



(701)-(730)

العدد الرابع
والأربعون

تأثير وعي طلاب الجامعة دارسي اللغة الإنجليزية كلغة أجنبية بالذكاء الاصطناعي كأداة تعليم
في تعزيز الممارسات التكنولوجية المبتكرة
ا.م.د. رغد خلف عليوي

قسم اللغة الانكليزية/ كلية التربية/ الجامعة المستنصرية/ بغداد-العراق

raghadkhalaf@uomustansiriyah.edu.iq

المستخلص:

تناقش هذه الدراسة استراتيجية توعية طلاب اللغة الإنجليزية كلغة أجنبية مع التركيز بشكل خاص على الأدوات القائمة على الذكاء الاصطناعي مثل ترجمة جوجل في تعزيز الممارسات التربوية الجديدة خاصة بعد جائحة كوفيد -١٩. تبحث الدراسة في كفاءة تكنولوجيا التعليم والتعلم باستخدام أدوات الذكاء الاصطناعي لتحفيز الممارسات التربوية من خلال التعاون بين المعلم والطالب على وسائل التواصل الاجتماعي. من خلال الدراسة، شارك ٢٠٨ طلاب من الجامعات العراقية لاكتشاف نجاح ترجمة جوجل كتكنولوجيا تعليمية جديدة. تستخدم الدراسة اساليب مختلفة تطبيق اختبار تي مستقل وأنوفا في اتجاه واحد. تكشف النتائج أن العديد من المشاركين مستأوون من التكنولوجيا التربوية وأن الواقع فقط هو الذي يجد أنها مهمة لعمليتهم التعليمية. بالدراسة تؤكد على أن كلا الجنسين مناسبان بالتساوي لتكنولوجيا التعليم بعد جائحة كورونا باستخدام أدوات الذكاء الاصطناعي. يتضح من اختبار ويلش الذي يوضح أنه لا يوجد فرق جوهري إحصائي في زيادة الوعي بتحصيل الطلاب للتعليم الجديد. تظهر قيمة تي سلبية (تي = -٠,٤٥، ص = ٠,٦٥٣). أيضا لا يوجد فرق جوهري بين الطلاب من مختلف المواهب في رفع مستوى الوعي لتعلم التكنولوجيا الحديثة تعتمد على اختبار أنوفا في اتجاه واحد مشيرا إلى أن $E > ٠,٠٥$ مستوى أداء التعلم الإلكتروني بعد جائحة كورونا [و (٥,١٢٧) = ٣,٧١٤، ع = ٠,٠٠٤]. لخص هذا البحث التجريبي إلى أن التعليم المبتكر تماما قد لا يكون مناسباً لجميع أنواع الطلاب من خلال تطبيق أدوات الذكاء الاصطناعي. يجب على اساتذة الجامعات تحقيق هذه الامور وتقديم القرارات المناسبة للتقدم في الأداء التكنولوجي للطلاب في التعليم. يظهر الاختبار أن تطبيق



ترجمة جوجل لزيادة الوعي يوسع آفاق الطلاب المستقبلية من خلال اتجاهات جديدة في
استقلالية التدريس والتعلم.
الكلمات المفتاحية: الذكاء الاصطناعي، الوعي، اللغة الإنجليزية الأجنبية، أداة التعلم،
التكنولوجيا المبتكرة

The Impact of EFL University Students' Awareness of Artificial Intelligence as a Learning Tool in Fostering Innovative Technological Practices

Asst.Prof.Raghad Khalaf Ulaywi,Ph.D

Department of English Language, College of Education,

Mustansiriyah University, Baghdad, Iraq

raghadkhalaf@uomustansiriyah.edu.iq

Abstract

The study discusses EFL students' raising awareness strategy with particular concentration on AI-based tools like Google translate in fostering new pedagogical practices especially after COVID-19 pandemic. The study examines the influence of students' awareness of using AI tools to motivate pedagogic practices through teacher-student collaboration on social media. Through the study, 208 students of native Iraqi colleges participated to discover the successfulness of Google translate as new technology. The study uses different parameters applying an independent t-test and one-way ANOVA. The results reveal that many participants are disgruntled with pedagogic technology and only the reality finds that it is significant for their educational process. It is relied on the truth that both genders are evenly fit for educational technology post corona pandemic by using AI device. It is evidenced by Welch test showing that statistically no substantive difference exists in gender in raising awareness of students' achievement of new learning. A passive t-value shows ($t = -0.45$, $p = 0.653$). Also, no substantive differences among the students from various talents in their raising awareness to learn technology relied on one-way ANOVA test indicating that $p < 0.05$ level



of performance of electronic learning after corona pandemic [f (5,127) =3.714, p=0.004]. This experimental research concluded that a completely innovative education may not be fit for all kinds of students by applying AI tools. University teachers must realize these affairs and supply suitable resolutions to progress students' technological performance in education. The test shows that applying Google translate for raising awareness extends students' future outlook through new trends in teaching-learning autonomy.

Keywords: Artificial intelligence, awareness, English foreign language, learning tool, innovative technology.

1. INTRODUCTION

Though teaching technological is not as very new requirements of educational system, it is like a shot appeared as an urgent and obligatory need in education recently. Showily (2024) elucidates that most previous viewpoints on the use of technological teaching skills are passive. It is expected by prior studies beginning that instructors as well as students are poor of learning attachment owing to scientific affairs thus teachers have obstacles during running their lessons through online discussions. Therefore, it is asserted by the study findings beginning that language teaching faced many difficulties concerning teaching and learning online. The results show that the major difficulties in teaching technology consist of technological affairs, originality, negotiations, class period of time, inaccessibility affairs and student passionate upholding.

Nowadays, the blend of Artificial Intelligence into higher education, leads to a shift from the traditional methods of learning into a more creative and active experiences. Astonishingly, though there are huge variety of AI tools, yet lots of university students have limited understanding of using it. Without having a full awareness of using AI tools, students will struggle to achieve academic success and technological skills (Ulaywi, 2025).

