A Study of Students' Acceptance of E-Learning Applications in English Language Education

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Abstract

Due to the ramifications of the COVID-19 pandemic, several university students may find themselves unable to engage in conventional English language learning in a physical classroom setting. The imposition of online English instruction compromised the efficacy and outcomes of students' English learning. Therefore, there is a need for a diverse range of technology, media, and platforms to enhance their educational achievements. Using mobile devices and wireless networks to interact with other devices may improve the effectiveness of online English learning for students. To investigate university students' learning behaviors and attitudes, when using e-learning to study English, the current study aimed to assess curiosity, self-efficacy, equipment, experience, perceived ease of use, perceived utility, attitude towards using e-learning resources for English language acquisition, and the actual use of those technologies. This study used questionnaires sent to 4 universities, resulting in a total of 751 valid surveys. This research used Smart-PLS 4.0 to analyze the structural model and validate the hypotheses. The hypothesis testing findings revealed that attitude is the most influential factor in determining the adoption of e-learning for English language acquisition. Both results indicate that variables in the TAM (ease of use and usefulness) have a significant impact on e-learning use outcomes. Likewise, interest, self-efficacy, equipment, and experience factors are influencing e-learning use. In this regard, the research outcome provides rich theoretical understanding and immense practical explanatory power in language acquisition.

Keywords: Attitudes, English Language Learning, E-learning, Student, Teacher, Curiosity.

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دراسة مدى تقبل الطلاب لتقنية تطبيقات التعلم الإلكتروني في تعليم اللغة الإنجليزية

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ملخص

بسبب تداعيات جائحة كورونا، قد يجد العديد من طلاب الجامعات أنفسهم غير قادرين على الانخراط في تعلم اللغة الإنجليزية التقليدي في بيئة الفصل الدراسي المادية. وقد أدى فرض تعليم اللغة الإنجليزية عبر الإنترنت إلى المساس بفعالية ونتائج تعلم الطلاب للغة الإنجليزية. ولذلك ظهر هنالك حاجة إلى مجموعة متنوعة من التكنولوجيا والوسائط والمنصات لتعزيز إنجازاتهم التعليمية. قد يؤدي استخدام الأجهزة المحمولة والشبكات اللاسلكية للتفاعل مع الأجهزة الأخرى إلى تحسين فعالية تعلم اللغة الإنجليزية عبر الإنترنت للطلاب. للتحقيق في سلوكيات ومواقف التعلم لدى طلاب الجامعات عند استخدام التعلم الإلكتروني لدراسة اللغة الإنجليزية، يهدف البحث الحالي إلى تقييم الفضول والكفاءة الذاتية والمعدات والخبرة وسهولة الاستخدام المتصورة والفائدة المتصورة والموقف تجاه استخدام موارد التعلم الإلكتروني لاكتساب اللغة الإنجليزية والاستخدام الفعلي لتلك التقنيات.

أرسلت هذه الدراسة استبيانات إلى 4 جامعات، مما أسفر عن إجمالي 751 استبيانًا صالحًا. وقد استخدم هذا البحث Smart-PLS 4.0 لتحليل النموذج الهيكلي والتحقق من صحة الفرضيات. وكشفت نتائج اختبار الفرضيات أن الموقف هو العامل الأكثر تأثيرًا في تحديد اعتماد التعلم الإلكتروني لاكتساب اللغة الإنجليزية. وقد أشارت كلتا النتيجتين إلى أن المتغيرات في TAM (سهولة الاستخدام والفائدة) لها تأثير كبير على نتائج استخدام التعلم الإلكتروني. وبالمثل، فإن عوامل الاهتمام والكفاءة الذاتية والمعدات والخبرة تؤثر على استخدام التعلم الإلكتروني. في هذا الصدد، توفر نتائج البحث فهمًا نظريًا غنيًا وقوة تفسيرية عملية هائلة في اكتساب اللغة.

الكلمات الدالة: المواقف، تعلم اللغة الإنجليزية، التعلم الإلكتروني، الطالب، المعلم، الفضول.

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Introduction:

The previous pandemic of COVID-19 has undoubtedly affected the quality and quantity of the English language acquisition process (Andujar et al., 2020), especially in countries with high restrictions on measures to limit the spread of the virus. Distance learning using a wide array of instructional technologies has become essential. Distance learning is more than just technology; it is the transition from the physical classroom to virtual classrooms (Atmojo & Nugroho, 2020). The technology of distance learning has compelled professors to enhance their skills in delivering lectures and information via virtual platforms, while students must enhance their learning abilities to ensure the diversity and effectiveness of this learning method. English language education, compared with other courses, is particularly challenging to deliver online. As a result, the study seeks to investigate the various factors that influence students' successful acquisition of the English language using technology.

Various studies on the impact of distance education have demonstrated multiple negative effects on students' efficiency in online courses (Bailey et al., 2021; Canino et al., 2023). For example, Chen et al. (2020) found that approximately 50% of the students had a hard time focusing on studying online and did not consider it productive for understanding lectures and academic tasks. According to Cheng et al. (2020), several students expressed the opinion that not studying directly from the school was not acquiring knowledge. Cheung (2023) also found that many instructors share the opinion that "online learning exacerbates, rather than reduces, educational pressure on lower-income students, especially those who attend public schools." Other studies on distance education also demonstrated the importance of "pupils's lack of physical education and extracurricular activities, outside activities, and personal contacts, which are indispensable risk factors for increasing psychological pressure."

