

Revolutionizing Education: Analyzing the Transformative Potential of Generative AI in Learning Environment

Anuradha Dwivedi¹, Pragati Pandey², Naveen Mni³

¹Galgotias University, Greater Noida, Uttar Pradesh, India.
Email: Traptid11@gmail.com

²Galgotias University, Greater Noida, Uttar Pradesh, India.
Email: pandeypragati440@gmail.com

³Galgotias University, Greater Noida, Uttar Pradesh, India.
Email: nvnmani@gmail.com

Abstract:

Purpose:

This paper aims to examine the impact of generative Artificial Intelligence (AI), specifically ChatGPT, on the education sector. The study focuses on understanding how academicians and students at Banasthali Vidyapith, Rajasthan, perceive and utilize AI tools in teaching and learning processes. It also explores the opportunities and challenges associated with the integration of ChatGPT in education.

Theoretical Framework:

Grounded in the transformative potential of AI and Natural Language Processing (NLP), this study explores how ChatGPT—a large language model (LLM) developed by OpenAI—reshapes traditional educational practices. The framework emphasizes AI's role as an interactive virtual tutor and individualized learning assistant that can enhance pedagogical efficiency, engagement, and accessibility in higher education.

Design/Methodology/Approach:

The research employs a qualitative approach to analyze the educational implications of ChatGPT. Primary data were collected from academicians and students of Banasthali Vidyapith through observations and discussions, supplemented by secondary data from academic and industry sources. The study evaluates user experiences, perceptions, and the extent of AI tool adoption in academic settings.

Findings:

The findings indicate that ChatGPT has rapidly gained popularity among educators and learners, demonstrating its potential to facilitate interactive learning, personalized assistance, and academic support. While participants recognize its benefits in improving understanding and efficiency, concerns were also raised regarding overreliance, accuracy, and ethical use. Overall, ChatGPT is seen as a powerful educational tool capable of transforming teaching and learning methodologies.

Research, Practical & Social Implications:

This study contributes to the understanding of how generative AI technologies are influencing education in India. It offers practical insights for educators and policymakers seeking to integrate AI responsibly into academic environments. The findings highlight the need for guidelines, digital literacy, and ethical frameworks to ensure productive and balanced use of AI in education.

Originality/Value:

This research provides one of the early examinations of ChatGPT's role in the Indian educational context. By focusing on its application in Banasthali Vidyapith, the study adds value to the growing discourse on AI in education and presents a nuanced perspective on how generative AI can shape the future of learning and academic engagement.

Keywords: ChatGPT, Students, Artificial Intelligence, Generative-AI, Education



1. Introduction

The goal of the broad field of computer science known as artificial intelligence (AI) is to create intelligent computers capable of carrying out tasks that traditionally require human intelligence. Even though AI is a multidisciplinary field with a wide range of methodologies, recent advancements in deep learning and machine learning in particular are drastically changing nearly every aspect of the IT sector. Artificial Intelligence is always evolving to improve several sectors. Machines are connected using a multidisciplinary method based on computer science, mathematics, languages, psychology, and other disciplines. Significant benefits have resulted from the use of artificial intelligence in education, such as increased process efficiency, global learning facilitation, learning customization, the creation of more intelligent content, and educational management optimization with regard to efficacy and efficiency. In order to maximize the teaching-learning process, new technologies are now necessary. Education is a process that involves more than just memorizing facts; it is not just a result. According to this perspective, artificial intelligence (AI) seems to be a new technology with enormous potential in the field of education because AI-based solutions might offer individualized learning by adjusting to the needs and interests of each student. ChatGPT and other advanced conversational agents are the result of the rapid improvement of natural language processing (NLP) and artificial intelligence (AI) technology in recent years. ChatGPT's accessibility has drawn millions of users since its introduction last year. A number of studies have looked into the theme of the twenty-first century. The rapid development of Artificial Intelligence (AI) technology has resulted in substantial changes in many parts of our daily life. The most significant of these disruptive shifts is undoubtedly the effect on the field of education (Seldon et al., 2018; Zhai et al., 2021). ChatGPT is a comprehensive chatbot system that uses natural language processing (NLP) to respond to a variety of human questions in a comprehensible and contextually appropriate manner. A chatbot is defined as a "computer program designed to converse with a user via text or speech." (Chetlen et al., 2019). ChatGPT's usefulness in educational situations is demonstrated by its capacity to design conversational and stimulating learning environments tailored to individual student needs. Global Google search statistics show an exponential surge in interest in recent months, indicating a wider recognition of its potential. These AI-powered chatbots have gained popularity in a variety of fields, including education. A cutting-edge AI system called ChatGPT will be unveiled, one that will actually take on the Turing Test (Turing, 1950) to see if it can think like a human. ChatGPT is undoubtedly revolutionary as a conversational AI-powered bot, and it is also a clear sign of the paradigm shift that is occurring not only in the educational sector but in all facets of our lives. It is unclear if it will ultimately pass the Turing Test (Turing, 1950). The incorporation of ChatGPT into educational settings has sparked the curiosity of many people and prompted serious concerns about its possible effect on students' learning experiences, academic performance, and overall educational results. The GPT-3 Natural Language Processing (NLP) model has 175 billion parameters, which is nearly 10 times more than previous language models. It was found that the auto-regressive language model GPT-3 performed well on a range of NLP datasets, including filling in the blanks during training and responding to queries (Brown et., al 2020). Chatbots powered by AI, such as ChatGPT, have the potential to transform the way students engage with information and instructional content. These systems are intended to provide students with immediate and tailored solutions to their questions, to explain complex concepts, to aid in problem-solving, and even to foster creative thinking. While ChatGPT's amazing popularity was still being felt, its replacement, GPT-4, appeared and began to display a number of brand-new features. Compared to GPT-3.5, GPT-4 is more dependable, more inventive, and capable of handling significantly more complex instructions (OpenAI, 2023). However, there are significant factors and potential difficulties to take into account in addition to the potential advantages. Students' ability to think critically could be impacted by the employment of AI chatbots because they might start to rely on automated responses rather than fully utilizing the cognitive processes required for actual understanding. Furthermore, if AI chatbots are not properly controlled, there may be doubts about the veracity and quality of the information they deliver.

