

Acceptance of Generative Artificial Intelligence among Educators and Teacher Trainees: A Technology Acceptance Model Approach

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Abstract: The viral advancement of Generative Artificial Intelligence (GenAI) has significantly transformed educational practices by providing tools that support lesson planning, content creation, assessment development, and academic productivity. Despite its growing popularity, their successful integration in education depends largely on users' acceptance and their willingness to adopt them.

This study applies the Technology Acceptance Model (TAM) to examine the factors influencing the level of acceptance of Generative AI among educators and teacher trainees. It further investigates the relationships among Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Attitude Toward Use (ATU), and Behavioural Intention to Use (BI) Generative AI tools using a structured questionnaire administered to teacher trainees and educators. Descriptive and inferential statistical analyses are employed to examine the influence of TAM constructs on the level of acceptance of Generative AI.

The findings are expected to contribute to the understanding of the factors affecting AI adoption in educational settings and provide recommendations for teacher education institutions seeking to integrate AI technologies into teaching and learning processes.

Key Words: Generative AI, Technology Acceptance Model, Artificial Intelligence, Education, Teacher Education, Educational Technology.

1. INTRODUCTION

Artificial Intelligence (AI) has emerged as one of the most influential technological developments of the 21st century. Recent advances in Generative Artificial Intelligence (GenAI), particularly large language models such as ChatGPT, Gemini, Microsoft Copilot, and NotebookLM, have introduced new possibilities for teaching, learning, and educational administration.

Generative AI enables users to create text, lesson plans, assessments, summaries, presentations, and instructional materials through natural language prompts. These capabilities have attracted considerable attention from educators seeking innovative ways to enhance productivity, time management and improve instructional effectiveness.

However, the successful adoption of educational technologies depends not only on availability but also on user acceptance. The Technology Acceptance Model (TAM) proposed by Davis (1989) remains one of the most widely used frameworks for understanding technology adoption. According to TAM, users' perceptions of usefulness and ease of use influence their attitudes toward a technology and ultimately determine their intention to use it which ultimately impacts its relevancy in the long term.

The present study examines the acceptance of Generative AI among educators and teacher trainees through the lens of TAM.

OBJECTIVE

This study aims to:

- To examine perceptions regarding the usefulness of Generative AI.

- To investigate the perceived ease of use of Generative AI tools.
- To study attitudes toward the use of Generative AI in education.
- To determine behavioural intentions regarding future use of Generative AI.
- To examine relationships among TAM constructs.

2.LITERATURE REVIEW

The rapid development of Artificial Intelligence (AI), especially Generative Artificial Intelligence (GenAI), has transformed educational practices worldwide. The emergence of tools such as ChatGPT, Gemini, Microsoft Copilot, and NotebookLM has introduced new possibilities for teaching, learning, assessment, feedback and educational administration. As these technologies become increasingly integrated and intertwined into educational settings, understanding the factors influencing their acceptance among educators and teacher trainees has become a significant area of research. The present study draws upon the Technology Acceptance Model (TAM) to examine the acceptance of Generative AI in education.

Technology Acceptance Model (TAM)

The theoretical foundation of the present study is based on the Technology Acceptance Model proposed by Davis (1989). Davis developed TAM to explain and predict users' acceptance of information technology. According to the model, two primary factors influence technology adoption:

- Perceived Usefulness (PU)
- Perceived Ease of Use (PEOU)

Perceived Usefulness refers to the degree to which an individual believes that using a particular technology will enhance performance, while Perceived Ease of Use refers to the degree to which a person believes that using the technology will be free from effort.

According to Davis, these two concepts have an impact on how people feel about technology, which in turn affects how they want to use it and how they actually use it. TAM has been widely used in a variety of technical contexts, such as educational technologies, mobile learning apps, online learning platforms, and e-learning systems. The model continues to be regarded as one of the most reliable frameworks for examining technology acceptance due to its simplicity, predictive power, and empirical validity.

The relevance of TAM has increased significantly in the context of Generative AI because educators' perceptions regarding the usefulness and usability of AI tools strongly influence their willingness to integrate these technologies into their educational teaching strategies. Therefore, TAM provides a suitable framework for investigating educators' and teacher trainees' acceptance of Generative AI.

Generative AI and Educational Transformation

The emergence of Generative AI has initiated significant changes in educational environments. Generative AI systems utilize large language models and advanced machine learning techniques to produce human-like content in response to user prompts. These technologies have the potential to support lesson planning, content development, assessment creation, feedback generation, academic writing, and personalized learning experiences.

Researchers have noted that Generative AI can significantly reduce the workload associated with routine educational tasks while simultaneously enhancing creativity and productivity. The ability of these systems to provide immediate responses, generate instructional materials, and facilitate differentiated instruction has attracted considerable attention among educators worldwide. Consequently, understanding users' acceptance of these technologies has become essential for successful educational implementation.

Kasneci et al. (2023): Opportunities and Challenges of Large Language Models in Education

One of the most important research works, looking at the educational consequences of large language models like ChatGPT was carried out by Kasneci et al. (2023). The authors contended that by offering individualized learning support, automated tutoring, content creation, and increased student engagement, AI-powered conversational systems have the ability to completely transform educational processes.

