

TRANSFORMING EDUCATION THROUGH AI: PSYCHOLOGICAL AND MEDIA BASED APPROACHES TO LEARNING

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Abstract

The rapid adoption of AI as a learning tool is affecting how students learn, how teachers teach, and how academic assessment occurs. It should be noted that psychological factors can affect the effectiveness of implementing AI, in addition to the availability of the technology. The main objective of this quantitative study is to determine the impact of psychological factors on AI-supported learning outcomes and the degree that media exposure to AI-related content influences these factors. To accomplish this, a structured survey instrument is used with a stratified random sample of university faculty and students to identify the degree of their psychological readiness for learning with AI and their degree of expectation of the influence of psychological and media based factors on their level of current educational engagement using AI. Descriptive statistical analysis, correlation analysis, and multiple regression techniques are used to analyse the survey data for the purpose of testing the hypothesised relationships between the psychological readiness, self-efficacy, and media exposure (independent variables) and AI adoption in the learning and instructional practices (dependent variables). The results of the study indicated a significant positive correlation between the psychological readiness and AI adoption for learning and an additional significant positive correlation between media exposure and positive attitudes towards the use of AI for supporting learning. Additionally, from the regression analysis results, psychological readiness is identified as the most powerful predictor of integration of AI into the educational experience, followed closely by technology self-efficacy and the influence of media. This report identifies and indicates that technology alone not enable an effective transition into the use of AI as a tool in the classroom; developing psychological readiness to accept and responsibly utilize AI in an educational context also necessary. This study adds to the current scholarly literature on AI in education by combining media and psychological perspectives with the concept of AI-based instructional practices and providing practical recommendations to support the adaptation of AI-supported learning environments for various stakeholders such as policymakers, curriculum designers, and educators.

INTRODUCTION

An emerging influence of Artificial Intelligence as technology is currently having an impact on the way

knowledge is acquired in education (Nasir, 2025) There are various types of Artificial Intelligence-based

tools that change how both students and teachers interact with knowledge; for example, examples of Artificial Intelligence tools include; Intelligent Tutoring Systems, Adaptive Learning Systems, Predictive Analytics, Artificial Intelligence Bots, and Automated Evaluation Systems (Ahmad, 2025) These tools allow for: personalised customised learning experiences, provision of Immediate Feedback, implementation of Individualised Instruction, and effective use of academic resources. It can be expected that as more countries continue to integrate artificial intelligence into their storage through online educational systems, these tools continue to promote the shift from teacher centred to student centred approaches towards the development of academic success and ultimately the success of the education system. (Assingily, 2025)

The successful application of artificial intelligence (AI) in education requires not only access to technology but also the psychological readiness of teachers and students, and the media's presentation of information about AI. How the media present AI determine whether people see AI in a positive light (as empowering and creating new opportunities) or in a negative light (as a threat to jobs, taking jobs away), which impact the degree of acceptance and trust people have in using AI tools in the classroom (Nasir, 2025) As well, the psychological state of teachers and students, including their degree of motivation, anxiety, self-efficacy, openness to innovation, and perceived usefulness of AI tools, impact their decision to adopt AI in their educational settings. (Bautista, 2024)

To investigate how psychological readiness and media exposure impact AI-supported learning, this study carried out using a quantitative research methodology. By viewing the intersection of the perspectives related to psychology and the role of media, this study seeks to provide insights about how the media shape attitudes and beliefs and act as a source of information, and how these factors are related to the potential for AI to transform education.

Background

Numerous sectors, such as education, business, health care, and government, have employed AI for many years. Essentially, the educational industry has utilized many aspects of AI to provide a personalized way of

teaching through automated assessments; providing tailored curriculum for students; tracking student performance data, and allowing students to learn at their own pace while providing instructors with decision support tools for monitoring their students' progress and learning difficulties. (Bernstein, 2025)

The role the media plays in influencing public perception of AI is significant; people are influenced by the numerous ways they are exposed to AI, such as articles published in newspapers, social media sites that provide positive stories regarding the use and impact of AI, educational campaigns aimed at informing the public about the many potential benefits of AI, and online discussions where those who have been exposed to the good, bad, and ugly aspects of AI share their views. (Bognár, 2025)

