www.ijte.net

Understanding Teachers' Perspective toward ChatGPT Acceptance in English Language Teaching

Heppy Mutammimah
Politeknik Negeri Banjarmasin, Indonesia

Sri Rejeki
Universitas 'Aisyiyah Yogyakarta, Indonesia

Siti Kustini
Politeknik Negeri Banjarmasin, Indonesia

Rini Amelia
Politeknik Negeri Banjarmasin, Indonesia

To cite this article:

Mutammimah, H., Rejeki, S., Kustini, S., & Amelia, R. (2024). Understanding teachers' perspective toward ChatGPT acceptance in English language teaching. *International Journal of Technology in Education (IJTE), 7*(2), 290-307. https://doi.org/10.46328/ijte.656

International Journal of Technology in Education
2024, Vol. 7, No. 2, 290-307 https://doi.org/10.46328/ijte.656

Understanding Teachers' Perspective toward ChatGPT Acceptance in English Language Teaching

Heppy Mutammimah, Sri Rejeki, Siti Kustini, Rini Amelia

Article Info

Article History

Received:
04 October 2023
Accepted:
10 March 2024

Keywords

Technology acceptance model
English language teaching
Structural Equation Modeling
ChatGPT

Abstract

Adapting the Technology Acceptance Model (TAM) framework, this study investigates English teachers' perspectives on the intention to adopt and integrate ChatGPT in their classrooms. This study utilizes quantitative cross-sectional research with 114 respondents answering the online questionnaire. The Structural Equation Modeling (SEM) statistical analysis through SmartPLS 3.0 was employed to analyze the collected data. The result indicates that the proposed TAM model in this study can predict ChatGPT acceptance in English language teaching. Additionally, the structural model showed that perceived usefulness, ease of use, and attitude toward using significantly and positively influenced behavioral intention. Furthermore, attitude toward using and behavioral intention significantly and positively impacted actual system use. Teachers' perspectives on ChatGPT uptake and integration into English language learning are critical to technological innovation. This paper could assist teachers in Indonesia and comparable regions in understanding and adopting ChatGPT in English language teaching.

Introduction

Background of the Study

The use of ChatGPT in teaching and learning activities during the digital era has recently become a massive debate (Rathore, 2023; Shahriar & Hayawi, 2023). It is getting more attention since students and teachers use this technology in classroom activities. Even though it only recently appeared to the public in November 2022 (Castelvecchi, 2022), ChatGPT version 3.5 is starting to be considered by many parties. Students and teachers are also beginning to use and integrate this AI into the learning process. Several studies show the use of ChatGPT in teaching and learning activities (Rudolph et al., 2023; Yeadon et al., 2023). As in Indonesia, ChatGPT is starting to be used by teachers in educational institutions. Even though the popularity of this technology made by OpenAI is skyrocketing in educational circles, its presence also has negative impacts that worry many parties, especially teachers. Some parties oppose the use of this AI in the classroom. According to some research (Dwivedi et al., 2023), education institutions must ensure that the use of ChatGPT does not violate copyright laws. The problem of ethical and equity practices arises as the primary concern of our education in this case. If it is not well managed, the use of ChatGPT has an enormous potential to infringe on ethical issues, as many students only take others' work without crediting the author. The second concern about ChatGPT is related to biased information. ChatGPT,

as one example, gives a drawback related to bias and falsified information (Hartmann et al., 2023).Furthermore, there is also another drawback of this technology. It is about an assessment process in which there should be an active process and social interaction. The use of ChatGPT for assessment hinders both aspects (J. Biggs, 2014).

On the other hand, parties who support using this technology in the world of education continue to educate the public about the benefits that can be obtained with ChatGPT. A study conducted by Sengupta and Chakraborty (2020) revealed that using ChatGPT is beneficial in increasing student engagement and satisfaction. Students will be more engaged in learning as this AI is used in the classroom, mainly if they are classified as Gen Z, which is accustomed to technology in their daily lives. ChatGPT can also assist teachers in various assignments, such as looking for information, producing ideas, text translation, etc. (Firaina & Sulisworo, 2023). In this case, both teachers and students' tasks can be done effectively and efficiently by using this technology.

The discourse between those who support and those who do not help is ongoing today. Each party voiced the advantages and disadvantages of this AI technology and its impact on the world of education. However, according to research (Tlili et al., 2023), the discourse regarding ChatGPT in the educational context has led to positive results. Instead of some drawbacks, education practitioners are looking for the appropriate way to implement ChatGPT so it will not disrupt the spirit of education. The study conducted by Tlili et al. (2023) showed that this technology can become a promising alternative to our education. However, there is a need for caution and guidelines while implementing it in the classroom.

Accordingly, this study aims to investigate the English teachers' perspective on adopting and integrating ChatGPT into English language teaching. Adapting the Technology Acceptance Model (TAM) theoretical framework proposed by Davis (1989) to investigate the factors that affect teachers' intention to use ChatGPT in English language learning, this research attempt to answer these research question:

1. Does perceived usefulness affect attitudes toward using ChatGPT in English language teaching?
2. Does perceived ease of use affect attitudes toward using ChatGPT in English language teaching?
3. Does attitudes toward using affect behavior intention to use ChatGPT in English language teaching?
4. Does attitudes toward using affect the actual system use of ChatGPT in English language teaching?
5. Does behavior intention to use influence the actual system use of ChatGPT in English language teaching?

Significant of the Study

This study holds significant importance as it seeks to explore English teachers' perspectives on adopting and integrating ChatGPT into English language teaching, utilizing the theoretical framework of the Technology Acceptance Model (TAM) proposed by Davis (1989). The study aims to contribute valuable insights into the factors influencing teachers' intentions to use ChatGPT in English language learning by addressing key research questions. The investigation specifically focuses on the relationships between perceived usefulness and attitudes toward using ChatGPT, the impact of perceived ease of use on attitudes, the influence of attitudes on behavioral intention to use ChatGPT and the subsequent effects on the actual system use. By examining these interconnections, the study aims to enhance our understanding of the intricate dynamics shaping teachers'

acceptance and utilization of ChatGPT in the context of English language teaching. The findings offer theoretical and practical implications for key stakeholders in English language teaching seeking to optimize the integration of advanced language technologies in language education.

Theoretical Framework and Research Hypotheses

Previous Studies

Several studies have explored the integration of ChatGPT in English language teaching. Kohnke et al. (2023) researched ChatGPT for language teaching and learning. Their paper gave some first thoughts on how ChatGPT can help in language teaching and learning. It has provided examples of learning tasks that new ChatGPT teachers and learners can employ. It has also identified some significant controversies and problems associated with ChatGPT and proposed solutions. They suggested that AI-driven digital technologies are here to stay and that language teachers and students need sophisticated digital competency to adequately negotiate their risks and downsides.