Bashir (2021) suggests that raising awareness as a significant learning skill refers to a definitive statement and plan indicating intent as well as commitment to improve, implement, and nurture certain content aims. He



sheds the light into learning and learner systems where students are acknowledged for their achievement in motivating and choosing suitable methods. This approach fosters and stimulates successful behaviors, motivate engagement, and encourage cultural esteem. Also, it appears in an educational environment where there is a suitable appreciation of active learner in a fair manner. Therefore, students are able to practice such content and solve the same content problem independently.

Whereas Mirawati, et al. (2020) illustrate the significance of raising awareness as a planned skill in education. It improves students thinking skills and personal awareness. It exists through focusing online learning inside and outside class. It clarifies knowledge that something occurs, or comprehending of a condition at the present time depended on certain knowledge or experience. Also, it helps students comprehend themselves better engage with learning contents. When students aware their thoughts, feelings, and behaviors, they attain a deeper comprehension of who you are and what makes you active thinker. This is vital for personal growth and improvement. Thus, good experiences will be awarded.

Almalki (2022) elucidates that psychologists and educators mostly apply sense of raising awareness as a significantly learning skill with the aim of describing one's ability to intellectually examine, discuss, and define feelings, concepts, and actions. These clarifications become very vital when explaining questions such as who defines the concept, what the aim of the definition is, moreover, who should be studied depending on these definitions. Both the definitions of raising awareness and awareness studies are affected by the complexity and the combination of theories across different educational and professional settings.

Ultimately, it is essential to mention that most recent researches have concentrated on how age, race, or culture associate with language learning process of raising and developing awareness. These studies occupy a core position in helping students in educational technology. In context of teaching, these studies enrich students' experiences over time and years of the study. They proved to motivate the applied areas of students' life. Therefore, the students' successful level and their



achievement will be increased (Ulaywi, 2025). Presently, these concepts are used to clarify an overall concept that includes many sub-concepts, such as description, control, assessment, image, perception, presentation, reflection, and creation. The previous concepts can be applied independently or in conjunction with one another. One thing to note is that researchers concur that increasing awareness improves along a continuum throughout life, and they identify four major periods as critical: infancy (the first 24 months of life); early childhood (from 24 months until age 5); middle childhood (age 5 to age 11); and adolescence (from age 11 on). From one encounter to the next, learners increase their awareness of their capability to become aware. Every experience has an impact on the one after it, and consciousness keeps growing (Almudibry, 2023).

Amalia (2021) confirms that one's linguistic skills affect the standard of raising awareness as a learning platform. The study is based on psychologists' assertions that having a well-rounded self-awareness is essential to personal development. Everybody has unique strengths and limitations that shape who they are, and self-awareness can be fulfilled by increasing knowledge of these components as well as one's surroundings. Thus, learner features are discovered that these learner factors showing how prosperous learning skills are vital.

Furthermore, Angellika (2022) suggests that teachers should plan how to raise students' awareness through a variety of innovative educational experiences. But to do so, they need to obtain more information and comprehend the domain of raising awareness. Thus, raising awareness is a concept that clarifies students' reflections of themselves. Students differ from each other in how they express themselves after having a variety of educational learning experiences.

Methodologically, raising awareness draws on understanding and cognizance of events. It lights a state where a subject has some available knowledge in the direction of a wide range of behavioral actions. So, awareness denotes a major pedagogic experience as in feeling or intuition that accompanies the experience of this state (Mumu, 2022).



Nordin et al (2022) suggest that the obstacles in directing electronic education are in terms of the various assessment platforms, larceny issues and authenticity, sequencing electronic evaluation and evaluating hints.

Nuratin et al. (2022) indicate that the core difference between technological and classical education through AI technology is located as there are such technological affairs, negotiation, and creative power connected with electronic learning relate to discontent and incompetence with this kind of learning. It is difficult for users to apply lessons using computers when they discover of advantaging aspect from electronic benefits. On the contrary, in classic classrooms, teachers and learners are full of social and passionate hints that are missing in electronic teaching.

Ulaywi (2017) reveals that teaching lessons through the use of AI technology will draw self-paced learning that stimulates students to learn autonomously.

The application of teaching technology before AI tools presents challenges in the field of ELT. Thus, it increases the space between teachers and students. Students will be completely in isolation. Instructors will leave students flummoxed by giving and accumulating too much lesson content without clarification. Teachers are highly uncomfortable about this type of education because there is carelessness, inattention, and no assessment of the quality of this kind of learning. In addition, teachers think that technological courses fall short of all demands for a high-quality learning experience, consisting of incapability to clearly monitor learners' progress and inability to improve specific and creative skills to evaluate their performance and the students' acquisition of pedagogic materials (Mohamed,2023).

Cabansag (2022) accentuates that students' experiences were involved in research results, beginning with the fact that recurring concepts appeared during AI tools experience. Such topics appear as follows:

A-impacts of AI tools classes,

1-obstacles in the process of learning, as well as,

2-inexpensiveness and attainability of time and place.

Concerning the key topic



B-Affairs and obstacles faced by students in AI classes.

Three concepts are used, such as:

- 1-affairs of connecting to the internet,
- 2-poor resources, such as in gadgets and faint output.
- 3-lower manufacturing average.

C-The other key topic, two concepts appeared:

- 1-finding options, and
- 2-training AI leadership.

D-The final key point is the role of participants who suggest developing their learning process.

In the above study, there is an impact of students on AI classes not only in their academic achievement but also on their psychological health. Furthermore, Alfuruque (2023) focuses on the wonderful and successful results of applying AI as a new technology. They indicate that applying this technology in class stimulates students' productive concepts. Thus, it motivates positive instruction and creates a successful learning environment, so evaluation will be successful and direct.

Nuryatin et al. (2022) find that teachers and students will develop their conviction with AI technological education. On one hand, teachers have a major obligation to construct and sustain a healthy learning environment. They can effectively manage this kind of technology to enrich students' achievement. On the other hand, in the near future, students' performance on this kind of learning will be improved and enhanced. They will learn autonomously and individually by looking at the tasks and solving futuristic problems. Thus, they feel relaxed, and no pressure is associated with recent learning. However, students' level in this kind of psychological learning and their achievement will be measured by certain norms.