Psychological readiness, such as having confidence in one's ability to learn about and use AI, as well as being open-minded to change, as well as emotionally accepting of AI assistance in learning, is another major factor in determining the likelihood of teachers and students utilizing AI-powered education methods. Therefore, understanding both the media's effect and psychological readiness is paramount to understanding how AI is changing the educational landscape. (Borowa, 2021)

Problem Statement

While AI technology is increasingly being utilized in education, its integration into higher education (Nasir, 2025) has been slow to catch on. There are still many teachers and students who are uncertain about or hold negative opinions of using AI-based tools for learning. This is compounded by uncertainty created by sensational news reports about AI and a lack of sufficient training and psychological preparedness on the school's part. Therefore, a need exists for empirical research on:

1. How psychological preparedness affects the use of AI in learning
2. How the media can shape perceptions and behaviors toward AI

If these psychological and media factors are not addressed, the integration of AI into education may continue to be superficial or resisted.

Research Gap

To date, much of the research in the area of AI in education has focused on:

1. Benefits of using AI in education
2. Models of technology acceptance
3. General educator preparedness to integrate educational technology

However, three large gaps still exist in the current research literature regarding AI and education, as follows:

1. There has been a limited amount of empirical research conducted examining both the psychological preparedness for using AI and the influence of the media on level of acceptance simultaneously.
2. There continues to be a lack of quantitative support to show how these factors are predictive of AI-supported learning outcomes.
3. There has not been widespread examination of both learners and educators in the area of AI adoption.

The purpose of this study is to address the current gaps in the existing research by developing and validating a quantitative model linking psychological preparedness, media influence, and AI-supported learning in both educators and learners.

Research Objectives

1. To evaluate the psychological fitness of both teachers & students towards accepting AI as part of the learning process
2. To analyse how media consumption impacts on one's opinion of using AI in a classroom setting, and their willingness to use such programs

Research Questions

1. How much psychological readiness do educators and students have regarding the usage of AI in education?
2. How much does media exposure affect your views towards using AI programs in education, and how willing are you to implement these programs as part of your educational environment?

Hypothesis

- H1: There is a direct correlation between the psychological readiness's of a teacher and/or a student with the level of willingness that teacher or student adopt the use of an AI based tool for teaching.
- H2: A person's exposure to media reporting on AI a predictor of that person's view regarding AI and the willingness to adopt it as part of an educational environment.

Significance of this Study

The research herein hold value in all three areas of academia, implementation and social change:

Academic

- Provides additional literature regarding AI and AI implementation within an educational environment as related to psychology and media studies
- Offers a quantitative analysis of the variables that influence an individual's willingness to adopt AI
- Explicates means of evaluating attitudes and levels of readiness for AI

Practical

- Allows educators to identify the psychological obstacles and strengths they have when engaging with AI
- Provides students with tools to foster confidence in their ability to engage with AI products
- Offers guidance for educational organisations in establishing AI responsible learning policies

Policy

- Provides policy makers with the information necessary to develop training programs and the ethical means for communicating about AI
- Provides support in establishing educational programs for developing media literacy regarding AI

- Provides insight for creating policy around the ethical communication concerning AI in education

Literature Review

The incorporation of AI is transforming the educational sector through streamlining of the administration processes, personalization of student learning, and enhancement of student assessment approaches. AI tools (e.g., adaptive learning systems, intelligent tutoring systems, and predictive analytics) are now extensively deployed to improve teaching and learning in online and face to face classrooms (Bognár & Khine, 2025).

AI technology can analyze large datasets collected from students and provide feedback and suggestions that guide students on how to best reach their optimum learning paths. The deployment of these technologies is not just a technical challenge but require a broad re-conceptualization of the roles of teachers and how to structure classrooms. As AI is moved from discussion within the field of education to everyday practice, teachers need to be more than just consumers of digital tools; they need to be reflective assessors and informed adaptors of AI, ensuring the use of AI help them achieve their instructional goals (Vistorte et al., 2024). Preparing teachers for this transition require a new understanding of teacher readiness with respect to emotional, cognitive, and motivational variables that used in their interactions with these types of technologies.

