



An Analysis of Gujarat Vidyapith Science Faculty Student's Knowledge of Artificial Intelligence Tools

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Abstract: Artificial Intelligence (AI) has become a game-changing technology that is impacting academic practices, research, and education all over the world. AI-powered applications like ChatGPT, Gemini, Grammarly, QuillBot, Canva AI, and Perplexity are becoming more widely available, which has drastically changed how students obtain information, finish tasks, and improve learning outcomes. This study looks into Gujarat Vidyapith science Faculty students' awareness, usage habits, opinions, and difficulties using AI technologies. A structured questionnaire was used to gather data from 50 undergraduate and graduate science students using a descriptive survey approach. The results show that most students are aware of AI technologies and frequently utilize them for academic reasons, especially for concept clarification, assignment preparation, and information retrieval. But issues with precision, moral application, academic honesty, and excessive reliance on AI continue to be common. To encourage students to utilize AI technology responsibly and effectively, the research suggests including AI literacy programs and ethical principles into higher education curriculum. The results add to the expanding conversation over the use of AI in Indian universities.

Key Words: Artificial Intelligence, AI Tools, Science Students, Higher Education, Gujarat Vidyapith, AI Literacy, Educational Technology.

1. INTRODUCTION:

Artificial intelligence (AI) is causing a significant paradigm change in higher education. Students' research, coding, and learning processes are being completely transformed by tools ranging from domain-specific analytical platforms to Generative AI (such ChatGPT and Google Gemini) (Alkhawaja, 2025; Juma, 2024).

The National Education Policy (NEP) 2020 places a strong emphasis on integrating new technologies into the classroom and stresses the value of students' technical proficiency and digital literacy. In order to comprehend, assess, and ethically use AI systems in academic and professional settings, learners in the twenty-first century must possess AI literacy. Although worries about ethics, dependability, and over-reliance still exist, research shows that higher education students are adopting AI technologies at an increasing rate, along with favorable opinions about productivity and learning help.

Gujarat Vidyapith offers a crucial framework for analyzing students' comprehension and use of AI technology because it is a school dedicated to Gandhian educational ideals and holistic learning. Teachers and legislators may create successful instructional techniques and digital literacy programs with the help of an understanding of students' awareness and attitudes of AI tools.



2. Literature review :

Parmar, Kinjal J. (2015–2016). Use of E-Resources by Faculty Members of Gujarat Vidyapith (Sadra-Randheja): A Study. Gujarat Vidyapith, Ahmedabad. In order to investigate how faculty members at Gujarat Vidyapith's Sadra-Randheja campus use electronic resources (e-resources), Parmar (2015–2016) carried out a survey-based research. The study sought to examine teachers' preferences and methods for accessing digital information sources for academic and research objectives, as well as the volume and pattern of their use of e-resources. Faculty members were surveyed to get information about their awareness, accessibility, frequency of usage, and reasons for accessing e-resources. The results showed that e-resources are crucial for assisting with research, teaching, and learning. To update subject knowledge, create instructional materials, and carry out research, faculty members regularly employed a variety of electronic information sources, such as e-journals, e-books, online databases, and internet-based academic resources.

Desai, V. P. (2021). *Development of an Artificial Intelligence-Based E-Learning System: A Study*. Guided by K. S. Oza. Mini Research Dissertation. A study on the creation of an AI-based e-learning system with an emphasis on learning styles and tailored learning was carried out by Desai (2021). According to the study, each student has a distinct learning style that affects how they perceive, comprehend, process, and remember information. A person's chosen way of knowledge acquisition that facilitates successful and fulfilling learning experiences is referred to as their learning style. The study examines many facets of learning behavior and emphasizes how students' methods for comprehending and engaging with instructional material vary. Additionally, the study makes a distinction between learning capacity and learning style. Learning ability refers to a learner's capability or potential to acquire knowledge and skills, whereas learning style refers to a learner's preferred method of receiving and processing information.