On the other hand, students' mental health is incomparable when cultivated and monitored personally by a teacher, which is also impossible in an online form (Cheng, Wang, & Yang, 2020). Therefore, properly designed online courses with innovative technology features, such as video-recordable material to enhance students' self-learning, will likely improve English language acquisition learning outcomes relative to online traditional learning (Chen & Hsu, 2020). According to the argument above, e-learning is among the new technology trends that have a positive impact on students' productivity. The technology is based on mobile devices, which are wireless products designed to interact with other gadgets. Mobile devices are

portable and well-connected to wireless networks, and this aspect makes learning convenient for learners since they can learn and study at their own time and place (Cheung, 2023). Therefore, the convenience, immediacy, and suitability of an e-learning technology are realized. Previous research findings from cloud-based e-learning demonstrate that its use is convenient due to its portable nature, which enables high interactivity, individualization, self-regulation, and self-learning. Consequently, these devices have a high potential to positively impact students' interest and creative performance, thereby improving English learning outcomes (Fathi et al., 2020; Gao & Zhang, 2020; Clermont et al., 2021).

Indeed, this study aims to explore how implementing a new e-learning technology can motivate students and spark their interest in learning. In 1989, Davis developed the Technology Acceptance Model (TAM, henceforth), and Venkatesh and Davis further refined it in 2000, offering diverse methods for examining and assessing the adoption or rejection of a technology. Multiple users, such as teachers and learners, are involved in substantial context work (Clermont et al., 2021; Toshiyuki & Chiu, 2024). In many context-specific settings, a high frequency of TAM usage has emerged. Given the limited research on the application of the model in studying users' acceptance of e-learning technology towards the utilisation of technology by EFL learners, more research centred in this direction is warranted (Huang & Teo, 2020). Jordan has a unique culture that sets it apart from other nations. This research primarily aims to use the TAM to investigate the level of adoption of e-learning for English language learning in Jordan. This research seeks to analyze the factors that determine the TAM and its impact on the acceptability of e-learning for English language acquisition.

The following structure guides the rest of the article. The next section examines the relevant literature about the TAM, its primary determinants, and the formulation of study hypotheses. The third section delineates the research methodology and estimating techniques. Section four presents the main results of the investigation. Section five ultimately finishes the paper.

Literature review:

Technology in English education

Recent advances in technology have made it difficult to distinguish between the earlier ideas on using certain technologies in language teaching (Xu et al., 2019; Gewin, 2020; Sun et al., 2020). They collaborate together

to provide a thorough educational experience. Indeed, in addition to the previous specific concepts of mobile-assisted language learning and computer-assisted language learning, technology-enhanced language learning encompasses a wide range of educational approaches. This includes online learning, distance education, distributed education, virtual environments, learning management systems, the internet and web 2.0, and massive Open Online Courses. It also includes both synchronous and asynchronous teaching and learning in e-learning, as well as flipped, blended, or hybrid learning. Technology-enhanced language learning refers to the use of any digital technology for educational purposes, whether in a formal or informal setting, both inside and outside the classroom (Toshiyuki & Chiu, 2024). The use of technology has shown a beneficial influence on the acquisition of language, whether it pertains to general or specialised technological tools (Kamal et al., 2021) conducted a study in which they examined 41 publications from 2009 to 2020.

They identified computers, mobile devices, printed materials, audio players, and PowerPoint presentations as the primary instruments of multimedia technologies that aid in vocabulary, listening, reading, and grammar. In a separate analysis, (Behl et al., 2022) examined 57 papers from 10 journals up to 2019. They determined that mobile devices, multimedia, speech-to-text and text-to-speech, and digital game-based learning were the most often used technologies in language education. However, (Yao et al., 2020) discovered that the most often used technologies among the 23 technologies examined in the top 10 technology and language learning journals of 398 articles from 2014 to 2019 were digital games and online movies. (Elaishe et al., 2019) conducted a study of 69 articles from 2010 to 2015, specifically examining mobile-assisted English learning. They discovered that vocabulary was the most often used skill, while motivation emerged as the most commonly highlighted issue. The literature emphasised both the wide range of technology available and its beneficial effects on language acquisition. Simply put, the widespread and genuine nature of technology encourages dynamic, adaptable, effective, personalized, and stimulating learning processes that accommodate individual learners' abilities, preferences, and learning styles (Yao et al., 2020).

Technology acceptance model:

Modification of the TAM model was carried out by Davis et al. (1989) when only two external variables remained in it, based on the theory of reasonable measures, perceived usefulness, and perceived ease of use. At

the same time, it was proposed that the attitude towards use directly influenced the desire to behave in the corresponding way, which immediately influenced system utilization. However, the perceived level of utility and perceived ease of use primarily influence the attitude towards utilization. Davis et al., therefore, abolished the subjective norm component from the theory of reasoned action to establish the TAM model. Perceived utility and perceived ease of use are two essential components of the TAM that are believed to influence computer adoption behavior. Davis also underscores the expectation that a variety of external factors will shape a user's perception of an object's ease of use and usefulness. Therefore, numerous studies have established that users expect the TAM to demonstrate a superior quality of explanation, among other things.

We expect users to persist, comprehend, and utilize skilled investigators for the TAM. Several empirical studies suggest that factors such as system quality, critical mass, regulatory support, flow experience, and information descriptors such as implementation and accuracy, which users perceive as either useful or easy to use, and which significantly influence the number of people who use information systems. The perception of ease of use impacts the perception of utility. In turn, utility influences the intention to continue using the technology. This is the final step in the adoption process. Numerous studies have widely used the TAM model since its inception. Boutonglang and Flores examined the factors that influence college students' behavioral intentions to use e-learning. The results show that participants' perceptions of the way they learn significantly influence their behavioural intention to use e-learning.

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influence the number of people who use information systems (Al Arif & Handayani, 2021; Alfadda & Mahdi, 2021). The perception of ease of use impacts the perception of utility. In turn, utility influences the intention to continue using the technology.

