Exploring Libyan EFL Undergraduates' Attitudes Towards AI-Driven English Learning Applications

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ABSTRACT

This study addresses the attitudes of 47 Libyan EFL students from Al-Rifaq University and University of Tripoli Al-ahlia regarding AI-driven language learning applications. The study found that the majority of participants supported using technology to improve their English skills, as evidenced by the 20-item Likert scale questionnaire. A majority of students preferred personalized learning and the instant feedback from AI. Furthermore, the majority of them agreed that technology would be useful in improving their English speaking skills. However, there were serious issues raised regarding the possibility of teachers being replaced by AI in the future. Despite these, the majority of the participants were optimistic about the potential of AI and were willing to try out AI-supported applications. The study recommends that AI tools should concentrate on improving learning experiences and assisting teachers to enhance student performance.

Keywords: Artificial Intelligence, Personalized Learning, Students' Attitudes, Privacy Concerns

استكشاف مواقف طلاب المرحلة الجامعية في ليبيا اتجاه تطبيقات التعلم الإلكتروني المبنية على الذكاء الاصنطاعي

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الملخص:

يهدف

تتناول هذه الدراسة توجهات 47 طالب ليبي يدرسون اللغة الإنجليزية كلغة أجنبية في جامعتي الرفاق وجامعة طرابلس الأهلية بشأن تطبيقات التعلم اللغوي المدعومة بالذكاء الاصطناعي. وتوصلت الدراسة إلى أن غالبية المشاركين أيدوا استخدام التكنولوجيا لتحسين مهاراتهم في اللغة الإنجليزية، كما يتضح من الاستبانة المكونة من 20 فقرة على مقياس ليكرت. وفضّل عدد كبير من الطلاب التعلم المخصّص والتغذية الراجعة الفورية التي يمنحها الذكاء الاصطناعي. وعلاوة على ذلك أعربت نسبة كبيرة منهم عن اعتقادهم بأن الذكاء الاصطناعي يمكن أن يعزّز قدراتهم في التحدث باللغة الإنجليزية.

ومع ذلك كانت هناك مخاوف كبيرة بشأن احتمالية استبدال المعلمين بالذكاء الاصطناعي مستقبلا، وبرغم هذه المخاوف فإن غالبية المشاركين كانوا متحمسين لإمكانيات الذكاء الاصطناعي ومستعدين لتجربة التطبيقات المدعومة به، وتقترح الدراسة أن تركِّز أدوات الذكاء الاصطناعي على تخصيص تجارب التعلم ودعم المعلمين من أجل تحسين النتائج التعليمية.

الكلمات المفتاحية: الذكاء الاصطناعي ـ التعلم الشخصي ـ مواقف الطلاب ـ مخاوف الخصوصية.

Introduction

The use of AI in education is on the rise. At present, AI is used in many countries to help young learners improve their English skills. This new technology can change the way students learn English and make it more efficient and customized for students. However, it is important to explore students' opinions and attitudes towards this novice transformative technology. They can present some useful ideas about the advantages and disadvantages of AI in language learning.

Statement of the Problem

Although the utilization of AI technology has recently been employed in education, there is very little research on how students in Libya perceive this

technology for English language learning. It is of great importance to assess students' attitudes and concerns so that the implementation can be more effective. The objective of this research is to investigate the attitudes and concerns of students regarding the function of AI in their English language acquisition. In doing so, it aspires to identify the factors that influence their attitudes, perceptions of efficacy, potential concerns, and additional considerations for AI integration.

Review of the Literature:

Education is among the sectors, which are being transformed by artificial intelligence. The use of AI in learning the English in Libya is a new trend that can improve learning processes. This literature review investigates the viewpoints of students regarding the function of AI in the acquisition of English. It compares AI-assisted learning with traditional methods, identifies the challenges and concerns associated with AI in education, and examines how AI can enhance learning outcomes. To enhance the effectiveness and engagement of English language teaching and learning in Libya, it is of great importance to understand the views of students on incorporating AI technologies into their learning process.