In another study, Kasneci et al. (2023) investigated the possible benefits and challenges of ChatGPT from the perspectives of students and teachers. They addressed the present state of ChatGPT and its applications in brief. It can be utilized to develop educational content, boost student engagement and interaction, and tailor learning experiences. Concerning problems, they contended that ChatGPT in education necessitates the development of sets of abilities and literacies required to grasp both the technology and its limitations and unforeseen brittleness.

Mohamed (2023) researched the potential of ChatGPT in enhancing English as a foreign language teaching from the EFL faculty members' view. His study revealed that the faculty members had differing opinions on the efficacy of ChatGPT. Some staff members praised ChatGPT for its ability to provide quick and correct answers to a wide range of inquiries. In contrast, others voiced concern that it could impede students' development of critical thinking and research skills and potentially perpetuate prejudices or misinformation. ChatGPT is viewed as a beneficial tool by the study sample for supplementing and strengthening traditional EFL teaching approaches. Nonetheless, the faculty members recognized ChatGPT's worth as a teaching and learning aid and suggested additional experimental research to assess its efficacy.

Agustina (2023) investigated the role of the ChatGPT as a learning aid in improving students' English language learning autonomy pertinent to *Kurikulum Merdeka Belajar*. Her findings indicate that ChatGPT can promote English language learning independence among college understudies enrolled in the *Kurikulum Merdeka Belajar*. Individualized support, self-reflection and self-assessment, language practice, and immediate feedback from ChatGPT can assist students in taking control of their education and developing the confidence and talents required to become self-directed learners. Related to Agustina's study, Shaikh et al. (2023) evaluated ChatGPT's suitability for formal English language use. Their findings indicate that ChatGPT is an effective formal English language learning tool.

The following study, conducted by Hong (Cheong & Hong, 2023), showed the influence of ChatGPT on foreign

language teaching and learning. He reports that ChatGPT provides significant opportunities for instructors and education institutes to improve second/foreign language teaching, assessments, and various research options, particularly for a more individualized learning experience. Annamalai et al. (2023) used the Push-Pull Mooring-Habit (PPMH) theory to investigate Malaysian university students' experiences with Chatbots for English learning. The data show that the Pull variables are Performance and Effort Expectations, contributing to the positive experience of using Chatbots for language acquisition. Simultaneously, the Push Factor in using Chatbots for language acquisition is social isolation induced by a sense of robotic participation, emotionlessness, and a lack of communicative flow. Despite discrepancies in students' perceptions of the social influence of Chatbots on their behavioral intentions, Chatbots are deemed valuable enough to function as an interlocutor for English language acquisition.

To complement other previous studies, based on the technology acceptance model (TAM), Liu and Ma (2023) conducted quantitative research to assess EFL learners' utilization of ChatGPT in casual digital English learning. While Perceived Ease of Use does not predict learners' attitudes directly, it can influence attitudes via the full mediator Perceived Usefulness. It was also discovered that students with a positive attitude toward the usability of ChatGPT had a greater degree of Behavioral Intention, which predicts their Actual Use of ChatGPT in English learning outside of the classroom. The existing studies have provided valuable insights into various aspects of ChatGPT's integration in English language teaching (ELT), including its benefits for students' autonomy, potential for improving language learning, and challenges related to technology acceptance. However, there is a significant gap in the research landscape: the limited exploration of teachers' perspectives toward ChatGPT acceptance within the ELT context, particularly within a quantitative framework like the Technology Acceptance Model (TAM). Thus, this study utilises the TAM model to understand teachers' acceptance of ChatGPT in English language teaching, which has yet to be covered in other literature.

Teachers' acceptance and effective utilization of ChatGPT are essential for successfully integrating ELT practices and ensuring the technology aligns with the goals and methods. A quantitative study using TAM can provide structured, statistically validated data, allowing for a comprehensive analysis of the factors influencing teachers' attitudes and intentions regarding ChatGPT. Moreover, teachers possess unique insights into the practicality, usability, and impact of ChatGPT, and their perspectives can help create a holistic understanding of technology adoption in ELT. Ultimately, understanding teachers' viewpoints on ChatGPT is crucial for enhancing the quality of English language teaching and learning, benefiting both teachers and students in the ELT context.

Technology Acceptance Model (TAM)

Studies on technology-enhanced learning typically assess users' usage intentions for new technology tools using the Theory of Planned Behavior (TPB), The Push-Pull Mooring Habit Theory (PPMH), the Unified Theory of Acceptance and Used Theory (UTAUT), and the Technology Acceptance Model (TAM) (Annamalai et al., 2023). According to Davis (1989), as shown in Figure 1, TAM is the most popular framework for examining users' attitudes toward and intention to use technology. Users can utilize TAM to adopt, integrate, and use new technology (Mailizar et al., 2021).

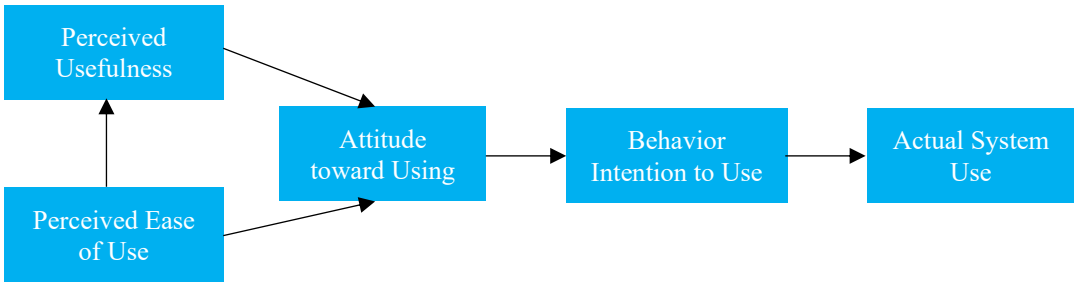

Figure 1. TAM by Davis (1989)

TAM suggested that perceived usefulness, ease of use, and attitude toward using can all be used to assess the user's behavioral intention. TAM's prominence has mainly increased due to its adaptability to various situations and samples. It is also a genuine example of how teachers want to use technology (Granić & Marangunić, 2019; Scherer et al., 2019). Based on the theoretical foundations of the TAM, this study offered its hypotheses. In Fig. 2, the study hypotheses are represented visually.