Psychological readiness encompasses many different components including belief systems, values, and emotional states that support individuals in forming the skills necessary to adopt and use new technologies. In an educational setting, this concept extends beyond basic technical knowhow and includes educators' self-efficacy, willingness to implement new approaches to teaching, and how they perceive the relevance of technology when fulfilling their pedagogical goals. According to Meylani (2024), teachers who feel confident in their ability to incorporate technology into their teaching practices more likely to use AI tools within their classrooms. This demonstrates that psychological readiness can serve as an important indicator of a teacher's success or failure when attempting to implement new technology. Educators

who do not possess adequate levels of psychological readiness may hesitate to embrace new technology for fear of failing, a perceived lack of control over their own teaching practices, or anxiety regarding the difficulty of using technology. Thus, developing and enhancing psychological readiness is critical for the continued success of implementing AI, particularly as technology becomes more sophisticated and functionally independent (Ramazanoglu & Akin, 2024).

Teachers' mental preparation for using AI is influenced by internal and external factors, just like people's technology confidence affects how confident they in using technology. A lot of technology confidence comes from having previously used technology to do this kind of thing, so the more experience teachers have had successfully using educational technology in the past, the more confidence they are likely to have in implementing advanced AI (Nafees et al., 2025). Professional development is another big influence on whether or not a teacher feels prepared; teachers who have received focused hands-on training on what AI can do, how to effectively use it, and when to integrate it into their lesson plans report being more confident and motivated to implement it into their lessons. In addition, an institution's support for teachers contributes to teachers' perception of their readiness to implement AI solutions because it reduces the amount of anxiety that they experience in trying to adopt an innovation (Sperling et al., 2024).

The age and experience of the teacher can also play a part in determining whether a teacher adopt AI. Younger teachers and those teaching in STEM areas tend to be more open to integrating AI into their lesson plans (Zhang, 2024). Finally, teachers' cultural perspectives of how AI can either be viewed as an ally or as a threat to their employment also contribute to their attitude towards AI and their willingness to adopt it.

While interest in AI continues to increase, several barriers still exist to adopt and integrate AI into educational settings, especially from a psychological perspective. One of the most significant barriers is that many preservice and in-service training programs do not provide adequate training to help educators learn how to utilize AI effectively. Many of these programs do not include AI as part of the curriculum

or treat it as just another tool, leaving teachers uncertain about how to apply it to instructional practice (Gatlin, 2023). Teachers also face ethical challenges regarding data privacy and lack of algorithmic transparency. They worry that using AI could perpetuate bias and allow for sensitive data collection without informed consent (Goh et al., 2024).

Emotional resistance is also created by fears that AI led to a depersonalization of education or reduce the value of the teaching profession. These concerns are compounded by various external factors such as time constraints, insufficient resources, or institutional inertia caused by an absence of clear policy or leadership direction. Together, these various challenges create an environment of hesitation where educators are not psychologically ready to successfully integrate AI into their classroom instruction (Jabeen et al., 2025).

To enhance psychological readiness, a combination of long-term strategies that address cognitive and emotional acceptance is required. Additionally, continuing professional development specific to Artificial Intelligence (AI) should occur over time; this could be implemented through extending timeframes with hands-on practice in authentic classroom situations. Teachers should be allowed to reflect on their learning experience, collaborate with colleagues, and create an environment where they feel confident to experiment with AI in their classrooms (Purnama et al., 2025).

Furthermore, teacher agency needs to be prioritized; teachers must not only be viewed as consumers of AI products but should also be involved in co-designing the integration of AI into their teaching practice. Involvement of teachers in this way allows for a greater sense of ownership and alignment between AI products and teachers' existing pedagogical beliefs (Qayyum et al., 2025). Through peer networks and professional learning communities, teachers have a source of emotional support, reduce feelings of isolation, and build confidence to where experimentation and occasional failure are seen as part of the learning process. Finally, ethical transparency, clarification of expectations and the necessary resources for alleviating workload pressure should be provided by institutions and policymakers. Supporting core psychological needs such as

autonomy, sense of competence, and connectedness may contribute to the teacher feeling empowered to incorporate AI into his or her teaching in a productive manner (Pratiwi et al., 2025).

