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## A Study on Students' Views Regarding AI Tools in Education

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**Abstract:** Understanding students' psychological opinions of AI-based tools has become essential in educational and mental health contexts as artificial intelligence continues to have an increasing impact on learning environments. This study looked at undergraduate students' opinions about the perceived value of AI tools in the classroom, the learning support they offer, and how these aspects affect students' attitudes toward their use. Using a quantitative research design, the study was conducted with a sample of 45 undergraduate students from St. Andrew's College in Bandra, Mumbai. A self-report questionnaire with ten items measuring perceived usefulness, learning support, and attitude toward AI tools was used to gather data. All three variables showed significant positive correlations, according to Pearson's correlation analysis. Additionally, a significant amount of the variance in students' attitudes toward AI tools was explained by the combination of perceived usefulness and learning support, according to multiple regression analysis. When considered in conjunction with usefulness, learning support showed a positive but non-significant contribution, but perceived usefulness emerged as a significant predictor of attitude. The results imply that perceived academic value, rather than just support, is the main factor influencing students' acceptance of AI tools. These findings demonstrate how attitudes, motivation, and engagement with AI-driven learning tools are shaped by perceived utility from a psychological standpoint. The study emphasizes how crucial it is to carefully and ethically incorporate AI technologies into learning environments to improve student psychological engagement and well-being

**Keywords:** *Artificial Intelligence, Education, Students, Attitudes, Perceived Usefulness, Learning support, Educational Psychology*

## **1. Introduction**

Artificial intelligence (AI) is now a crucial component of modern educational settings, impacting how students learn, obtain information, and finish assignments. Chatbots, automated feedback systems, and intelligent tutoring platforms are AI-based tools increasingly used for exam preparation, academic support, and concept explication. While technological advancements underline efficiency and attainability, it is equally important to interpret students' psychological responses to such tools.

Acceptance, motivation, and efficient use of learning technologies are significantly influenced by students' attitudes toward them. Perceived utility is a key factor in determining positive attitudes toward technology, according to theories of technology acceptance. Additionally, students' assurance and participation may be influenced by the technological tools that facilitate their learning. However, minimal empirical research has analyzed how these psychological elements work together to impact students' perceptions of AI tools in the Indian context. The current study intends to resolve this gap.

## **2. Review of Literature**

The degree to which a person feels that utilizing a particular system improves performance is known as perceived usefulness. In a sample of 107 employees, Davis (1989) showed that attitudes regarding technology use were primarily predicted by perceived usefulness using the Technology Acceptance Model. According to Davis (1989), this model established the foundational role of usefulness in technology adoption. Expanding on this work, Venkatesh and Davis (2000) studied 156 users and detected that perceived usefulness had a greater impact on attitudes and behavioral intention than other factors such as ease of use (Venkatesh & Davis, 2000).

Student engagement in digital learning environments has also been related to learning support. Sun et al. (2008) investigated 295 university students using e-learning platforms and stated that instructional and system support notably impacted learner satisfaction and engagement (Sun et al., 2008).

Zawacki-Richter et al. (2019) examined research on higher education in the context of AI in education and pointed out that students' acceptance of AI tools is more contingent on perceived academic value than on technological novelty. Similarly, Baker and Smith (2019) inferred that

students' attitudes toward AI tools were more positive when the AI tools strengthened their understanding rather than just providing solutions. (Smith & Baker, 2019).

However, empirical studies on perceived usefulness, learning support, and attitudes toward AI tools in Indian undergraduate samples are still limited, and hence the need for the current study.

### **3. Methodology**

#### **3.1 Objectives**

- a) To examine the relationship between perceived usefulness of AI tools and students' attitudes toward AI tools among undergraduate students.
- b) To examine the relationship between learning support provided by AI tools and students' attitudes toward AI tools.
- c) To examine the relationship between perceived usefulness and learning support of AI tools.
- d) To examine whether perceived usefulness and learning support jointly predict students' attitudes toward AI tools.

#### **3.2 Hypotheses**

**H1:** There will be a significant positive relationship between perceived usefulness of AI tools and students' attitudes toward AI tools.

**H2:** There will be a significant positive relationship between learning support provided by AI tools and students' attitudes toward AI tools.

**H3:** There will be a significant positive relationship between perceived usefulness and learning support.

**H4:** Perceived usefulness and learning support will jointly and significantly predict students' attitudes toward AI tools.

A quantitative correlational research design was adopted.

#### **3.3 Sample**

The sample consisted of 45 undergraduate students from St. Andrew's College, Bandra, Mumbai, selected using convenience sampling.

#### **3.4 Tool**

A self-report questionnaire comprising 10 items measuring perceived usefulness, learning support, and attitudes toward AI tools was used. Responses were recorded on a Likert-type scale.

**3.5 Procedure**

Participants were informed about the purpose of the study and assured of confidentiality. Participation was voluntary.

**3.6 Statistical Analysis**

Pearson’s correlation and multiple linear regression analyses were conducted using JASP.

**4. Results**

**Table 1.** *Pearson’s Correlations among Perceived Usefulness, Learning Support and Attitude towards AI tools*

Variables	Perceived Usefulness	Learning Support	Attitude toward AI tools
Perceived Usefulness (PU)	–		
Learning Support (LS)	.82***	-	
Attitude toward AI Tools (AT)	.85***	.78***	-

Note.  $N = 45$ . \*\* $p < .001$ .

The correlation analysis using Pearson’s correlation revealed strong and significant positive correlations between all variables. Learning support was strongly correlated with perceived usefulness ( $r = .82, p < .001$ ). Perceived usefulness had a very strong positive correlation with attitudes toward AI tools ( $r = .85, p < .001$ ). Learning support was strongly correlated with attitudes ( $r = .78, p < .001$ ).

