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Students' Perception Of Using ChatGPT At English Education Departement Of STAI Hubbulwathan Duri

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ABSTRACT

This study aimed to describe the perceptions of students in the English Education Program toward ChatGPT at Sekolah Tinggi Agama Islam (STAI) Hubbulwathan Duri. The research adopted the Technology Acceptance Model (TAM) approach with a quantitative method. Data was collected through a closed-ended questionnaire completed by 22 students. The questionnaire utilized a Likert scale to assess students' perceptions of the ease of use (PEOU) and perceived usefulness (PU) of ChatGPT in learning. The research found that students have positive perceptions of ChatGPT, particularly in enhancing learning effectiveness, time efficiency, and information accessibility. However, challenges such as dependence on technology and the occasional irrelevance of information quality were also identified. Data analysis was conducted by converting questionnaire scores into percentages to illustrate the levels of acceptance and satisfaction among students toward ChatGPT. This study was expected to provide insights for educational institutions and technology developers regarding the optimal integration of ChatGPT in learning. The findings also highlight the importance of a balanced approach to utilizing technology to support effective and innovative learning.

Introduction

The technological revolution has brought significant changes across various aspects of life, including education. The advance in information and communication technology (ICT) offers great opportunities to enhance the efficiency and effectiveness of learning processes. One of the most relevant innovations in this context is the application of Artificial Intelligence (AI) in education. Among the AI applications increasingly utilized today is ChatGPT, developed to assist users in understanding, completing tasks, and solving problems interactively. ChatGPT, an AI-based chatbot created by OpenAI, has gained popularity as a tool to support teaching and learning processes due to its ability to generate information quickly and accurately *(Febby, 2023; Salmi & Setiyanti, 2023)*. In the context of English language learning, this technology has the potential to provide personalized learning experiences, improve accessibility to educational resources, and offer rapid feedback and evaluation for students *(Ainun, 2023)*.

However, the application of this technology in education is not without challenges. Not all students possess the skills or knowledge required to effectively utilize new technologies. Furthermore, the acceptance of new technologies is often influenced by psychological factors such as perceptions of their usefulness and ease of use. It is therefore crucial to understand students' perceptions of technologies like ChatGPT before integrating them into formal learning processes.

STAI Hubbulwathan Duri, as an educational institution, is also influenced by these advancements, particularly students in the English Education Department, that required to develop strong English language skills. These students can utilize ChatGPT for various purposes, such as improving their reading, writing, listening, and speaking skills. However, the acceptance of new technologies depends on users' perceptions of their usefulness and ease of use. In the context of higher education, the Technology Acceptance Model (TAM) has proven to be a reliable framework for analyzing technology acceptance. TAM comprises two primary dimensions: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), which influence users' attitudes and intentions to use a specific technology *(Davis, 1989)*.

This study aims to assess the perceptions of students in the English Education Program at STAI Hubbulwathan Duri. Recognizing the importance of students' understanding of technology to support English language learning, this research seeks to evaluate their perceptions of ChatGPT based on TAM. The results are anticipated to offer valuable insights into how ChatGPT can be optimally utilized in educational settings.

Data were collected using Google Forms, with questionnaires distributed to 22 students in the English Education Study Program. The distributed questionnaire consisted of closed-ended statements using a Likert scale with the following scoring options: Strongly Agree (SA) - 5, Agree (A) - 4, Neutral (N) - 3, Disagree (D) - 2, and Strongly Disagree (SD) - *1 (Batterton and Hale, 2013)*. The scores obtained from the questionnaire were converted into percentages for descriptive analysis. The results of

this study are expected to provide a clear picture of students' perceptions of ChatGPT while serving as a reference for developing this technology to better align with the needs of higher education, particularly in the field of English language education.

1. Perception

Perception is psychological processes through the experience gained by the five senses, individuals can process responses into positive or negative perceptions. Obtaining responses is obtained through the stages of selection, interpretation, and reaction *(Erin, & Maharani, 2018)*. In the educational context, students' perceptions of a technology significantly influence its acceptance and use in the learning process.