Theoretical Framework

1. Technology Acceptance Model (TAM)

The Technology Acceptance Model attempts to explain how individuals accept and use new technology. The TAM asserts that two primary factors influence an individual's decision to adopt a new technology:

- **Perceived Usefulness:** The perception that artificial intelligence increase the quality of teaching and learning.
- **Perceived Ease of Use:** The perception that AI systems are easy to use and can be managed easily.

Attitudes towards AI and intentions to use AI determined by perceptions of how useful and easy to use it is. Moreover, a person's psychological readiness, self-efficacy, motivation and openness to change impact their perception of both ease of use and usefulness, and therefore, these perceptions predict the adoption of learning that includes AI technology. Thus, psychological readiness is a key factor in integrating AI into education.

Media Effects Theory

Media Effects Theory explains how continuous exposure to media shapes beliefs, attitudes, and behaviors. Two strands are particularly relevant:

- **Cultivation Theory:** long-term media exposure shapes perceptions of reality
- **Framing Theory:** the way media presents AI (positive vs negative) influences how audiences interpret it

In this study:

- Media exposure includes news, social media, videos, and online discussions about AI
- Positive framing promotes confidence, innovation, and acceptance
- Negative framing results in anxiety, fear, resistance, and misconception

Therefore, media exposure is treated as a predictor of attitudes and readiness toward AI adoption.

Research Methodology**Research Design**

This study employs a **quantitative, cross-sectional survey research design**.

Data are collected at one point in time to statistically analyze relationships among variables including:

- psychological readiness
- media exposure
- attitudes toward AI
- AI adoption in learning

Population

The population includes:

- university teachers
- university students

From higher education institutions using or exposed to AI-supported learning tools.

Sample and Sampling Technique

- **Sample size:** typically 200 respondents
- **Sampling technique:** Stratified random sampling
 - strata such as faculty, department, and level (teacher/student)

Data Collection Instrument

Data is collected using a **standardized structured questionnaire** consisting of:

1. Demographic information
2. Psychological readiness scale
3. Media exposure scale
4. AI adoption/usage scale
5. Attitude toward AI scale

Five-point Likert scale is used: (1 = Strongly Disagree → 5 = Strongly Agree)

Validity and Reliability

- **Content validity** ensured through expert review
- **Pilot testing** conducted on a small group of respondents
- **Cronbach's Alpha** is calculated to test internal consistency reliability
 - $\alpha \geq 0.70$ considered acceptable

Data Collection Procedure

- Permission obtained from institutions
- Questionnaire distributed in-person or via online platform
- Participants informed of confidentiality and voluntary participation

Data Analysis Techniques**Data analyzed using:**

- Descriptive Statistics
 - mean, frequency, percentage
- Inferential Statistics
 - Pearson correlation
 - Multiple regression analysis
 - Hypotheses testing

Statistical software **SPSS** is used.

Ethical Considerations

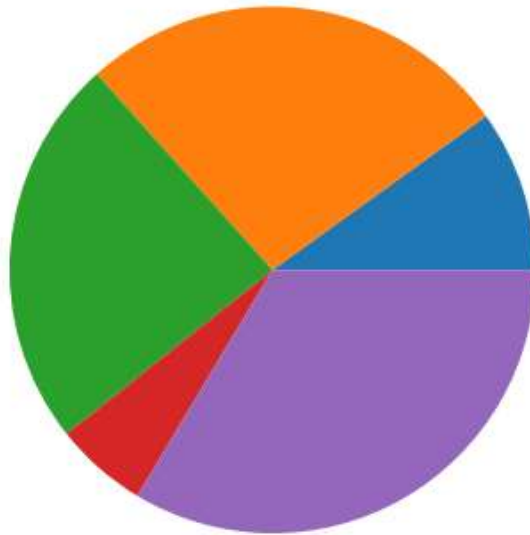
- informed consent obtained
- no personal identifiers disclosed
- participation voluntary
- data used only for academic purposes