The study outlined a number of advantages of generative AI, such as its capacity to support unique learning pathways, offer immediate feedback, help with writing assignments, and lessen administrative costs on teachers. The researchers hypothesized that by assigning regular duties to intelligent systems, AI technologies could free up teachers to concentrate more on higher-order pedagogical activities. However, Kasneci et al. also identified several challenges associated with

AI adoption. These included concerns regarding factual inaccuracies, algorithmic bias, ethical considerations, privacy issues, and the possibility of overreliance on AI-generated content. The authors emphasized that successful implementation requires careful integration, critical evaluation, and responsible usage practices.

The findings of Kasneci et al. are highly relevant to the present study because they demonstrate that educators are likely to perceive AI tools as useful when they contribute to productivity and instructional effectiveness. Such perceptions align closely with the TAM construct of Perceived Usefulness.

Lo (2023): Impact of ChatGPT on Education

Lo (2023) conducted a rapid review of literature examining the impact of ChatGPT on educational practices. The review revealed that educators and students generally perceive ChatGPT as a valuable educational resource capable of supporting learning, academic writing, content generation, and knowledge acquisition.

The study identified several advantages associated with ChatGPT, including increased efficiency, accessibility of information, enhanced creativity, and support for self-directed learning. Educators reported that AI tools could facilitate lesson preparation, generate instructional materials, and assist in developing assessments. Students benefited from immediate feedback and personalized learning support.

At the same time, Lo identified significant concerns related to academic integrity, plagiarism, misinformation, and the reliability of AI-generated outputs. The study emphasized the need for educational institutions to develop clear policies and ethical guidelines governing AI usage.

The findings suggest that users' acceptance of AI technologies is influenced not only by perceived usefulness but also by trust and confidence in the accuracy of AI-generated content. This observation supports the importance of examining educators' attitudes and behavioural intentions toward AI adoption.

Tlili et al. (2023): ChatGPT and Educational Opportunities

Tlili et al. (2023) explored the opportunities and challenges associated with the use of ChatGPT in educational settings. The researchers described ChatGPT as a disruptive innovation capable of transforming traditional educational practices through intelligent content generation and personalized learning support.

According to the study, ChatGPT offers numerous educational benefits, including assistance with academic writing, language learning, instructional design, and individualized tutoring. The technology can enhance learning accessibility by providing immediate responses and explanations tailored to learners' needs.

However, the researchers also raised concerns regarding ethical issues, misinformation, academic dishonesty, and reduced critical thinking among learners who become overly dependent on AI-generated responses. The study concluded that educational stakeholders must develop AI literacy and critical evaluation skills to maximize benefits while minimizing risks.

The work of Tlili et al. contributes significantly to understanding the attitudes of educators toward AI adoption. Positive attitudes toward the technology are likely to emerge when educators perceive AI as beneficial, reliable, and pedagogically meaningful. Such attitudes correspond directly with the Attitude Toward Use construct of TAM.

The reviewed literature demonstrates that Generative AI possesses significant potential to enhance educational practices by improving efficiency, supporting content creation, and facilitating personalized learning experiences. The Technology Acceptance Model provides a robust framework for understanding factors influencing the adoption of AI technologies. Previous studies consistently indicate that perceived usefulness, perceived ease of use, positive attitudes, and behavioural intentions are important determinants of technology acceptance.

However, empirical evidence concerning the acceptance of Generative AI among educators and teacher trainees remains limited, particularly within teacher education contexts. The present study seeks to address this gap by investigating the acceptance of Generative AI among educators and teacher trainees using the Technology Acceptance Model as a guiding framework.

3.THEORETICAL FRAMEWORK

Technology Acceptance Model (TAM)

The present study is grounded in the Technology Acceptance Model (TAM) developed by Davis (1989). TAM is one of the most widely recognized and extensively validated theoretical frameworks for understanding users' acceptance and adoption of technology. The model was originally developed to explain the determinants of computer acceptance and

has since been applied across diverse technological contexts, including e-learning systems, online learning platforms, mobile applications, virtual learning environments, and artificial intelligence technologies.

The central premise of TAM is that an individual's decision to adopt and use a technology is primarily influenced by two key beliefs:

- Perceived Usefulness (PU)
- Perceived Ease of Use (PEOU)

These beliefs shape the user's attitude toward the technology, which subsequently influences their behavioural intention to use it and ultimately determines actual technology usage.

Perceived Usefulness (PU)

Perceived Usefulness refers to the degree to which an individual believes that using a particular technology will enhance their job performance or productivity (Davis, 1989). In educational contexts, perceived usefulness reflects the extent to which educators and teacher trainees believe that Generative AI can improve teaching effectiveness, facilitate lesson planning, enhance academic work, and increase professional efficiency.

Research has consistently demonstrated that users are more likely to adopt technologies they perceive as beneficial and capable of improving performance. In the context of Generative AI, perceived usefulness may include the ability to generate lesson plans, create assessment materials, summarize academic content, provide instructional support, and reduce the time required for routine educational tasks.

In the present study, Perceived Usefulness was measured through items examining whether Generative AI helps respondents complete academic and professional tasks more efficiently, improves the quality of their work, and increases productivity.

Perceived Ease of Use (PEOU)

Perceived Ease of Use refers to the degree to which an individual believes that using a technology requires minimal effort (Davis, 1989). Technologies that are perceived as easy to learn, understand, and operate are more likely to be accepted by users.

In educational settings, ease of use is particularly important because educators often face time constraints and varying levels of technological expertise. If Generative AI tools are perceived as complex or difficult to use, educators may be reluctant to integrate them into their professional practices. Conversely, user-friendly interfaces, intuitive interactions, and accessible functionalities contribute to positive adoption decisions.

