



RESEARCH ARTICLE

Assessing Readiness for AI Integration in EFL Courses: A Case Study of First-Year University Students in Saudi Arabia

Yasir Alenazi^{1*}¹Department of Languages and Translation, University of Tabuk, Tabuk, Saudi Arabia**ARTICLE INFO**

Received: May 20, 2024

Accepted: Aug 31, 2024

Keywords

Student readiness

Student perceptions

Artificial intelligence

AI

Higher education

EFL

***Corresponding Author:**

yaalenazi@ut.edu.sa

ABSTRACT

This study examines the readiness of Saudi first-year university students for using artificial intelligence (AI) in English as a Foreign Language (EFL) courses. For the current study, a questionnaire about general views regarding AI, the function and utilisation of artificial intelligence in EFL learning and teaching was administered on 320 first-year students. Frequency was used in the analysis of qualitative data collected from open-ended questions while SPSS assisted in the analysis of the quantitative data gathered. Findings indicate that first-year university students are interested in AI and find it helpful and convenient, though they also view it as a potential threat. Their perceptions of the functions of AI indicate the students perceive AI to be unsuitable for some contexts and areas of language instruction. The findings also indicate a statistically significant difference in proficiency levels among the students. The perception of the students regarding the suitability of AI notwithstanding, a strong preference for human instructors for EFL courses was established. Further, the negative perceptions of the students towards the presence of AI indicate what the students deem suitable is not essentially what they prefer implemented in their own EFL courses.

INTRODUCTION

The unprecedented technological growth witnessed in the past several years has radically transformed education and instruction allowing for the rise of online teaching and learning in place of brick and mortar learning spaces. The transformation has not spared EFL courses instruction at the university level which is today characterised by increased shift of EFL learning and teaching to the online space given the rise in popularity of such approaches as flipped learning and blended learning and tools such as cyber campuses and online learning platforms and applications. As one of the most momentous advancements in technology in the recent past, artificial intelligence (AI) has heavily impacted on instruction in all areas, EFL education included. AI offers students personalised learning content and opportunities for individualised guidance and evaluation as well as interactive communication specific to their needs. AI presence thus ought to be embraced and its use in teaching and learning of EFL embraced. However given its disruptive nature and the uneasiness it causes in some academic domains, AI is not perceived positively by everyone. In language education for instance, the rise of AI translators has led to apprehensions on the need for language classrooms highlighting the threat AI technology poses to realms and roles previously reserved for human (Masriadi et al., 2023; Muñoz-Basols et al., 2023). The concerns notwithstanding, present day educators and scholars ought not to perceive AI as a threat and compete with it but rather endeavour

to understand its potential and capabilities and adjust accordingly so as that they can effectively cope with the associated changes.

The machine learning capabilities of the present day AI technology allows for delivery of highly optimised data and hence its exceptional abilities (Deranty & Corbin, 2022). In the education sector, this reality has caused excitement and reservations in equal measure with some ready to explore the ostensibly infinite possibilities inherent in using AI in education and others wary of the implications of takeover of education by AI. While the anticipations by either of the parties may be justified, a thorough understanding of the potential and drawbacks of AI is imperative. Careful consideration of student perceptions towards AI and their readiness for AI instruction before the implementation of the technology in EFL teaching and learning is critical. The aim of this study is to assess readiness of first-year university EFL students for AI instruction.

The following research questions underpin this study;

- a) What are the general perceptions of the Saudi first-year university students regarding AI?
- b) What are the views of the students regarding the function of AI in teaching and learning of EFL courses?
- c) What are the perceptions of the students regarding utilisation of AI in EFL education?