This is the final step in the adoption process (Balbay & Kilis, 2017; Bauwens et al., 2020). Numerous studies have widely used the TAM model since its inception (Alfarwan, 2019; Alfadda & Mahdi, 2021). Boutonglang and Flores (2011) examined the factors that influence college students' behavioral intentions to use e-learning. The results show that participants' perceptions of the way they learn significantly influence their behavioural intention to use e-learning (Fatiha et al., 2014) once again employed the TAM alongside the innovation diffusion theory to understand 486 learners' behavioural intentions for using e-learning. They found out that technological factors, such as navigation and convenience, along with compatibility, significantly influenced respondents' perceptions of perceived usefulness, perceived ease of use, and perceived enjoyment. Huang & Teo, 2020) also employed the model by examining the three variables that influenced e-learning usage among 176 university students. The findings reported that all three variables, namely perceived utility, perceived ease of use, and perceived behavioural control, registered a significantly positive effect on the learners' willingness to use e-learning; thus, we formulate our assumptions based on the same model. As a result, considering the aforementioned reasons, the curent study posited the following hypotheses:

H1. Perceived ease of use correlates positively with e-learning's perceived usefulness.

H2. Perceived ease of use has a positive influence on attitudes toward using e-learning.

H3. Perceived usefulness has a positive influence on attitudes toward using e-learning.

H4. There is a favourable association between use attitude and a continuing desire to utilize English e-learning.

Technological equipment:

The authors provide many claims on the advantages of integrating e-learning into English instruction. Technological equipment, such as the Internet, enhances the efficiency and speed of the teaching and learning process (Hu & AlSaqqaf, 2021). Additionally, it boosts students'

involvement and motivation. Examining the tools utilized in e-learning provides learners with numerous advantages. The learners will be able to explore a diverse range of resources. The benefits of using e-learning technologies in education include social contact, enhanced learning motivation, and experience support (Fatiha et al., 2014; Al-Arif et al., 2022). As a result, in the light of the aforementioned reasons, this study advanced the following hypotheses:

H5. Technological equipment has an impact on the perceived usefulness of e-learning.

H6. Technological equipment has an impact on the perceived ease of use of e-learning.

Experience:

Experience may influence a user's acceptance of technology. Users with a high level of expertise are likely to have a favourable disposition towards technology, whereas those with less knowledge may display a negative attitude. Researchers have conducted several studies to explore the impact of experience on the TAM (Ahmad et al., 2017). (Clarke, 2008) discovered that the TAM was useful in helping managers forecast whether users would return to a website. They also observed that this prediction varied as users became more familiar with the Internet and the website. We found that the user's experience with the website moderated this prediction. Researchers found that perceived ease of use had a greater impact on less experienced users' decision to return to the website, while perceived usefulness had a stronger influence on more experienced users (Huang & Teo, 2020) conducted research where they used the TAM to predict users' adoption of online games. In their study, social effects and flow experience were included as belief-related factors. The proposed model was empirically evaluated using survey data from 233 consumers about their impressions of online games. The findings demonstrated that social norms, attitude, and flow experience accounted for around 80% of the game-playing. As a result, considering the aforementioned reasons, this study formulated the following hypotheses:

H7. Experience has an impact on the perceived usefulness of using e-learning.

H8. Experience has an impact on the perceived ease of using e-learning.

Curiosity:

Flow theory informs the concept of curiosity. When fully immersed in a state of flow, people often engage more with their environment (Michael et al., 2023). (Toshiyuki & Chiu, 2024) proposed that users might experience a state of complete engagement, known as flow, when they are fully focused on the activities taking place on the website. Conversely, the lack of continuity may often result in feelings of unease or tedium. Kirmizi (2014) proposed that curiosity might induce a state of flow, leading to increased levels of engagement. Hence, when consumers experience a sense of flow, their contact with the information system also sparks interest. (Canino et al., 2023) assert that a state of enjoyment often stimulates an individual's curiosity. People often view the need for novelty as a form of intrinsic motivation (Fulya et al., 2019; Li & Chen, 2019). In the online realm, individuals primarily explore and utilize websites not out of genuine interests but rather due to the diverse range of content offered by website operators (Huang, 2003).

According to (Al Arif, et al., 2021), creating curiosity in customers is a crucial aspect of ensuring their continued visits to a website. Rashid (2021) conducted research on the effectiveness of technology in online advertising, revealing that its use on shopping websites can boost customer interest and attention towards marketing, thereby boosting sales. In their study, Yang, Carlson, & Chen (2020) showed that curiosity has a beneficial impact on students' inclination to regularly use e-learning platforms. Simply put, when students find an easy-to-use website platform for English e-learning, it sparks their interest in the platform's content and increases their desire to use it. Thus, this research aims to examine the link between perceived ease of use, interest, and continuing intention to use in the context of English e-learning. As a result, considering the aforementioned reasons, this study advanced the following hypotheses:

H9. Perceived ease of use has an impact on curiosity. H10. Curiosity has an impact on continuous intention to use.

Self-efficacy

On the other hand, (Mei et al., 2018) described the profound, well-established link between self-efficacy and motivation, referring to self-efficacy as a cognitive mechanism that directs behaviour. He notes that motivation is an inborn cognitive method that propels a person towards a particular activity and makes them actively engaged in it. He goes on to say that motivation also includes other mental processes, like thinking about

what the future holds and how that affects one's self-identity, picturing how one will react to setting goals, and evaluating one's own self-efficacy "to explain different perceptions of activities and rewards" (Liu et al., 2020). The outcome of this cognitive process becomes the primary driver of a person's achievement.