For the present study, Perceived Ease of Use was assessed through questionnaire items related to learning AI tools, navigating their features, and becoming proficient in their use.

Attitude Toward Use (ATU)

Attitude Toward Use refers to an individual's overall positive or negative feelings about using a technology. According to TAM, users who perceive a technology as useful and easy to use are more likely to develop favourable attitudes toward it.

In the context of Generative AI, positive attitudes may be reflected in users' enjoyment, satisfaction, and confidence when using AI-powered tools for educational purposes. Educators who view AI as an innovative and supportive resource are more likely to integrate it into their teaching practices.

The present study measured Attitude Toward Use through statements related to respondents' experiences with Generative AI, their enjoyment of using AI tools, and their perceptions regarding the integration of AI into education.

Behavioural Intention to Use (BI)

Behavioural Intention to Use refers to an individual's willingness or intention to continue using a technology in the future. According to TAM, behavioural intention is a direct predictor of actual technology usage.

When educators perceive Generative AI as useful, easy to use, and beneficial, they are more likely to express intentions to continue using these technologies in their professional activities. Such intentions may include future use for teaching, learning, academic work, and recommending AI tools to colleagues and students.

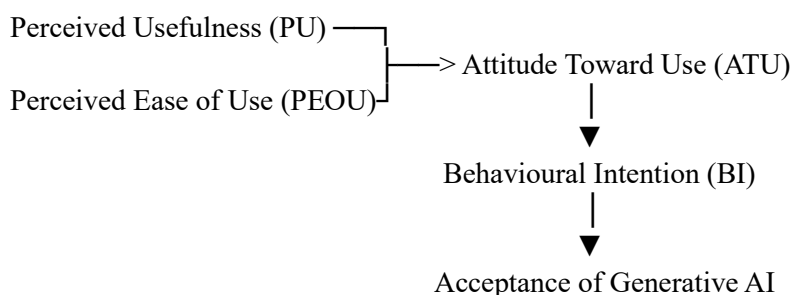
In the present study, Behavioural Intention was measured through items assessing respondents' intentions to continue using Generative AI and their willingness to recommend these technologies to others.

Conceptual Relationship among TAM Constructs

According to TAM, Perceived Usefulness and Perceived Ease of Use influence users' Attitudes Toward Use. Positive attitudes subsequently contribute to stronger Behavioural Intentions to Use the technology. These relationships suggest that educators who perceive Generative AI as beneficial and easy to use are more likely to develop positive attitudes and demonstrate a stronger willingness to adopt AI technologies in the future.

The present study examines these TAM constructs in relation to Generative AI acceptance among educators and teacher trainees. The model assumes that favourable perceptions of usefulness and ease of use contribute to positive attitudes, which in turn influence behavioural intentions toward future AI adoption.

Conceptual Framework of the Study



This framework provides the theoretical basis for analysing educators' and teacher trainees' acceptance of Generative Artificial Intelligence and interpreting the findings of the present study.

Relevance of TAM to the Present Study

The selection of TAM as the theoretical framework is justified by its extensive application in educational technology research and its proven ability to explain technology adoption behaviour. As Generative AI continues to reshape educational practices, understanding the factors influencing acceptance becomes increasingly important.

By examining Perceived Usefulness, Perceived Ease of Use, Attitude Toward Use, and Behavioural Intention, the present study seeks to provide empirical evidence regarding the acceptance of Generative AI among educators and teacher trainees. The framework offers valuable insights into how future educators perceive AI technologies and identifies factors that may facilitate or hinder their adoption within educational contexts.

4.RESEARCH GAP

Most existing studies focus on higher education students. Limited research examines the acceptance of Generative AI among teacher trainees and educators using the TAM framework, particularly within Indian teacher education institutions.

5.METHODOLOGY

Research Design

The present study employed a descriptive survey research design to investigate the acceptance of Generative Artificial Intelligence (GenAI) among educators and teacher trainees. A survey approach was considered appropriate as it facilitates the collection of data regarding participants' perceptions, attitudes, and behavioural intentions toward the use of Generative AI technologies in educational contexts. The study was conducted within the framework of the Technology Acceptance Model (TAM) developed by Davis (1989), which emphasizes Perceived Usefulness, Perceived Ease of Use, Attitude Toward Use, and Behavioural Intention as key determinants of technology acceptance.

Population and Sample

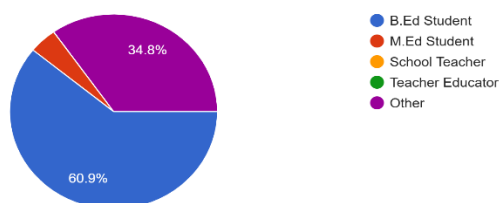
The target population for the study comprised educators and teacher trainees who had exposure to Generative AI tools such as ChatGPT, Gemini, Microsoft Copilot, and related platforms. A purposive sampling technique was employed to select participants who were familiar with or had experience using AI tools.

The final sample consisted of 23 respondents, including B.Ed. students, M.Ed. students, and other educational stakeholders. Although the sample size is relatively small, it is adequate for an exploratory study intended to understand emerging trends in AI acceptance among teacher trainees and educators.