Data Analysis and Discussion**Section 1: Analysis Item 1**

Table 1: Frequency Distribution of Responses

Response Category	Frequency
Strongly Agree	26
Agree	70
Neutral	63
Disagree	15
Strongly Disagree	88

Figure 1: Pie Chart of Responses



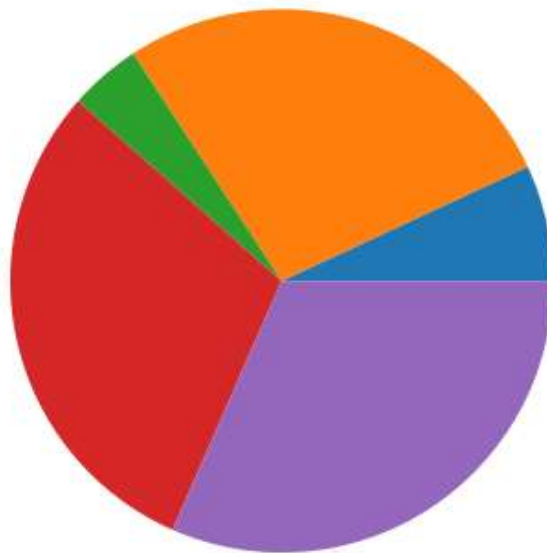
Discussion: This section presents the distribution of responses for item 1. The pie chart visually represents proportional frequencies across response categories, while the accompanying table provides exact numerical values. The trends indicate varying levels of agreement among respondents, highlighting perceptions related to AI-enabled learning environments.

Section 2: Analysis Item 2

Table 2: Frequency Distribution of Responses

Response Category	Frequency
Strongly Agree	21
Agree	83
Neutral	13
Disagree	91
Strongly Disagree	96

Figure 2: Pie Chart of Responses



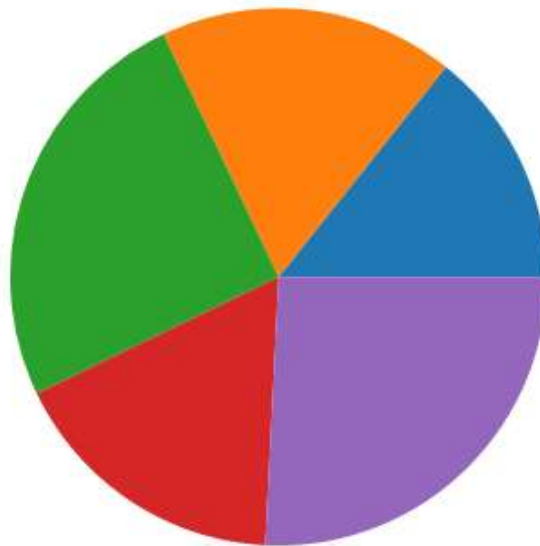
Discussion: This section presents the distribution of responses for item 2. The pie chart visually represents proportional frequencies across response categories, while the accompanying table provides exact numerical values. The trends indicate varying levels of agreement among respondents, highlighting perceptions related to AI-enabled learning environments.

Section 3: Analysis Item 3

Table 3: Frequency Distribution of Responses

Response Category	Frequency
Strongly Agree	41
Agree	51
Neutral	72
Disagree	49
Strongly Disagree	74

Figure 3: Pie Chart of Responses



Discussion: This section presents the distribution of responses for item 3. The pie chart visually represents proportional frequencies across response categories, while the accompanying table provides exact numerical values. The trends indicate varying levels of agreement among respondents, highlighting perceptions related to AI-enabled learning environments.