In order to assess students' academic levels, tests will be applied. Here it is essential to mention that assessment of academic abilities is easy, but evaluation of non-academic abilities is problematic. It is thought that students' conviction is affected by educators' ability to negotiate recent



AI education. Also, it relies on teachers using different skills in applying current learning in class (Khaled, 2022).

Awareness as an ongoing, future-oriented skill requires paying attention to what is going on inside teachers' thoughts. Students are capable of comprehending strengths and weaknesses; thus, they can make development in aspects where they require assistance. Also, it aids learners to manage pressure successfully by pointing out triggers before time before they spiral out of control into something bigger than they should be. Therefore, practicing awareness will encourage students to improve in many aspects of their lives (Toombs, 1977).

As an implementation aspect, educators involve students with instructional skills. So, the aim of current learning is decided not only by the system's characteristics but also by social features impacting learners' and educators' learning skillfulness. It is concluded that AI tools in education have advantages. It offers various skills for colleges through increasing the multiuse of social media sites (Scheiter, 2014).

Mahyoob's viewpoint (2020) elaborates that new education for EFL learners is associated with academic, communicative, and technological problems. It is indicated that electronic education is not popular all over the world. Hence, this study compensates for the kind of education applied, especially in the period of the COVID-19 pandemic and thereafter. About 60% of EFL students agree on their language proficiency through modern technology. Therefore, this research aims to study the students' learning strategy, raising awareness, with particular focus on AI and its impact on innovating teaching technology.

However, with vital AI tools like Google Translate, Grammarly, and smart training systems in the modern educational system, students still do not identify the pedagogical worth of these tools. Most students use the AI tools superficially, lacking the ability to evolve and searching for the necessary critical thinking tools. This issue is exacerbated by difficult access to AI technologies, institutional support, and a lack of educational guidance. Subsequently, there is a severe need to explore university



students' awareness level through actual practice of AI technology as a learning tool (Ulaywi, 2025).

Dramatically, the pandemic transformed educational methods, prompting schools and universities to shift from traditional classroom instruction to online learning environments that rely on AI tools. This increase in the need to use artificial intelligence exposed the ignorance gap in how to use the digital tools effectively. Many studies have examined technological strategies, yet there remains a serious problem in enhancing students' ability to use technological tools ethically, effectively, and innovatively in post-pandemic learning. Even though artificial intelligence (AI) is quickly being incorporated into higher education, many EFL university students are still not sufficiently aware of how AI technologies can be used to improve learning and promote cutting-edge technology practices. Furthermore, there is still no empirical data on the connection between students' acceptance of cutting-edge educational technologies and their awareness of artificial intelligence, especially in Iraqi institutions in the post-COVID-19 educational environment. Thus, the purpose of this study is to determine whether or not EFL university students' awareness of AI as a teaching tool significantly fosters innovative technological practices and whether or not this awareness varies depending on demographic factors.

Accordingly, the current study attempts to fill the gap by examining the latest application strategies and their association with digital learning after the COVID-19 pandemic, illustrating the huge difference that AI technological tools in learning can create and motivate learning in higher education studies and beyond.

This research study aims to find out the impact of a raising awareness strategy on EFL university students applying AI tools towards innovative education by examining innovative technological practices. To understand this, the researcher tries to answer the following research questions.

1-Is there any difference between feminine and masculine students in the standard of raising awareness towards new technology of applying AI tools to foster innovative technological practices?



- 2-How does the researcher juxtapose the important effect of classroom learning skills of innovative technology on education?
- 3-Is there any difference among students from various talents in their standard of raising awareness by using AI tools to boost innovative technological practices?

2. LITERATURE REVIEW

Remarkably, Artificial Intelligence (AI) technologies have advanced rapidly across sectors, including education. In higher education studies, AI tools are being implemented to improve learning effectiveness. The more universities adopt digital strategies, the more students recognize the essential need for digital awareness to use AI as a learning tool. There is a theoretical framework that proves how AI tools can be a huge assist to learning skills when interacting with technological innovation, with pedagogical context (Ulaywi, 2025).

The blend of educational strategies with artificial intelligence is like a computer system that stimulates human intellectual utilities such as cognitive, problem-solving, and learning (Russell & Norvig, 2021). AI applications such as Grammarly, intelligent tutoring systems, Google Translate, and adaptive learning platforms can evaluate students' performance, with direct feedback that supports both learning and teaching procedures.

In line with Holmes et al. (2019), integrating AI tools into education will tailor instruction to individual learning levels and enhance students' motivation by creating an interactive environment. Still, such benefits of these technologies demand students' responsibility and awareness to apply AI tools. From ideological pedagogic philosophy, the most significant approach to be used in education is behaviorism. It identifies distinct stages in the process of language learning. It focuses on the dismantling of learning to enhance thinking skills as well as to center on the significance of solving the problem as innovative approaches care about (Picciano, 2017). This approach concentrates on six constituents to arrive at the level of importance. It includes:

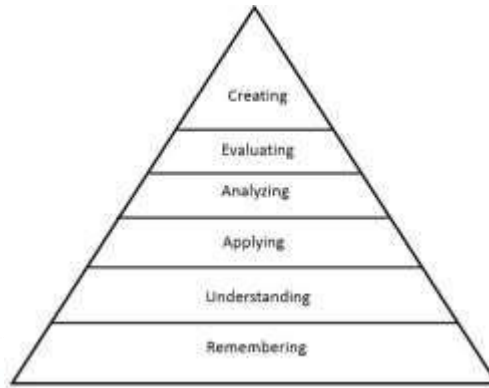


Figure 1: Bloom Taxonomy

- 1-Remembering: It means recalling and recollecting pertinent content involving material from long-term retention store.
- 2-Comprehending: It means structuring meaning from verbal and graphic messages through interpreting, classifying, summing up, concluding, and discussing.
- 3-Applying: It means applying a procedure through performing and inquiring.
- 4-Analyzing: It means dividing content into components and deciding how constituents are concerned with one another and with the whole structure through distinguishing, planning, and associating.
- 5-Evaluating: It means creating resolutions or decisions based on levels and criteria through examination and critique.
- 6-Creating: It means collecting parts together to build an intelligible or practical whole, and rearranging parts into a new model or construct through generating, organizing, or renewing awareness and Digital Literacy among University Students.