The author traces the beginnings, significant turning points, and evolutionary phases of artificial intelligence. The contributions of scholars and technical developments that have influenced the subject over time are highlighted in the book. It describes the development of AI from early theoretical ideas to contemporary intelligent systems employed in a variety of fields.

3. Research Objectives :

- To increase students' comprehension of artificial intelligence tools
- To learn the fundamentals of artificial intelligence tools, including their definition, operation, and guiding principles.
- To use artificial intelligence methods to improve pupils' academic performance
- To determine which topic Students in the scientific branch utilize artificial intelligence technologies the most.
- To ascertain the type of data that science students get using artificial intelligence technologies
- To assess students' knowledge of artificial intelligence technologies in terms of quantity and kind.
- To determine how using artificial intelligence technologies affects students' capacity to learn and their academic performance.
- To learn about the challenges students have while utilizing AI technologies

4. Scope of the Research

A compelling academic tension is created by conducting this study within its Science faculty, which covers subjects like Computer Science, Library and Information Science, and Journalism: How do students reconcile an educational ecosystem based on manual labor, ethical self-reliance, and grassroots values with high-tech, automated AI tools? According to research, while students in underdeveloped nations generally acknowledge the benefits of AI, actual integration is sometimes unequal and limited by sociocultural, infrastructural, or regional constraints (Usha, 2025).

5. Research Methodology :

- [1] Research design : Method of Descriptive Surveys
- [2] The population : Every science student enrolled in Gujarat Vidyapith, both undergraduate and graduate.
- [3] An example : 50 students from the scientific faculty were chosen using stratified random sampling.

6. Gujarat Vidyapith :

Gujarat Vidyapith was founded by Mahatma Gandhi on 18 October 1920 during the Non-Cooperation Movement. It was established as a National Vidyapith to provide education to students who had left institutions under



British rule and to promote national education. Gandhiji served as its Vice-Chancellor throughout his life. Since 1963, Gujarat Vidyapith has been a deemed university and receives UGC support for higher education. Its integrated educational system extends from nursery to doctoral studies. The Vidyapith aims to develop individuals with character, ability, culture, and dedication who can contribute to national reconstruction. Its educational philosophy is deeply influenced by Gandhian ideals, self-reliance, national service, and the vision of Hind Swaraj.

7. Artificial Intelligence Tools (AI Tools)

Software programs that employ machine learning, natural language processing, computer vision, and other AI technologies to carry out activities that normally require human intellect are known as artificial intelligence (AI) tools. These technologies assist users in producing content, automating tasks, analyzing data, resolving issues, and increasing productivity.

AI Tool	Purpose
Chat GPT	Answering questions, content generation, research assistance, coding help
Google Gemini	Information retrieval, writing support, data analysis
Grammarly	Grammar checking, proofreading, writing improvement
QuillBot	Paraphrasing, summarizing, citation generation
Perplexity AI	Research support and source-based information search
Canva	Presentation design, posters, graphics, image generation
Microsoft Copilot	Writing, coding, document creation, productivity tasks
GitHub Copilot	Programming assistance and code completion

8. DATA ANALYSIS AND INTERPRETATION :

The data collected was analysed, interpreted, and the same is presented in the following tables.

Table : 1 Have you heard the term artificial intelligence?