Within the framework of the Technology Acceptance Model (TAM) developed by Davis (1989), perception plays a key role in explaining technology acceptance. Perceptions of usefulness and ease of use are two primary elements that determine individuals' attitudes and behavioral intentions to use a technology. For instance, students' perceptions of ChatGPT as a learning tool may affect how much they feel the technology supports their understanding of materials and learning efficiency *(Sova et al., 2024)*.

Research also shows that perception is not limited to practical aspects such as usefulness and ease of use but also includes cognitive and emotional dimensions. For example, *Kong and Yang (2024)* found that perceptions of AI in education are often influenced by factors such as trust, comfort, and prior experience with the technology. Perceptions are also shaped by social expectations, where support from peers or instructors can strengthen students' acceptance of technology.

According to *Hu (2022)*, perception acts as a bridge between individual experiences and external factors such as technology design. In the context of AI-based learning, students' perceptions of technological personalization, such as ChatGPT's ability to provide relevant feedback, can affect how effectively they utilize the technology to improve learning outcomes. This highlights the importance of considering user-friendly and contextually relevant design aspects.

Conversely, negative perceptions, such as the belief that technology is difficult to use or irrelevant to learning needs, can hinder technology adoption *(Kim, 2020)*. *Albayati (2024)* found that while students recognize the benefits of AI, their perceptions of risks, such as plagiarism or overdependence on technology, can reduce acceptance levels. Thus, providing adequate training and raising awareness about ethical use is essential.

In this study, students' perceptions of ChatGPT encompass not only technical aspects but also its pedagogical value. For instance, how students view ChatGPT as a tool for understanding complex concepts, facilitating discussions, or completing academic tasks. These perceptions may also shape students' attitudes toward the future use of AI technologies in learning.

By analyzing perceptions, this study aims to provide insights into the key factors influencing technology acceptance in higher education. By integrating the TAM

approach, the research provides a strong foundation for designing more effective technology adoption strategies and supporting the development of AI technologies that are relevant and beneficial for student learning.

2. ChatGPT

ChatGPT is a language-based artificial intelligence model developed by OpenAI using the Transformer architecture, specifically the Generative Pre-trained Transformer (GPT) technology. This model is designed to understand and generate text in various contexts, making it a highly useful tool across multiple fields, including education. According to *Albayati (2024)*, ChatGPT can be employed as an AI-based learning assistant to support teaching, help students comprehend materials, and complete academic tasks more efficiently.

As a learning aid, ChatGPT offers the ability to provide text-based explanations, answer complex questions, and suggest creative solutions. One of its primary advantages lies in its capacity to deliver quick and relevant feedback based on user input. Research by *Kong and Yang (2024)* considers ChatGPT a technology that supports personalized learning because it can be tailored to individual needs and preferences. This capability is particularly valuable in educational settings where students often have varying levels of understanding. However, the implementation of ChatGPT in education also presents challenges. For instance, there are concerns about the accuracy and ethical use of this technology. *Bernabei et al. (2023)* note that while ChatGPT can enhance student productivity, its inability to verify facts and the risk of plagiarism are key issues in its adoption. Therefore, it is crucial for educators to provide clear guidelines on the ethical and responsible use of ChatGPT.

In the context of the Technology Acceptance Model (TAM), the acceptance of ChatGPT heavily depends on students' perceptions of its usefulness and ease of use. *Albayati (2024)* found that students who perceive ChatGPT as easy to use and capable of improving learning efficiency are more likely to accept the technology. Additionally, social factors, such as support from lecturers or peers, also influence students' attitudes toward using ChatGPT in learning. ChatGPT can also serve as an effective tool for fostering collaborative learning. According to *Sova (2024)*, ChatGPT can facilitate group discussions by providing initial ideas, answering conceptual questions, and helping to formulate solutions. This capability can encourage more active interaction among students, thereby enhancing their understanding of the material.