University students need to have a full awareness of AI devices to stratify them for learning purposes. Awareness is not only knowing what AI is, but it extends to a full understanding of its pedagogical roles and its possible threats. The researcher offers a groundwork for how students engage with AI technology. He highlights three scopes of digital literacy theory.



1. Technical literacy: How to activate digital tools.
2. Cognitive literacy: How to value and apply the information analytically.
3. Social Literacy: How to cooperate, link, and act decently in the use of digital tools. The more students seek higher levels of digital mastery, the more they tend to adopt AI technologies in an innovative way in their learning strategies.

According to Davis's (2002) Technology Acceptance Model (TAM), students adopt technological tools based on two issues: practicality and availability. If students adopt AI tools to improve learning products practically and involve them in their daily academic practices, then they intend to use them successfully and creatively.

On the negative aspect, Yuzulia's study (2021) focuses on learners' obstacles when technological learning involves poor internet connection, less motivation, a tendency to become speedy error, more pressure from the educators' labor load, and difficulty in the students' learning process.

From a beneficial viewpoint, Prasetyanto's study (2022) indicates that new learning revolution is more structured than face-to-face instruction. This kind of learning gave students the trust to take part in educational discussions. However, a few students felt more relaxed talking in new-oriented education than they would in an ordinary method. Some of them preferred the traditional learning method when implementing new learning technology. It is expected that teachers apply teaching skills to improve students' enhancement and efficiency.

Djidu et al.'s study (2021) draws on another difficulty clarified by methodologists: less experience, information, and capabilities in using recent learning references and obstacles in placing learning resources, administering learning resources, and problems in supplying measuring equipment for technology evaluation. Thus, the difficulty of managing time through innovative learning is also fundamental.

Indriani's study (2021) elucidates that, based on research findings, students' orientations are active and significant in education using technology because raising awareness towards this kind of learning has



increased significantly, especially at this time. Therefore, their ability to self-administer their learning will be raised. On the other hand, the affirmative attitude to electronic education conducted by students, step by step, develops their learning achievement. As a result, this kind of learning originates as an innovative way to submit successful online discussions and presentations through using AI tools.

Technological fluency and a culture of innovation are encouraged in universities that provide AI digital programs. Likewise, educators' attitudes and skills considerably influence students' grasp of AI tools. Teachers are models that inspire their students to adopt similar practices. On the other hand, lack of teachers' guidance can lead to misapplication or underuse of such technologies (Wargadinata, 2020).

In line with Floridi (2019), technological ethics entails awareness of how technology influences moral behavior and decision-making. Consequently, students are encouraged to use AI conscientiously, which aids in confirming technological innovation that lines up with academic decency and intellectual progress.

Liu et al. (2022) suggest that students' negative orientations toward AI learning, resulting from poor performance, will be formed. On the contrary, teachers are cheerful with technological education. They still use this technology without issues appearing. Thus, 22.5% of respondents concur, and 16.9% strongly concur that AI education needs to be implemented over and above the traditional way of education.

Hermanto's study (2020) detects that most universities in Arabic countries, specifically in Iraq, have recently expanded the application of AI education programs. Universities utilize all available references to implement recent education since this kind of learning was achieved successfully, depending on the expertise of adopting it during and after the COVID-19 pandemic. Recently, learning skills, methodologies, and technological education are expected to motivate educational experience at most developed universities.

Moreover, Suhandiah et al. (2022) conducted a study that shows the benefits of traditional and technological education. They focus on some



factors that affect students' perception of the kind of learning. They are raising awareness of learning skills and teachers' presence. These various skills may mediate learning understanding through modern ways of thinking and develop the experience and performance of students. Thus, universities probably increase teachers' skills and knowledge by training them to develop and improve their ability to direct classes in ways that are more negotiable educationally, socially, and scientifically. Also, innovative education proved positive for all AI tool users. The stimulation and awareness of students to learn new technological content were achieved with great success.

Sendi and Alsaedi (2026) break up those learners acknowledged that new education relied on raising awareness in transmitting information. Their perception was determined to be the most critical predicator on students' acceptance of this education. In addition, students' focus on convenience and efficiency became a vital measure for allowing them to apply AI tools in learning. So, students' raising awareness of pedagogic learning has been proposed to enhance their productive, useful processing of applying correct instructions to get bigger and boost the stimulation to recent learning technologically. Researchers in the field of ELT identified many benefits of incorporating literary texts to enhance EFL classes. They disrupt not only basic linguistic skills but also recent language-learning strategies (Shafiq and Zaid, 2024).

AI tools are being used in higher education research to increase the effectiveness of learning. The more institutions embrace digital tactics, the more students realize how important it is to be digitally aware to use AI as a teaching tool. A theoretical framework demonstrates how AI tools, when combined with educational context and technical innovation, can greatly aid in learning skills. According to current research, students are more likely to agree and actively receive fully pedagogical instructions provided by this type of learning and electronic education pattern when they are persuaded by electronic learning connected by AI tools and successfully satisfy it. It is crucial to emphasize the function of instructors in this regard. They are essential leaders who guide and assist pupils in accurately adhering to the



educational ideals of this learning. Consequently, this study finds that students are convinced of the effectiveness of an effective electronic learning mode.

3. METHODOLOGY

3.1 Participants

This study was conducted at Baghdad University, College of Education-Ibn Rushd, and included (208) participants from various talents of the university who took part in the survey (as mentioned in Table 1). They were male and female. Their age ranged from 20 to 24 years old. They had learned English at school for at least eight years before they went to university. So, they had to continue learning English as a compulsory subject at university. All participants were given explicit instructions to either attend blended or educational courses.

