronics, and Communication Technologies (CE2CT), Bhimtal, Nainital, India, 2025, pp. 167-170, doi: 10.1109/CE2CT64011.2025.10941311.

7. Parikh, V. C. (2022) Strategic talent management in education sector around organizational life cycle stages! JOURNAL OF THE ASIATIC SOCIETY OF MUMBAI, SSN: 0972-0766, Vol. XCV, No.11.

8. Parikh, V. (2023). Whistleblowing in B-Schools, Education and Society, Vol-47, Issue – 1, Pg. 183-189.