Table 1: Distribution of Participants by Role

Role	Frequency	Percentage
B.Ed Students	14	60.87%
M.Ed Students	1	4.35%
Others	8	37.87%
TOTAL	23	100%

1) What is your role?
 23 responses



The data indicate that the majority of respondents were B.Ed. students, reflecting the study's focus on teacher education.

Research Instrument

Data were collected using a structured questionnaire developed through Google Forms. The questionnaire consisted of two sections.

- The first section collected demographic information including participants' role, frequency of AI usage, and preferred Generative AI platform.
- The second section contained twelve statements based on the Technology Acceptance Model.

Responses were measured using a five-point Likert scale:

- Strongly Disagree = 1
- Disagree = 2
- Neutral = 3
- Agree = 4
- Strongly Agree = 5

The items were grouped under four TAM dimensions:

Perceived Usefulness (PU)

- Generative AI helps me complete tasks efficiently.
- Generative AI improves the quality of my work.
- Using Generative AI increases my productivity.

Perceived Ease of Use (PEOU)

- Learning to use Generative AI is easy.
- Generative AI tools are user-friendly.
- I can quickly become skilled at using Generative AI.

Attitude Toward Use (ATU)

- Using Generative AI is a positive experience.
- I enjoy using Generative AI.
- Generative AI should be integrated into education.

Behavioural Intention (BI)

- I intend to continue using Generative AI.
- I would recommend Generative AI to others.
- I plan to use Generative AI regularly in the future.

Procedure of Data Collection

The questionnaire was administered online through Google Forms during May-June 2026. Participants were informed about the academic purpose of the study and assured that their responses would remain confidential. Participation was voluntary, and respondents were encouraged to provide honest responses.

Statistical Techniques Used

The collected data were analysed using descriptive statistical techniques. Frequency distributions, percentages, and mean scores were calculated to examine respondents' perceptions regarding Generative AI acceptance.

The interpretation of mean scores was based on the following criteria:

Mean Score	Interpretation
1.00-1.80	Strongly Disagree
1.81-2.60	Disagree
2.61-3.40	Neutra
3.41-4.20	Agree
4.21-5.00	Strongly Agree

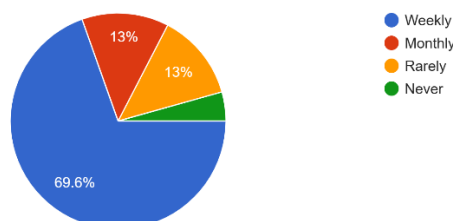
6.DATA ANALYSIS

I. Analysis of Frequency of Generative AI Usage

Table 2: Frequency of AI Usage among Respondents

Frequency of Use	No. of Respondents	Percentage
Weekly	16	69.57%
Monthly	3	13.04%
Rarely	3	13.04%
Never	1	4.25%
TOTAL	23	100%

2) How often do you use Generative AI tools (ChatGPT, Gemini, Copilot, etc.)?
 23 responses



Interpretation

The data reveal that a substantial majority of respondents (69.57%) use Generative AI tools on a weekly basis. Only one participant reported never using AI technologies. The findings suggest that Generative AI has become a regularly utilized technological resource among educators and teacher trainees.

Findings

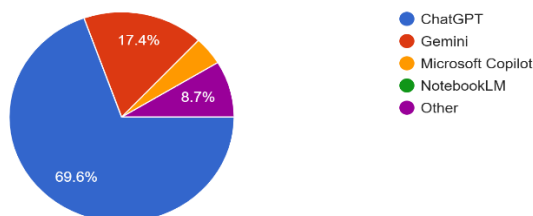
The majority of respondents are active users of Generative AI, indicating growing acceptance and familiarity with AI technologies in educational settings.

II. Analysis of Preferred Generative AI Tool

Table 3: Most Frequently Used Generative AI Platform

AI Tool	Frequency	Percentage
ChatGPT	16	69.57%
Gemini	4	17.39%
Microsoft Copilot	1	4.35%
Other	2	8.69%
TOTAL	23	100%

3) Which Generative AI tool do you use most frequently?
 23 responses



Interpretation

The findings indicate that ChatGPT is the most frequently used Generative AI platform among respondents. Nearly seventy percent of participants reported using ChatGPT more frequently than any other AI tool.

Finding

ChatGPT is the dominant Generative AI platform among educators and teacher trainees, highlighting its popularity and accessibility within educational contexts.

III. Analysis of Perceived Usefulness

Table 4: Perceived Usefulness of Generative AI

Statement	Mean Score
Helps complete tasks efficiently	4.04
Improves quality of work	3.65
Improves productivity	3.65
Overall Mean	3.78

Interpretation

The overall mean score of 3.78 indicates that respondents generally agree that Generative AI is useful for educational and professional tasks. Participants believe that AI enhances efficiency, improves work quality, and contributes to productivity.

Finding

Respondents perceive Generative AI as a valuable educational resource capable of improving performance and productivity.

IV. Analysis of Perceived Ease of Use

Table 5: Perceived Ease of Use of Generative AI

Statement	Mean Score
Easy to learn	3.78
User-friendly	3.96
Easy to become skilled	3.77
Overall Mean	3.84

Interpretation

The overall mean score of 3.84 indicates that respondents generally find Generative AI tools easy to learn and use. The highest score was recorded for the statement that AI tools are user-friendly.

Finding

Generative AI technologies are perceived as accessible and user-friendly, reducing barriers to adoption among educators and teacher trainees.