Table 1: The frequency and percentage of the respondents

Gender	Frequency	Percentage
Male	72	31.4
Female	136	68.6
Total	208	100

3.2 Questionnaire

The questionnaire included two sections. Section one consisted of demographic questions. Section two had twenty items on students' raising awareness of the efficiency of electronic education after the COVID-19 pandemic period. The scale consists of 20 items. It is a 7-point Likert-type scale (from 1: completely disagree to 7: completely agree). Korkut and Arslan's (2016) study has proved that 7-point Likert items supply a more precise measure of a student's correct assessment and are more suitable for online questionnaires without supervision, with ease of use.



3.3 Validity

It is the degree to which an instrument assesses the questionnaire items that are intended to be evaluated based on the subjective judgment of an observer (Ulaywi, 2017). The jury members, including seven college professors and supervisors of English language teaching, validated the research study's face validity by checking the questionnaire items. The jury members confirmed the face validity of the instrument and provided considerable information, acquiring valid judgments about the appropriateness and adequacy of the items of the instrument

3.4 Reliability.

The reliability of internal consistency for the questionnaire was assessed using Cronbach's alpha. Such values were 0.908 for section two (students' raising awareness of electronic learning). According to Richards and Schmidt (2002), such a value is considered good and indicates high internal consistency.

The respondents answered the questionnaires. The participants who had not been presented with electronic classes were excluded from the experiment. Two hundred and eight participants attended the experiment. The statistical method was used to discover the connection between different treatments using an independent t-test and one-way ANOVA.

The hypothesis was significant for the nature of the data, which stipulates that the two comparison groups have the exact variance. On the basis of the Central Limit Theorem, a sample size greater than 30 is regarded as normal. Levene's and Welch's tests are administered to test the homoscedasticity hypothesis. Levene's test is used to assess whether the two groups have variance homogeneity. The test should demonstrate a lack of statistical significance. Whereas Welch's test assumes that both data sets are taken from two populations following a distribution. In order to contrast the means for the two groups, the independent samples t-test was applied.



3.5 Result

The independent t-test was used to examine the differences in students' raising awareness of technological learning and their efficiency in using AI tools after the coronavirus period. Homogeneity of variances was evaluated using Levine's test for efficiency. Answering the first research question, which is "Is there any difference between the feminine and masculine students in their raising awareness towards teaching technology by applying AI tools?". As shown in Table 2, there is no significant difference in students' awareness of electronic education across genders ($t = -0.42$, $p = 0.63$). No significant difference is found in gender in their raising awareness of the efficiency of electronic education by using AI tools. A significant t-value shows rejection of the null hypothesis. There is no tolerance for the significance of the difference between groups in electronic learning (Padmo et al, 2020).

Table 2. Independent Samples Test between raising awareness and achievement in online learning depending on Gender
Levine's Test for Equalization

Means								
		F	Sig.	T	Df	Sig. (2- tail ed)	Mean Differe nce	Std. Error Differe nce
6	H ₀ ATTITUDE	0.02	0.		306	.929	.153	1.7
			107					11
			7					
	H		.0		104.2	.833	.153	1.8
	1		82		68			64
	ACHIEVEMENT	0.32	-		306	.633	-.479	1.0
	H ₀		4 .4					66
			20					
	H		-		107.1	.674	-.479	1.



1	.4	29	13
	21		7

Table 3. Group Statistics for Attitude and Achievement with Gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean
ATTITUDE	Male	72	62.04	13.222	1.687
	Female	236	61.70	11.182	.793
ACHIEVEMENT (awareness)	Male	72	28.33	8.642	1.022
	Female	236	26.80	7.552	.499

As shown in Table three, expressively, there was not much difference between females' (M = 26.80, SD = 7.552) and males' means (M = 28.33, SD = 8.642) for students' raising awareness of the achievement of electronic learning by applying AI tools.

To respond to research question three (Is there any difference among students from various talents in their standard of raising awareness by using AI tools?), an analysis of variance (ANOVA) test has been used to contrast the raising awareness and achievement of electronic learning between talents. Based on the one-way analysis of variance findings in Table 4, there was a significant statistical difference between the two talents in Baghdad University at the $p < 0.05$ level of achievement of electronic education after the COVID-19 pandemic [$F(5, 127) = 3.51, p = 0.005$]. Thus, raising awareness for electronic education was not



statistically different between talents [$F(5, 127) = 0.85, p = 0.511$]. Therefore, research question three, "Is there any variance among students from various talents in their standard of raising awareness?" agrees with electronic education after the COVID-19 pandemic, showing that there is no statistically significant difference among the students from various talents in their raising awareness for electronic education by AI tools. The important difference between the mean scores of students taught using Google Translate and those taught in the traditional way is not present.

Table 4. One-way Analysis of Variance (ANOVA) for Baghdad University

	Sum of Squares	d. f	Mean Square	F	Sig.
ATTITUDE between Groups	694.592	5	138.918	0.85	0.511
Within Groups	21327.979	127	167.937		
Total	22022.571	132			
ACHIEVEMENT Between Groups	877.598	5	175.520	3.51	0.005
Within Groups	6001.424	127	47.255		
Total	6879.022	132			



o 23 3
t 2
a
l

To answer the third statistical study question, a Tukey HSD post hoc test was conducted to personalize the talents (see Table 5) and identify the faculties. In Table 4, there was a statistical variance between the two talents at Baghdad University at the $p < 0.05$ level in achievement of electronic education after the corona pandemic [$F(5,127) = 3.51$, $p = 0.005$].

Table 5. Various Contrasts (Tukey HSD) for Achievement

Confidence						95% interval	
(I) College	(J) College	Mean	Differen	Std.	Sig.	Lower	Upper
			ce(I-J)	Error		Bound	Bound
-College of Education	College of Translation	11.331*		3.237	.022	-19.66	-.92
-College of Education	College of Arts	10.50*		3.321	.049	.02	19.24
- College of Education	College of Languages	12.33*		3.550	.023	.99	21.54

*. The average variance is considerable at the 0.05 level.

Between colleges, achievement by using AI technology was not significantly different. So the statistical analysis began with a post-hoc test by Tukey HSD. This test for various contrasts in Table 5 indicated that the average values (11.33, 10.50, and 12.33 in sequence for the three colleges) of achievement were statistically dissimilar among colleges. As a result, the third research question showed that students from various colleges found that modern electronic learning using AI tools is as effective as good content in their research. On the contrary, other colleges (not mentioned in Table 5)



find that technology learning by applying AI tools is not positive and useful for their college studies.