Perceived Usefulness (PU)

Perceived Usefulness is the level at which a user believes using a specific system would increase job performance (Davis, 1989). According to TAM, PU will influence ATU and BI. Prior research showed this impact, whereas PU significantly affects attitude (Al-Hattami, 2023; Huwaida et al., 2023; Mailizar et al., 2021). Based on those studies, the researchers want to examine the following hypothesis:

H1: PU significantly influences ATU ChatGPT in English language teaching

Perceived Ease of Use (PEU)

PEU is the degree to which a user believes that employing a specific technology would be less effort (Davis, 1989). Based on TAM, PEU will affect ATU. This impact/relationship is clarified by Fathema et al. (Fathema et al., 2015) as follows: i) When users find a technology "simple to use," they view it as "useful." If technology is easy to use, consumers will adopt a good attitude. This impact/relationship was emphasized in earlier studies on technology-assisted education (Al-Hattami, 2023; Huwaida et al., 2023). Thus, this study assumes that:

*H2***:** PEU positively impacts ATU ChatGPT in English language teaching.

Attitude toward Using (ATU)

ATU reveals if a teacher favors or is against using IT in the classroom (Lawrence & Tar, 2018). TAM predicts ATU will affect BI. Prior studies have also proven that ATU will impact AU (Huwaida et al., 2023; Lawrence & Tar, 2018). By stating that users will have an intention to use a technology and also use it if they have a positive attitude toward it, Fathema et al. (2015) infer this impact/relationship. In earlier studies, this impact/relationship was empirically demonstrated (Huwaida et al., 2023; Liu & Ma, 2023; Weng et al., 2018). Based on this research, this study developed these hypotheses:

H3: ATU positively impacts BI to adopt and integrate ChatGPT in English language teaching

H4: ATU positively impacts AU of ChatGPT in English language teaching

Behavioral Intention to Use (BI)

Behavioral Intention (BI) is defined as the level to which a user is willing to use technology or a user's desire to keep using certain technologies. The study by Huwaida et al. (2023) revealed that behavioral intention affected actual system use in implementing technology. That is why this study predicts that:

H5: BI positively impacts ATU of ChatGPT in English language teaching

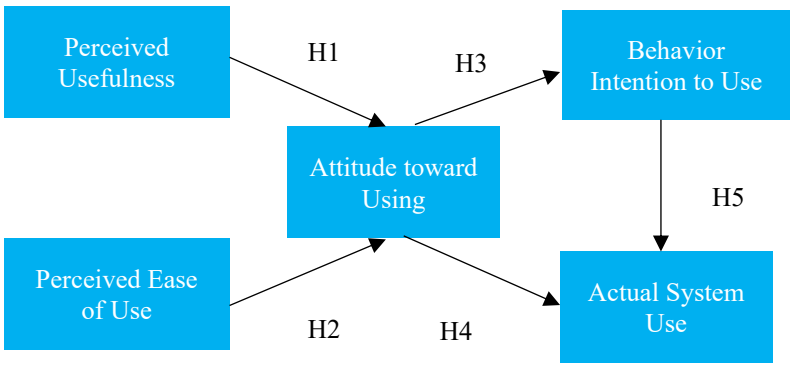

Figure 2. The Proposed Model

Method

Research Design

This study employed a quantitative research design with a cross-sectional research approach to investigate the factors influencing English teachers' adoption of ChatGPT in their classrooms. Information was gathered from a sample from a preset population in a cross-sectional survey. Furthermore, even if it may take a day to many weeks or longer to collect all the data, it is only ever collected at one point (Ary et al., 2010; Creswell, 2014; Fraenkel et al., 2012). The descriptive and correlational study sought to establish relationships between variables based on the Technology Acceptance Model (TAM) (Filipec et al., 2023).

Sampling Technique

The study used random sampling to select participants from the target population of English teachers. A sample size of 114 respondents was chosen randomly to ensure a representative cross-section of English teachers who use ChatGPT in their teaching practices.

Instrument

The primary instrument for data collection was an online questionnaire. The online survey was considered an appropriate and secure tool, given that social withdrawal is advised to reduce the chance of transmitting the unique

COVID-19 epidemic (Al-Hattami, 2023; Nueangnong et al., 2020). The questionnaire was administered using Google Forms, distributed on September 2, 2023, and remained open until September 16, 2023. The questionnaire consisted of items designed to measure the constructs related to Perceived Usefulness (PU), Perceived Ease of Use (PEU), Actual Technology Usage (ATU), Behavioral Intention (BI), and Actual Usage (AU) based on the TAM framework that can be seen at Table 1. These items were measured using a Likert-type scale, where respondents could choose their level of agreement 1-5 (strongly disagree – strongly agree) with each statement.

Table 1. List of Variables and their Items*

Variable	Item	
Perceived Usefulness (PU)	PU1	Using ChatGPT in English teaching helps me complete my work (preparation, teaching process, and assessment) faster and better.
	PU2	Using ChatGPT could improve my teaching performance, productivity, and effectiveness in teaching English.
	PU3	ChatGPT is helpful in English Language teaching, both in preparation, teaching process, and assessment.
Perceived Ease of Use (PEU)	PEU1	It was easy for me to learn how to use ChatGPT
	PEU2	I find it easy to make ChatGPT do what I want.
	PEU3	ChatGPT is easy to use
Actual System Use (AU)	AU1	I often use ChatGPT (several times a week) to prepare for English teaching.
	AU2	I use ChatGPT for a variety of purposes.
	AU3	I use ChatGPT to help me in the English teaching process
Attitude toward Using (ATU)	ATU1	I like the idea of adopting and integrating ChatGPT into English teaching
	ATU2	Adopting and integrating ChatGPT into English teaching will make it better and more engaging.
	ATU3	I have a positive perception about the use of ChatGPT in English teaching
Behavioral Intention to Use (BI)	BI1	To meet the demands of the times, I intend to use ChatGPT in English Language teaching.
	BI2	I would recommend others to use ChatGPT in English Language teaching.
	BI3	I predict I will continue to use ChatGPT in English Language teaching

*Adapted from Al-Hattami (2023), Davis (1989), Antonietti et al. (2022), Raza et al. (2021), Teo et al. (2018), Alrajawy et al. (2018), Hoi & Mu (2021), and Teo & van Schaik (2012).

