Students' Perceptions on Artificial Intelligence as Academic Support Among English Education Students at Batanghari University: A Case Study of ChatGPT

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ABSTRACT
This research aims to analyze students' perceptions of AI-based learning among English Education students at Batanghari University. In an era where digital tools play an increasing role in education, understanding how students perceive artificial intelligence (AI) in the learning process becomes essential. This study adopts five key constructs to measure perceptions—engagement, interaction, satisfaction, academic performance, and behavioral intention—based on a validated framework by Khairuddin et al. (2024).The study employs a quantitative approach through a survey of 37 respondents from even-numbered semesters (2, 4, and 6). The questionnaire was distributed online and the data were analyzed using SPSS version 25. Statistical analysis included validity and reliability tests, descriptive statistics, normality and homogeneity tests, and hypothesis testing through One-Way ANOVA. The results revealed that students generally held a moderately positive perception toward AI-based learning. Among the five constructs, interaction received the highest average score, while behavioral intention had the lowest. Furthermore, the ANOVA test indicated a significant difference in students' perceptions across semester levels, confirming that academic experience influences how students view AI in learning. These findings suggest the importance of tailoring AI integration strategies based on students' academic maturity to maximize the effectiveness of AI tools in education.

Keywords; Students' Perceptions, AI-Based Learning, Engagement, Academic Performance, Behavioral Intention, English Education, Batanghari University

INTRODUCTION

In recent years, Artificial Intelligence (AI) has emerged as one of the most disruptive innovations in the field of education. Around the world, AI-powered technologies are increasingly integrated into teaching and learning processes, transforming how students interact with content, peers, and instructors. AI has been applied in multiple ways: intelligent tutoring systems, adaptive learning platforms, plagiarism checkers, chatbots, and language assistance applications such as Grammarly, ChatGPT, Quillbot, and Google Bard. These tools provide immediate feedback, personalized learning experiences, and increased opportunities for interaction.

At the global level, numerous studies (Luckin et al., 2016; Holmes et al., 2019) emphasize that AI can support personalized and self-directed learning by adjusting materials to students' needs. According to UNESCO (2022), AI in education has potential to reduce learning gaps, support language learning, and democratize access to education.

At the national level in Indonesia, Statistics Indonesia (2022) reported that the education sector is the second-highest adopter of AI technology (12.96%), reflecting strong momentum for digital transformation. However, access to AI resources is not equal across institutions, and students' digital literacy significantly affects the success of AI implementation.

At the local level, particularly in Batanghari University, Jambi, AI-based learning is gaining traction among English Education students. Preliminary observations indicate that students in early semesters (semester 2) often face challenges in adapting to AI technology, such as limited familiarity with academic applications, lack of confidence, and difficulties in interpreting AI feedback. On the other hand, higher-semester students (semester 6) display greater

confidence, better understanding, and more satisfaction in utilizing AI as part of their academic routine.

This situation underlines the importance of exploring students' perceptions of AI-based learning, specifically by considering semester-level differences. Students' perceptions are shaped not only by the usability of technology but also by their academic maturity, learning habits, and technological exposure. By adopting the five constructs proposed by Khairuddin et al. (2024)—engagement, interaction, satisfaction, academic performance, and behavioral intention—this research attempts to capture a comprehensive picture of how AI is perceived by English Education students at Batanghari University.

REVIEW OF RELATED LITERATURE

- Students' Perceptions

Perception refers to how individuals interpret and assign meaning to stimuli (Robbins, 2010; Nes, 2023). In education, students' perceptions influence their willingness to adopt new technologies. Unumeri (2009) highlights that positive perceptions foster greater acceptance, while negative perceptions lead to resistance.

Khairuddin et al. (2024) outline five constructs to measure students' perceptions of AI in education:

1. Engagement: active participation in AI-assisted learning.
2. Interaction: quality of communication between students and AI tools.
3. Satisfaction: contentment with learning experiences using AI.
4. Academic Performance: perceived improvements in academic achievement.
5. Behavioral Intention: motivation to continue using AI.

- AI-Based Learning

AI-based learning refers to the use of intelligent systems that simulate human thinking in order to support education (Luckin, 2016). AI provides adaptive feedback, identifies learning needs, and tailors content to students' abilities. In English education, AI assists in grammar checking, vocabulary development, reading comprehension, and speaking practice (Heffernan et al., 2014; Fryer et al., 2019).

- Engagement and Interaction

Engagement is central to successful learning outcomes. Fredricks et al. (2004) categorize engagement into behavioral, emotional, and cognitive dimensions. In digital learning, AI can foster engagement by providing interactive platforms (Dixson, 2015). Similarly, interaction in AI-based learning mirrors Moore's (1989) learner-content, learner-instructor, and learner-learner categories, but extends to *learner-system interaction* (Martin & Bolliger, 2018).