On the other hand, *Hu (2022)* suggests that ChatGPT can also enhance students' critical thinking skills when used with the right approach. By offering diverse text-based responses, ChatGPT encourages students to evaluate the information provided, compare it with other sources, and make decisions based on careful analysis. This process strengthens students' metacognitive abilities, which are essential in the learning process.
In this study, ChatGPT is positioned as a relevant learning tool to explore students' acceptance of technology. Using the TAM framework, the research aims to understand

how perceptions of usefulness, ease of use, and attitudes toward technology influence students' intentions to use ChatGPT in learning. This analysis provides valuable insights for developing more effective AI implementation strategies in higher education.
ChatGPT is not just a technological tool; it represents the future potential of AI-based education. With its significant capability to enhance learning, this technology needs to be adopted with a thoughtful and evidence-based approach to ensure sustainable positive impacts.

Method

This research was conducted in the English Education Program at STAI Hubbulwathan Duri. This location was chosen to facilitate the research process, as the researcher is also enrolled in the institution. The population and sample consist of students from semesters 1, 3, 5, and 7 in the English Education Program, totaling 22 students. To obtain the research sample, the researcher used the Purposive Sampling technique. This method was chosen because the research required specific criteria to objectively select the sample.

Table 1: The Amount of Participants

No	Participants	Amount of Students
1	1st Semester	5
2	3rd Semester	6
3	5th Semester	8
4	7th Semester	3
Total		**22**

Source: Kabag. AUAK STAI hubbulwathan Duri Academic Year 2023/2024

The research instrument consisted of a closed-ended questionnaire designed to capture student perceptions across the four TAM dimensions. The questionnaire comprised 20 Likert-scale items, with 5 items for each dimension:

- **Perceived Usefulness (PU)**: Questions addressed how ChatGPT improves learning outcomes, facilitates task completion, and provides relevant information.
- **Perceived Ease of Use (PEU)**: Items evaluated the effort required to use ChatGPT, the user interface's clarity, and the absence of technical difficulties.
- **Attitude Toward Using (ATU)**: Statements measured students' emotional reactions and satisfaction with ChatGPT.
- **Behavioral Intention to Use (BIU)**: Questions explored students' intentions to continue using ChatGPT in the future and recommend it to peers.

The Likert scale ranged from 1 (Strongly Disagree) to 5 (Strongly Agree), allowing nuanced responses and facilitating quantitative analysis.

Table 2: The Likert Scale Score

Options	Amount of Students
Strongly Agree (SA)	5
Agree (A)	4
Undecided/ Netral (Und)	3
Disagree (D)	2
Strongly Disagree (SD)	1

Finding and Discussion

The results of the data analysis provide insights into students' perceptions of ChatGPT based on the four dimensions of the Technology Acceptance Model (TAM): Perceived Usefulness (PU), Perceived Ease of Use (PEU), Attitude Toward Using (ATU), and Behavioral Intention to Use (BIU). The descriptive statistics for each dimension are summarized in the table below:

Table 3: Calculation Results

Dimension	Mean	Standard Deviation
Perceived Usefulness (PU)	3.66	0.83
Perceived Ease of Use (PEU)	3.56	0.89
Attitude Toward Using (ATU)	3.60	0.80
Behavioral Intention to Use (BIU)	3.55	0.78
Avarage	3.59	3.30

1. Perceived Usefulness (PU)

The PU dimension received the highest mean score (3.66), indicating that students perceived ChatGPT as significantly beneficial in enhancing their learning outcomes. Students acknowledged that ChatGPT:

- Helps them better understand course materials.
- Facilitates quicker completion of academic tasks.
- Provides relevant and accurate information for learning purposes.

The high score reflects students' recognition of ChatGPT as a tool that supports their academic needs effectively. This aligns with the broader understanding of usefulness as a critical driver of technology acceptance (Davis, 1989).

2. Perceived Ease of Use (PEU)

The PEU dimension scored an average of 3.56, suggesting that students found ChatGPT relatively easy to use. Most students reported that the platform required

minimal effort to learn and operate. However, the slightly higher standard deviation (0.89) indicates some variability in responses, suggesting that certain students may have faced challenges, such as:

- Understanding specific features or functions of ChatGPT.
- Encountering technical limitations or inaccuracies in responses.