Data Analysis

The data collected was subjected to Structural Equation Modeling (SEM) analysis using SmartPLS 3.0. SEM allows for examining complex relationships between latent constructs and observed variables (Kirbas & Dogan, 2023; Mokhtar et al., 2023), making it suitable for testing the relationships proposed in the Technology Acceptance Model (TAM). The steps involved in data analysis will include: (1) *Measurement Model*: Assessing the validity and reliability of the measurement items for each construct (PU, PEU, ATU, BI, AU) and (2)

Structural Model: The structural relationships between the constructs were examined using SEM. The hypotheses (H1, H2, H3, H4, H5) were tested to determine whether PU and PEU significantly impact ATU and whether ATU significantly influences BI and AU (Mailizar et al., 2021; Mokhtar et al., 2023).

Results

Descriptive Analysis of Demographic Characteristics

This research involved a total of 114 participants. Table 2 displays the demographic information of these participants, including details about their gender, age, educational background, professional experience, workplace, and their current place of residence.

Table 2. Respondents' Profile (N= 114)

Question	Categories	N	%
Gender	Male	68	59.65
	Female	46	40.35
Age	Less than 25	29	25.44
	25-35	63	55.26
	36 and above	22	19.30
Education	Bachelor	64	56.14
	Postgraduate	43	37.72
	Doctoral	4	3.51
	Other	3	2.63
Expertise	Less than 5	59	51.75
	5-10	42	36.84
	Over 10	13	11.40
Job Place	Elementary	18	15.79
	Secondary	58	50.88
	Tertiary	38	33.33
Province	East Java	9	7.89
	Central Java	12	10.53
	West Java	8	7.02
	Kalimantan	12	10.53
	Sumatra	56	49. 12
	Sulawesi	8	7.02
	Other	9	7.89

Measurement Model

Firstly, the researchers calculated the data using the PLS Algorithm, as shown in Figure 3. Based on the statistical

analysis result, the item reliability of this research had factor loadings above 0.6. It represented the strength of the relationship between individual items and the underlying latent constructs (factors) in factor analysis (Al-Hattami, 2023; Hair. Jr. J. F. et al., 2021).

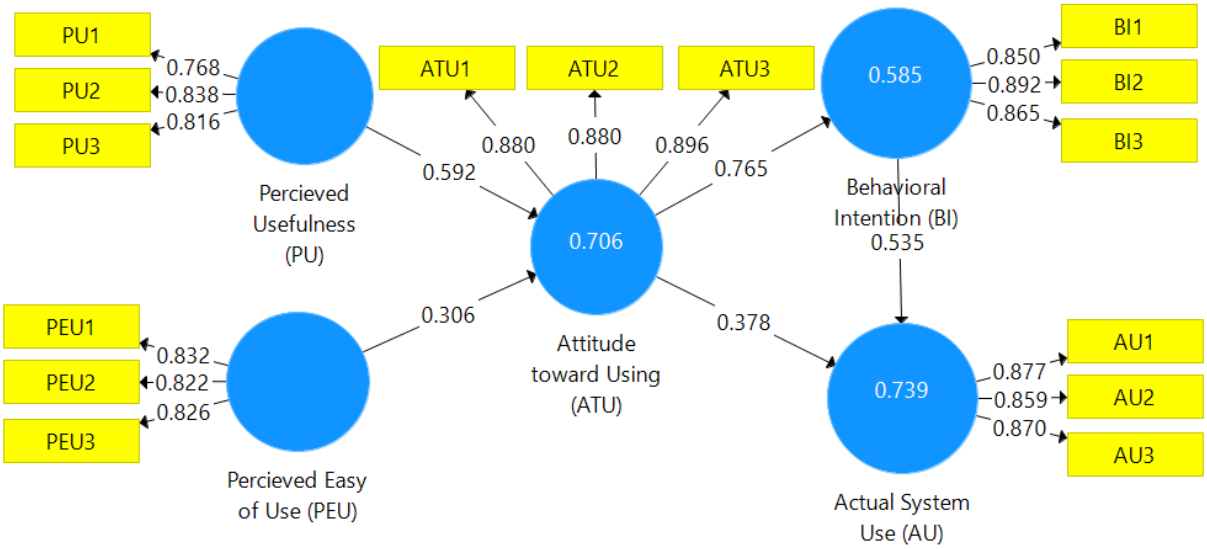

Figure 3. PLS Algorithm Result

Further, the findings in Table 3 confirmed the reliability of the construct. It was evidenced by Cronbach's Alpha (CA) and composite reliability (CR), both exceeding the threshold of 0.7 (Al-Hattami, 2023; Hair. Jr. J. F. et al., 2021). In Table 3, the results provided additional validation for convergent validity, as the average variance extracted (AVE) surpassed the 0.5 benchmark (Mohamad et al., 2008).

Table 3. Reliability and Convergent Validity

Factor	Item	Loading	CA	CR	AVE
PU	PU1	0.768	0.735	0.743	0.652
	PU2	0.838			
	PU3	0.816			
PEU	PEU1	0.832	0.769	0.772	0.683
	PEU2	0.822			
	PEU3	0.826			
ATU	ATU1	0.880	0.862	0.862	0.784
	ATU2	0.880			
	ATU3	0.896			
BI	BI1	0.850	0.838	0.844	0.755
	BI2	0.892			
	BI3	0.865			
AU	AU1	0.877	0.838	0.838	0.755
	AU2	0.859			
	AU3	0.870			

Table 4 and 5 also illustrate that the findings verified discriminant validity (DV) using the Fornell-Larcker criterion and cross-loading assessment. To meet the Fornell-Larcker criterion, every value highlighted in bold should be the most significant among all the values in its respective column. For cross-loadings, each bolded loading should surpass all the values in both its column and row to meet the criterion.

Table 4. Discriminant Validity

Variable	Fornell- Larcker criterion				
	AU	ATU	BI	PEU	PEU
AU	**0.869**				
ATU	0.788	**0.885**			
BI	0.824	0.765	**0.869**		
PEU	0.685	0.733	0.705	**0.827**	
PU	0.820	0.813	0.815	0.720	**0.808**

Table 5. Cross Loading

		AU	ATU	BI	PEU	PU
ATU	ATU1	0.697	**0.880**	0.688	0.621	0.712
	ATU2	0.665	**0.880**	0.684	0.672	0.712
	ATU3	0.729	**0.896**	0.660	0.652	0.734
AU	AU1	**0.877**	0.620	0.780	0.553	0.700
	AU2	**0.859**	0.709	0.686	0.606	0.692
	AU3	**0.870**	0.726	0.681	0.628	0.744
BI	BI1	0.649	0.642	**0.850**	0.573	0.710
	BI2	0.787	0.713	**0.892**	0.654	0.731
	BI3	0.704	0.643	**0.865**	0.605	0.685
PEU	PEU1	0.529	0.637	0.581	**0.832**	0.590
	PEU2	0.604	0.631	0.603	**0.822**	0.600
	PEU3	0.566	0.539	0.560	**0.826**	0.595
PU	PU1	0.658	0.577	0.633	0.481	**0.768**
	PU2	0.704	0.640	0.719	0.626	**0.838**
	PU3	0.631	0.735	0.629	0.624	**0.816**

Structural Model

During the structural phase, the researchers used 5,000 subsamples to evaluate the relationship between paths (hypotheses testing). It included estimates of the path coefficients (β) and the value of R^2. Beta and significant (β) showed the relationship's strength and acceptability, whereas the R^2 indicated how well the data supported the suggested model. The prerequisite for accepting a hypothesis is a t-value greater than 1.64 and a p-value less than 0.05 (Hair. Jr. J. F., 2021).