2. Literature Review

2.1 ChatGPT and Generative AI in Teaching, Learning, and Personalized Education

A substantial body of literature highlights the positive impact of ChatGPT and Generative AI on teaching and learning. Ali et al. found that ChatGPT enhanced students' reading and writing skills and increased their motivation, though its influence on speaking and listening was neutral. Alneyadi et al. reported significant academic improvements and positive student perceptions after using ChatGPT in learning electrical magnetism. Tlili et al. described ChatGPT as an advanced AI-powered chatbot that supports essay writing, question answering, and learner engagement. Firat et al. identified key themes such as personalized learning, digital literacy, evolving educator roles, and AI integration in higher education. More recently, Mittal et al. and Raman, Achuthan, and Nedungadi emphasized that Generative AI facilitates personalized learning, intelligent tutoring, automated assessment, timely feedback, and self-regulated learning, thereby enhancing overall educational effectiveness.

2.2 ChatGPT in Academic Research and Institutional Efficiency

Several studies have explored ChatGPT's role in enhancing academic research and institutional performance. Palos-Sanchez et al. concluded that AI improves organizational efficiency by making management processes more agile and accurate. Similarly, Mariño-Romero et al. found that AI helps educational institutions collect, interpret, and manage educational data to boost institutional efficiency. Alshater et al. demonstrated that ChatGPT supports scientific research through scenario development, literature analysis, data interpretation, and dissemination of findings. Rahman et al. highlighted ChatGPT's usefulness in generating research ideas, identifying gaps, drafting literature reviews, and aiding data analysis. Additionally, Steven Minz suggested that ChatGPT acts as an effective academic assistant by helping students prepare drafts, compile references, solve problems, and provide tutoring support.

2.3 Applications of ChatGPT Across Disciplines and Productivity Enhancement

The literature shows that ChatGPT's applications extend beyond education into healthcare, finance, accounting, and business. Kalla and Smith noted ChatGPT's transformative impact across sectors including education, healthcare, business, and finance. Biswas highlighted its use in health data analysis, personalized healthcare recommendations, and mental health support. Alshurafat reported that ChatGPT automates repetitive accounting tasks while enhancing efficiency, given proper human oversight. Additionally, Noy and Zhang found that Generative AI significantly boosts productivity in brainstorming, idea generation, and content creation. Karthikeyan also argued that ChatGPT encourages learners to express original ideas and fosters authentic learning when used responsibly.