Contribution of AI to Improve Students' Learning Outcomes

Artificial intelligence has demonstrated significant potential to enhance learning outcomes in a variety of educational disciplines. AI has the potential to customize learning experiences by offering students content that is linked to their unique learning preferences and requirements (Negoita et al., 2023). Research has shown that AI can assist pupils in improving their academic performance by identifying their strengths and weaknesses and providing personalized exercises (Veronica, 2023). For example, adaptive learning platforms employ artificial intelligence to modify the difficulty of tasks in accordance with students' performance, which leads to more efficient learning (Gligorea et al., 2023).

Comparative Research on Traditional and AI-Assisted Learning

Numerous comparative studies have been implemented to assess the effectiveness of AI-assisted learning in comparison to conventional learning methodologies. Xu (2024) carried out a research to establish whether students who used AI tools in their learning performed better in their tests than those who learned in the traditional class. Abbas (2024) in another research pointed out that AI assisted learning increases students' interest and participation in the learning process. However, some researchers have argued that the effectiveness of AI in education depends on the quality of the AI tools and the context in which they are applied (Nkechi, 2024).

Research on the Implementation of Artificial Intelligence in Language Learning

The use of AI in language learning has increased the opportunities for students to learn in new and exciting ways. The online language learning tools developed with the help of artificial intelligence provide feedback that helps the learners learn faster and gain confidence in their learning, as stated by Tiwari (2024). The available literature shows that technology can help in language acquisition through providing individualized vocabularies, grammar practices and pronunciation exercises (Solak, 2024). Furthermore, AI chatbots and virtual tutors mimic real-life conversations, which give students a chance to speak and make mistakes in a safe environment (Koivisto, 2023).

Technological and logistical obstacles

However, as effective as the application of AI in education is, there are several technological and logistical challenges that come with it. A major issue is the requirement of sophisticated technology including suitable hardware and high-speed internet connection, which may not be easily available in all the learning environments especially in the developing countries (Afzal et al., 2023). Furthermore, the creation and update of the AI systems require a significant financial investment and technical expertise (Kruse et al., 2019). Another challenge is the integration of the AI tools into the current curriculum and the professional development of the teachers to work with these technologies (Tammets, in 2023).

Privacy and Ethical Issues

Several ethical and privacy risks come with the use of AI in education. A major risk is the data security because most of the AI tools require accessing a large number of personal information to function properly (Frank, 2024). The existing study also found that the bias in AI algorithms could lead to the unfair treatment of certain groups of students (Fazil et al., 2024). To address these issues, it is crucial to ensure that the AI systems are clearly stated and explained and students' data are protected (Robert et al., 2024).

Resistance to Change and Related Issues and Concerns

Another major barrier to the integration of AI in education is the resistance to change. Some of the instructors and learners may not embrace the AI technologies because of fear of being substituted by the technologies or simply due to ignorance (Sun & Deng, 2024). In addition, there may be doubts as to the effectiveness of AI compared to the traditional approaches to teaching and learning (Dhanapal et al., 2024). To address these challenges, it is crucial to

provide the right training and demonstrate how the use of AI can enhance learning achievements (U Zaman, 2023).

Relevant Studies from the Arab world

The use of artificial intelligence is becoming more popular in the Arab world and therefore more research is being done on how it can be used in education. Many studies have been conducted on the effects of AI on students' attitudes, learning achievements, and the difficulties encountered in the integration of AI technologies.

In a study conducted by Jamshed et al. (2024) on the implementation of AI in EFL teaching and learning in Saudi Arabia, it was established that students were able to improve their vocabulary and grammar skills faster than they would have with conventional tools with the help of AI tools. Motivation and participation of students who used AI-based applications in the learning of English were higher than those of other students.

Mohamed (2022) carried out another research on the effectiveness of AI based learning management systems in Egyptian universities. The results of the research showed that the achievement of the students in the science and mathematics classes was enhanced by the use of AI tools. However, the study also revealed that there was the need for teachers to be sufficiently trained to assist in the integration of AI technologies into their teaching practices.