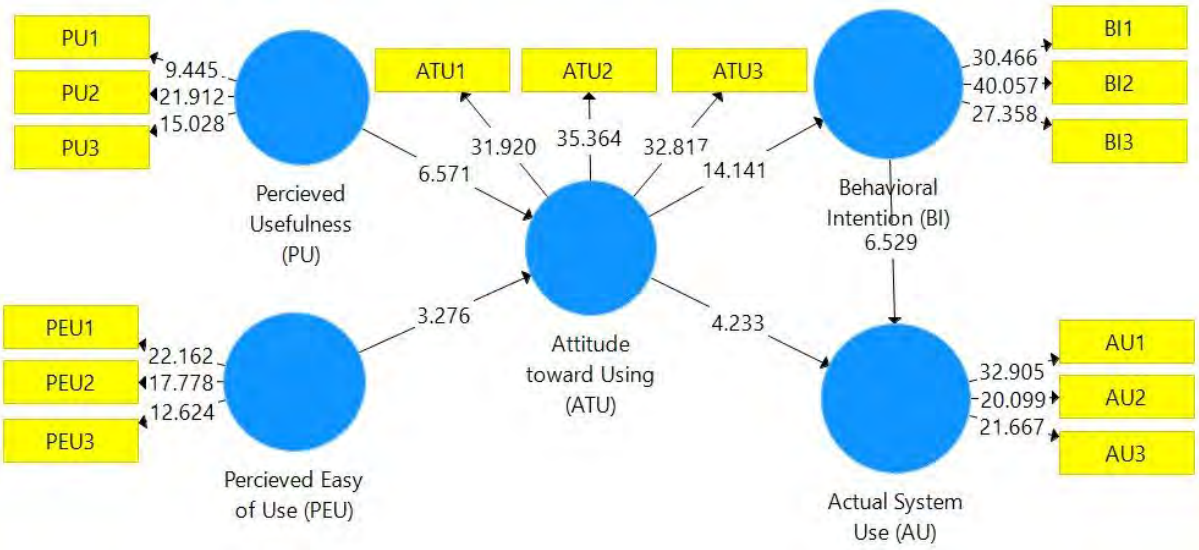

Figure 4. Bootstrapping with 5000 Sub-Samples

Figure 3, 4, and 6 present the structural phase findings from the SmartPLS computation. PU significantly influenced ATU (H1: = 0.592, p-value = 0.000). PEU substantially affected ATU (H2: = 0.306, p-value = 0.001). ATU substantially influenced BI and AU (H3: = 0.765, p-value 0.000; H4: = 0.378, p-value = 0.000). BI had a substantial and beneficial impact on AU (H5: = 0.535, p-value = 0.000). Finally, the findings supported H1, H2, H3, H4, and H5.

Table 6. Path Analysis

Path	B	t-value	p-value	Supported?
H1: Perceived usefulness - > Attitude toward using	0.592	6.571	0.000	Yes
H2: Perceived ease of use - > Attitude toward using	0.306	3.276	0.001	Yes
H3: Attitude toward using - > Behavioral intention	0.765	14.141	0.000	Yes
H4: Attitude toward using - >Actual System Use	0.378	4.233	0.000	Yes
H5: Behavioral intention - > Actual System Use	0.535	6.529	0.000	Yes

Discussion

This study supports the TAM framework. Concerning perceived usefulness, the results showed that PU had a significant impact on Attitude toward Using (ATU), indicating that teachers who perceived ChatGPT as a valuable tool for English language teaching were likelier to have a positive attitude toward using it. Perceived Usefulness (PU) is a crucial factor influencing teachers' choice to embrace ChatGPT and incorporate it into English language teaching, whether through a direct or indirect impact on Attitude toward Using (ATU). This finding aligns with some studies conducted by Davis (1989), Zou (2023), Al-Hattami (2023), Mailizar et al., (2021) which highlighted the importance of perceived usefulness in shaping attitudes toward technology. Consequently, it becomes essential to promote PU to encourage English teachers to accept the integration of ChatGPT into their teaching practices. Without highlighting the perceived usefulness, there is a risk that teachers may reject the integration of ChatGPT

into their teaching if they do not perceive it as beneficial to their needs.

Similarly, PEU significantly impacted ATU, suggesting that when teachers found ChatGPT easy to use, they were more likely to have a positive attitude. It also implies that teachers might be unwilling to adopt and utilize ChatGPT, irrespective of its utility and positive attitude toward it, if they find it challenging. This result is consistent with earlier studies emphasizing the relationship between ease of use and attitude (Al-Hattami, 2023; Huwaida et al., 2023; Salloum et al., 2019; Zou & Huang, 2023). These findings emphasize the importance of considering teachers' perceptions of usefulness and ease of use when introducing technology like ChatGPT into ELT, as these factors significantly influence their attitudes.

Additionally, the perceived usefulness of ChatGPT and teachers' ease of use perception align with the research conducted by Masoumi & Noroozi (2023), which highlights the pivotal role of positive attitudes among educators toward incorporating technology into teaching practices. In their study, the teachers exhibit a proactive approach, self-exploration, and a willingness to take risks with digital technologies. The parallels between these findings suggest a common trend in educators' openness to technology, with both passages emphasizing the importance of a constructive attitude in driving successful integration.