2.4 Challenges, Ethical Issues, and Academic Integrity

Despite its benefits, many studies highlight ethical concerns related to ChatGPT. Eke et al. warned that uncontrolled use of Generative AI may threaten academic integrity and called for institutional policies and stakeholder collaboration. Gill et al. identified risks such as misinformation, plagiarism, unreliable responses, and overreliance on AI, recommending faculty training, AI literacy, and revised assessment methods. Mahlangu pointed out that ChatGPT can produce inaccurate responses and sometimes lacks common-sense reasoning. Similarly, Mittal et al. raised concerns about bias, privacy, security, and responsible AI use. Nedungadi et al. stressed the importance of ethical governance, safeguarding academic integrity, and addressing the digital divide.

2.5. Generative AI and Sustainable Quality Education

Recent research increasingly connects Generative AI with achieving Sustainable Development Goal 4 (Quality Education). Nedungadi et al. analyzed 1,501 publications and found that Generative AI supports personalized learning, lifelong learning, educational accessibility, gender equality, and reduces educational inequalities. However, they emphasized the importance of responsible governance, ethical AI policies, and collaborative implementation. Similarly, Raman, Achuthan, and Nedungadi recommended enhancing institutional readiness, digital literacy, faculty training, and ethical frameworks to ensure the sustainable and responsible adoption of Generative AI in education.

Although existing studies highlight the potential of ChatGPT and Generative AI to enhance education, most research has focused on a global scale, with limited insights from the Indian education system. There is a notable gap in comprehensive research on the adoption, opportunities, challenges, and educational impact of Generative AI within

India's diverse linguistic, cultural, and institutional contexts. Additionally, concerns about academic integrity, critical thinking, and the ethical use of AI warrant deeper investigation. This study aims to address these gaps by exploring the utilization of Generative AI in the Indian educational environment.

The objective of this study is to analyze the use of Generative Artificial Intelligence (AI) in education. It investigates how Generative AI is applied in teaching, learning, research, and academic activities, and explores its impact on improving educational outcomes.

3. Methodology of the study

3.1 Research Design

The present study adopts a comprehensive research design that integrates both primary and secondary sources of data. This design enables a holistic understanding of how generative Artificial Intelligence (AI), particularly ChatGPT, is influencing the education sector at Banasthali Vidyapith, Rajasthan.

3.1.1 Primary Research

Primary data were collected to obtain first-hand information and insights from respondents in order to comprehend academicians' and students' attitudes, experiences, and views regarding the usage of ChatGPT in teaching and learning, a qualitative study approach was used. In-depth interviews, which enabled participants to disclose their specific viewpoints and life experiences, were the main technique employed for data gathering. This method made it easier to investigate the prospects, difficulties, and educational consequences of AI-based tools.

3.1.2 Secondary Research

To complement the primary data, secondary research was conducted using existing academic and industry sources. The secondary data collection included a detailed review of books, journal articles, research reports, online publications, and institutional documents relevant to the integration of AI in education. This secondary research incorporated three forms of inquiry:

- Descriptive: to describe the current applications and uses of ChatGPT in education.
- Explanatory: to explain the underlying reasons behind the adoption and impact of AI-based learning tools.
- Exploratory: to identify emerging trends, opportunities, and future implications of generative AI in the educational domain.

3.2 Research Tools & Techniques

Thematic analysis was used to examine the qualitative information gathered from in-depth interviews. To analyze trends in respondents' beliefs and actions, major themes were found and classified. The secondary data were used to support and validate these findings, ensuring reliability and academic rigor. The mixed design combining qualitative primary research with descriptive, explanatory, and exploratory secondary research offers a well-rounded methodological framework. This approach ensures a nuanced understanding of how ChatGPT, as a generative AI tool, is reshaping the educational landscape by influencing teaching methods, learning processes, and academic engagement.