This variability suggests that while most students adapt well to the technology, some may benefit from targeted training or support to maximize its potential.

3. Attitude Toward Using (ATU)

The ATU dimension achieved a mean score of 3.60, reflecting students' positive attitudes toward ChatGPT. Respondents indicated that they enjoyed using the tool and were generally satisfied with its performance. Positive attitudes are essential for fostering continued use, as they influence both user satisfaction and engagement. The consistency of responses, indicated by a lower standard deviation (0.80), highlights a shared sentiment of approval among students.

4. Behavioral Intention to Use (BIU)

The BIU dimension, with the lowest mean score (3.55), highlights the need for improvement in fostering students' intentions to use ChatGPT regularly. While students recognize its usefulness and enjoy its functionalities, they may lack consistent motivation or see it as a supplementary rather than a primary learning tool. Factors influencing this may include:

- Limited integration of ChatGPT into formal learning environments.
- A lack of awareness about its full capabilities or advanced features.

Discussion

1. Alignment with TAM Theory

The findings align with TAM theory, which emphasizes that perceived usefulness and ease of use are key predictors of technology adoption. Students' positive perceptions of ChatGPT's usefulness (PU) and ease of use (PEU) suggest that these factors strongly influence their attitudes (ATU) and intentions (BIU). However, the slightly lower BIU scores indicate a gap between perception and consistent behavioral adoption, a challenge often observed in new technology integrations.

2. Practical Implications

The findings have several practical implications for educators and institutions:

- Promoting Routine Use: To increase behavioral intention, institutions should integrate ChatGPT into daily academic activities, such as assignments, discussions, and examinations.
- Providing Training: Workshops or tutorials on how to effectively use ChatGPT can address variability in ease-of-use perceptions and enhance overall student experience.

- Fostering Engagement: Educators can encourage students to explore advanced features of ChatGPT to expand its applications beyond basic queries.

3. Challenges in Adoption

Despite positive perceptions, some challenges were noted:

- Variability in Ease of Use: The higher standard deviation in PEU suggests that not all students find the technology equally accessible. This could stem from differences in prior exposure to AI tools or technical literacy.
- Relevance of Content: A few students reported that ChatGPT's responses were occasionally less relevant to their specific academic needs, indicating the need for improved customization or user training.

Conclusion

The findings underscore the overall positive perception of ChatGPT among English Education students, particularly regarding its usefulness and ease of use. The results of the data analysis provide insights into students' perceptions of ChatGPT based on the four dimensions of the Technology Acceptance Model (TAM) by average 3.59. Future research could explore longitudinal impacts of ChatGPT integration in formal curricula and investigate additional factors influencing behavioral intention, such as social influence and perceived trust. By addressing the challenges identified, ChatGPT can be better positioned as a transformative educational tool that supports students' academic success.

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References

Ahmed, F., & Robinson, K. (2023). "AI-Powered Language Models in Higher Education: A Comparative Study." Education and AI Journal, 12(3), 201-217.

Ainun, N. (2023). "The Role of Artificial Intelligence in Enhancing Language Learning Experiences." Journal of Educational Technology Innovations, 15(2), 34-48.

Albayati, H. (2024). Investigating undergraduate students' perceptions and awareness of using ChatGPT as a regular assistance tool: A user acceptance perspective study. Computers and Education: Artificial Intelligence.

Ali, A., & Hussain, T. (2023). "Social Influence and Technology Acceptance in Educational Settings." Journal of Social Psychology in Education, 8(4), 300-317.

Batterton, K. A., & Hale, K. N. (2017). "The Likert Scale: What It Is and How to Use It."