Regarding attitudes toward using (ATU), the study revealed that ATU had a significantly favorable influence on both behavioral intention (BI) and actual use (AU). It implies that teachers with a positive attitude toward using ChatGPT were more inclined to express an intention to use it and were more likely to integrate it into their English language teaching practices. These findings resonate with the research that demonstrated the impact of attitude on intention and actual use (Liu & Ma, 2023; Venkatesh et al., 2003; Weng et al., 2018; Zou & Huang, 2023). These findings reinforce that teachers' attitudes are pivotal in determining the success of integrating ChatGPT into ELT. Teachers who view ChatGPT favorably are likelier to leverage its potential benefits for language teaching and learning. On the other hand, this finding discovered that attitude not only directly impacts behavioral intention but also acts as a mediator in the effects of perceived usefulness and perceived ease of use on behavioral intention. This finding aligns with the original Technology Acceptance Model (TAM) proposed by Davis (Davis, 1989). It also aligns with Ajzen's argument (Ajzen, 1991), emphasizing that personal attitude toward a behavior plays a crucial role as a significant determinant of individuals' intentions to engage in that behavior.

However, teachers need not only positive attitudes but also strategic planning and consideration of technology's strengths, weaknesses, opportunities, and threats to facilitate effective integration (Farrokhnia et al., 2023). Efforts should be made to mitigate the educational potential of ChatGPT integration's potential drawbacks. In this context, modifying educational curricula by incorporating specific learning objectives, tasks, and assessment methodologies is imperative. This adjustment involves integrating fundamental literacies, such as media and digital literacy, to augment students' and teachers' proficiency in critically evaluating, assessing, and effectively utilizing emerging technologies (Farrokhnia et al., 2023; Koltay, 2011).

The study also found that BI significantly and positively influenced AU. It suggests that when teachers expressed a firm intention to use ChatGPT in their English language teaching, they were more likely to translate that intention

into actual use. This finding aligns with the study conducted by Huwaida et al. (2023), which revealed that behavioral intention affected actual system use when implementing technology. This finding is also consistent with prior research on the link between intention and behavior (Ajzen, 1991). Finally, these results highlight the importance of understanding and fostering teachers' intentions to use ChatGPT to ensure effective implementation in ELT settings. Teachers' willingness to engage with the technology can be a driving force behind its successful integration. The intention of teachers to use ChatGPT in their English language teaching referred to as behavioral intention (BI), exerts a notable and positive influence on its actual use (AU). When teachers demonstrate a solid inclination to utilize ChatGPT, there is a higher likelihood that they will follow through and integrate it into their teaching practices. It underscores the significance of teachers' attitudes and intentions in adopting and applying ChatGPT in the realm of English language teaching (Shaikh et al., 2023b).

The research identified a positive correlation between English teachers' perception of ChatGPT as easy to use and its perceived usefulness. This correlation subsequently influenced their behavioral intentions to adopt and employ ChatGPT in the context of English language teaching. These findings provide additional insights into teachers' generally favorable attitudes regarding incorporating ChatGPT into English language teaching, aligning with the current study's observations and those highlighted in the existing literature.

Implications

Theoretical Implication

The findings of this study carry significant theoretical implications, particularly in the context of the Technology Acceptance Model (TAM). The positive impact of perceived usefulness (PU) on attitudes toward using (ATU) aligns with the foundational principles of TAM, supporting the idea that users' perceptions of a technology's utility directly influence their attitudes. Additionally, the mediating role of attitude in the relationship between perceived usefulness, perceived ease of use (PEU), and behavioral intention (BI) echo the original TAM framework proposed by Davis in 1989. It reinforces TAM's enduring relevance and applicability in understanding teachers' acceptance of emerging technologies, such as ChatGPT, within English language teaching (ELT).

Practical Implication

From a practical perspective, this study provides valuable guidance for key stakeholders in English language teaching, including teachers, curriculum developers, and policymakers, particularly in regions such as Indonesia. The study underscores the importance of perceived usefulness in influencing teachers' attitudes toward ChatGPT, suggesting that concerted efforts should be directed towards showcasing the practical benefits and value that ChatGPT brings to the English language learning environment. To facilitate effective integration, educational institutions and stakeholders can develop targeted training programs to familiarise teachers with the perceived usefulness of ChatGPT for language instruction.

Moreover, English teachers are encouraged to approach ChatGPT integration in their classrooms, focusing on two critical factors: Perceived Usefulness (PU) and Perceived Ease of Use (PEU). When implementing ChatGPT and

focusing on enhancing language learning and user-friendliness, teachers can minimize potential barriers to adoption. Additionally, teachers can consider providing training and support to help students feel confident and proficient in using ChatGPT. By carefully considering the utility and ease of use of ChatGPT in English instruction, teachers can create a more conducive learning environment and increase student engagement and success in language learning.

Limitation

This study has limitations that warrant acknowledgement and consideration for future research. This study only explores teachers' perspectives on accepting and using ChatGPT in teaching English with the TAM approach. In the future, researchers can conduct more profound research through students' perspectives. Moreover, this research is limited to the continued relevance of TAM and related models in explaining user behavior. It encourages further investigation into the nuanced interactions between PU, PEU, ATU, BI, and AU within specific contexts or adding external factors such as teachers' experience, social influence, self-efficiency, etc. Further research can also investigate the potential challenges and benefits of ChatGPT in English language teaching. Next, this study used an instrument of 5 components and 15 questions, which means that each factor was examined using, on average, three items. Therefore, more objects should be used in future studies to create more precise measurements. Finally, even though the sample size was primarily adequate to validate the model and apply SmartPLS, future studies should use more extensive sample sizes. Concentrating on all the English teachers in Indonesia might expand the sample size.

Conclusion

The results of this study strongly support the Technology Acceptance Model (TAM) paradigm in the context of incorporating ChatGPT into English Language Teaching (ELT). The findings emphasize the importance of perceived usefulness (PU) and perceived ease of use (PEU) in determining instructors' perceptions toward ChatGPT. Teachers who regard ChatGPT as a helpful and straightforward technology are more likely to support its implementation. Furthermore, instructors' behavioral intentions (BI) to utilize ChatGPT and, as a result, their actual use (AU) of the technology in their teaching practices are highly influenced by their positive attitude. These findings support the relevance of attitude in technology adoption and highlight the need to cultivate instructors' aspirations to use technology.

References

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211.

Al-Hattami, H. M. (2023). Understanding perceptions of academics toward technology acceptance in accounting education. *Heliyon*, *9*(1). https://doi.org/10.1016/j.heliyon.2023.e13141

Alrajawy, I., Isaac, O., Ghosh, A., Nusari, M., Al-Shibami, A. H., & Ameen, A. A. (2018). Determinants of Student's Intention to Use Mobile Learning in Yemeni Public Universities: Extending the Technology

Acceptance Model (TAM) with Anxiety. In *International Journal of Management and Human Science (IJMHS)* (Vol. 2, Issue 2).