Students	Response	Percentage
42	Yes	100%
6	No	12.5

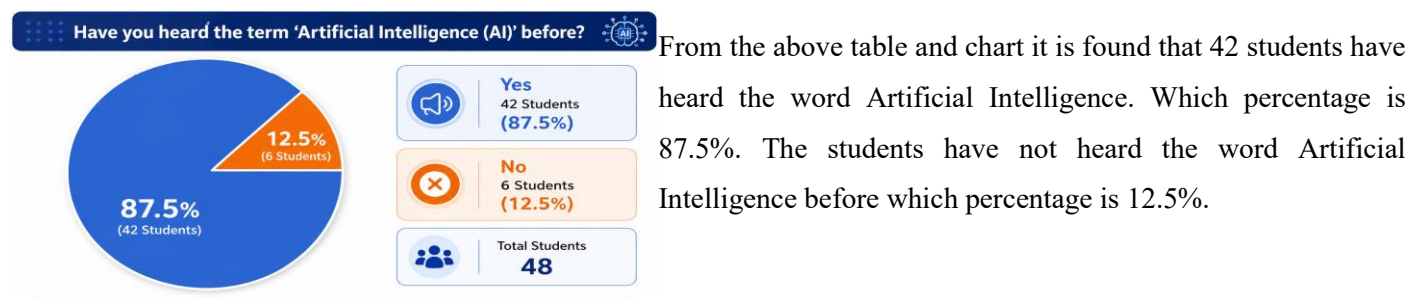
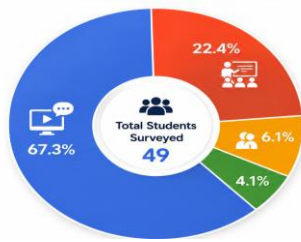


Table : 2 Where did you learn about artificial intelligence?

Response	Students	Percentage
Social Media	33	63%
Teachers	11	22.4%
Friends	4	8.2%
Other	8	2.1%
-	49	100%

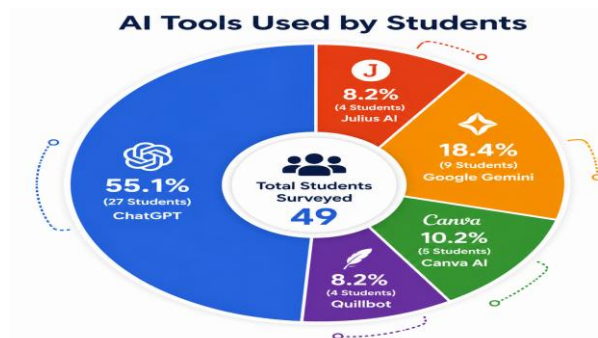


Source	Students	Percentage
Social Media	33	67.3%
Teachers	11	22.4%
Friends	3	6.1%
Other	2	4.1%

From the above table it is seen that 67.3% of the students have come to know the word Artificial Intelligence through social media. 22.4% of the students have heard the word Artificial from teachers, 8.2% of the students have heard the word from friends. And two point one percent of the students have heard this word from other people.

Table : 3 Have you heard of any of the following tools?

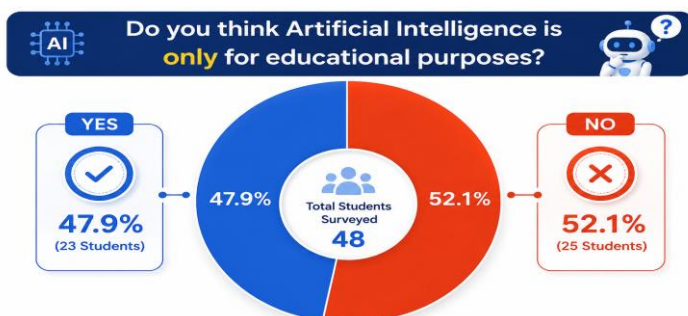
Response	Students	Percentage
Chatgpt	27	55.1%
Google gemini	09	18.4%
Canva AI	05	10.2%
Julius AI	04	8.2%
Quillbot	04	8.2%
	49	100%



According to the above table, 55.1 percent of students use chatgpt. 18.4 percent of students use google gemini. 10.2% of students use Canva AI. Eight point two percent of students use julius AI.

Table : 4 Do you think Artificial Intelligence is only for educational purposes?