Alnaqbi and Yassin (2021) investigated the challenges of integrating AI in higher education in the United Arab Emirates. In the study, the following were identified as the challenges; inadequate infrastructure, insufficiently trained teachers, and data security risks. However, the study concluded that the integration of AI in the educational system in the Arab region is possible if these challenges are addressed.

El-Sayed and Almasri (2024) performed an equivalent large-scale research on the effects of AI on personalized learning in Kuwait. The findings of the study showed that students were able to improve their learning achievements with personalized learning systems developed by AI because the systems provided the students with learning paths that were matched with their learning needs. The importance of evaluation and feedback in the case of AI-supported learning environments was also emphasized by the study.

In Libya, Hmouma et al. (2024) investigated the perception of students towards the integration of AI in education. The study established that students had a

positive perception of integrating AI in their learning environment; however, they had concerns about the reliability of the technology and the potential of reduced human contact time with the teacher during learning. These concerns were hypothesized to reduce if the above-mentioned concerns are met. Thus, the acceptance of students towards AI technologies can be improved by addressing these concerns.

Research Questions

This research tries to address these research questions:

What are the factors that influence students' attitudes and perceptions towards the employment of artificial intelligence in English language learning?

To what extent do students perceive the effectiveness of AI tools in improving their proficiency in English?

What might hinder students from utilizing artificial intelligence in their learning English process?

What recommendations and considerations might students have regarding the integration of artificial intelligence into their learning of English?

Participants

The participants in the study were 47 students attending both Rifaq University and University of Tripoli Al-ahlia, and all were from the 8th semester aged between 18 and 25 years old. All the participants had been learning English for four years. The researcher opted for the purposive sampling as the 8th semester students are far more confident and competent compared to lower level students.

Data Collection

This research is quantitative in nature and a questionnaire was used as the main tool for data collection to explore the implementation of AI in the learning of English. The questionnaire consisted of 20 items in the form of Likert scale to measure the level of agreement or disagreement of the participants to certain statements. The questionnaire was divided into four categories:

1. Students' Attitudes: This section assessed a number of factors that can affect students' attitudes towards the use of AI in their English language learning program.

2. Perceptions of Effectiveness of AI: This category was developed to gather information regarding the level to which students think that AI tools can enhance their English language skills.

3. Potential Issues: This section aimed at identifying any worries or issues that students may have about integrating AI into their learning process.

4. Other factors that may be relevant to include: This category included any other factors or concepts that are relevant to students' attitudes and experiences of AI in language learning.

Results

Results Analysis of the questionnaire responses provides important information on the perceptions, beliefs, and concerns of students on the application of Artificial Intelligence in English language teaching and learning. The data are divided into four primary categories: Potential Concerns, Factors Influencing Attitudes, Perception of Effectiveness, and Additional Considerations. In each category, different aspects of the perception of AI as a language learning tool are highlighted.

Table 1: Factors Influencing Attitudes

Statement	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree	Total
I feel comfortable using technology to learn English.	51.1%	25.5%	23.4%			100%
My classmates' opinions would influence my acceptance of AI for learning English.		14.9%	25.5%	44.7%	14.9%	100%
My teacher's enthusiasm would make me more open to using AI tools.		14.9%	29.8%	29.8%	25.5%	100%
If AI could personalize my learning experience, I would be more likely to use it.	59.6%	10.6%	29.8%			100%
If AI could provide immediate feedback on my mistakes, I would be more likely to use.	34.0%	32.0%	34.0%			100%

Students' attitudes toward the use of AI for English learning are significantly influenced by their comfort with technology and external influences. The data suggest that approximately 76.60% of students are at ease using technology to learn English, suggesting a high level of technological preparedness. However, classmates' opinions have a mixed influence; only 40.4% of students either do not mind or view them positively, while 59.6% express some level of disagreement. Teachers' enthusiasm towards AI might also play a role, but 55.3% of students either see it as unimportant or view it negatively. On the other hand, making learning more personalized is a strong motivator; 70.2% of students reported that they would be more inclined to use AI if it could adjust lessons to their needs. Additionally, 66% appreciate the quick feedback AI provides.