- Satisfaction and Academic Performance

Satisfaction in education is influenced by system quality, relevance, and usability (Al-Fraihat et al., 2020). AI tools that provide accurate and timely feedback can increase student satisfaction and motivation (Lee, 2010). Academic performance, meanwhile, is improved when students use AI to structure ideas, enhance writing, and receive immediate corrections (Yu, 2021; Lim & Wang, 2023).

- Behavioral Intention

Ajzen's (1991) Theory of Planned Behavior explains that behavioral intention depends on attitude, subjective norms, and perceived control. Students are more likely to continue using AI if they perceive it as useful and manageable. Studies by Teo and Zhou (2014) and Gunawan et al. (2022) confirm that

intention predicts long-term adoption of educational technology.

METHODOLOGY

Reliability Statistics	
Cronbach's Alpha	N of Items
.967	20

This study employed a quantitative descriptive survey design**.**

- Population and Sample: 37 English Education students at Batanghari University, drawn from semester 2 (18 students), semester 4 (6 students), and semester 6 (13 students).
- Instrument: A structured questionnaire adapted from Khairuddin et al. (2024), consisting of 20 items across five constructs. Items were rated on a 5-point Likert scale.
- Data Collection: Online distribution through Google Forms, ensuring anonymity and convenience.
- Data Analysis: Conducted with SPSS 25, including validity tests, reliability tests (Cronbach's Alpha), descriptive statistics, normality and homogeneity tests, and one-way ANOVA.

FINDINGS AND DISCUSSION

The analysis begins with demographic characteristics, followed by statistical descriptions of students' responses. By examining both descriptive statistics and inferential results, the findings reveal not only how students perceive AI tools but also whether these perceptions vary significantly by semester level.

1. Instrument Testing
   a. Validity Test

Table 1. Validity Test Results

Item	r-count	r-table	Result
Q1	0,612	0,325	Valid
Q2	0,584	0,325	Valid
		0,325	Valid
Q20	0,531	0,325	Valid

b. Reliability Test

Table 2. Reliability Test Result

2. Classical Assumption Testing
   a. Normality Test (Shapiro-Wilk)

Table 3. Normality Test Result

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Semester	**Statistic**	**df**	**sig**	**Statistic**	**df**	**sig**
2	.180	18	.130	.892	18	.443
4	.247	6	.200*	.939	6	.653
6	.181	13	.200*	.946	13	.546

b. Homogeneity Test (Levene's Test)

Table 4. Homogeneity of Variance

Levene Statistic			df1	df2	Sig.
Score	Based on Mean	.304	2	34	.739
	Based on Median	.280	2	34	.757
	Based on Median and with adjusted df	.280	2	22.069	.758
	Based on trimmed	.379	2	34	.687

	mean				

3. Respondents' Profile

Table 5. Respondents' Profile

Category	Description	Total	Percentage
Gender	Male	7	18,9%
	Female	30	81,1%
Semester	2	18	48,6%
	4	6	16,2%
	6	13	35,2%
Total		37	100%

This distribution ensures representation across early, middle, and later academic levels.

- Descriptive Results

The overall mean of students' perceptions was 3.16, categorized as moderately high.

Construct	Mean	Category
Engagement	3.40	High
Interaction	3.28	Moderate high
Satisfaction	3.20	Moderate high
Academic Performance	3.15	Moderate
Behavioral Intention	2.70	Moderate low
Result	3.16	Moderately high

- ANOVA Results

The formula:

$$F = \frac{MSB}{MSW}$$

Table 7. ANOVA Results

ANOVA					
Score	Sum of Squares	df	Mean Square	F	Sig.
	Between Groups 9614.554	2	4807.277	33.937	.000
	Within Groups 4816.256	34	141.655		
	Total 14430.811	36			

One-Way ANOVA revealed significant differences in perception across semester levels ($p < 0.05$). Semester 6 students reported higher satisfaction and stronger perceptions of AI benefits compared to semester 2 students.

Discussion

The results confirm that students generally have a positive perception of AI-based learning, but adoption varies by academic level. Engagement and interaction were rated high, suggesting that AI helps students participate actively and feel comfortable in academic tasks. However, behavioral intention was relatively low, indicating hesitancy to integrate AI into long-term learning practices.

These findings support Dixson (2015), who emphasized the importance of interactivity in online learning, and align with Teo & Zhou (2014), who found that intention is a predictor of long-term technology use. The influence of semester level supports Kuh et al. (2006), who argued that academic maturity shapes adaptability to technology.

CONCLUSION

This research concludes that:

1. Students generally perceive AI-based learning positively, particularly in

terms of engagement, interaction, and satisfaction.
2. Academic performance benefits are moderate, indicating that AI is perceived as supportive but not transformative.
3. Behavioral intention is weak, suggesting uncertainty about long-term reliance on AI.
4. Semester level significantly influences perceptions, with higher semester students reporting greater satisfaction and adaptability.

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