Bernabei, F., & Konig, R. (2023). "Evaluating the Effectiveness of ChatGPT as a Learning Support Tool." Computers in Education, 78, 102-117.
Choi, H. J., & Lee, Y. H. (2023). "Technology Acceptance in Education: Adopting AI for Collaborative Learning." Educational Technology Research and Development, 70(3), 334-351.
Farooq, A., & Khan, R. (2022). "Using ChatGPT for English Language Learning in Non-Native Contexts." Language Learning and Technology Journal, 24(1), 67-80.
Febby, A. (2023). The role of ChatGPT in enhancing interactive learning environments. Journal of Artificial Intelligence in Education, 18(2), 45-60.
Fitriana, & Dini, D (2023) Students' Perception of Blended Learning Method Implementing at English Education Department of STAI Hubbulwathan Duri.
Garcia, M., & Pinto, S. (2022). "The Role of Perceived Trust in AI Adoption for Education." Journal of AI and Society, 11(1), 47-63.
Granić, A., & Davis, F. D. (2024). The Technology Acceptance Model 30 Years of TAM.
Hu, X. (2022). "Personalized Learning Through AI: The Case of ChatGPT." Journal of AI and Education, 24(2), 198-210.
Hu, Y.H. (2022). Effects and acceptance of precision education in an AI-supported smart learning environment. Education and Information Technologies.
Kim, J., et al. (2020). My teacher is a machine: Understanding students' perceptions of AI teaching assistants in online education. International Journal of Human-Computer Interaction.
Kim, S. Y. (2020). "The Psychological Barriers to Technology Adoption in Education." Educational Psychology Review, 32(4), 657-672.
Kong, S.C., & Yang, Y. (2024). Teachers' behavioural intention of using generative artificial intelligence tools. Computers and Education: Artificial Intelligence.

Maharani, A. (2018). Mathematics education students' perceptions of online learning. Mosharafa: Journal of Mathematics Education, 7(3), 411–420.
Mitra, S., & Rana, V. (2023). "Overcoming Resistance to AI Integration in Learning: A Case Study on ChatGPT." Journal of Innovative Learning, 15(2), 87-99.
Nguyen, T., & Tran, L. (2023). "Evaluating Student Perceptions of AI-Based Feedback Systems." Journal of Assessment Technologies in Education, 14(3), 175-189.
Owen, J., & McCarthy, L. (2023). "Ethics and AI in Higher Education: Challenges in Adoption." Journal of Educational Ethics and Technology, 21(2), 50-68.
Rahman, S., & Yusoff, R. (2023). "ChatGPT and Its Potential for Collaborative Learning." Journal of Interactive Learning Environments, 13(2), 120-135.
Salmi, J., Setiyanti, A. A., Satya Wacana, K., Universitas, D., Satya, K., & Abstract, W. (2023). Persepsi Mahasiswa Terhadap Penggunaan Chatgpt di Era Pendidikan 4.0. Jurnal Ilmiah Wahana Pendidikan, Oktober, 9(19), 399–406.

Sova, M. (2024). "Leveraging ChatGPT for Critical Thinking Development in Education." AI for Learning Research, 19(2), 143-159.
Sova, R. (2024). Intelligence Tool Adoption in Higher Education. Electronics.
Sullivan, H., & Smith, J. (2023). AI in higher education: Examining the balance between benefits and challenges. AI & Society, 38(2), 321-335.
Tan, C., & Ibrahim, M. (2023). "AI in Language Learning: A Review of ChatGPT Applications." Journal of Modern Education Technologies, 10(1), 1-16.
Terry, L., & Brown, R. (2022). "Artificial Intelligence and Student Engagement in Online Learning." Learning Analytics Quarterly, 9(1), 45-60.
Terry, L., & Brown, R. (2022). "Artificial Intelligence and Student Engagement in Online Learning." Learning Analytics Quarterly, 9(1), 45-60.
Wang, L., & Qian, Y. (2023). "ChatGPT as an Educational Assistant: Opportunities and Risks." Computers and Education, 101, 12-23.
Xu, Z., & Chen, J. (2023). "Improving Academic Writing Skills Using AI Tools: A Case Study of ChatGPT." Journal of Academic Writing Support, 15(1), 88-102.
Yang, H., & Zhang, X. (2022). "Integrating AI into the Classroom: Insights from Technology Acceptance Models." AI in Education Journal, 17(4), 233-246.
Zhou, Y., & Li, P. (2021). "The Effectiveness of AI-Based Tools in Enhancing English Language Acquisition." Journal of Language and Education Research, 8(2), 95-110.