LITERATURE REVIEW

AI and Education

The drive to program computers to act and accomplish tasks as humans has been the core concept in AI. According to Allen (2020) and Li and Huang (2020), actualisation of the concept has been marked by development of high performance AI programs and systems that have accomplished tasks such as playing games like chess and Go better than most skilled human beings in those fields. The fact that such AI programs are not pre-programmed but are rather only equipped with basic rules that enable them to train themselves and learn such games through practice and continually refine their algorithms allowing them to master the processes and acquire skills beyond those of their human mentors has been a key contributor to the apprehension towards AI technology (Kissinger, 2018; Silver et al., 2017). Despite efforts to address the AI anxiety fuelled by the realisation of the immense capacity of AI for deep learning, uneasiness over the implications of use of AI technology in various fields is still palpable among the general public (Li & Huang, 2020). Nonetheless, the trepidation has done little to stop the developments in AI-technology from triggering the fourth industrial revolution which has led to significant changes across different spheres; education included.

The earliest form of use of AI in education can be traced back to the implementation of systems like Computer-Aided Instruction (CAI) and Computer-Based Training (CBT) in the early 1970s (Boulay, 2022). While the systems assisted in teaching, they were script-like, disregarded the abilities of the students, and were not individualised to the needs of the learners. Owing to their shortcomings, the systems paved way to intelligent tutoring systems (ITS) which derived their intelligence from representation of pedagogical decisions on instruction and were more responsive to the idiosyncratic needs of the learners (Beck et al., 2000). As an outgrowth of CAI, ITS integrated five core components among them the expert model, the communication module, the domain knowledge, the pedagogical module and the student model which allowed for differentiated learning, creation of mental maps, problem solving and interactive support; capabilities that exceeded those of untrained tutors in certain areas of instruction (Beck et al., 2000; Freedman et al., 2000).

The outlook of AI in education today has been significantly shaped by the advent of the internet in the 1990s, which brought about the emergence of the World Wide Web. This, in turn, enhanced the accessibility and availability of big data and spurred the development of intelligent and adaptive web-

based education systems (WBE). Thus, AI in education today is characterized by three distinct areas: the development of AI tools for educational administrators, assistive tools for instructors, and educational tools for learners. (Boulay, 2022). The diverse learner-facing tools employ web-based and AI-based educational technology to better meet the individual needs of the learners even in settings in which no human instructors or peers exist. Despite the capacity of these AI tools to facilitate self-study and perform better with respect to learning gains, their overall potential and benefits is still contentious.

Previous research on AI in classrooms

The high rate of application of AI in education and its use in the classroom has significantly transformed teaching and learning. A recent systematic review of literature on the use of AI in the educational sector found that adoption of AI in teaching and learning is at advanced levels in developed countries owing to the benefits and opportunities it presents and it has led to emergence of new educational and instructional models (Tahiru, 2021). Another recent review by Chen et al. (2020) suggest application of AI in learning and instruction is currently characterised by use of web-based chatbots and humanoid robots to perform functions and duties of instructors independently or with human teachers. The study posits that due to their human-like intelligence and in particular decision-making capabilities, adaptability, learning and cognitive abilities, use of these AI platforms in classrooms enables instructors to deliver high quality instruction and to efficiently and effectively grade and review student assessments (Chen et al., 2020). The review also highlights the capacity of AI systems to personalise and customise content and curriculum to the individual needs of each learner given their adaptability and ability to leverage machine learning; this has the capacity to promote retention and uptake thus enhancing the general quality of learning and classroom experience (Chen et al., 2020).

Recognizing the potential that AI offers for classroom teaching and learning, several studies have sought to explore the preparedness of schools for AI technology. A systematic review conducted by Karan and Angadi (2023) shows future AI readiness among students as a critical factor influencing integration of AI in learning and teaching and that schools are recognising the urgency of making their students, teachers and teaching contexts AI ready. An in-depth interview study involving 25 AI specialists conducted by Jöhnk et al. (2021) categorises organisational AI readiness factors into data (availability, quality, accessibility and flow), culture (change management, innovativeness, collaboration), knowledge (AI awareness and know-how), resources (IT infrastructure, AI personnel, funding) and strategic alignment (AI-curriculum fit, student-teacher AI readiness, AI-education potential) effectively identifying distinct illustrative indicators of AI readiness in an organisation and specific action fields that ought to be addressed for an institution to be AI ready. This is corroborated by findings of a study by Stenberg and Nilsson (2020) which suggests data access and AI ethics influence the related environment, organisation and technology contexts and that cooperation, staff capacity, management support and compatibility affect AI readiness. The study by Wang et al. (2021) further showed the intention by teachers to integrate AI in their instruction, which is subject to their attitude, and perceived usefulness and ease of use of and anxiety towards AI-based applications, affects the readiness to adopt AI technology in university classrooms.