V. Analysis of Attitude Toward Use

Table 6: Attitude Toward Use of Generative AI

Statements	Mean Score
Positive experience	3.83
Enjoy using AI	3.96
Should be integrated	3.91
Overall Mean	3.90

Interpretation

The results indicate a favourable attitude toward Generative AI. Participants generally enjoy using AI tools and support their integration into teaching and learning processes.

Finding

Respondents demonstrate positive attitudes toward Generative AI and view it as an important educational innovation.

VI. Analysis of Behavioural Intention

Table 7: Behavioural Intention to Use Generative AI

Statement	Mean Score
Intend to continue using AI	4.00
Would recommend AI to others	3.91
Plan to use AI regularly	3.91
Overall Mean	3.94

Interpretation

The overall mean score of 3.94 indicates a strong intention among respondents to continue using Generative AI technologies in the future.

Finding

Educators and teacher trainees exhibit a strong willingness to continue using and recommending Generative AI technologies.

7. MAJOR FINDINGS

Based on the analysis of the collected data, the following major findings emerged:

1. The majority of respondents (69.57%) reported using Generative AI tools on a weekly basis.
2. ChatGPT was identified as the most frequently used AI platform among participants.
3. Respondents perceived Generative AI as useful for improving efficiency, productivity, and the quality of academic work.
4. Participants generally found Generative AI tools easy to learn, user-friendly, and accessible.
5. Positive attitudes toward AI were observed, with respondents supporting its integration into educational practices.
6. Respondents expressed strong behavioural intentions to continue using Generative AI in the future.
7. The overall acceptance scores across all TAM dimensions suggest a favourable level of acceptance of Generative Artificial Intelligence among educators and teacher trainees.

The findings support the assumptions of the Technology Acceptance Model, indicating that perceived usefulness and perceived ease of use contribute to positive attitudes and future intentions regarding AI adoption.

8. LIMITATIONS OF THE STUDY

While the present study provides valuable insights into the acceptance of Generative Artificial Intelligence among educators and teacher trainees, certain limitations should be acknowledged.

- First, the study was conducted with a relatively small sample of 23 participants. Although the sample was adequate for an exploratory investigation, the findings cannot be generalized to all educators, teacher trainees, or educational institutions. A larger and more diverse sample would provide greater representativeness and enhance the reliability of the findings.
- Second, the study employed a purposive sampling technique, which may have introduced sampling bias. Participants who were already familiar with or interested in Generative AI may have been more likely to respond to the survey, potentially influencing the overall acceptance levels reported in the study.
- Third, the research relied on self-reported data collected through a questionnaire. Self-report measures are subject to social desirability bias, response bias, and participants' subjective interpretations of survey items. Consequently, the responses may not fully reflect actual usage behaviour.
- Fourth, the study focused primarily on the constructs of the Technology Acceptance Model (TAM), namely Perceived Usefulness, Perceived Ease of Use, Attitude Toward Use, and Behavioural Intention. Other factors that may influence AI adoption, such as technological self-efficacy, institutional support, ethical concerns, privacy perceptions, digital literacy, and prior experience with AI, were not examined.
- Fifth, the study was conducted during a period when Generative AI technologies were rapidly evolving. As AI tools continue to improve and become more integrated into educational systems, users' perceptions and attitudes may change over time. Therefore, the findings represent a snapshot of participants' perceptions during the specific period of data collection.
- Finally, the study utilized descriptive statistical analysis and did not employ advanced inferential statistical techniques. Future studies with larger sample sizes may explore relationships among variables through correlation analysis, regression analysis, or structural equation modelling to provide deeper insights into the determinants of AI acceptance.

Despite these limitations, the study offers valuable preliminary evidence regarding educators' and teacher trainees' perceptions of Generative AI and contributes to the emerging body of research on AI adoption in education.

10. EDUCATIONAL IMPLICATIONS

The findings of the present study have important implications for teacher education institutions, educators, policymakers, and educational technology developers.

- The positive perceptions of Generative AI among respondents indicate that AI technologies have the potential to become valuable tools for enhancing teaching, learning, and professional productivity. Consequently, teacher education institutions should consider integrating AI literacy and digital competency training into pre-service and in-service teacher education programmes. Such initiatives would equip future educators with the knowledge and skills necessary to effectively and responsibly utilize AI technologies in educational settings.
- The findings also suggest the need for structured professional development programmes focusing on Generative AI applications in education. Training workshops, seminars, and hands-on learning experiences can help educators understand the pedagogical possibilities of AI while addressing concerns related to ethical use, academic integrity, and responsible implementation.
- Another important implication concerns curriculum development. As AI technologies increasingly influence educational practices, teacher education curricula should include topics related to AI literacy, prompt engineering, critical evaluation of AI-generated content, digital ethics, data privacy, and responsible technology use. Such curricular integration would prepare future teachers to navigate AI-enhanced learning environments effectively.
- The study further highlights the importance of developing institutional policies and guidelines governing the use of Generative AI in education. Educational institutions should establish clear frameworks addressing issues such as plagiarism, authorship, transparency, privacy, bias, and ethical decision-making. Well-defined policies can help ensure that AI technologies are used as supportive educational tools rather than substitutes for critical thinking and professional judgment.
- The positive attitudes observed among participants suggest that educators are open to innovation and willing to explore emerging technologies. Policymakers can capitalize on this readiness by promoting initiatives that encourage responsible AI adoption, support technological infrastructure, and facilitate access to educational AI tools.
- The findings also have implications for developers of educational AI systems. Designers should prioritize user-friendly interfaces, accessibility, transparency, and pedagogical relevance when developing AI-powered educational applications. Technologies that are perceived as useful and easy to use are more likely to gain acceptance among educators and learners.
- Furthermore, the study underscores the importance of maintaining a balanced approach to AI integration. While Generative AI offers significant benefits, it should complement rather than replace human interaction, professional expertise, creativity, and critical thinking. Effective educational practice requires the thoughtful integration of technology with sound pedagogical principles.