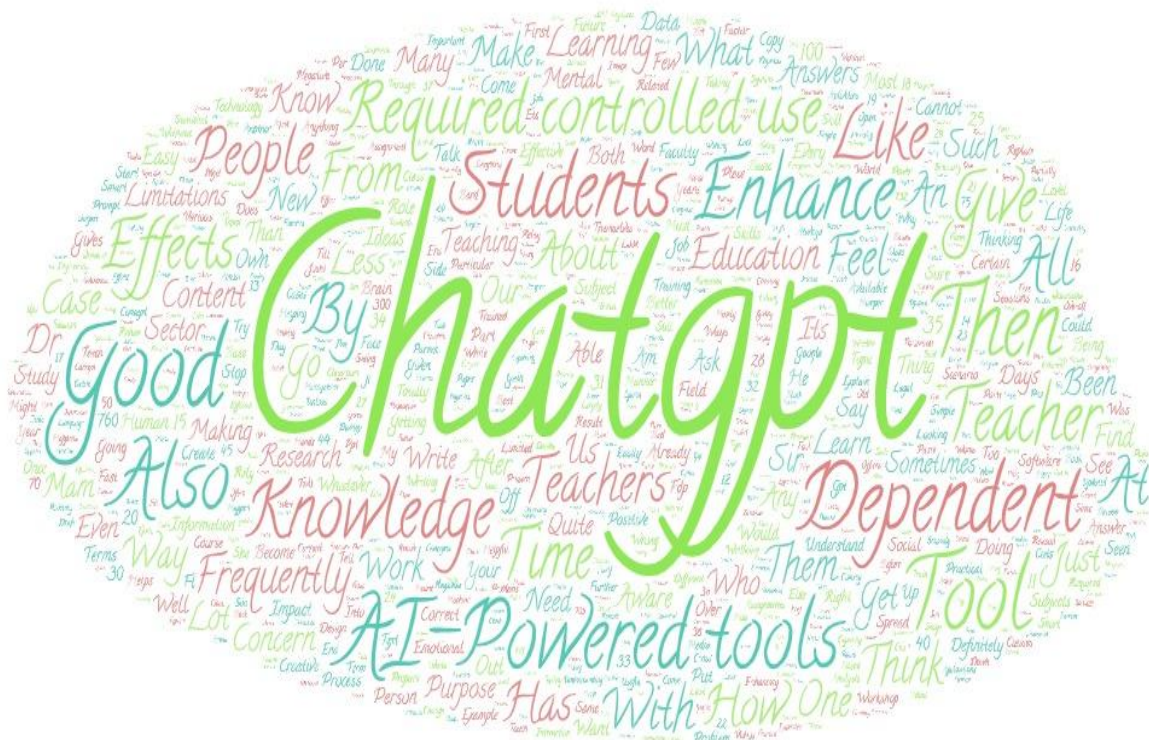
In order to understand respondents' thoughts or experiences and to examine the use of generative artificial intelligence in education, the researcher engaged in personal interviews with faculty members from different departments of Banasthali Vidyapith, Rajasthan, to collect and analyze non-numerical data. The study attempts to compile extensive knowledge about problems encountered and offer helpful and beneficial advice. All of the interviews were transcribed. The researcher then went on to analyze the transcriptions using the codes created for a directed content analysis, as per Hsieh and Shannon (2005). The interview data were coded using an inductive coding procedure. The researcher uses "nvivo software" for the coding of data. In the beginning, the directed content analysis method was used. According to Quinlan, Zikmund, Babin, Carr, and Griffin (2015), content analysis was selected as

the most suitable method for assessing the huge amounts of open-ended data generated from interviews because it emphasizes the use of content analysis to uncover the underlying meanings of data analysis (Collis and Hussey, 2003).

Word Cloud Creation

Word clouds were chosen as an innovative technique for presenting the coded categories in order to examine the large amount of qualitative information collected from interviews. Although there are various free online word cloud generators, one that allowed for the wording of specific words was required to enable the differentiation of positive and negative terms from the farmer transcripts. The word cloud maker Tagul (www.tagul.com) was selected since it provided this functionality in addition to a number of other helpful ones, such as customizing word cloud form, frequency of word repetition, font type, style, and word angle. One can import text into the visible box and select the formatting using Tagul. After selecting the desired settings, they press the “visualize” button. The user interface is uncomplicated and intuitive. After that, clouds can be stored and exported as photographs. Since comparability is necessary the use of the same typeface, style, and overall shape ensured consistency among word clouds.

Figure 1: Word clouds that depict the use of generative AI in the education sector



Source: The Author

4. Findings & Discussion

Researchers have gathered responses from faculty members about their knowledge of and use of AI technologies, particularly ChatGPT. Observations based on the responses given are as follows:

Usage and Awareness: Most of the respondents are familiar with AI tools. ChatGPT is used by the majority of them, though not entirely. Other technologies including Bing, Co-pilot, Dell's Bard Image Creator, Vista Create, Leonado.AI, and Microsoft Being were also discussed.

Contextual Understanding: In general, participants find ChatGPT to be simple to understand. Some others said it was a little difficult at first, but they eventually got used to using it.

Improvement of Education/Awareness: The responses are diverse. Some people think that artificial intelligence (AI) systems, like ChatGPT, improve education by offering materials, examples, and ideas. Others raise issues with possible over-reliance and the necessity of human supervision in education.

Use in Research: Many of the respondents use ChatGPT and other AI tools for their study. They consider it useful for gathering data and creating content.