(Bauwens et al., 2020) noted that internal thinking prioritizes self-efficacy over motivation. Several studies have also highlighted that an individual's creative self-efficacy has a considerable and positive effect on their naturally acquired motivation. (Zhang et al., 2021) found that users' self-efficacy was a strong predictor of their intention to use the wireless sensor network application to get medical assistance (Mei et al., 2018). Likewise, other studies have revealed that those with low self-efficacy have a high dislike for e-learning. For instance, (Pan, 2020) analysed the connection between self-efficacy and sustained use of the Web 2.0 platform, where he performed a meta-analysis. Their findings show a positive association. People with high self-efficacy feel motivated to use new technology compared to those with low self-efficacy. Therefore, based on the above findings, this study suggests that there is a positive relationship between self-efficacy and one's attitude towards new technology (Figure 1). As a result, considering the aforementioned reasons, this study advanced the following hypotheses:

H11. Perceived usefulness has an impact on self-efficacy.

H12. Self-efficacy has an impact on continuous intention to use.

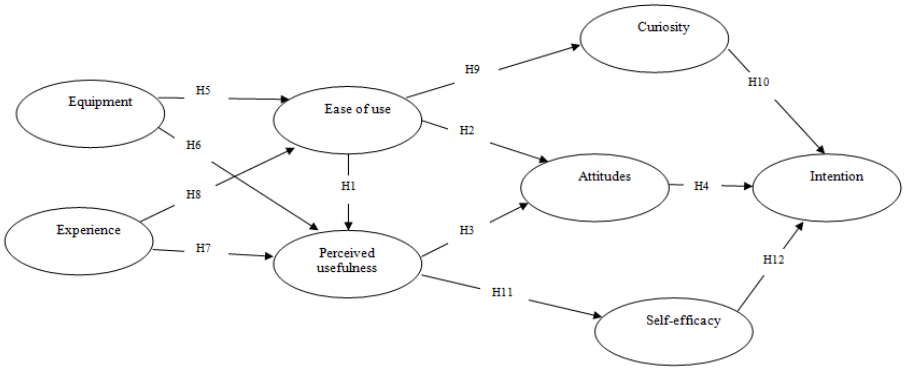

Fig. (1) Research framework

Research Methodology:

We conducted a quantitative study in accordance with the research objectives to investigate students' attitudes and status towards e-learning. We used a questionnaire and a basic random sampling method to collect and analyse the data. We sent a grand total of 1250 questionnaires to the English Department at a public institution in Jordan, resulting in a substantial yield of 751 valid surveys. The participants involve pre-service teachers specialising in English, ranging from first-year to fourth-year students enrolling in 2024. The main tool for data collection in this research was a questionnaire. The researchers modified the online questionnaire, adapting it to a close-ended style in accordance with the study topic and previous relevant studies. All respondents then received the amended questionnaire. The revised questionnaire has a total of 33 questions. The first segment gathered background information from the respondents. The second section focused on the variables of the TAM in relation to the use of e-learning for English language learning.

These variables included curiosity, self-efficacy, equipment, experience, perceived ease of use, perceived usefulness, attitude towards using e-learning tools for English learning, and actual use. We measured these variables using five-point Likert scale, which ranged from 1 (strongly disagree) to 5 (strongly agree). The sources for these variables were (Behl et al., 2022), (Michael et ak., 2023); (Toshiyuki & Chiu, 2024). This research used a sample group of 31 students who were not part of the main study to test and refine the questionnaire prior to conducting the survey. Expert judgement and a comprehensive assessment of the literature established the validity of the questionnaire. To ensure the questionnaire's content validity, three ICT experts verified it via face-to-face conversations. This process aimed to assess the relevance and overall quality of each item in the questionnaire. We made modifications to the questionnaire, including adjustments to its style, size, and language translation. To address bias in our survey strategy, we used Armstrong and Overton's (1977) methodology to perform a response bias evaluation. This included doing a comparison between the replies of participants (representing 25% of the total respondents), late participants (representing the last 25% of respondents), and a subset of those who did not provide any response to the survey. Our study showed that the p value for all questions was more than 0.1, suggesting that there were no significant differences among early, late, and non-respondents. Therefore, we may deduce that non-response bias does not pose a problem in our research.

Research Rustles:

We employed confirmatory factor analysis to assess the suggested factor structure using Smart-PLS 4.0 and decide if any modifications are necessary. Table 1 provides specific measurements of the questionnaire's reliability and validity. The Cronbach's alpha reliability test for all items was higher than 0.7. This revealed that the composite reliability coefficient met the prescribed value of more than 0.7. All observation items had factor loadings higher than 0.7, indicating composite dependability. In terms of convergent validity, this study's average variance extraction for the dimension exceeded 0.5. The correlation coefficient for each dimension in the study was lower than the square root of the average variance extracted, and all the cross-loadings were less than the loadings of facts in the dimension. This revealed that the discriminant's validity was high, as shown in Table (2).

Table (1) Measurement Model

Factors	Loading	CA	CR	AVE
Attitude		0.910	0.912	0.899
	0.769			
	0.821			
	0.791			
	0.731			
Actual use		0.932	0.898	0.792
	0.714			
	0.724			
	0.744			
Perceived ease of use		0.886	0.922	0.891
	0.759			
	0.763			
	0.766			
	0.714			
Perceived usefulness		0.911	0.893	0.885
	0.845			
	0.867			
	0.809			
	0.798			

Factors	Loading	CA	CR	AVE
Experience		0.905	0.912	0.907
	0.815			
	0.872			
	0.816			
Equipment		0.914	0.919	0.889
	0.832			
	0.831			
Self-efficacy		0.920	0.922	0.932
	0.852			
	0.826			
	0.817			
Curiosity		0887	0.897	0.858
	0.758			
	0.749			

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Table (2) Discriminant validity