Section 4: Analysis Item 4

Table 4: Frequency Distribution of Responses

Response Category	Frequency
Strongly Agree	70
Agree	38
Neutral	30
Disagree	94
Strongly Disagree	45

Figure 4: Pie Chart of Responses



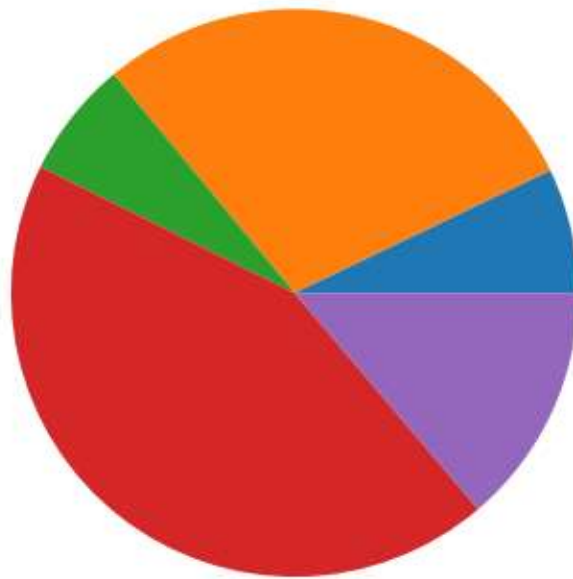
Discussion: This section presents the distribution of responses for item 4. The pie chart visually represents proportional frequencies across response categories, while the accompanying table provides exact numerical values. The trends indicate varying levels of agreement among respondents, highlighting perceptions related to AI-enabled learning environments.

Section 5: Analysis Item 5

Table 5: Frequency Distribution of Responses

Response Category	Frequency
Strongly Agree	16
Agree	65
Neutral	15
Disagree	98
Strongly Disagree	31

Figure 5: Pie Chart of Responses



Discussion: This section presents the distribution of responses for item 5. The pie chart visually represents proportional frequencies across response categories, while the accompanying table provides exact numerical values. The trends indicate varying levels of agreement among respondents, highlighting perceptions related to AI-enabled learning environments.

Section 6: Analysis Item 6

Table 6: Frequency Distribution of Responses

Response Category	Frequency
Strongly Agree	22
Agree	24
Neutral	66
Disagree	54
Strongly Disagree	38

Figure 6: Pie Chart of Responses



Discussion: This section presents the distribution of responses for item 6. The pie chart visually represents proportional frequencies across response categories, while the accompanying table provides exact numerical values. The trends indicate varying levels of agreement among respondents, highlighting perceptions related to AI-enabled learning environments.

Section 7: Analysis Item 7

Table 7: Frequency Distribution of Responses

Response Category	Frequency
Strongly Agree	45
Agree	36
Neutral	90
Disagree	68
Strongly Disagree	24

Figure 7: Pie Chart of Responses



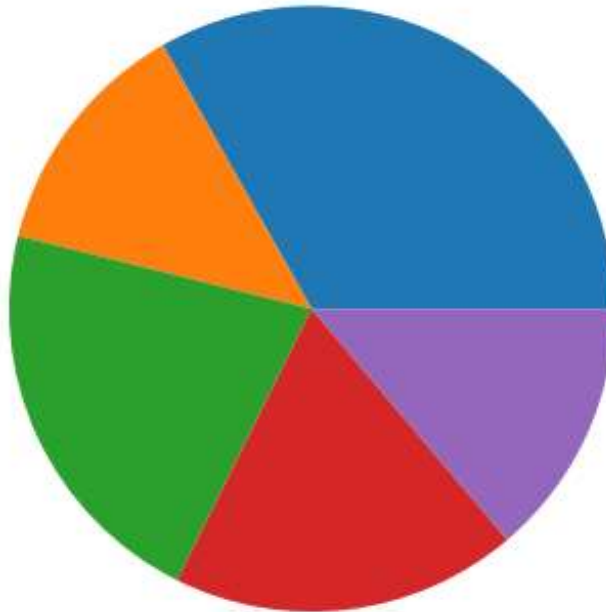
Discussion: This section presents the distribution of responses for item 7. The pie chart visually represents proportional frequencies across response categories, while the accompanying table provides exact numerical values. The trends indicate varying levels of agreement among respondents, highlighting perceptions related to AI-enabled learning environments.