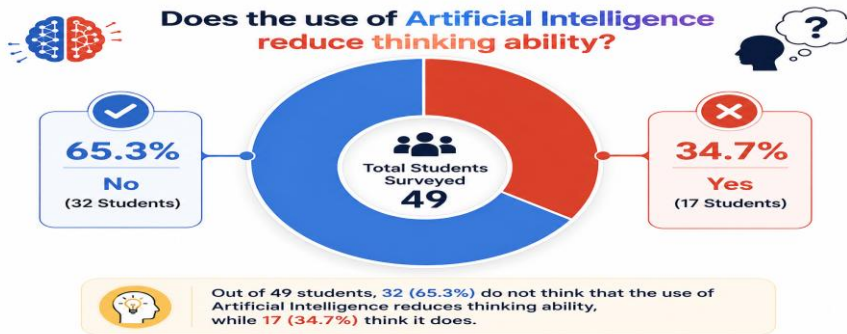
Response	Students	Percentage
Yes	23	47.9%
NO	25	52.1%
Total	48	100%



It is clear from the above table that 47.5% of students believe that Artificial Intelligence is for educational purposes only, while 52.1% of students believe that Artificial Intelligence is not limited to educational purposes only.

Table : 5 Does the use of artificial intelligence reduce thinking ability?

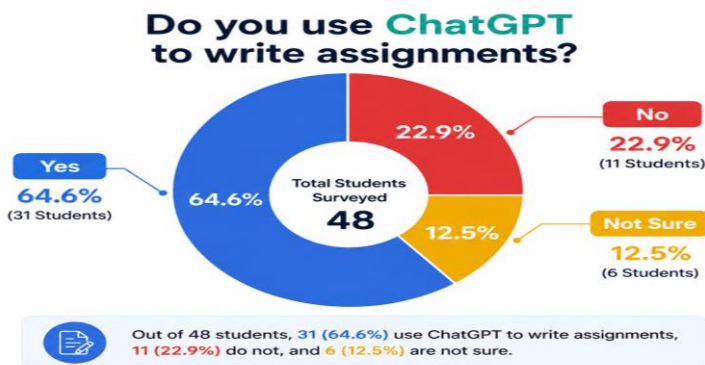
Response	Students	Percentage
Yes	32	65.3%
NO	17	34.3 %
Total	48	100%



It is clear from the above table that 65.3% of students believe that the use of artificial intelligence reduces thinking power, while 34.7% of students believe that the use of artificial intelligence does not reduce thinking power.

Table : 6 Do you use ChatGPT to write assignments?

Response	Students	Percentage
Yes	31	64.6%
NO	11	22.9 %
Others	06	12.5%
Total	48	100%



It is clear from the above table that ChatGPT is used by sixty-four point six percent of students. And 22.9 percent of students do not use ChatGPT to write assignments. While 12.5 percent of students use other tools to write assignments.

Table : 7 Do you believe that the use of artificial intelligence should be ethically limited?

Response	Students	Percentage
Yes	32	66.7%
NO	16	33.3 %
Total	48	100%

Do you believe that the use of artificial intelligence should be ethically limited?

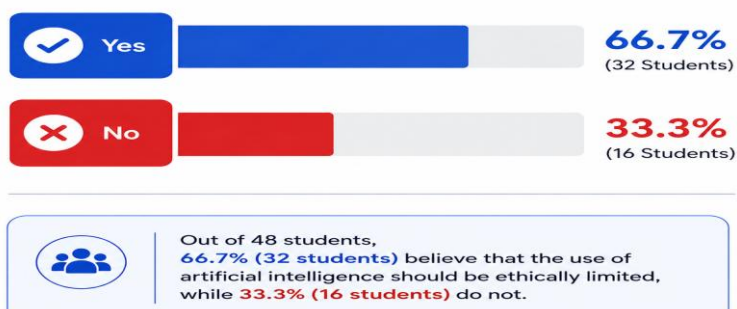
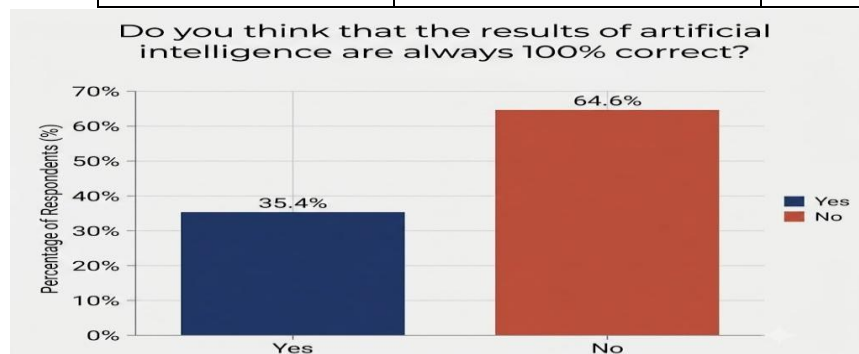