Construct	Attitude	Actual	PEOU	PU	Experience	Equipment	Efficacy	Curiosity
Attitude	0.816							
Actual	0.830	0.808						
PEOU	0.752	0.859	0.733					
PU	0.704	0.829	0.842	0.709				
Experience	0.762	0.771	0.809	0.776	0.774			
Equipment	0.758	0.759	0.875	0.757	0.699	0.837		
Efficacy	0.749	0.725	0.822	0.850	0.804	0.877	0.881	
Curiosity	0.731	0.787	0.741	0.792	0.829	0.837	0.491	0.846

After confirming the reliability and validity of the measurement data, we conducted a hypothesis test. Table 3 and Fig. 2 depict this research's structural model, illustrating the path coefficients between variables and the R^2 value. Additionally, they display the t-value, p-value, and f^2 value for each route of the dependent variables in the model. The results indicate that there is a strong and positive relationship between perceived ease of use and perceived usefulness ($\beta = 0.472$, $p < 0.000$), as well as a significant relationship between perceived ease of use and attitudes ($\beta = 0.353$, $p < 0.000$), perceived utility and attitudes ($\beta = 0.391$, $p < 0.000$), and attitudes

and intention ($\beta = 0.263$, $p < 0.000$). Therefore, the study supports H1, H2, H3, and H4. Similarly, the study found that technological equipment has a significant positive influence on perceived usefulness ($\beta = 0.334$, $p < 0.000$) and perceived ease of use ($\beta = 0.506$, $p < 0.000$). Therefore, the study verifies hypotheses H5 and H6. In addition, the variable "experience" has a significant positive effect on perceived usefulness ($\beta = 0.521$, $p < 0.000$) and perceived ease of use ($\beta = 0.292$, $p < 0.000$). Therefore, we support hypotheses H7 and H8. The findings suggest that perceived ease of use has a significant positive effect on curiosity, which has a significant positive effect on intention to use. Additionally, perceived usefulness has a significant positive effect on self-efficacy, which has a significant positive effect on intention. Therefore, support to hypotheses H9, H10, H11, and H12 is lent.

Table (3) Hypothesis results.

Hypotheses	β	T	P	f^2	Decision
H1	0.47	5.357	0.000	0.029	Supported
H2	0.35	5.336	0.000	0.038	Supported
H3	0.39	4.815	0.000	0.052	Supported
H4	0.26	4.271	0.000	0.357	Supported
H5	0.33	6.443	0.000	0.521	Supported
H6	0.50	5.404	0.000	0.458	Supported
H7	0.52	6.152	0.000	0.331	Supported
H8	0.29	6.181	0.000	0.118	Supported
H9	0.45	3.197	0.000	0.031	Supported
H10	0.51	3.817	0.000	0.049	Supported
H11	0.46	4.963	0.000	0.198	Supported
H12	0.35	4.912	0.000	0.247	Supported

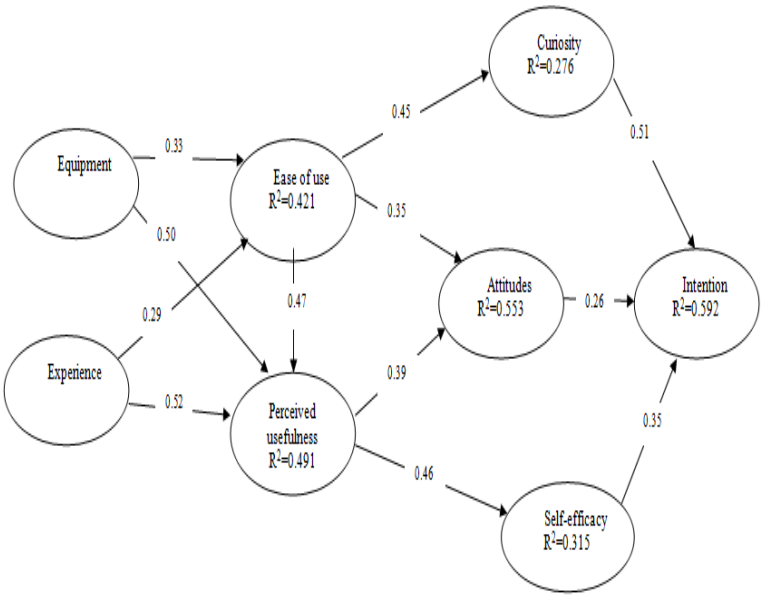

Fig.(2) Structural model.

Discussion:

Four additional external elements further enhanced the TAM, the central concept of this research. The TAM model consists of four main components: perceived ease of use, perceived utility, attitude, and actual use of e-learning for English language acquisition. Additionally, there are external factors that include curiosity, self-efficacy, equipment, and experience. Nevertheless, e-learning has emerged as a crucial instrument for kids to acquire English language skills during the pandemic of COVID-19. Thus, this research used an external variable to expand the TAM and developed and evaluated a TAM specifically for English e-learning. The results confirm all the hypotheses. Testing the hypothesis may help identify the factors that determine the actual usage of e-learning of English. The results of hypothesis testing indicate that attitude is the most influential factor in determining the use of e-learning for English language acquisition. Perceived ease of use and perceived utility are the most influential factors in determining attitude. The research by (Chen & Hsu, 2020), (Al Arif &

Handayani, 2021), (Alfadda & Mahdi, 2021), which concluded that attitude is the primary factor influencing the TAM model, aligns with the results.