Other studies have attempted to examine the interplay between the input of human teachers and that of independent AI-based instructional systems. Reiss (2021) in his consideration of the ethics and practicalities of use of AI in the classroom setting, establishes the potential of AI to “enrich student learning and complement the work of human teachers” (p. 1) effectively suggesting the potential of AI systems and human instructors to coexist thus negating the perception that application of AI platforms in teaching and learning could replace human teachers. The study also highlights the potential of the AI technology to help straddle the home-versus-school learning divide given the ubiquitous nature of AI platforms (Reiss, 2021). An earlier study by Kwok (2015) illustrated that

collaboration between human teachers and robot teachers in a classroom led to better teaching and learning outcomes given the ability each to complement the areas the other had shortcomings in. An online survey conducted by Kim et al. (2020) perceived AI-teaching assistants or machine teachers as helpers whose learning experience differed from that of a human teacher. As the study by Kwok (2015) established, this illustrates the capacity of students to differentiate between the capacities of human and machine teachers where the former is capable of discerning the complex needs of their learners and thus better support them at the systemic, affective and cognitive levels unlike the latter.

Despite the diversity of the findings of previous research on AI in classrooms, it is apparent that application of AI in classroom instruction cannot replace teachers and hence the need to strike a balance between the roles played by AI-based applications and human teachers in teaching and learning.

Adoption of AI in EFL courses

The prospect of use of AI in language education and in particular robot teachers instructing EFL classes is intriguing. Whilst the current trends in the use of AI in education and classroom attest to this possibility, it is imperative to appreciate that adoption of the technology in various aspects of education is still at its infancy and hence the need to approach it cautiously.

Several studies have explored the application of AI in language classes with most research focusing on perceptions of EFL students towards the use of the AI technology in language instruction. A recent study conducted by Abdelatif and Siddiqui (2021) involving 71 Faculty of Languages and Translations staff from King Khalid University showed that while the participants held positive perceptions towards the use of AI applications in language learning and instruction, the probability of the staff incorporating AI in their language instruction was minimal. The study suggested provision of continuous professional development to members of the faculty as an important step in enhancing their AI skills and encouraging them to embrace the potentialities of adopting the technology in English language teaching and learning (Abdelatif & Siddiqui, 2021). In their study in an unspecified Indonesian university, Sumakula et al. (2022) also found teachers had a positive attitude towards adoption of AI in their EFL classrooms given its potential to assist students learn and teachers teach. The study also underscored the importance of consideration of the pedagogical and technological competence of the teachers and the motivational levels of the learners in determining readiness for incorporation of AI in EFL classrooms (Sumakula et al., 2022).

A range of studies have also focused on the perspectives of EFL students towards the use of AI in language instruction. Almaleki (2020) explored the perception of Saudi students towards the adoption of AI systems in EFL education and its effect on acceptance of the technology and found that the perceived social influence of AI as well as its perceived effect on their performance influenced their usage of AI in EFL learning. A more recent study showed a majority of the participating undergraduate students from King Saud University perspectives towards AI adoption, its benefits and concepts were positive; but felt the need for additional training and education on AI as well as early exposure of students to AI technology (Syed & Al-Rawi, 2023). The existing studies on student perceptions regarding the use of AI in EFL classrooms indicate use of AI in EFL learning is heavily dependent on the supposed potentialities and that readiness to use the technology is a function of the AI skills among the learners.