Annamalai, N., Rashid, R. A., Munir Hashmi, U., Mohamed, M., Harb Alqaryouti, M., & Eddin Sadeq, A. (2023). Using chatbots for English language learning in higher education. *Computers and Education: Artificial Intelligence*, *5*. https://doi.org/10.1016/j.caeai.2023.100153

Antonietti, C., Cattaneo, A., & Amenduni, F. (2022). Can teachers' digital competence influence technology acceptance in vocational education? *Computers in Human Behavior*, *132*. https://doi.org/10.1016/j.chb.2022.107266

Ary, D., Lucy Cheser Jacobs, Chris Sorensen, & Asghar Razavieh. (2010). *Introduction to Research in Education*. Wadsworth.

Castelvecchi, D. (2022). Are ChatGPT and AlphaCode going to replace programmers. . *Nature*.

Cheong, W., & Hong, H. (2023). The impact of ChatGPT on foreign language teaching and learning: Opportunities in education and research. *Journal of Educational Technology and Innovation (JETI)* , *5*(1).

Creswell, J. W. (2014). *Research Design Qualitative, Quantitative and Mixed Methods Approaches*. Sage Publishing.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly: Management Information Systems*, *13*(3), 319–339. https://doi.org/10.2307/249008

Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., Baabdullah, A. M., Koohang, A., Raghavan, V., Ahuja, M., Albanna, H., Albashrawi, M. A., Al-Busaidi, A. S., Balakrishnan, J., Barlette, Y., Basu, S., Bose, I., Brooks, L., Buhalis, D., … Wright, R. (2023). "So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management*, *71*. https://doi.org/10.1016/j.ijinfomgt.2023.102642

Farrokhnia, M., Banihashem, S. K., Noroozi, O., & Wals, A. (2023). A SWOT analysis of ChatGPT: Implications for educational practice and research. *Innovations in Education and Teaching International*. https://doi.org/10.1080/14703297.2023.2195846

Fathema, N., Shannon, D., & Ross, M. (2015). Expanding The Technology Acceptance Model (TAM) to Examine Faculty Use of Learning Management Systems (LMSs) In Higher Education Institutions. In *MERLOT Journal of Online Learning and Teaching* (Vol. 11, Issue 2).

Filipec, O., Woithe, J. V., & Mccauley, B. (2023). *Understanding the Adoption, Perception, and Learning Impact of ChatGPT in Higher Education (A qualitative exploratory case study analyzing students' perspectives and experiences with the AI-based large language model)*.

Firaina, R. , & Sulisworo, D. (2023). Exploring the Usage of ChatGPT in Higher Education: Frequency and Impact on Productivity. *Buletin Edukasi Indonesia*, *2*(01), 67–74.

Fraenkel, jack R., Wallen, N. E., & Hyun, H. H. (2012). *How to Design and Evaluate Research in Education* (8th ed.). The McGraw.Hill Companies.

Granić, A., & Marangunić, N. (2019). Technology acceptance model in educational context: A systematic literature review. In *British Journal of Educational Technology* (Vol. 50, Issue 5, pp. 2572–2593). Blackwell Publishing Ltd. https://doi.org/10.1111/bjet.12864

Hair. Jr. J. F., G. Tomas M. Hult, Christian M. Ringle, Marko Sarstedt, Nicholas P. Danks, & Soumya Ray. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R AAWorkbook*. http://www.

Hartmann, J., Schwenzow, J., & Witte, M. (2023). The political ideology of conversational AI: Converging evidence on ChatGPT's pro-environmental, left-libertarian orientation. *SSRN*. Hartmann, Jochen and Schwenzow, Jasper and Witte, Maximilian, The political ideology of conversational AI: Converging evidence on ChatGPT's pro-environmental, left-libertarian orientation (https://ssrn.com/abstract=4316084 or http://dx.doi.org/10.2139/ssrn.4316084

Hoi, V. N., & Mu, G. M. (2021). Perceived teacher support and students' acceptance of mobile-assisted language learning: Evidence from Vietnamese higher education context. *British Journal of Educational Technology*, *52*(2), 879–898. https://doi.org/10.1111/bjet.13044

Huwaida, H., Rofi'i, Sri Imelda, Said Muhammad, & Heppy Mutammimah. (2023). E-Learning Acceptance in Business Administration Department State Polytechnic of Banjarmasin. *Jurnal Multidisiplin Madani*, *3*(8), 1712–1725. https://doi.org/10.55927/mudima.v3i8.4428

J. Biggs. (2014). Constructive alignment in university teaching. *HERDSA Review of Higher Education*, *1*, 5–22.

Kasneci, E., Sessler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., Gasser, U., Groh, G., Günnemann, S., Hüllermeier, E., Krusche, S., Kutyniok, G., Michaeli, T., Nerdel, C., Pfeffer, J., Poquet, O., Sailer, M., Schmidt, A., Seidel, T., … Kasneci, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. In *Learning and Individual Differences* (Vol. 103). Elsevier Ltd. https://doi.org/10.1016/j.lindif.2023.102274

Kirbas, O., & Dogan, F. (2023). Modeling Development and Validation of Metaverse Attitude Scale. *International Journal of Technology in Education*, *6*(2), 155–186. https://doi.org/10.46328/ijte.363

Kohnke, L., Moorhouse, B. L., & Zou, D. (2023). ChatGPT for Language Teaching and Learning. In *RELC Journal* (Vol. 54, Issue 2, pp. 537–550). SAGE Publications Ltd. https://doi.org/10.1177/00336882231162868

Koltay, T. (2011). The media and the literacies: Media literacy, information literacy, digital literacy. *Media, Culture and Society*, *33*(2), 211–221. https://doi.org/10.1177/0163443710393382

Lawrence, J. E., & Tar, U. A. (2018). Factors that influence teachers' adoption and integration of ICT in teaching/learning process. *Educational Media International*, *55*(1), 79–105. https://doi.org/10.1080/09523987.2018.1439712

Liu, G., & Ma, C. (2023). Measuring EFL learners' use of ChatGPT in informal digital learning of English based on the technology acceptance model. *Innovation in Language Learning and Teaching*, 1–19.