Cautions: Concern over the possibility of inaccurate information produced by AI technologies is raised by some respondents. They emphasise the value of exercising critical thought and checking results.

Various Opinions: Regarding the degree of reliance on AI tools, there are a variety of viewpoints. Some see them as helpful tools, while others think they should be used sparingly in conjunction with human skill.

Possibility of Improvements: There is potential for improvement in AI technologies, according to some respondents, particularly in terms of giving accurate and trustworthy information.

In general, responses indicate a mix of positive experiences and some resistance regarding the use of AI tools in research and teaching. When using AI tools in academic and research settings, it's crucial to keep these viewpoints in mind.

1. Theme- Role of AI in Education Sector

- As a Positive Outlook-For giving quick and simple solutions on one platform, ChatGPT is regarded as a significant tool. It is regarded as useful in situations where time is restricted since it enables work to be finished more quickly. It's widely recognised that AI tools like ChatGPT have useful uses, particularly in fields with fewer opportunities for research and development.
- Concerns and Recommendations- Most individuals have concerns about students, in particular, using ChatGPT excessively. There is concern that it could damage their capacity for critical thought and for writing. It is recognised that the potential for exploitation exists, especially in cases of plagiarism, where students may rephrase ChatGPT-generated information to avoid plagiarism detection. There are worries that students would rely too heavily on ChatGPT for even straightforward activities, which could result in a loss in problem-solving abilities.
- Education Transformation- It has been suggested that standard teaching strategies, assignments, and evaluation procedures need to be re-evaluated in light of the introduction of ChatGPT. The priority is shifted to more engaging and creative activities that call for knowledge application rather than rote memorization.
- Future Developments- It is expected that AI technologies like ChatGPT will develop and grow more complex over time, maybe incorporating statistical analysis and producing data interpretations.
- Balanced Use- The significance of using AI technologies responsibly, such as ChatGPT, is emphasised, and instructors and students are urged to strike a balance between utilising its capabilities and maintaining critical thinking skills.

Figure 2: The distribution of coded data on the role of AI in the education sector



Source: The Author (Using NVIVO)

2. Theme- ChatGPT Enhances Learning Experience

Under this theme researcher got mixed opinion about enhancement of learning experience after ChatGPT. Regarding ChatGPT's contribution to improving learning, there are a variety of views. Some consider it as a useful tool for offering rapid and varied explanations and examples across several courses, while others voice worries about over-reliance and potential laziness among students.

- The Focus of Additional Learning- Many respondents emphasise the significance of not relying entirely on ChatGPT. They support using it in addition to traditional teaching strategies rather than as a substitute for research and comprehension. Some respondent focus on effectiveness in theoretical Subjects and research-oriented program ChatGPT is regarded as particularly useful in research-oriented disciplines where it can help academics with literature reviews and concept clarification. It's also mentioned that ChatGPT's capacity to clarify complicated ideas can be useful for theoretical courses. Further, respondents said that it is applicable on practical and skill-based subjects. There is a general opinion that ChatGPT may not be as helpful in areas demanding creative or practical skills, such as accountancy and finance. It is advised to exercise caution when utilising AI techniques in these situations. They consider it as a time saving and comparative study tool. Some responses point out that ChatGPT can save time, particularly in situations where students need immediate information or comparative analysis for assignments and projects. And it is advised that ChatGPT be used as a method to improve experiential learning, especially through case studies and interactive exercises.
- Concerns about ethical usage- There are suspicions that certain learners would use ChatGPT for plagiarism or to avoid learning activities. The need of adhering to ethical standards is emphasised. So, they should aware about the right use of the AI-powered tools for their beneficial. They also recommended that tools like ChatGPT be regularly updated to make sure they deliver accurate and fair information in order to sustain efficacy.

Overall, the comments show a deep understanding of ChatGPT's potential in education. There are concerns regarding over-dependence and the need for responsible usage, even though it is seen as a valuable resource for some elements of learning. In some situations, such as research and theoretical subjects, ChatGPT is recognised for its effectiveness; nonetheless, its usefulness varies depending on the subject and the type of learning being done.

Figure 3: The distribution of coded data on the ChatGPT Enhances Learning Experience



Source: The Author (Using NVIVO)

3. Theme- Teachers training for AI-Powered tools

Awareness and orientation is important. Many participants highlight the need of teachers being aware of and comprehending the possible applications of AI-powered tools like ChatGPT.