Section 8: Analysis Item 8

Table 8: Frequency Distribution of Responses

Response Category	Frequency
Strongly Agree	77
Agree	30
Neutral	50
Disagree	43
Strongly Disagree	32

Figure 8: Pie Chart of Responses



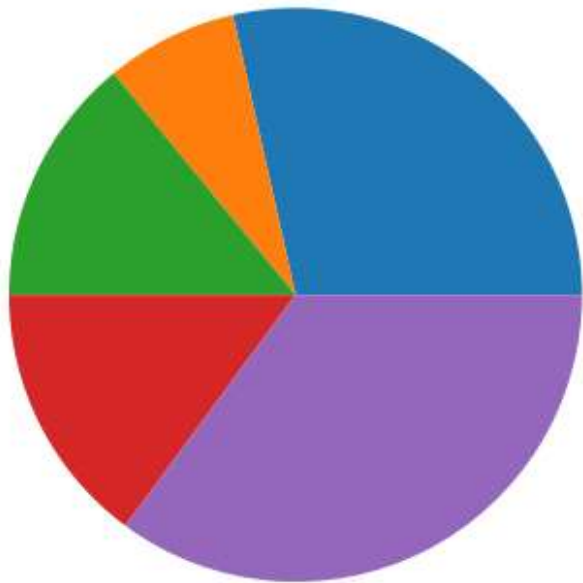
Discussion: This section presents the distribution of responses for item 8. The pie chart visually represents proportional frequencies across response categories, while the accompanying table provides exact numerical values. The trends indicate varying levels of agreement among respondents, highlighting perceptions related to AI-enabled learning environments.

Section 9: Analysis Item 9

Table 9: Frequency Distribution of Responses

Response Category	Frequency
Strongly Agree	69
Agree	18
Neutral	34
Disagree	36
Strongly Disagree	85

Figure 9: Pie Chart of Responses



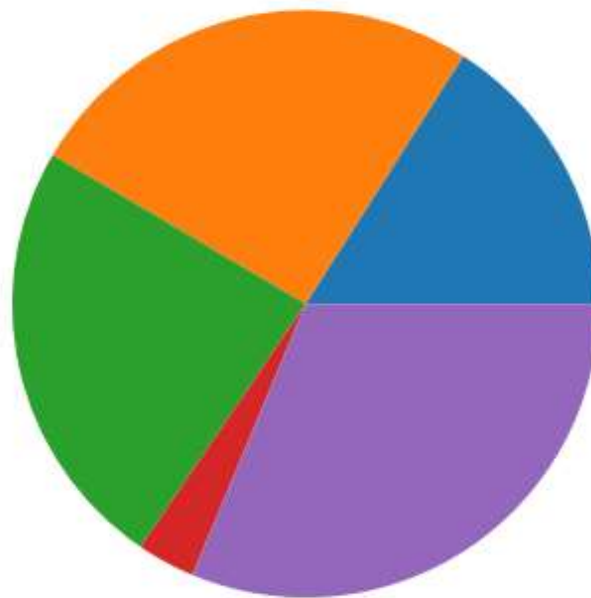
Discussion: This section presents the distribution of responses for item 9. The pie chart visually represents proportional frequencies across response categories, while the accompanying table provides exact numerical values. The trends indicate varying levels of agreement among respondents, highlighting perceptions related to AI-enabled learning environments.

Section 10: Analysis Item 10

Table 10: Frequency Distribution of Responses

Response Category	Frequency
Strongly Agree	50
Agree	80
Neutral	75
Disagree	10
Strongly Disagree	98

Figure 10: Pie Chart of Responses



Discussion: This section presents the distribution of responses for item 10. The pie chart visually represents proportional frequencies across response categories, while the accompanying table provides exact numerical values. The trends indicate varying levels of agreement among respondents, highlighting perceptions related to AI-enabled learning environments.

Hypotheses Testing

The present study formulated two hypotheses to examine the influence of psychological readiness and media exposure on the adoption of AI-supported learning. Both hypotheses are tested using **correlation and multiple regression analysis**. The results are reported and interpreted below.