Mailizar, M., Burg, D., & Maulina, S. (2021). Examining university students' behavioural intention to use e-learning during the COVID-19 pandemic: An extended TAM model. In *Education and Information Technologies* (Vol. 26, Issue 6, pp. 7057–7077). Springer. https://doi.org/10.1007/s10639-021-10557-5

Masoumi, D., & Noroozi, O. (2023). Developing early career teachers' professional digital competence: a systematic literature review. *European Journal of Teacher Education*. https://doi.org/10.1080/02619768.2023.2229006

Mohamad, W., Bin, A., & Afthanorhan, W. (2008). A Comparison Of Partial Least Square Structural Equation Modeling (PLS-SEM) and Covariance Based Structural Equation Modeling (CB-SEM) for Confirmatory Factor Analysis. In *Certified International Journal of Engineering Science and Innovative Technology*

(IJESIT) (Vol. 9001, Issue 5).

Mohamed, A. M. (2023). Exploring the potential of an AI-based Chatbot (ChatGPT) in enhancing English as a Foreign Language (EFL) teaching: perceptions of EFL Faculty Members. *Education and Information Technologies*. https://doi.org/10.1007/s10639-023-11917-z

Mokhtar, S., Hilaluddin, T., & Nik Nazli, N. N. N. (2023). Challenges Impacting Students' Intention to Effectively Use E-Learning Method in a Virtual Learning Environment. *International Journal of Technology in Education*, *6*(2), 310–325. https://doi.org/10.46328/ijte.407

Nueangnong, V., Hasan Subih, A. A. S., & Al-Hattami, H. M. (2020). The 2020's world deadliest pandemic: Corona Virus (COVID-19) and International Medical Law (IML). *Cogent Social Sciences*, *6*(1). https://doi.org/10.1080/23311886.2020.1818936

Putu Oka Agustini, N., & Putu Oka Agustini Politeknik Pariwisata Bali, N. (2023). *Examining the Role of ChatGPT as a Learning tool in Promoting Students' English Language Learning Autonomy relevant to Kurikulum Merdeka Belajar*. *4*, 921–934. http://jurnaledukasia.org

Rathore, B. (2023). Future of AI & Generation Alpha: ChatGPT beyond Boundaries. *EDUZONE: International Peer Reviewed/Refereed Multidisciplinary Journal (EIPRMJ)*, *12*(1), 2319–5045.

Raza, S. A., Qazi, W., Khan, K. A., & Salam, J. (2021). Social Isolation and Acceptance of the Learning Management System (LMS) in the time of COVID-19 Pandemic: An Expansion of the UTAUT Model. *Journal of Educational Computing Research*, *59*(2), 183–208. https://doi.org/10.1177/0735633120960421

Rudolph, J., Tan, S., & Tan, S. (2023). ChatGPT: Bullshit spewer or the end of traditional assessments in higher education? *Journal of Applied Learning and Teaching*, *6*(1), 342–363. https://doi.org/10.37074/jalt.2023.6.1.9

Salloum, S. A., Qasim Mohammad Alhamad, A., Al-Emran, M., Abdel Monem, A., & Shaalan, K. (2019). Exploring students' acceptance of e-learning through the development of a comprehensive technology acceptance model. *IEEE Access*, *7*, 128445–128462. https://doi.org/10.1109/ACCESS.2019.2939467

Scherer, R., Siddiq, F., & Tondeur, J. (2019). The technology acceptance model (TAM): A meta-analytic structural equation modeling approach to explaining teachers' adoption of digital technology in education. *Computers and Education*, *128*, 13–35. https://doi.org/10.1016/j.compedu.2018.09.009

Sengupta, S., & Chakraborty, T. (2020).). Use of chatbots in higher education: A study of student engagement and satisfaction. *Education and Information Technologies*, *25*(6), 5147–5165.

Shahriar, S., & Hayawi, K. (2023). Let's Have a Chat! A Conversation with ChatGPT: Technology, Applications, and Limitations. *Artificial Intelligence and Applications*. https://doi.org/10.47852/bonviewAIA3202939

Shaikh, S., Yayilgan, S. Y., Klimova, B., & Pikhart, M. (2023a). Assessing the Usability of ChatGPT for Formal English Language Learning. *European Journal of Investigation in Health, Psychology and Education*, *13*(9), 1937–1960. https://doi.org/10.3390/ejihpe13090140

Shaikh, S., Yayilgan, S. Y., Klimova, B., & Pikhart, M. (2023b). Assessing the Usability of ChatGPT for Formal English Language Learning. *European Journal of Investigation in Health, Psychology and Education*, *13*(9), 1937–1960. https://doi.org/10.3390/ejihpe13090140

Teo, T., Huang, F., & Hoi, C. K. W. (2018). Explicating the influences that explain intention to use technology among English teachers in China. *Interactive Learning Environments*, *26*(4), 460–475.

https://doi.org/10.1080/10494820.2017.1341940

Teo, T., & van Schaik, P. (2012). Understanding the Intention to Use Technology by Preservice Teachers: An Empirical Test of Competing Theoretical Models. *International Journal of Human-Computer Interaction*, *28*(3), 178–188. https://doi.org/10.1080/10447318.2011.581892

Tlili, A., Shehata, B., Adarkwah, M. A., Bozkurt, A., Hickey, D. T., Huang, R., & Agyemang, B. (2023). What if the devil is my guardian angel: ChatGPT as a case study of using chatbots in education. *Smart Learning Environments*, *10*(1). https://doi.org/10.1186/s40561-023-00237-x

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly: Management Information Systems*, *27*(3), 425–478. https://doi.org/10.2307/30036540

Weng, F., Yang, R. J., Ho, H. J., & Su, H. M. (2018). A tam-based study of the attitude towards use intention of multimedia among school teachers. *Applied System Innovation*, *1*(3), 1–9. https://doi.org/10.3390/asi1030036

Yeadon, W., Inyang, O.-O., Mizouri, A., Peach, A., & Testrow, C. P. (2023). The death of the short-form physics essay in the coming AI revolution. *Physics Education*, *58*(13).

Zou, M., & Huang, L. (2023). To use or not to use? Understanding doctoral students' acceptance of ChatGPT in writing through technology acceptance model. *Frontiers in Psychology*, *14*. https://doi.org/10.3389/fpsyg.2023.1259531

Author Information

Heppy Mutammimah
https://orcid.org/0000-0001-5065-9776
Politeknik Negeri Banjarmasin
Indonesia
Contact e-mail: *heppy@poliban.ac.id*

Sri Rejeki
https://orcid.org/0009-0009-2457-4627
Universitas 'Aisyiyah Yogyakarta
Indonesia

Siti Kustini
https://orcid.org/0000-0001-8441-9113
Politeknik Negeri Banjarmasin
Indonesia

Rini Amelia
https://orcid.org/0009-0003-2590-7784
Politeknik Negeri Banjarmasin
Indonesia