4. DISCUSSION

This research examines whether students can agree on a fully electronic learning approach by applying AI tools after spending time in this format (outside traditional classes). After the COVID-19 pandemic, students have gone back to taking online courses. It is essential to mention that both male and female students are not equally pleased and successful. This is in relation to a study beginning that learners favor conventional classes. Recently, electronic classes have shown that there are some technical problems that appear during their application. So, it is expected that instructors must be able to offer positive learning skills and approaches in electronic education by applying AI tools to stimulate the students' interests and positive performance during technological learning (Yuzulia, 2021).

The results of this study indicate no statistically significant differences in the standard of gratification with electronic education among learners from diverse colleges. Therefore, the outcomes of the third research question revealed that three out of six colleges in Baghdad University believe that electronic learning is influential and authoritative. Evidently, this is a provocation for educational organizations in the educational branch of study to provide clear resolutions to use electronic classes, whether fundamentally or technologically. All content is on the shoulders of the students. In addition, teachers should provide an opportunity for students to be served, and the exam should be given evenly and lawfully. Both teachers and students are convinced by technological education since more online content is available, as illustrated by Dharmadajaja's study (2021).

Haerzallah (2022) discovered that Iraqi learners were not convinced by electronic learning using AI tools, though it is prevalent and common in the world. As a result, they were aware that this kind of learning was fruitless. Drawing on their experiences, they argue that a positive learning process should be the final level.

Md Nen (2023) highlights that, in electronic classes, students lack face-to-face interaction, a structured environment, social skills development, access



to physical resources such as libraries and laboratories, and are more stressed and anxious; classes are less peaceful and centered, cost more, are time-consuming, and offer limited adaptability. These dimensions indicate that less social negotiation of participants leads to dealing with students individually, not socially. This causes less group performance of learners in technological learning.

On the other hand, Nuryatin et al (2023) detected that electronic education has a core demerit as it does not permit learners to negotiate in meaningful conversations and discussions with students and teachers. That leads to fossilized knowledge among students. Students will be depressed and have reduced positive communication. Whereas in a conventional class, students freely ask questions, explain subjects, and gain feedback at once.

Furthermore, Prasetyanto (2022) found in this study that learners' intentions to participate in online learning are evident in good performance in learning new approaches and strategies, as well as in the benefits of recent time management skills. The challenge for new AI training technology is associated with reciprocal affairs, lost internet, and disturbing living conditions. Also, it is found that travelling for the sake of online study is not problematic in technological education. Whereas the replacement impact of technological learning was noticed by learners who were able to focus and think that this kind of learning keeps learners' periods roving. The obvious problematic impact has been noticed by learners who use the network with difficulty and minimize their financial allocations.

Practically, the idea of current research proposes that when students are convinced by electronic learning connected by AI tools and satisfy it successfully, they are more ready to agree and receive fully pedagogical instructions provided by this type of learning and electronic education pattern actively. In this aspect, it is important to focus on teachers' role. They are vital leaders who guide and facilitate students in following the educational principles of this learning accurately. As a result, this study identifies the importance of the convenience and efficiency of a good electronic learning modality among students (Scheiter, 2014).



Lastly, in electronic education, learners should rely on an answer from a teacher or colleagues. They may become exasperated and have less interaction because they depend on individual, not group, responses. Self-system and limited time are essential for some students. At the same time, it perplexed other learners to apply this kind of learning. Thus, autarky can result in more work, pressure, and dithering (Ahmad et al., 2021).

5. LIMITATIONS

When interpreting the results of this study, it is important to take into account a number of limitations. First, the results may not be generalizable across different universities and educational environments because the sample was drawn from multiple colleges within a single university. Second, the study uses a questionnaire as its main data collection tool, and the independent-samples t-test is used to evaluate the data. Lastly, the study does not account for other factors that might affect students' technology practices; instead, it examines only the association between awareness of Artificial Intelligence as a learning tool and innovative technology practices. In order to get more thorough results, it is advised that future studies incorporate larger sample sizes, more research tools, and other pertinent variables.

6. CONCLUSIONS

In short, university students' responsiveness to using AI devices as learning tools is a complex issue. Blending AI with learning holds a prospective interactive and innovative procedure. Nevertheless, without suitable awareness of digital tools, students might struggle to make full use of them. Hence, knowing student's awareness stages and their insight into AI usage is fundamental for forming educational policies, curriculum strategy, and teaching performance that stimulate responsible and creative use of AI in higher education learning.

Another conclusion is that conventional learning is considered more powerful and influential than e-learning regarding getting information. Students suffer from problems such as internet connection issues,



software failures, and hardware insufficiency. These problems cause a poor learning process and less interaction between teachers and learners. Thus, the researcher inferred that a completely technological method is not acceptable to common kinds of students. Teachers as well as educational foundations require awareness of this difficulty and provide the proper help and right answers to strengthen the performance of electronic education.

Also, the researcher found that there is a necessity for college learners' attitudes to adopt electronic education after the COVID-19 pandemic. Therefore, they face obstacles resulting from this kind of learning. Specifically, this study is limited to the colleges of Baghdad University. Since many educational institutions have moved to offline classes and blended learning, they have various viewpoints on technological education during this period, particularly regarding the application of innovative learning skills. Thus, the study concludes by stimulating students to raise awareness towards electronic education and finding solutions to the obstacles of applying e-education that students face through an awareness of the orientations and situations of students toward technological education.

At long last, creating a vital bridge between pedagogy and technology in post-COVID-19 times demands a comprehensive awareness strategy. This understanding enables students to be more innovative in their use of digital tools rather than passive learners. Educators have a dynamic role in enhancing students' digital abilities, which is necessary given the rapid technological development.