Overall, the findings suggest that Generative AI can serve as a valuable educational resource when implemented responsibly and supported through appropriate training, policy development, and institutional guidance.

Teacher Readiness and Technology Adoption

Research on educational technology adoption consistently demonstrates that teacher readiness plays a critical role in successful implementation. Educators who possess positive attitudes toward technology and adequate technological competence are more likely to integrate digital tools into classroom practice.

Several studies have reported that perceived ease of use significantly influences educators' willingness to adopt emerging technologies. When technologies are intuitive, accessible, and user-friendly, educators experience greater confidence and are more inclined to experiment with innovative teaching methods. Conversely, complex or difficult-to-use systems often create resistance and hinder adoption. The introduction of Generative AI has renewed interest in teacher readiness because these technologies require educators to develop new competencies related to prompt engineering, content evaluation, ethical decision-making, and digital literacy. Teacher education programmes therefore play a crucial role in preparing future educators for AI-enhanced educational environments.

11.CONCLUSION

The emergence of Generative Artificial Intelligence represents a significant technological advancement with the potential to transform educational practices. As AI-powered tools become increasingly accessible, understanding educators' and teacher trainees' perceptions regarding their adoption becomes essential for successful implementation. The present study explored the acceptance of Generative AI among educators and teacher trainees through the lens of the Technology Acceptance Model (TAM).

The findings revealed that participants generally held favourable perceptions regarding the usefulness and ease of use of Generative AI technologies. Respondents recognized the potential of AI tools to improve efficiency, enhance

productivity, support lesson planning, and facilitate academic and professional tasks. The results further indicated that participants viewed Generative AI as user-friendly and relatively easy to learn, contributing to positive attitudes toward its use.

The study also found that respondents expressed strong behavioural intentions to continue using Generative AI in the future and were willing to recommend these technologies to other educators and learners. ChatGPT emerged as the most frequently used AI platform among participants, reflecting its growing prominence in educational contexts.

The findings support the fundamental assumptions of the Technology Acceptance Model by demonstrating that positive perceptions of usefulness and ease of use contribute to favourable attitudes and intentions regarding technology adoption. These results align with contemporary research highlighting the growing role of AI in education and the increasing willingness of educators to integrate innovative technologies into their professional practices.

Despite the limitations associated with the small sample size and exploratory nature of the study, the research contributes valuable insights into the acceptance of Generative AI among educators and teacher trainees. The study highlights the importance of AI literacy, professional development, ethical awareness, and institutional support in facilitating effective AI integration. As educational systems continue to evolve in response to technological advancements, Generative AI is likely to play an increasingly significant role in teaching and learning. Future research involving larger and more diverse samples is recommended to further investigate the factors influencing AI adoption and to develop evidence-based strategies for responsible and effective implementation in educational settings.

In conclusion, the study demonstrates that educators and teacher trainees exhibit a positive orientation toward Generative Artificial Intelligence and recognize its potential to enhance educational practice. With appropriate training, ethical guidance, and institutional support, Generative AI can serve as a powerful tool for fostering innovation, efficiency, and meaningful learning experiences in contemporary education.

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APPENDIX-I

6/4/26, 4:25 AM

Acceptance of Generative AI in Education among Educators and Teacher Trainees

Acceptance of Generative AI in Education among Educators and Teacher Trainees

This questionnaire is being conducted for academic research purposes. Your responses will remain confidential and will be used only for research. Please answer honestly.

1. 1) What is your role?

Mark only one oval.

- ☐ B.Ed Student
☐ M.Ed Student
☐ School Teacher
☐ Teacher Educator
☐ Other

2. 2) How often do you use Generative AI tools (ChatGPT, Gemini, Copilot, etc.)?

Mark only one oval.

- ☐ Weekly
☐ Monthly
☐ Rarely
☐ Never

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Acceptance of Generative AI in Education among Educators and Teacher Trainees

3. 3) Which Generative AI tool do you use most frequently?

Mark only one oval.

- ☐ ChatGPT
- ☐ Gemini
- ☐ Microsoft Copilot
- ☐ NotebookLM
- ☐ Other

4. 4) Generative AI helps me complete academic or teaching or other job related tasks more efficiently.

Mark only one oval.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

5. 5) Generative AI improves the quality of my lesson planning or academic work or daily professional tasks.

Mark only one oval.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

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6/4/26, 4:25 AM

Acceptance of Generative AI in Education among Educators and Teacher Trainees

6. 6) Using Generative AI increases my productivity.

Mark only one oval.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

7. 7) Learning to use Generative AI tools is easy for me.

Mark only one oval.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

8. 8) Generative AI tools are user-friendly and easy to navigate.

Mark only one oval.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

6/4/26, 4:25 AM

Acceptance of Generative AI in Education among Educators and Teacher Trainees

9. 9) I can quickly become skilled at using Generative AI tools.

Mark only one oval.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

10. 10) Using Generative AI is a positive experience.