Research on utility of AI applications and platforms in EFL education includes the study on the use of robot teachers in teaching English as a Second Language (ESL) learners which established that students preferred human teachers over robot teachers in their ESL learning given the capacity of the former to facilitate better and more humane and empathetic student-teacher interaction in the target language (Kwok, 2015). In their examination of the potentiality of applied translation for language learning during the AI era, Muñoz-Basols et al. (2023) establish the capacity of such AI-

based chatbots as ChatGPT to promote critical thinking and digital literacy in EFL classrooms. Use of such AI tools as AI dialogue systems in EFL instruction has also been shown to enhance the interactional competence of university students by effectively improving their listening, writing, and reading abilities (Zhai & Wibowo, 2023). Despite the potential benefits associated with the use of AI tools in EFL education, research shows the various AI tools, platforms and applications fail to integrate empathy, humour, interaction and culture functions which are key in promoting foreign language learning and competency (Kwok, 2015; Zhai & Wibowo, 2023). The study by Alhalangy and AbdAlgane (2023) analysing the impact of AI systems on EFL instruction in Saudi universities takes note of these shortcomings and suggests the need to better integrate AI tools in English language teaching and learning to ensure their effectiveness and avert the associated negative implications.

The perceptions of students and teachers towards utility of AI in EFL contexts are shaped by the associated benefits and challenges. Similarly, AI tools portend diverse benefits and shortcomings to English language teaching and learning. These different intervening factors collectively and by extension influence the enthusiasm of university students to learn EFL using AI. The previous literature reviewed reveals gaps in this area of research and in particular the fact that existing research has primarily focused on integration of various AI tools and technology in education and to some extent in EFL education. Most notably, no studies have been conducted on the readiness of early years university students, and in particular first year students for the use of AI in their EFL education in any education context. The apparent gap in the previous literature underscores the significance of research in this area so as to shed light on this critical issue. Consequently, a study seeking to examine and understand the readiness of first-year university students in Saudi Arabia to embrace AI-based instruction in their EFL learning is essential and hence the current study.

METHODOLOGY

Participants

The study included 320 first-year male students from a Saudi public university who were all enrolled in an obligatory English course as part of their academic program and ranged in age from 18 to 21 at the time of the study (2023). At the end of the first semester, these students were categorized into three proficiency levels—advanced, intermediate, and beginner—based on their English course final exam scores. The group represented a wide array of academic pursuits in the fields of STEMM and Business (see Table 1).

Data Collection

A questionnaire was developed, drawing on data collection instruments from Park and Shin (2017) and Yoon (2019), to investigate participants' perspectives on AI, AI technology, and student learning in EFL classrooms. This questionnaire, divided into three sections, explored the usage of AI technology in EFL classrooms, its function in English language teaching and learning, and the participants' views on AI. The first section focused on the students' experiences with and interest in AI, while the second section examined their perceptions of AI's necessity, preferences based on language skills, teaching and learning activities, and teaching roles. To avoid central tendency bias in responses, a 6-point Likert scale was used. The final section delved into students' perceptions of AI's strengths and weaknesses in EFL courses, and their view on AI presence, its roles and preferred use. Additionally, the questionnaire included an item allowing participants to offer suggestions or comments about the instrument itself.

Data Analysis

To ensure that the survey responses were as genuine and reflective as possible, and to minimize the central tendency bias where respondents might gravitate towards middle-range answers, a 6-point Likert scale was employed. Then these responses were analyzed using the Statistical Package for the

Social Sciences (SPSS), focusing on frequencies, descriptive statistics, and an Analysis of Variance (ANOVA). This analysis was instrumental in exploring differences in English proficiency levels among the students and identifying any significant patterns or outliers. The significance threshold was set at $p < .05$ to ensure rigorous statistical evaluation. The reliability of the survey was also rigorously tested with a Cronbach's alpha, which returned a high score of .944, underscoring the dependability of our data collection instrument.