The TAM contains three primary factors for assessing user behavior in the practical use of technology: perceived ease of use, perceived utility, and attitude (Pan, 2020; Andujar et al., 2020). The results aligned with (Cheung's, 2023) research, showing that participants highly evaluated the study's ease of use and utility. However, their perception of usefulness was also high. The findings of Toshiyuki & Chiu (2024) were in line with the present research, as they observed that participants exhibited elevated levels of reported ease of use, perceived utility, and behavioural intention. (Andujar et al., 2020) found that schools in urban areas strongly accepted technology in terms of its perceived utility, attitude towards use, and behavioural intention. Other factors that influence the use of e-learning for English language acquisition include curiosity, self-efficacy, equipment, and experience. According to the results, these characteristics have a substantial impact on the actual usage of e-learning, with a statistical significance level of $P < .05$. The findings of this research demonstrate that the attitude towards using e-learning has a significant impact on students' actual utilization of e-learning for the purpose of learning the English language. In line with the findings of (Fathi & Rahimi, 2020) and (Lin & Wang, 2021), the research has verified that there exists a strong and statistically significant association between students' attitudes towards e-learning and their actual utilization of it. This research found out that both self-efficacy and curiosity had a favourable and noteworthy influence on the ongoing intention to utilize. Furthermore, this study discovered that the perception of how easy and beneficial it is to use English e-learning has a positive impact on students' interest and self-efficacy. These factors also contribute to enhancing the impact of external stimuli.

The results agree with the claims made by (Clarke, 2008) and (Chen et al., 2020) that the most efficient approach to converting external inputs into positive reactions and actions is through the functioning of internal psychological mechanisms. Self-efficacy and curiosity play a role in explaining the psychological component between stimuli and behavioural responses when students utilize English e-learning. They provide insights into the process viewpoint and emphasize its significance. (Atmojo & Nugroho, 2020) and (Zhang, Yue, Ye, & Peng, 2021) highlighted the significance of the individual's evaluation process of external stimuli in the overall model, which in turn affects future decision-making. Currently,

human activities intricately connect with the use of e-learning. E-learning facilitates the acquisition of knowledge and improves the overall quality of human existence. E-learning facilitates learners' access to materials and provides help in language education, particularly in the context of learning English as a foreign language (Alfarwan, 2019; Kamal et al., 2021).

Utilizing e-learning may enhance students' proficiency in the English language (Clermont et al., 2021). Furthermore, the students recognized that incorporating e-learning into the teaching and learning process can make English learning more enjoyable. Various studies (cf. Hu et al., 2020; Huang & Teo, 2020; Yao et al., 2020) have shown that this integration of e-learning improves students' positive attitudes towards its use. In summary, both student attitudes and experience have a positive impact on the use of e-learning to learn English. However, it is worth noting that neither the availability of equipment nor the students' e-learning skills have a significant influence on the use of e-learning for English language learning. The integration of e-learning has a substantial impact on the acquisition of English language skills, particularly among university students. In today's age of technology, the presence of e-learning is essential for enhancing the English language proficiency of individuals whose native language is not English. They use e-learning resources to acquire English language skills and have a favorable attitude toward incorporating e-learning into their educational pursuits.

This research's findings are beneficial to both university students and educators. Students must have e-learning literacy, curiosity, self-efficacy, equipment, experience, and a positive attitude toward using e-learning in English learning activities. Regarding instructors, their role should be to support students, foster their positive attitudes, and drive towards learning English via e-learning. Teachers should acquire e-learning abilities to effectively cater to the educational requirements of pupils in the current era of digital technology. Future researchers anticipate addressing and enhancing these drawbacks, despite the significant theoretical and practical implications of this discovery. This study investigates students' attitudes and views when using e-learning in the context of English language acquisition. In addition to English language acquisition, researchers may incorporate other topics such as professional course instruction and the study of other foreign languages. Henceforth, researchers might incorporate diverse fields of e-learning in order to comprehend the impact of students' utilization and abstention from e-learning, yielding more profound significance. In addition, the integration of several ideas and models will result in a greater range of outcomes.

Therefore, this study suggests that future research should incorporate diverse factors and theoretical models to enhance the models associated with TAM, irrespective of their application in e-learning or consumer behaviour. This would contribute to enhancing the theoretical depth of TAM. Jordanian institutions highly regard English language study as a significant aspect of education. The varying levels of priority that different nations place on mastering the English language might impact users' attitudes and opinions about its use. Hence, this study proposes that future studies explore other places and nations where languages other than English are spoken natively in order to investigate the behavioural patterns of students while using English e-learning. Additional research is recommended to replicate the present study with a larger sample size of respondents who have more experience using e-learning for English language acquisition. This will provide more accurate and widely applicable findings.

Conclusion:

In summary, both students' attitudes and motivation have a positive impact on the use of e-learning to learn English. However, it is worth noting that neither the availability of equipment nor the proficiency of students in e-learning skills significantly influence the use of e-learning for English language learning. E-learning integration has a significant impact on the acquisition of English language skills, particularly among university students of English as a foreign language. In the current age of technology, the presence of e-learning is essential for enhancing the English language proficiency of non-native English speakers. They use e-learning resources for the purpose of acquiring English language skills, and they exhibit a favourable disposition towards the utilization of e-learning for their educational endeavors. The results of this study are beneficial for both students and educators at higher education institutions. Students must possess e-learning literacy, e-learning interest, self-efficacy, equipment, experience, and good attitudes towards using e-learning in English learning activities.

Regarding instructors, their role should be to support students, foster a positive mindset, and provide the necessary resources for learning English via e-learning. In order to cater to the specific learning requirements of pupils in the current digital era, teachers should acquire e-learning abilities. The small sample size limits this research, despite providing valuable insights into the factors that influence the usage of e-learning for English

language acquisition. We recommend conducting additional research to replicate the current study with a larger sample of participants who have more experience in using e-learning for English language acquisition. This will lead to more accurate generalizations.

References:

Ahmad, S., Wan, W. & Aliza, S. (2017). *A study on acceptance of mobileschool at secondary schools in Malaysia: Urban vs rural*. Retrieved from https://aip.scitation.org/doi/abs/10.1063/1.5005383.