Mark only one oval.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

11. 11) I enjoy using Generative AI for educational and professional purposes.

Mark only one oval.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

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Acceptance of Generative AI in Education among Educators and Teacher Trainees

12. 12) Generative AI should be integrated into teaching and learning processes.

Mark only one oval.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

13. 13) I intend to continue using Generative AI in the future.

Mark only one oval.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

14. 14) I would recommend Generative AI tools to other educators or students.

Mark only one oval.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree



6/4/26, 4:25 AM

Acceptance of Generative AI in Education among Educators and Teacher Trainees

15. 15) I plan to use Generative AI regularly for teaching, learning, academic or professional work.

Mark only one oval.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly Agree

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APPENDIX-II

6/4/26, 7:18 AM

Acceptance of Generative AI in Education among Educators and Teacher Trainees

Acceptance of Generative AI in Education among Educators and Teacher Trainees

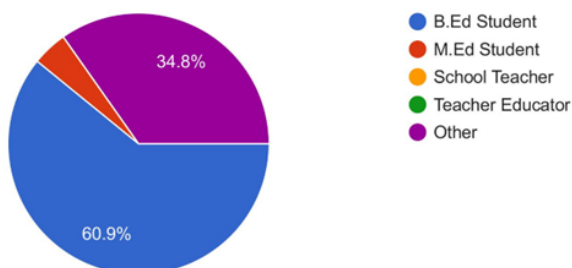
23 responses

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1) What is your role?

23 responses

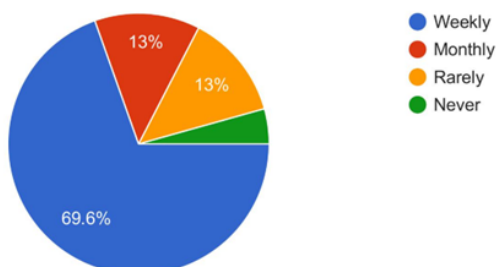
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2) How often do you use Generative AI tools (ChatGPT, Gemini, Copilot, etc.)?

23 responses

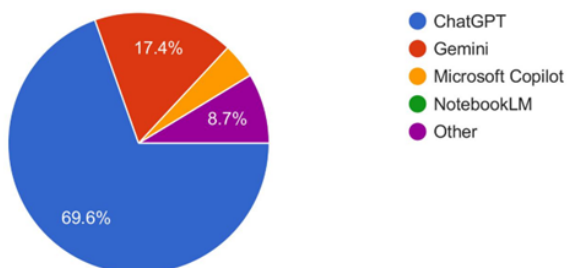
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3) Which Generative AI tool do you use most frequently?

23 responses

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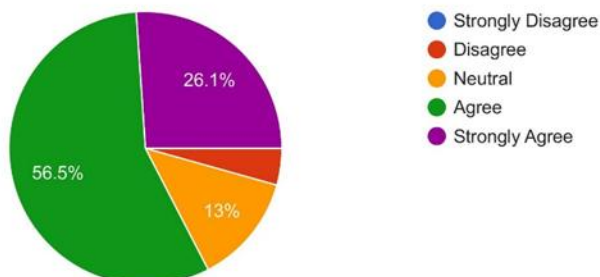
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Acceptance of Generative AI in Education among Educators and Teacher Trainees

4) Generative AI helps me complete academic or teaching or other job related tasks more efficiently.

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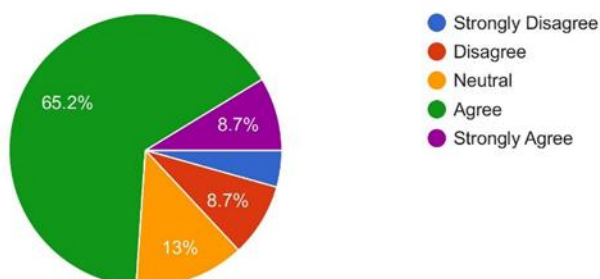
23 responses



5) Generative AI improves the quality of my lesson planning or academic work or daily professional tasks.

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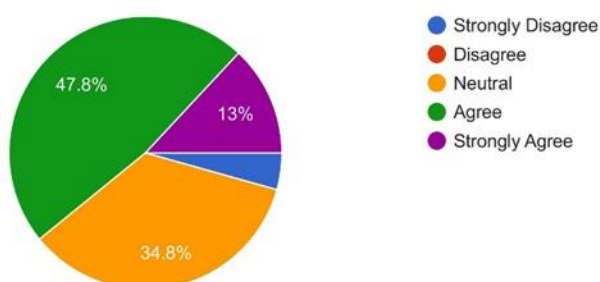
23 responses



6) Using Generative AI increases my productivity.

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23 responses



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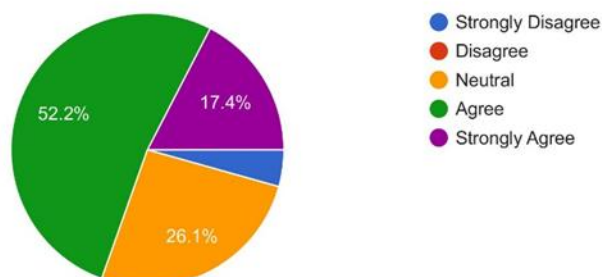
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Acceptance of Generative AI in Education among Educators and Teacher Trainees

7) Learning to use Generative AI tools is easy for me.