- Hands-on training and workshops- most of the respondent believes that effective use of AI tools requires actual, hands-on training through seminars and simulated exercises.
- Different Teachers' Needs-Based Training- some individuals suggest modifying instructional materials to accommodate teachers' different levels of adaptability. Taking into account the possibility that some educators may be more reluctant to adopt new technology. Further focuses on continuous learning of teachers and it is highlighted that as technology and technologies like AI are always improving, teachers should maintain their curiosity and be open to lifelong learning. Some respondents draw up the potential advantages of employing ChatGPT and other AI-powered tools to improve teaching techniques like using animations and animated films.
- Focus on prompt engineering- The recommendation is given specifically for instructors to receive training in prompt engineering, a field of engineering that works with developing efficient prompts for AI tools like ChatGPT.
- Perception and concerns- Some responds emphasise the significance of dispelling any misconceptions or concerns teachers may have about implementing AI in the classroom. Before offering particular training, it is advisable to let teachers create their own ideas regarding the value of AI tools in the classroom. And suggesting for educating instructors about certain uses of AI tools, such as using AI for research, creating case studies, and locating pertinent study material.

Overall, the responses emphasise how critical it is to give teachers the information and abilities they need to successfully incorporate AI-powered technologies into their teaching practises. This entails practical instruction, workshops, and clearing up any misunderstandings or reservations concerning the application of AI in education. The importance of lifelong learning and tailoring training courses to fit each teacher's preferences and technological comfort levels is also emphasised.

Figure 4: The distribution of coded data on teachers training for AI-Powered tools



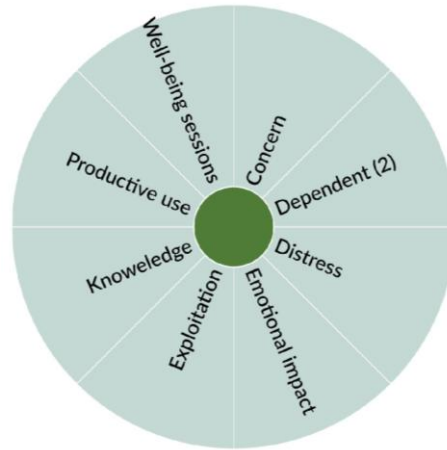
Source: The Author (Using NVIVO)

4. Theme- Students mental and emotional well-being

- Positive impact on knowledge access- According to some respondents, artificial intelligence (AI) is a useful tool for gaining knowledge and information, which can be useful for conducting research and efficiently obtaining data.
- Inability to recognise emotions- A lot of respondents point out that AI lacks emotional intelligence and relies solely on logic and data to make decisions. This shows that it might not address students' emotional needs.
- Dependency and reduced critical thinking- Concerns have been raised regarding learners being increasingly reliant on AI tools, which could result in a reduction in creativity and critical thinking. Suggested the balanced use of it and to preserve social skills, students should balance using AI technologies like ChatGPT with face-to-face contact with teachers and peers. According to some respondents, depending excessively on AI tools may result in less social interaction and empathy since the relationship between students and teachers may be harmed. The absence of emotional intelligence in AI has raised concerns that, in comparison to the empathetic connection that students may have with human professors, there may be disconnect between students and AI technologies. It is recommended that teachers support students' use of AI technologies as an additional resource rather than as a substitute for critical thinking and creativity.
- Preventing mental block and excessive dependence- It's crucial to prevent learners from becoming overly dependent on AI technologies to the point where they have difficulty thinking when the tool is unavailable. Students can benefit from a more comprehensive learning experience by combining the advantages of AI tools with the direction and wisdom of human professors.

Overall, responses reflect a mixed picture of attitudes towards how AI tools like ChatGPT affect students' mental and emotional health. There are worries about overreliance, diminished critical thinking, and a potential emotional detachment from human teachers, even if some see the potential benefits in terms of knowledge access and stress reduction. Critical thinking and autonomous learning are still vital to emphasise while balancing the usage of AI tools with conventional teaching techniques.