Al Arif, T. (2019). Indonesian university students' perception and expectation towards ICT use in learning English as a foreign language. *Indonesian Journal of English Language Teaching and Applied Linguistics*, 4(1), 133–145.

Al Arif, T. & Handayani, R. (2021). Factors influencing the use of ICT for English language learning of Indonesian EFL university students. Elsya : *Journal of English Language Studies*, 4(1), 24–33. https://doi.org/10.31849/elsya.v4i1.6882.

Al-Arif, T. Sulistiyo, U., & Handayani, R. (2022). Determinants of Technology Acceptance Model (TAM) towards ICT use for English language learning. *Journal of Language and Education*, 8(2), 17-30. https://doi.org/10.17323/jle.2022.12467.

Alfadda, H. & Mahdi, H. (2021). Measuring students' use of zoom application in language course based on the Technology Acceptance Model (TAM). Journal of Psycholinguistic Research, 50(4), 883–900. https://doi.org/10.1007/s10936-020 09752-1.

Alfarwan, S. (2019). University student access to and use of electronic devices: A latent English language learning potential. *Teaching English with Technology*, 19(1), 102–117.

Al-Gahtani, S. (2016). Empirical investigation of e-learning acceptance and assimilation: A structural equation model. *Applied Computing and Informatics*, 12(1), 27–50. https://doi.org/10.1016/j.aci.2014.09.001.

Andujar, A., Ramiro, M. & ınez, M. (2020). Integrating flipped foreign language learning through mobile devices: Technology acceptance and flipped learning experience. *Sustainability*, 12(3), 1110. https://doi.org/10.3390/su1203111.

Armstrong, J. & Overton, T. (1977). Estimating non-response bias in mail surveys. *Journal of marketing research*, 14(3), 396–402.

Atmojo, A., & Nugroho, A. (2020). EFL classes must go online! Teaching activities and challenges during COVID-19 pandemic in Indonesia.

Register Journal, 13(1), 49–76. https://doi.org/10.18326/rgt.v13i1.49-76.

Bailey, D., Almusharraf, N. & Hatcher, R. (2021). Finding satisfaction: Intrinsic motivation for synchronous and asynchronous communication in the online language learning context. *Education and Information Technologies*, 26(3), 2563–2583. https://doi.org/10.1007/s10639-020-10369-z.

Balbay, S., & Kilis, S. (2017). Students' perceptions of the use of a youtube channel specifically designed for an academic speaking skills course. *Eurasian Journal of Applied Linguistics*, 3(2), 235–251.

Bauwens, R., Muylaert, J., Clarysse, A. & Audenaert, E. (2020*). Teachers' acceptance and use of digital learning environments after hours: Implications for work-life balance and the role of integration preference*. Computers in Human Behavio.

Behl, A., Jayawardena, N., Pereira, V., Islam, N., Giudice, M. & Choudrie, S. (2022). *Gamifcation and e-learning for young learners: A systematic literature review, bibliometric analysis, and future research agenda.* Technological Forecasting and Soci.

Boutonglang, D. & Flores, F. (2011). A study on integrating technology to engage 7th graders into an English as a foreign language (EFL) classroom in a rural secondary school, Thailand. *International Journal of Arts & Sciences*, 4(18), 195–206.

Canino, R., Hern, L. & Brito, P. (2023). A scientometric analysis on entrepreneurial intention literature: Delving deeper into local citation. Heliyon, 9(2), E13046. https://doi.org/10.1016/j.heliyon.2023.e13046.

Chen, M., Hwang, G., Majumdar, R., Toyokawa, Y. & Ogata, H. (2021). Research trends in the use of E-books in English as a foreign language (EFL) education from 2011 to 2020: A bibliometric and content analysis. *Interactive Learning Environments*, 31(4), 2411–2427. https://doi.org/10.1080/10494820.2021.1888755.

Chen, P., Wang, L. & Zou, D. (2020). Effects of captions and English proficiency on learning effectiveness, motivation and attitude in augmented-reality-enhanced theme-based contextualized EFL learning. *Computer Assisted Language Learning*, 35(3), 381–411. https://doi.org/10.1080/09588221.201.

Chen, T., Peng, L., Yang, J. & Cong, G. (2021). Analysis of user needs on downloading behavior of English vocabulary apps based on data mining for online comments. *Mathematics*, 9(12), 1341. https://doi.org/10.3390/math9121341.

Chen, Y. & Hsu, C. (2020). Self-regulated mobile game-based English learning in a virtual reality environment. *Computers & Education*, 154, 103910. https://doi.org/10.1016/j.compedu.2020.103910.

Chen, Z., Chen, W., Jia, J. & An, H. (2020). The effects of using mobile devices on language learning: A meta-analysis. *Educational Technology Research and Development*, 68(4), 1769–1789. https://doi.org/10.1007/s11423-020-09801-5.

Cheng, Y., Wang, Y. & Yang, Y. (2020). Designing an authoring system of robots and IoT-based toys for EFL teaching and learning. *Computer Assisted Language Learning*, 34(1–2), 6–34. https://doi.org/10.1080/09588221.2020.179.

Cheung, A. (2023). Language Teaching during a Pandemic: A Case Study of Zoom Use by a Secondary ESL Teacher in Hong Kong. *RELC Journal*, 54(1), 55–70. https://doi.org/10.1177/0033688220981784.

Clarke, A. (2008). E-learning skills. New York, NY: Palgrave Macmillan. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.

Clermont, M., Krolak, J. & Tunger, D. (2021). Does the citation period have any effect on the informative value of selected citation indicators in research evaluations? *Scientometrics*, 126(2), 1019–1047. https://doi.org/10.1007/ s11192-020-03782-1.