Table : 8 Do you think that the results of artificial intelligence are always 100% correct?

Response	Students	Percentage
Yes	17	35.4%
NO	31	64.6 %
Total	48	100%



From the above table it is clear that 35.4% of the students believe that the results of Artificial Intelligence are 100% correct. While 64.6% of the students believe that the results of Artificial Intelligence are not 100% correct.

Table :9 Do artificial intelligence tools help in your research work?

Response	Students	Percentage
Yes	39	79.6%
NO	10	20.4%
Total	49	100%

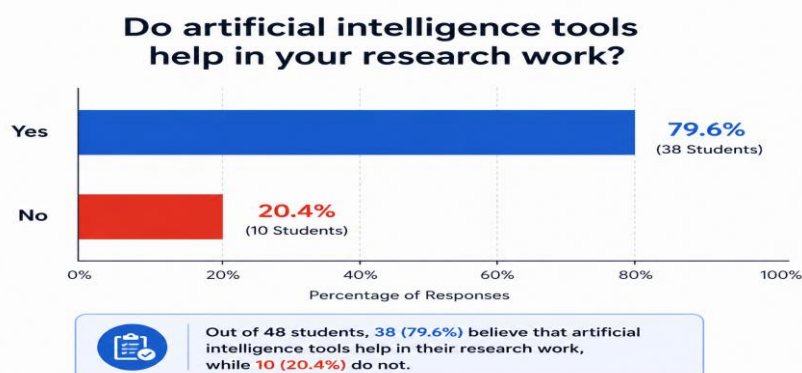
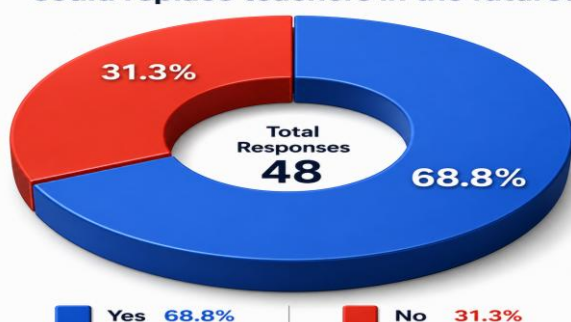


Table :10 Do you think artificial intelligence could replace teachers in the future?

Response	Students	Percentage
Yes	33	68.8%
No	15	31.3%
Total	48	100%

Do you think artificial intelligence could replace teachers in the future?



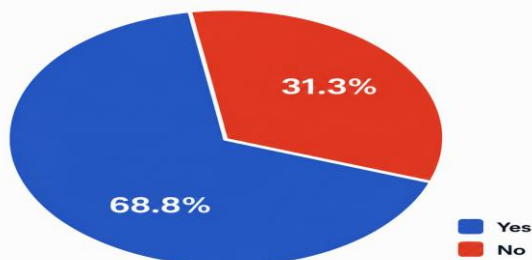
It is clear from the above table that 58.3% of students prefer to get information about Artificial Intelligence, while 41.7% of students do not prefer to get information



Table :11 Do you believe that artificial intelligence tools could replace textbooks in the future?