Figure 5: The distribution of coded data on Students mental and emotional well-being



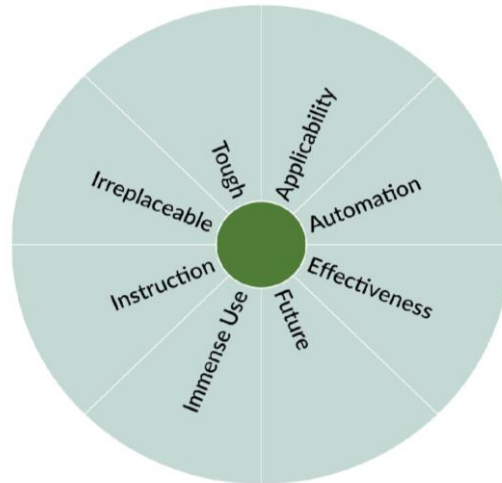
Source: The Author (Using NVIVO)

5. Theme- AI in upcoming years

- Positive perception of adoption- The vast majority of respondents think that ChatGPT and other AI chatbots will be used more frequently in the education sector. They appear to have faith in the widespread application of these instruments. While the use of AI is expected, some responders point out that it might have an influence on conventional teaching and learning approaches. It has been suggested that it might affect how skills are learned. A respondent with a balanced viewpoint emphasises the value of human interpretation and dialogue in education while still viewing AI as a tool for information retrieval.
- Prediction of dominant role of AI- One respondent predicts that artificial intelligence (AI), particularly in the form of sophisticated chatbots, will play a significant role in education in the future and anticipates that it may even take over the educational landscape by the year 2040–2050. Another respondent acknowledges the freshness and significance of AI now, but worries about its future, particularly if the next generation is not capable of producing unique data the way that AI technologies do today.
- Usage in Management education- One response brings attention to the fact that a sizeable portion of CEOs in management education have already adopted ChatGPT, demonstrating the tool's rising significance and appeal in this industry. Despite the fact that AI will be employed in education, some responders contend that not all applications of AI will be applicable in all fields. They stress the significance of thoughtful deliberation and selective application.

In promoting the use of AI in education, governments and educational institutions have taken a proactive approach, according to several respondents, indicating a promising future for the technology. The responses as a whole suggest a generally optimistic stance on the implementation of AI Chatbots in education in the future. Although their revolutionary potential is acknowledged, these technologies must also be used responsibly and integrated carefully if they are to successfully supplement conventional teaching techniques.

Figure 6: The distribution of coded data on AI in upcoming years



Source: The Author (Using NVIVO)

Interview analysis codebook

Name	Description
AI chatbots in upcoming years	
Applicability	AI chatbots will continue to be widely used in a variety of education With improving natural language processing capabilities, these devices will revolutionise interactions and increase productivity.
Automation	2040-2050 might be the century of AI only
Effectiveness	Effect teaching and learning skills.
Future	Teachers recognise the promising future of AI tools in education for fostering personalised learning, increasing student engagement, and improving overall educational outcomes.
Immense Use	People are using it enormously.
Instruction	Teaching is pedagogy.
Irreplaceable	Teachers can't be replaced by AI tools.
Tough	AI will not fully applicable in India.
ChatGPT enhances learning experience for students	
Adoptability	Although students are using AI technologies for personalised learning and work automation, there is a risk of over-reliance, which could result in diminished critical thinking and dependence on technology. Additionally, before adopting them, significant thought must be given to privacy issues and the ethical implications of data usage.
Dependency	AI tools are making learners less imaginative and dependent on technology.
Efficiency	ChatGPT increasing productivity making the world more efficient.
Effortless	For greater comfort and effectiveness, AI tools optimise and simplify tasks related to research.

Enhancement	AI tools improve learning in a wide range of ways. It gives students immediate access to a massive informational resource, allowing them to swiftly find the answers to their queries and develop a deeper understanding of a variety of subjects.
Hazardous	It's crucial that students utilise ChatGPT appropriately even though it might be a useful tool for them. True learning and critical thinking are hampered by relying simply on copying and pasting from ChatGPT without making any personal effort.
Improvement	Students learning can be definitely improved with the help of this ChatGPT tool interestingly there are about 300 language that ChatGPT can understand it has been trained on data set of 45 terabyte on 300 languages mostly the content which available on internet.
Knowledge	Degrading the knowledge of student.
Learning	Enhances the learning experiences in a different way
Trust	In the modern day, there is a noticeable trend of learners becoming significantly dependent on AI and having a propensity to have blind faith in its responsibilities. Their reliance on AI tools for tasks like research and problem-solving, which frequently eschew conventional learning and critical thinking processes, is a reflection of this. This uncritical faith in AI could potentially impede the growth of vital abilities like independent inquiry, critical thinking, and creativity.
Role of ChatGPT in education sector	
Attributes	ChatGPT's premium version has many useful features.
Degrading	AI tools are degrading the knowledge of students.
Effective areas	AI tools can improve the synthesis of animated videos by automating scene development and character animation. By offering design layout suggestions and content optimisation, they can also enhance PowerPoint presentations. AI-driven review systems may also analyse and condense enormous amounts of material, facilitating effective content evaluation and feedback.
Flexibility	Incorporate updated things because it's a logical base unless they learn something.
Implementation (2)	what I feel is that the phrase like we are in the knowledge economy will change because knowledge is there out on the ChatGPT and other generative AI tools what more will become important is the implementation part so how well we are able to implement those ideas will be a differentiating factor so unless and until we train students on these ideas of implementing things on working on ground on doing some socially purposeful activities making people more compassionate more responsible towards the society ,
Invention	This tool restricts new inventions and degrades creativity.
Research	Studies will benefit immensely from AI. The quick examination of large datasets made possible by its superior data processing capabilities allows researchers to find patterns, trends, and insights that might otherwise be difficult or time-consuming to spot manually. The accuracy and speed of tests and research are improved by machine learning models, a subset of AI that can independently learn from data and produce predictions or classifications.
Teaching	AI tools improve teaching by enabling personalised learning experiences that respond to the requirements and learning pace of each individual student. This assures that each student may get the proper amount of assistance and challenge. AI systems can offer immediate feedback on tasks and exams, enabling teachers to immediately identify areas where students might need more assistance.
Time-saving	It is fruitful in many cases like if you are running short of time you can use ChatGPT and AI's other tools.