**Table 2:** *Overall Regression Model Statistics*

<b>R</b>	.86
<b>R<sup>2</sup></b>	.74
<b>Adjusted R<sup>2</sup></b>	.73
<b>F</b>	60.84
<b>df</b>	(2,42)
<b>p-value</b>	<0.001

**Table 3:** *Multiple Regression Analysis predicting attitude toward AI tools from perceived Usefulness and Learning Support*

Predictor	B	SEB	$\beta$	t	p
Constant	-0.01	0.35	-	-0.02	0.98
Perceived Usefulness (PU)	0.69	0.14	0.65	4.82	<0.001
Learning Support (LS)	0.25	0.14	0.24	1.79	0.08

A multiple linear regression analysis was performed to investigate whether perceived usefulness and learning support combined to predict attitudes towards AI tools. The overall regression equation was statistically significant,  $F(2, 42) = 60.84$ ,  $p < .001$ , accounting for 74% of the variance in attitudes,  $R^2 = .74$ , Adjusted  $R^2 = .73$ . Perceived usefulness was found to be a significant predictor,  $\beta = .65$ ,  $t = 4.82$ ,  $p < .001$ , while learning support did not independently predict attitudes,  $\beta = .24$ ,  $t = 1.79$ ,  $p = .08$ .

## 5. Discussion

In the present study, it was indicated that the attitudes of undergraduate students towards AI tools were favorably related to both perceived usefulness and learning support. But when these two variables were considered jointly, it was discovered that perceived usefulness was the stronger and significant predictor of attitudes, and the independent effect of learning support became non-significant. This result suggests that although students value the assistance provided by AI tools, their overall attitudes are mainly impacted by the extent to which these tools are perceived to enhance their learning outcomes.

These results are facilitated by the Technology Acceptance Model (TAM) outlined by Davis (1989), which suggests that the most crucial factor in shaping attitudes towards the use of technology is perceived usefulness. Under TAM, users are likely to form positive attitudes towards a system appraised to increase efficiency and effectiveness, which explicitly facilitates the current findings. Additional support is provided by Venkatesh and Davis (2000), who found that perceived usefulness had a consistently stronger impact on attitudes and behavioral intentions than other supporting factors, like support-related variables. This theoretical basis can be utilized to describe why learning support, although favorably linked to attitudes, did not independently predict attitudes when perceived usefulness was taken into consideration.

Empirical studies conducted in educational settings also support these findings. Sun et al. (2008) found that although instructional and system support positively impact learner satisfaction, students' overall attitudes toward digital learning platforms are more significantly affected by perceived effectiveness. Likewise, Zawacki-Richter et al. (2019) argued that students' acceptance of AI-based educational tools is largely contingent on their perceived role in facilitating meaningful learning rather than assistive functions in isolation. Baker and Smith (2019) also observed that students demonstrated more favorable attitudes toward AI tools when these tools facilitated understanding and engagement with academics, rather than when they presented convenience. These theoretical and evidence - based viewpoints collectively establish the hypotheses of the current study and corroborate the critical role of perceived usefulness in fostering students' attitudes toward AI tools in educational settings.

## **6. Conclusion**

The current study contributes to the existing literature on artificial intelligence in education by investigating the psychological factors that influence undergraduate students' attitudes towards AI tools. The results show that both perceived usefulness and learning support have a positive influence on students' attitudes, but perceived usefulness is found to be the more significant factor when the two variables are considered together. This implies that students' acceptance of AI tools is mainly driven by their perceived usefulness in the learning process.

From an educational psychology perspective, these results highlight the importance of aligning AI tools with meaningful learning outcomes. When students perceive AI tools as enhancing understanding, efficiency, and academic performance, they are more likely to develop positive attitudes and engage with these technologies constructively. The study underscores the need for educators and institutions to integrate AI tools ethically and thoughtfully, ensuring that they complement pedagogical goals rather than encourage passive dependence or surface-level learning.

In general, the results highlight that the effective implementation of AI tools in the educational sector is not only based on the availability of technology and support, but also on the students' perception of the value and relevance of these tools.

## 7. Limitations

However, the current study also has some limitations that need to be acknowledged. Firstly, the small sample size makes it difficult to generalize the results to a larger population of students. Secondly, the convenience sampling method used in the current study makes it difficult to generalize the results to a larger population of students since the sample is not representative. Thirdly, the self-report method used in the current study may be prone to biases such as social desirability and overestimation of positive attitudes towards AI tools.

Finally, the cross-sectional nature of the current study makes it difficult to establish causal relationships between the variables. The attitudes and perceptions of students towards AI tools may also change over time as familiarity with the tool's increases, which the current study cannot establish.

### 7.1 Suggestions for future research

Future studies should therefore focus on overcoming the current study's limitations by using larger and more representative samples in various institutions, fields of study, and cultures. This would improve the generalizability of the results regarding students' psychological reactions to AI tools. Qualitative methods, such as interviews or focus group analyses, could also be used to gain a better understanding of students' subjective experiences, concerns, and ethical perceptions of AI use in educational settings.

Longitudinal studies are also suggested to investigate the longitudinal changes in students' attitudes, use, and psychological engagement with AI tools. Future studies may also investigate other psychological constructs, such as motivation, self-efficacy, critical thinking, and academic integrity, to gain a better understanding of the effects of AI on learning. Both students' and educators' perspectives could also provide valuable information regarding the effective use of AI tools in educational settings.

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