Table 1: Study participants

Proficiency	N (%)
Advanced	107 (33.4)
Intermediate	106 (33.2)
Beginner	107 (33.4)
Total	320 (100)

RESULTS AND ANALYSIS

General perspective regarding AI

Regarding the experiences and interests of the participants, their overall background experience about AI and their views regarding the technology were examined. As shown in Table 2 below, while 54.6% of the participants had interest in AI, only 28.4% were interested in using AI in EFL classrooms an indication that a significant number of the students (71.6%) were against the presence of AI in EFL classrooms. Further, 95.1% of the students had no experience with the use of AI in EFL courses although 98% of the participants had access to various AI tools and assistants which only 46.1% of the participants utilised. Thus, even though 98% of the participants had access to assorted AI tools, most of the participants (53.9%) failed to utilise them and to make matters worse 71.6% of them had no interest in using them in their EFL learning.

Table 2: Prior interests in and experiences with AI of the participants

	Interest in AI	Interest in using AI in EFL classes	Experience in utilising AI in class	Access to AI tools	Uses AI tools or assistants
Yes (%)	181 (56.6)	91 (28.4)	16 (4.9)	314 (98)	148 (46.1)
No (%)	139 (43.4)	229 (71.6)	304 (95.1)	6 (2)	172 (53.9)
Total	320 (100)	320 (100)	320 (100)	320 (100)	320 (100)

For the general perspectives of the participants about AI, the utility, convenience, expectations, familiarity, perceived risk and usability were examined. As depicted in Table 3 below, 96.6% of the participants felt AI depended on the user while 3.4% felt otherwise. This indicates the participants felt AI impact varied depending on how and who; with the human user playing a critical role, the level of machine learning present and the related technological advances involved notwithstanding. Further, 93.1% felt AI was convenient while 92% termed it useful. This showed the participants were aware of the benefits AI and the related technology proffered. Consequently, 84.6% exhibited high expectations towards AI whereas 73.1% expressed the concern that AI could be difficult to control.

Regarding the unfamiliar and threatening aspects regarding AI, the former was supported by 67.2% of the participants and the latter by 71.7%. Given that 98% affirmed they had access to various AI tools and 53.9% attested they do not use them (Table 2 above), it is logical that 67.2% of the

participants indicate they are not familiar with the technology. Alarm and fear towards AI may be a function of the recent unprecedented accomplishments associated with the technology.

Table 3: Perspectives on the utility, convenience, expectations, threats of and familiarity with AI

	AI depends on user	AI is convenient	AI is useful	Have high expectations towards AI	AI is difficult to control	Familiarity with AI	AI as a threat
Yes (%)	309 (96.6)	298 (93.1)	294 (92)	271 (84.6)	234 (73.1)	215 (67.2)	229(71.7)
No (%)	11 (3.4)	22 (6.9)	26 (9)	49 (15.4)	86 (26.9)	105 (32.8)	91 (28.3)

Perspectives regarding the function of AI in English teaching and learning (ET/L)

The views of the participants regarding the function of AI in English teaching and learning were examined based on several aspects;

Need and interest in AI for ET/L

The interest of the participants in utilising AI for ET/L and the necessity to employ the technology vary based on their English proficiency level. As shown in Table 4 below, there was huge disinterest among the participants in the use of AI for English teaching and learning across the three levels of proficiency with 86.6% of the being negative in their responses. On the other hand, only 13.3% of the participants expressing interest in the use of AI in ET/L. The clear divide between 'strongly disagree' and 'strongly agree' indicate the strong negative views towards use of the technology in ET/L while the variation in the rest of the responses indicate the uncertainty among the participants and hence their dilemma selecting responses closer to the mid-point.

Table 4: Interest in utilising AI for ET/L

	Beginner (%)	Intermediate (%)	Advanced (%)	Total (%)
Strongly disagree	33 (10.3)	38 (11.9)	46 (14.4)	117 (36.6)
Disagree	4 (1.3)	1 (0.3)	4 (1.3)	9 (2.8)
Somewhat disagree	50 (15.6)	51 (15.9)	50 (15.6)	151 (47.2)
Somewhat agree	14 (4.4)	12 (3.8)	3 (0.9)	29 (9.1)
Agree	4 (1.3)	2 (0.6)	3 (0.9)	9 (2.7)
Strongly agree	2 (0.6)	2 (0.6)	1 (0.3)	5 (1.6)
Total	107 (33.4)	106 (33.2)	107 (33.4)	320 (100)

Regarding the necessity of using AI in ET/L, most students felt that the technology was not needed. As shown in Table 5 below, participants across the proficiency levels gave negative responses, that is, beginners 90.6%, intermediate 85.9%, and advanced 92.5%. The huge negative perception towards the need to use the technology in ET/L could be associated with the responses in Table 3 above where majority felt AI was difficult to use.