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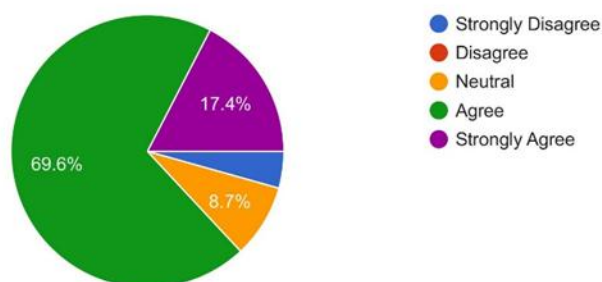
23 responses



8) Generative AI tools are user-friendly and easy to navigate.

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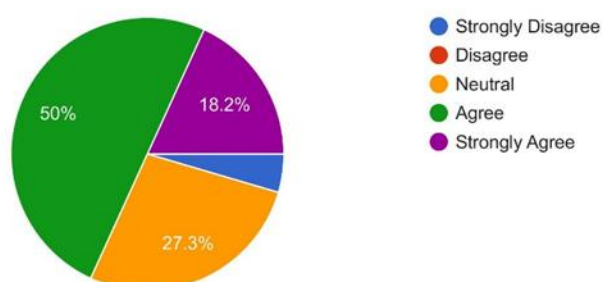
23 responses



9) I can quickly become skilled at using Generative AI tools.

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22 responses



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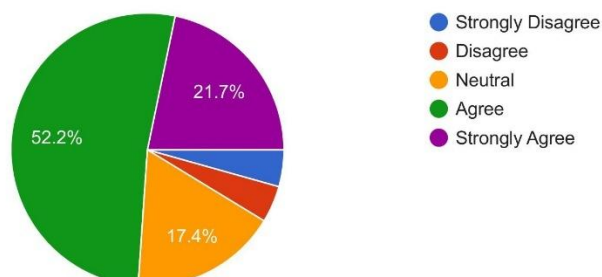
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Acceptance of Generative AI in Education among Educators and Teacher Trainees

10) Using Generative AI is a positive experience.

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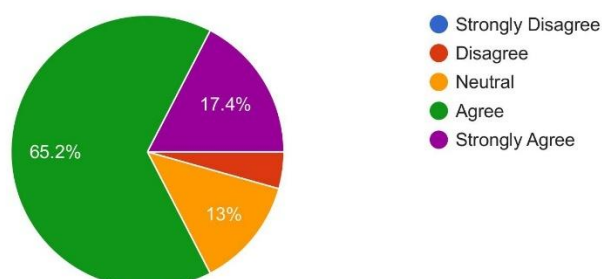
23 responses



11) I enjoy using Generative AI for educational and professional purposes.

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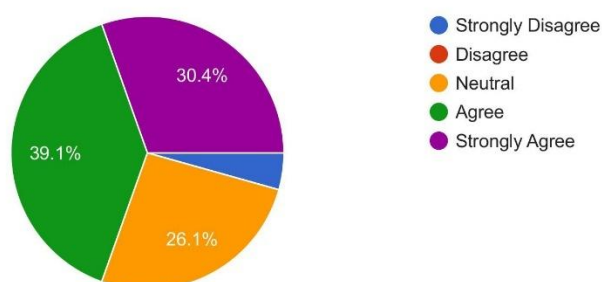
23 responses



12) Generative AI should be integrated into teaching and learning processes.

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23 responses



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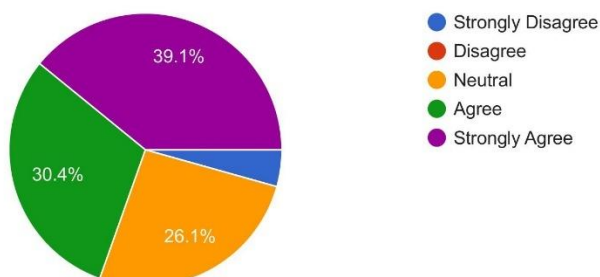
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Acceptance of Generative AI in Education among Educators and Teacher Trainees

13) I intend to continue using Generative AI in the future.

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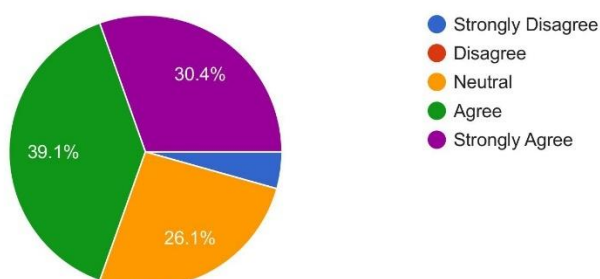
23 responses



14) I would recommend Generative AI tools to other educators or students.

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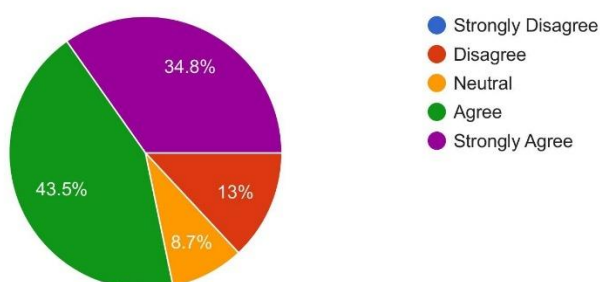
23 responses



15) I plan to use Generative AI regularly for teaching, learning, academic or professional work.

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23 responses



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