Table 2: Perception of Effectiveness

Statement	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree	Total
I believe AI applications can improve my English speaking skills.	44.7%	40.4%		10.6%	4.3%	100%
I believe AI platforms can help me learn new vocabulary effectively.	51.1%	29.8%	19.1%			100%
I think AI tools can make grammar learning more engaging.	14.9%	40.43%	29.8%	14.9%		100%
Using AI for English practice would help me improve my reading comprehension.	34.1%	40.4%	25.5%			100%
I believe AI can personalize learning materials to fit my strengths and weaknesses.	4.3%	34.1%	10.6%	14.9%	36.1%	100%

Most students have positive experiences with the use of AI in improving their English proficiency. The results of the survey revealed that the great majority of respondents (85.10%) are certain that the application of AI can help them improve their English speaking skills. In the same manner, eighty percent of the respondents agreed that the AI platforms could assist them to learn new words effectively. Fifty-five percent of students agree that AI can improve the engagement of the grammar learning process. In addition, 74.50% of the students believe that using AI to learn English will improve their reading skills. However, only 38.40% of the students are confident that AI can adapt the learning content to their abilities and weaknesses.

Table 3: Potential Concerns

Statement	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree	Total
I worry that AI might replace teachers in English language learning.		4.3%	25.5%	40.4%	29.8%	100%
I am concerned about the reliability of AI-generated feedback on my English.		10.7%	25.5%	38.3%	25.5%	100%
I am uncomfortable with the idea of AI monitoring my progress in English.	4.3%		34.1%	21.2%	40.4%	100%
I am worried that relying on AI could make me less independent in my English learning.		32.0%	21.2%	21.2%	25.6%	100%
I am concerned about the privacy of my data when using AI for English learning.	21.2%	25.5%	10.7%	14.9%	27.7%	100%

The application of AI in English learning is an issue that concerns students despite the advantages that have been mentioned. 70.20% of the students are worried that AI might replace their instructors, while 63.80% are worried about the reliability and confidentiality of the information provided by AI. Furthermore, 4.30% of the students are uncomfortable with the idea of AI tracking their performance, and 32.00% of them are concerned that using AI will make them less independent in their learning. Another major issue is the privacy as 46.70% of the students have expressed concerns on the privacy of their data while using AI in English language learning.

Table 4: Additional Considerations

Statement	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree	Total
I find traditional learning methods (textbooks, lectures) to be more effective than AI.		23.4%	55.3%		21.3%	100%
I prefer to learn English in a classroom setting with a human teacher.	46.8%	27.6%	10.7%		14.9%	100%
I believe there are limitations to what AI can achieve in English language learning.	17.0%	40.4%	14.9%		27.7%	100%
Overall, I am excited about the potential of AI to improve English language learning.	32.0%	51.0%		17.0%		100%
I would be willing to try using AI applications and platforms for learning English.	55.3%	34.0%			10.7%	100%

It is evident that students have conflicting views regarding conventional approaches to teaching and learning in a classroom with a teacher. 23.40% of the students argued that conventional learning is more efficient than AI and 74.40% of them preferred regular classroom settings with a teacher. Also, 57.40% of the students agree that there are certain limitations to the use of AI in English language learning. Nevertheless, 83.00% of students are optimistic about the potential of AI to help them improve their English language skills and 89.30% are willing to try AI applications and platforms for English language learning despite the concerns.

Research Findings

Students are comfortable with the use of technology in enhancing their English language skills and 76.60% of them have either agreed or strongly agreed with the statement that they are comfortable using technology to learn English. Their

opinion does not have a critical impact on the acceptance of AI for learning English, 59.6% of them either disagreed or strongly disagreed and only 14.90% of them agreed. In the same manner, teacher enthusiasm has a limited effect as 55.30% of them had a negative response with 14.90% of them having a positive response. However, the results show that a large number of students prefer the personalized learning and instant feedback from AI, 70.20% and 66.00% respectively. Moreover, students' views on the effectiveness of learning vocabulary were positive. 80.90% of them either agreed or strongly agreed, a large number of students believe that AI can improve English speaking skills (85.10% of students who participated in the survey agreed or strongly agreed) and make grammar learning more interesting (55.33% of students who participated in the survey agreed or strongly agreed).