Transformation	In order to drive transformation, tools are essential. They act as facilitators, helping people and organisations complete tasks faster, more precisely, and occasionally even by opening up completely new capabilities.
Usefulness	To explore ways of giving innovative assignment
Students mental and emotional well-being	
Concern	AI features have become a copy-and-paste job for some learners.
Dependent (2)	Students become more dependent on such tools like ChatGPT that will damage & restrict their thinking capability and thought process.
Distress	Bad effects on mental and emotional health.
Emotional impact	The emotional well-being of learners may be negatively affected by AI tools. It can be frustrating and depersonalising to rely too heavily on AI for learning and assessment .
Exploitation	By using ChatGPT improperly, students mean using it for unethical or dishonest academic practises.
Knowledge	Right amount of knowledge and right amount of content it can be very beneficial.
Productive use	Reduce mental strength by over consumption.
Well-being sessions	Sessions on mental and emotional health can be very beneficial for students.
Teacher training for AI-Powered tools	
Conference	Conferences give educators a place to learn in-depth information on AI tools, advancing their comprehension and competence in using them in the classroom. Their capacity to effectively use AI in the classroom is improved by these events, which enable direct engagement with experts and practical experiences.
FDP	Faculty Development Programmes (FDPs) provide specialised training to provide educators the knowledge and abilities they need to successfully use AI tools in the classroom. These programmes put a strong emphasis on a customised curriculum, practical workshops, and real-world examples to make sure teachers are competent in using AI technology for improved teaching and learning.
Hands-on practices	To enhance their teaching strategies, teachers can take part in practical activities like building chatbots for interactive courses or using AI-driven assessment systems.
Program learning	The purpose of programme learning training for educators is to provide them with the knowledge and abilities to use digital tools, educational technology, and cutting-edge teaching techniques.
Sessions	Sessions on AI tools for educators give them hands-on training, covering everything from fundamental AI ideas to real-world applications, so they may successfully incorporate these technologies into their pedagogical approaches.
Workshop	For the practical knowledge needed to successfully incorporate AI-driven technology into their teaching techniques.

Source: Author's compilation

5. Conclusion

The study provides a deep and diverse view of educators' perspectives on the effects of generative AI on the education sector, especially as seen through the prism of ChatGPT. The analysis highlights the dual character of this technology integration, identifying both the prospective benefits and the underlying problems. On the plus side, ChatGPT appears as an effective tool capable of enhancing learning experiences by presenting students with a wealth of information resources. However, there is great concern about the potential repercussions of over-reliance on AI, particularly in the context of eroding critical thinking skills. The research emphasizes the importance of teacher preparation, stating that educators require extensive training in order to effectively integrate and harness the benefits of AI in educational contexts. To fully utilize the transformational potential of this technology in education, it is crucial to negotiate these opportunities and obstacles as the area of AI continues to develop. Throughout the study, a recurring theme is the need for a well-balanced approach that carefully moves through the use of AI to enhance educational outcomes without diminishing the importance of critical cognitive skill development. Furthermore, the research underlines the continual nature of this conversation, highlighting how the education sector must constantly overcome the dynamic environment of AI, altering mechanisms to address evolving obstacles and maximize the revolutionary potential of this technology in education.

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