References

7. Ahmad, H.M., Hasnawati, M., Mulyadi, M., Apriyanto, M., Oklianda, A., Putra, D.D., & Warmi, A. (2021). Student Responses during Online Learning in the Covid-19 Pandemic Period. *Journal of physics: conference series*. 1764, Article 012125. <https://doi.org/10.1088/1742-6596/1764/1/012125>
8. Alfaruque, S. Y., Sultana, S., Rastogi, R., & Jabeen, Z. (2023). Integrating Literature with Technology and Use of Digital Tools:



- Impact on Learning Outcomes. *World Journal of English Language*, 13(1), pp. 278-285. <https://doi.org/10.5430/wjel.v13n1p278>
9. Almalki, A. M., Sabir, M. (2022). Building Learning Communities in Saudi EFL online classes. *World Journal of English Language*, 12(8), pp. 313-325. <https://doi.org/10.5430/wjel.v12n8p313>
10. Almudibry, K. (2023). Saudi EFL Learners' Attitudes with Regard to Using Online and Virtual Solutions for Learning English Accents During the Covid-19 Pandemic. *World Journal of English Language*, 12(6), pp. 370-376. <https://doi.org/10.5430/wjel.v12n6p370>
11. Amalia, D. & Nugraha, W. (2021). A Study of Student Learning Attitude Towards E- Learning in the Pandemic Era. *JMKSP (Journal Manajemen, Kepemimpinan, dan Supervisi Pendidikan)*, 6(2), pp. 336-351. <https://doi.org/10.31851/jmksp.v6i2.5725>
12. Angellika, V., Purnomo, C., Handoyo, R., Hanfi, A. A., & Anggarina, P. T. (2022). The Effectiveness of Online Education During Covid 19 Pandemic in Indonesia. *Advances in Social Science, Education and Humanities Research*, 655, pp. 1911-1916. <https://doi.org/10.2991/assehr.k.220404.312>
13. Bashir, A., Bashir, S., Rana, K., Lambert, P., & Vernallis, A. (2021). Post-covid-19 Adaptations: The Shifts Towards Online Learning, Hybrid Course Delivery and the Implications for Biosciences Courses in the Higher Education Setting. *Front Educ.*, 6(6), 13. <https://doi.org/10.3389/educ.2021.711619>
14. Cabansag, J.N. (2022). Lived Experiences of Higher Education Institution Students in Online Learning Classes in the New Normal. *World Journal of English Language*, 12(7), pp. 265-275. <https://doi.org/10.5430/wjel.v12n7p265>
15. Davis, J. C. (2002). *Statistics and Data Analysis in Geology* (3rd edition). John Wiley & Sons.
16. Dharmadjaja, P.N., & Tiatri, S. (2021). The Effect of Online Interaction Types and Acceptance of Technology Factors on Student Satisfaction with Online Learning during Covid-19 Pandemic.



- Advances in Social Science, Education and Humanities Research, 570, pp. 936-942. <https://doi.org/10.2991/assehr.k.210805.148>
- 17.Djidu, H., Mashuri, S., Nasruddin, N., Sejati, A.E., Rasmuin, R., Ugi, L.E., & Arua, A. L. (2021). Online Learning in the post-Covid-19 Pandemic Era: is our Higher Education Ready for it?. *Journal Penelitian dan Pengkajian Ilmu Pendidikan E-Saintika*, 5(2), pp. 139-151. <https://doi.org/10.36312/esaintika.v5i2.479>
- 18.Floridi, L. (2019). Establishing the Rules for Building Trustworthy AI. *Nature Machine Intelligence*, 1(6), 261-262. <https://doi.org/10.1038/s42256-019-0055-y>
- 19.Haerzallah, A. (2022). Effectiveness of Online Learning Among Graduate Students: Comparison between Cultures. *European Journal of Educational Research*, 11(3), pp. 1581-1594. <https://doi.org/10.12973/eu-jer.11.3.1581>
- 20.Hermanto, H. (2020). Teachers' Attitude Towards Online Learning During Covid -19 Pandemic in Indonesia. *Indonesian Journal of Development Studies (ijds)*, 1(1), pp. 1-7. <https://dx.doi.org/10.12962%2Fj29649714.v1i1.8208>
- 21.Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial Intelligence in Education: Promises and Implications for Teaching and Learning*. Center for Curriculum Redesign.
- 22.Indriani, K.S., & Widiastuti, N. M. A. (2021). Students' Attitude towards English Online Learning Through Moodle during Covid-19 Pandemic. *Celtic: Journal of Culture, English Language Teaching, Literature and Linguistics*, 8(2), pp. 190-205. <https://doi.org/10.22219/celtic.v8i2.18174>
- 23.Khaled, A., Hazaymeh, W. A., & Montierre, M. E. (2022). Challenges of Online Education for Teachers and Parents in the Emirati School System. *European Journal of Educational Research*, 11(4), pp. 2345-2355. <https://doi.org/10.12973/eu-jer.11.4.2345>
- 24.Korkut Altuna, O., & Arslan, F.M. (2016). Impact of Number of Scale Points on Data Characteristics and Respondents' Evaluations: An Experimental Design Approach Using 5- Point and 7-Point Likert-