Table 5: Need to employ AI for ET/L

	Beginner (%)	Intermediate (%)	Advanced (%)	Total (%)
Strongly disagree	30 (28)	27 (25.5)	29 (27.1)	86 (26.9)
Disagree	11 (10.3)	19 (17.9)	18 (16.8)	48 (15)
Somewhat disagree	56 (52.3)	45 (42.5)	52 (48.6)	153 (47.8)
Somewhat agree	5 (4.7)	9 (8.5)	4 (3.7)	18 (5.6)
Agree	3 (2.8)	3 (2.8)	3 (2.8)	9 (2.8)
Strongly agree	2 (1.9)	3 (2.8)	1 (0.9)	6 (1.9)
Total	107 (33.4)	106 (33.2)	107 (33.4)	320 (100)

Preferences for and Suitability of AI in ET/L

ANOVA was used in to examine the views of the participants regarding the suitability of use of AI in learning and teaching English language skills. The results of the test are captured in Table 7 below; with statistical significance indicated by the post-hoc for the included items. Positivity decreases across the proficiency levels for certain items. Specifically, the more proficient a student is in English the highly likely they are to be negative towards the suitability of using AI as a language instructor. This could be attributed to their higher exposure to technicalities of ET/L and the related knowledge informing their realisation of inability of AI to effectively teach such aspects of the language as interaction and spoken output.

Table 7: Preferences for and Suitability of AI in teaching and learning English skills

Language skills and content	Suitability of AI as a teacher				Preference (%)			
	Mean (Total/Adv/Int/Beg)	df	F	Sig	AI	PC	Human	Total
Reading	4.30/4.16/4.28/4.34	319	.432	.837	32.7	62.7	4.6	100
Writing	3.25/3.42/3.40/3.94	319	4.028	.032*	32.5	15.2	52.3	100
Listening	4.22/3.04/4.25/4.42	319	3.069	.240	36.8	49.0	14.2	100
Speaking	3.52/3.20/3.54/3.86	319	6.884	.004*	22.3	2.3	75.4	100
Grammar	4.33/4.22/4.30/4.40	319	.466	.803	32.0	56.7	11.3	100
Vocabulary	4.33/4.24/4.30/4.44	319	.788	.610	34.9	53.9	11.2	100
Pronunciation	3.02/2.02/3.60/3.84	319	13.963	.000*	29.1	58.4	12.5	100
Test prep	3.42/3.01/3.43/3.80	319	3.268	.228	31.9	63.2	4.9	100
Culture	3.02/3.65/3.57/3.84	319	3.030	.245	26.2	68.9	4.9	100
Literature	3.76/3.50/3.68/3.99	319	3.284	.227	27.8	65.2	7.0	100
Translation	3.74/3.02/3.05/3.96	319	3.055	.242	31.1	48.3	20.6	100
Discussion	2.02/2.84/3.10/3.20	319	3.520	.103	4.9	25.8	69.3	100

Presentation	3.38/3.26/3.38/3.47	319	.524	.761	7.9	27.2	64.9	100
Post-Hoc								
Variables	Proficiency (I)	Proficiency (J)	Mean Difference (I-J)			STD	Sig.	
Writing	Advanced	Intermediate	.282			.299	.748	
		Beginner	.628			.299	.029*	
Speaking	Advanced	Intermediate	.409			.297	.332	
		Beginner	.743			.297	.003*	
Vocabulary	Beginner	Advanced	-.909			.299	.001*	
		Beginner	-.953			.290	.001*	
*p<.05								

The percentage of participants' preferences for the type of teacher to teach various aspects of the English language was examined. As capture in Table 7 above, preference for human teachers for language production related items, namely, 'presentation', 'discussion', 'speaking' and 'writing' was apparent. For contents and language skills items, namely, 'reading', 'listening', 'grammar', 'vocabulary', 'pronunciation', 'test prep', 'culture', 'literature', and 'translation', PC was preferred over AI. The preference for PC over AI for these items could be attributed to familiarity of the participants with PC which they use during online lectures.