Response	Students	Percentage
Yes	33	68.8%
No	15	31.3%
Total	48	100%

Do you believe that artificial intelligence tools could replace textbooks in the future?

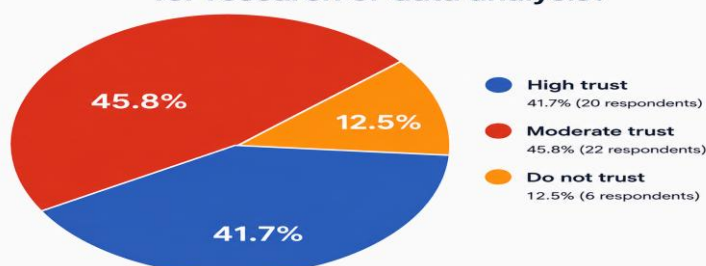


It is clear from the above table that 68.8% of students believe that artificial intelligence will be able to replace textbooks in the future. While 31.3% of students believe that artificial intelligence will not be able to replace textbooks.

Table :12 How much do you trust artificial intelligence for research or data analysis?

Response	Students	Percentage
High Trust	20	41.7%
Moderate Trust	22	45.8%
Do Not Trust	06	12.5
Total	48	100%

How much do you trust artificial intelligence for research or data analysis?

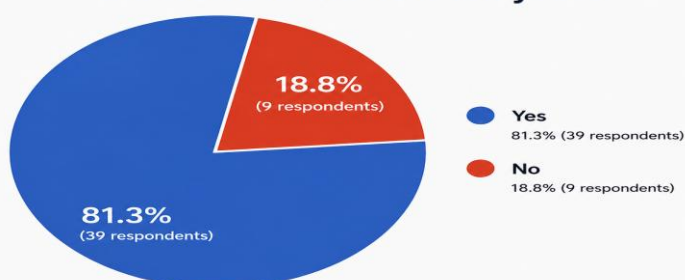


It is clear from the above table that 41.7 percent of students have High Trust in Artificial Intelligence. And 45.8 percent of students have Moderate trust or in Artificial Intelligence. While 12.5% of students do not have any trust in Artificial Intelligence at all.

Table :13 Will artificial intelligence change the world in the next ten years?

Response	Students	Percentage
Yes	39	81.3%
No	09	18.8%
Total	48	100%

Will artificial intelligence change the world in the next ten years?



From the above table it is clear that 81.3 percent students believe that artificial intelligence will change the world in 10 years. While 18.8% of students believe that artificial intelligence cannot change the world in 10 years.



9. Discussion :

The findings indicate that awareness of artificial intelligence among Science Faculty students at Gujarat Vidyapith is relatively high. Most students are familiar with AI, reflecting its growing presence in education and everyday life. Social media emerges as the major source of AI-related information, while teachers, friends, and classmates also contribute significantly to students' understanding. This highlights the increasing influence of digital platforms in shaping technological awareness. However, the findings also suggest the need for greater institutional involvement through curriculum integration, awareness programmes, and academic discussions. Providing structured knowledge about AI applications, benefits, limitations, and ethical considerations can help students develop a more informed and responsible understanding of emerging technologies.

10. Conclusion :

The survey concludes that Gujarat Vidyapith Science students have a high degree of awareness of artificial intelligence. Just a small portion of respondents had never heard of artificial intelligence before, while the majority were familiar with the idea. Teachers, friends, and other interpersonal sources were the next most influential sources of knowledge, after social media. These results demonstrate the expanding relevance of internet platforms in raising awareness and sharing information about developing technology. The findings also show that AI is becoming a crucial component of students' daily and academic lives. As a result, educational institutions ought to take advantage of this knowledge by introducing AI-related subjects into the curriculum, encouraging the ethical and responsible application of AI, and giving students hands-on learning opportunities.

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