- Type Scales. *IÜ Siyasal Bilgiler Fakültesi Dergisi*, (55), pp. 1-20.
<https://doi.org/10.17124/iusiyasal.320009>
- 25.Liu, X., Gong, Z., Miao, K., Yang, P., Liu, H., Feng, Z., Chen, Z. (2022). Attitude and Performance for Online Learning during Covid-19 Pandemic: A Meta-Analytic Evidence. *International Journal of Environmental Research and Public Health*, 19(19), pp.1-14.
<https://doi.org/10.3390/ijerph191912967>
- 26.Mahyoob, M. (2020). Challenges of E-Learning during the Covid-19 Pandemic Experienced by EFL Learners. *Arab World English Journal (AWEJ)*, 11(4), pp. 351-362.
<https://dx.doi.org/10.24093/awej/vol11no4.23>
- 27.Md Nen, Z., Kamarunzaman, N. Z., Abdul Karim, M. F. bin, Vadeveloo, T., & Shanthi, A. (2023). Exploring the Relationship between Motivational Beliefs and Self-Regulated Learning. *International Journal of Social Science Research*, 11(1), pp. 43-60.
<https://doi.org/10.5296/ijssr.v11i1.20318>
- 28.Mirawati, I., Mahameruaji, J. N., & Trulline, P. (2020). Indonesian Student's Perception of Online Learning Activities in the Time of Pandemic. *European Journal of Molecular & Clinical Medicine*, 7(1), pp. 3645-3652.
- 29.Mohamed, A.M. (2023). Exploring the Potential of an AI- based Chabot (ChatGPT) in Enhancing English as a Foreign Language (EFL) Teaching: Perception of EFL Faculty Members. *Education and Information Technologies*, 29(3), pp. 3195-3217.
<https://doi.org/10.1007/s10639-023-11917-z>
- 30.Nordin, N. R.M., Omar, W., & Ridzuan, I. N. I. M. (2022). Challenges and Solutions of Online Language Teaching and Assessment during Covid-19. *World Journal of English Language*, 12(8), pp. 410-419.
<https://doi.org/10.5430/wjel.v12n8p410>
- 31.Nuryatin, A., Mukhibad, H., & Tusyanah, T. (2022). Effectiveness of Online Learning at Universities: Do Sociocultural Differences Matter? *European Journal of Educational Research*, 11(4), pp. 2153-2166.
<https://doi.org/10.12973/eu-jer.11.4.2153>



32. Nuryatin, A., Rokhmansyah, A., Hawa, A.M., Rahmayanti, I., & Nugroho, B.A. (2023). Google Classroom as an Online Learning Media for Indonesian Language Learning during COVID-19 Pandemic. *Journal of Language Teaching and Research*, 14(1), pp. 255-262. <https://doi.org/10.17507/jltr.1401.27>
33. Padmo, D., Sir Ardiasih, L., & Idrus, O. (2020). Online Learning During the Covid-19 Pandemic and Its Effect on Future Education in Indonesia. In *The Impact of COVID-19 on the International Education System* (pp. 71-86) https://doi.org/10.51432/978-1-8381524-0-6_5
34. Picciano, A.G. (2017). Theories and Frameworks for Online Education: Seeking an Integrated Model. *Online Learning Journal*, 21(3), pp. 166-190. <https://doi.org/10.24059/olj.v21i3.1225>
35. Prasetyanto, D. (2022). Online Learning Participation Intention after COVID-19 Pandemic in Indonesia: Do Students Still Make Trips for Online Class? *Sustainability*, 14(4), 1982. <https://doi.org/10.3390/su14041982>
36. Richards, J. C., & Schmidt, R. (2002). *Longman Dictionary of Language Teaching and Applied Linguistics* (3rd ed.). Pearson Education.
37. Russell, S., & Norvig, P. (2021). *Artificial intelligence: A modern approach* (4th ed.). Pearson.
38. Scheiter, K. (2014). The Learner Control Principle in Multimedia Learning. In R. E. Mayer (Ed.), *The Cambridge Handbook of Multimedia Learning* (2nd ed., pp. 487-512). Chapter, Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9781139547369.025>
39. Sendi, Kh., & Alsaedi, N. (2026). The Impact of E-Learning Training Strategies on Research Writing Performance: Perspectives of Saudi EFL University Students. *Journal of Language Teaching and Research*, 17(1), pp. 192-200. DOI: <https://doi.org/10.17507/jltr.1701.19>
40. Shafiq, J., & Zaid, R. (2024). The Impact of Teaching English Literature on Improving EFL University Learners' Performance.



Technium Education and Humanities, 9, 81-90. www.techniumscience.com

41. Showily, A. (2024). Language Learners' Disengagement in E - Learning During Covid-19: Secondary Teachers' Views. *World Journal of English Language*, 13(1), pp. 382-389. <https://doi.org/10.5430/wjel.v13n1p382>
42. Suhandiah, S., Suhariadi, F., Yulianti, P., Wardani, R., & Muliatie, Y.E. (2022). Online Learning Satisfaction in Higher Education: What are the Determining Factors? *Journal Cakrawala Pendidikan*, 41(2), pp. 351-364. <https://doi.org/10.21831/cp.v41i2.35724>
43. Mumu, J. (2022). Likert scale in social sciences research: problems and difficulties. *Journal of Social Sciences*, 16(4), pp. 89-101. <https://doi.org/10.51709/19951272/Winter2022/7>
44. Toombs, W. (1977). Awareness and Use of Academic Research by Doctoral Students. *Research in Higher Education*, 7, pp. 43-65. <https://doi.org/10.1007/BF00991944>
45. Ulaywi, R. K. (2017). *The effect of JOIN and SHOW strategies on Iraqi EFL university students' achievement in poetry and literature reading strategies* (Doctoral dissertation, University of Baghdad, College of Education for Human Science). ResearchGate. <https://doi.org/10.13140/RG.2.2.12791.64169>
46. Ulaywi, R.K. (2025). Sustainable Development in Language Teaching Theories. *Mustansiriyah Journal of Humanities*, 1(special Issue), 497. <https://doi.org/10.47831/mjh.v1i793> عدد 20% خاص
47. Ulaywi, R. K. (2025). Innovative Linguistic Strategies of EFL University Students' Performance in Grammar Teaching. *Arab World English Journal (AWEJ)*, 16(3), pp.89-112. <http://dx.doi.org/10.24093/awej/vol16no3.5>
48. Ulaywi, R.K. (2025). The Role of AI Tools on the Retention of EFL College Students' Reading Comprehension". *Journal of the College of Basic Education*, 32(135), pp.30-53.
49. Wargadinata, W., Mainunah, I., Dewi, E., & Rofiq, Z. (2020). Student's Responses on Learning in the Early Covid-19 Pandemic.



Tadris Jurnal Keguruan dan Ilmu Tarbiyah, 5(1), 141-153.

<https://doi.org/10.24042/tadris.v5i1.6153>

50. Yuzulia, I. (2021). The Challenges of Online Learning during Pandemic: Students' Voice. *Journal Bahasa Dan Sastra*, 13(1), pp. 8-12. <https://doi.org/10.31294/w.v13i1.9759>



مجلة العلوم الأساسية
للعلوم التربوية والنفسية وطرائق التدريس للعلوم الأساسية