Davis , D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS* Q;13(3):319–40. https://doi.org/10.2307/ 249008.

Elaishe, M., Liyane, A. & Ghanie, G. (2019). Mobile English language learning (MELL): A literature review. *Educational Review*, 71(2), 257–276. https://doi.org/10.1080/00131911.2017.1382445.

Fathi, J. & Rahimi, M. (2020). Examining the impact of flipped classroom on writing complexity, accuracy, and fluency: a case of EFL students.

Computer Assisted Language Learning, 35(7), 1668–1706. https://doi.org/10.1080/ 09588221.2020.1825097.

Fatiha, M., Sliman, B., Mustapha, B. & Yahia, M. (2014). Attitudes and motivations in learning English as a foreign language. *International Journal of Arts & Sciences*, 07(03), 117–128.

Fulya, T., Eyupoglu, J. & Nietfeld, L. (2019*). Intrinsic motivation in game-based learning environments, in: Game-based Assessment Revisited*, Springer, pp. 85–102.

Gao, L. & Zhang, L. (2020). *Teacher learning in difficult times: Examining foreign language teachers*' cognitions.

Gewin, V. (2020). Five tips for moving teaching online as COVID-19 takes hold, *Nature* 580 (7802) 295–296.

Hair. (2017). *A primer on partial least squares structural equation modeling* (PLS-SEM).

Hair, J. Ringle, C. & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet, *J. Marketing Theory Pract*., 19(2),.139–152, Apr.

Hu, K., AlSaqqaf, A. & Swanto, S. (2020). E-learning readiness among English language teachers in Sabah, Malaysia: A pilot study. *Journal of English Language Teaching Innovations and Mater*ials (JELTIM), 2(2), 120-127. DOI: http://dx.doi.org/10.26418/jelti.

Huang, F. & Teo, F. (2020). Influence of teacher-perceived organisational culture and school policy on Chinese teachers' intention to use technology: An extension of technology acceptance model. *Educational Technology Research and Development*, 68(3), 154.

Huang, S. (2003). Ten pointers for enhancing learners' motivation, Bus. *Commun. Q*. 66 (4) 88–95.

Kamal, M., Zubanova, S., Isaeva, V. & Movchun, V. (2021). Distance learning impact on the English language teaching during COVID-19, Educ. *Inf. Technol*. 26 (6) 7307–7319.

Kirmizi, O. (2014). Measuring technology acceptance level of Turkish pre-service English teachers by using technology acceptance model. Educational Research and Reviews, 9(23), 1323-1333.

Li, T. & Chen, Y. (2019). Will virtual reality be a double-edged sword? Exploring the moderation effects of the expected enjoyment of a destination on travel intention, J. Destin. *Market. Manag*. 12 15–26.

Lin, Y. & Wang, W. (2021). Using virtual reality to facilitate learners' creative self-efficacy and intrinsic motivation in an EFL classroom, Educ. *Inf. Technol*. 26 (4) 4487–4505.

Liu, X., Peng, M., Anser, W. & Chong, B. (2020). Key teacher attitudes for sustainable development of student employability by social cognitive career theory: the mediating roles of self-efficacy and problem-based learning, Front. *Psychol*. 11 1945.

Mei, B., Brown, G. & Teo, T. (2018). Toward an understanding of preservice English as a foreign language teachers' acceptance of computer-assisted language learning 2.0 in the People's Republic of China. *Journal of Educational Computin Research*, 56(1), 74–104. https://doi.org/10.1177/0735633.

Michael, Y., Yunying, X., & Cheng, X. (2023). Enhancing students' English language learning via M-learning: Integrating technology acceptance model and S-O-R model. *Heliyon*, 25(11). doi:https://doi.org/10.1016/j.heliyon.2023.e13302

Pan, X. (2020). Technology acceptance, technological self-efficacy, and attitude toward technology-based self-directed learning: learning motivation as a mediator, Front. *Psychol*. 11 564294.

Rashid, R. (2021). Educational games for learning, Int. J. *Law Manag*. 4 (5) 1–11.

Sun, L., Tang, Y. & Zuo, W. (2020). Coronavirus pushes education online, Nat. *Mater*. 19 (6) 687.

Toshiyuki, H., & Chiu, M. (2024). Technology-enhanced language learning in English language education: Performance analysis, core publications, and emerging trends, *Cogent Education*, 11:1, 2346044, DOI: 10.1080/2331186X.2024.2346044.

Venkatesh, V. & Davis, D. (2000). A theoretical extension of the technology acceptance model: four longitudinal field studies. *Manage* Sci ;46(2):186–204. https:// doi.org/10.1287/mnsc.46.2.186.11926.

Venkatesh, V., Thong, J. & Xu, X. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS* Q. 36, 157–178.

Xu, F., Huang, S. & Li. S. (2019). Time, money, or convenience: what determines Chinese consumers' continuance usage intention and behavior of using tourism mobile apps? Int. J. Cult. *Tourism Hospit*. Res. 13 (3) 288–302.

Yang, S., Carlson, J. & Chen, S. (2020). How augmented reality affects advertising effectiveness: the mediating effects of curiosity and attention toward the ad, J. Retailing Consum. *Serv*. 54, 102020.

Yao, J., Rao, J., Jiang, T. & Xiong, C. (2020). What role should teachers play in online teaching during the COVID-19 pandemic? Evidence from China, Sci. Insigt. Edu. *Front*. 5 (2) 517–524.

Zhang, G., Yue, Y., Ye, M. & Peng, P. (2021). Understanding the impact of the psychological cognitive process on student learning satisfaction: combination of the social cognitive career theory and SOR model, Front. *Psychol*. 12.