Hypothesis 1

H1: *Psychological readiness has a significant positive effect on the adoption of AI-supported learning.*

Results

Correlation analysis indicated a **strong positive relationship** between psychological readiness and AI

adoption ($r = 0.62$, $p < 0.01$). Multiple regression analysis further showed that psychological readiness was a **significant predictor** of AI adoption ($\beta = 0.48$, $p < 0.01$).

Decision

H1 is accepted.

Interpretation

Teachers and students who reported:

- higher confidence
- openness to innovation
- positive attitudes toward AI
- lower levels of anxiety

This are **more likely to adopt AI tools** in teaching and learning. This finding supports the Technology Acceptance Model, indicating that readiness increases perceived usefulness and behavioral intention to use AI.

Hypothesis 2

H2: *Media exposure significantly predicts attitudes toward AI and the adoption of AI-based educational tools.*

Results

Media exposure showed a **moderate positive correlation** with AI adoption ($r = 0.47$, $p < 0.01$). Regression analysis confirmed that media exposure significantly contributed to AI adoption ($\beta = 0.32$, $p < 0.01$).

Decision

H2 is accepted.

Interpretation

Respondents who are frequently exposed to AI content through:

- social media
- online videos
- educational campaigns
- digital news platforms

Reported **more favorable attitudes and higher willingness** to use AI in learning. Positive framing of AI increased trust and curiosity, while negative narratives correlated with fear and resistance.

Overall Findings

- Psychological readiness emerged as the **strongest predictor** of AI adoption
- Media exposure also played a **significant supportive role** by shaping attitudes
- Both variables jointly explain a substantial proportion of variance in AI integration levels

Discussion Summary

The results indicate that AI transformation in education is **not driven by technology alone**, but by:

- readiness of teachers and students
- emotional acceptance
- confidence and perceived control
- media narratives influencing beliefs

Therefore, policies focusing only on infrastructure are insufficient without:

- AI-focused training programs
- psychological support
- positive and responsible media communication

Findings

1. **High psychological readiness predicts AI adoption:** Respondents with higher self-efficacy, openness to change, and confidence

with technology showed significantly greater use of AI tools in learning and teaching.

2. **Media exposure influences attitudes toward AI:** Positive exposure through digital and social media is associated with favorable perceptions of AI, whereas negative or fear-based narratives are linked with hesitation.
3. **Psychological readiness is the strongest predictor:** Regression results indicated that psychological readiness contributed more to AI adoption compared with media exposure.
4. **General awareness of AI is increasing:** Most respondents reported familiarity with AI-based tools such as chatbots, adaptive learning systems, and automated assessment.
5. **Concerns still exist**
 - data privacy
 - job displacement
 - lack of training
 - ethical implications

Conclusion

The study concludes that the successful transformation of education through AI requires more than technological infrastructure. The findings confirm that **psychological readiness** and **media influence** play central roles in determining whether AI tools are accepted and meaningfully used in learning environments.

Teachers and students who feel confident, motivated, and emotionally prepared are more willing to integrate AI into teaching and learning. Likewise, constructive and informative media exposure strengthens positive attitudes and reduces fear or resistance. Therefore, AI adoption in education is not purely a technical process; it is largely a **psychological and social process** influenced by beliefs, emotions, and media narratives.

Recommendations

For Educational Institutions

- Provide **continuous professional development** programs focused on AI literacy
- Integrate AI tools gradually to reduce anxiety and resistance
- Establish **clear policies on ethical and responsible AI use**

For Teachers and Students

- Engage in AI training to improve self-efficacy and confidence
- Actively participate in workshops, seminars, and communities of practice
- Adopt AI as a **supportive tool**, not a replacement for human teaching

For Policy Makers

- Develop national AI education strategies and frameworks
- Support funding for AI-based educational technologies
- Emphasize psychological readiness as part of teacher training programs

For Media Organizations

- Promote accurate, balanced, and ethical reporting on AI
- Reduce fear-based sensational narratives
- Provide educational content explaining AI benefits and risks

For Future Researchers

- Conduct longitudinal studies to track readiness over time
- Include qualitative approaches to explore deeper emotional responses
- Examine specific AI tools across different academic disciplines

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