Nevertheless, the opinions were divided on the ability of AI to personalize materials in order to meet students' needs, 38.40% of them either agreed or strongly agreed that AI materials can enhance their strengths and compensate for their weaknesses. There are significant concerns regarding the credibility of the AI feedback (63.80%), the substitution of instructors (70.20%), and data security (42.60%). Although a large number of students still prefer traditional methods, 55.30% of the respondents were neutral, 23.40% of them agreed that textbooks and lectures are more efficient, and 74.40% of them preferred classroom learning with a human teacher. However, a very high level of enthusiasm was observed regarding the potential of AI, 83.00% of the respondents showed interest in the possibility of enhancing their English language learning abilities, and 89.30% of them were willing to try AI applications.

Discussion

The results of the study are in consonance with those of a study conducted by Xu (2024) which focuses on the impact of artificial intelligence on English language teaching. The review stresses that AI offers sophisticated language processing, personalized learning, and instant feedback to enhance English language learning. This is in line with the findings which showed that 76.60% of the respondents were comfortable using technology to enhance their English language skills.

Tiwari (2024) notes that AI is capable of individualizing the learning process and give feedback instantly. The findings of this study are in agreement with this as 70.20% of the respondents stated that they would be willing to use AI in learning if it personalized the learning process, and 66.00% of them stressed on the need for feedback. This shows that students appreciate the flexibility of AI in addressing different learning styles and paces thus enhancing equity in education.

However, this investigation also raises substantial reservations. The reliability of AI feedback was called into question by 63.80% of the respondents, while only 4.30% were concerned that AI could replace teachers. These concerns are in line with Frank's (2024) study on ethical and privacy issues which are important for the development of trust and security. Furthermore, although 85.10% of the respondents are optimistic about the potential of AI in improving their speaking skills and 55.33 for making grammar learning more interesting, 74.50% of them is confident that AI can help them improve their reading comprehension skills. This means that although there are many advantages of AI, there are still some weaknesses.

Sun and Deng (2024) explore the role of AI in supporting teachers by relieving them of routine work and allowing them to focus on lively teaching. The results show that a large number of students still prefer conventional classrooms and methods and 75% of students wanted teachers. This means that traditional teaching methods should be combined with AI rather than replaced by it. However, there is a high level of enthusiasm towards the use of AI. The results of this research show that 83.00% of the respondents are optimistic about the potential of AI in enhancing their English language skills and 89.30% are willing to try AI applications. This is in line with the idealistic view of the transformational potential of AI in education presented in the literature review.

In conclusion, this research has pointed out the advantages of artificial intelligence (AI) in language learning but at the same time highlighted the areas that need improvement, which is in agreement with the findings of Gligorea et al. (2023). Thus, the challenges have to be addressed, and then AI can reach its full potential to increase the effectiveness and equity of English language teaching and learning.

Practical Implications

In accordance with the research findings, this research suggests that:

The primary objective of AI tools should be to customize the learning experience in order to meet the individual needs of each student in terms of learning style and pace. It can help to make learning more enjoyable and effective.

Learners should be able to receive immediate feedback from AI applications on the errors they make. This makes learners' understanding of their mistakes more comprehensive, and thus facilitates their rapid improvement.

AI should be used to support teachers, not to replace them. AI is capable of handling bureaucratic tasks thus freeing up teachers to devote more time to one on one student interaction and teaching methods.

It could be that a blended approach, which combines traditional teaching with AI technology, would be the most effective. Thus, students will be able to take the advantages of the strength of each approach.

Teachers should be made to have enthusiasm for AI tools. Due to the positive attitude projected by teachers, these technologies may attract students' attention during class sessions.

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