Preference for and suitability of AI for ET/L activities

In the assessment of the views of the participants regarding the suitability of use of AI in ET/L activities, ANOVA was utilised. As depicted in Table 8 below, participants across the proficiency levels responded negatively towards 'academic counselling' given the negative mean value; indicating their reservations towards the capacity of AI for academic counselling. Participants across the proficiency levels also negatively perceived the capacity of AI to hold 'interesting lesson'. Regarding AI capacity for 'effective delivery, be 'anywhere', 'regulate learning speed', 'simple explanations', and to 'answering individual questions', beginners responded negatively; indicating their view that AI as an instructor is unsuitable for performing these tasks whilst their counterparts in the intermediate and advanced levels exhibited positive perspectives towards the capacity of AI to perform these functions. As shown in the table below there were significant differences in the perspectives of the participants across these items.

Table 8: Preference and suitability of AI for ET/L activities

Items	Suitability of AI as an instructor				Preference (%)			
	Mean (Total/Adv/Int /Beg)	df	F	Sig	AI	PC	Human	Total
Individualised learning	4.62/4.72/4.89 /4.54	319	.645	.698	72.0	17.3	10.7	100
Level differentiated learning	4.86/4.89/4.87 /4.83	319	.218	.909	31.9	28.0	40.1	100

Weakness identification	4.53/4.46/4.59 /4.55	319	.412	.851	56.7	20.1	23.2	100
Error correction	4.61/4.67/4.60 /4.56	319	.294	.943	49.5	20.5	30.0	100
Solution explanation	3.87/4.15/4.19 /3.88	319	2.516	.358	33.2	18.2	48.6	100
Academic counselling	2.96/2.84/2.93 /2.06	319	.706	.611	22.8	8.9	68.3	100
Autonomous learning	4.43/4.36/4.60 /4.33	319	2.769	.203	26.7	32.8	40.5	100
Provide answers	4.87/4.92/4.06 /4.63	319	5.479	.024 *	19.9	43.4	36.7	100
Recommend learning strategy	4.25/4.25/4.32 /4.19	319	.375	.879	35.5	23.0	41.5	100
Summarise	4.86/4.94/4.93 /4.62	319	4.417	.095	31.3	36.6	32.1	100
Quick and precise solution	4.76/4.97/4.70 /4.40	319	5.059	.009 *	30.6	39.5	29.9	100
Assist with homework	4.26/4.69/4.40 /3.60	319	29.222	.001 *	41.9	28.2	29.9	100
Give specific details	4.56/4.17/4.79 /3.74	319	47.818	.001 *	32.5	30.5	37.0	100
Give extra resources	4.60/5.21/4.94 /3.96	319	39.449	.001 *	28.6	32.7	38.7	100
Help learning	4.56/4.95/4.82 /3.91	319	31.172	.001 *	23.4	27.3	49.3	100
Answer individual questions	3.45/3.54/3.76 /2.06	319	6.617	.005 *	28.6	11.5	59.9	100
Simple explanations	3.65/3.79/3.97 /3.18	319	9.020	.001 *	37.3	11.8	50.9	100
Regulate learning speed	3.98/4.43/4.34 /3.18	319	.548	.001 *	32.2	14.4	53.4	100
Interesting lessons	3.30/3.19/3.59 /3.14	319	3.019	.067	35.1	30.5	34.4	100
Anytime	4.18/4.47/4.43 /3.65	319	10.854	.001 *	44.5	35.3	20.2	100
Anywhere	4.21/4.57/4.40 /3.56	319	26.884	.001 *	44.5	35.6	19.9	100

Effective delivery	3.80/4.17/4.26 /3.28	319	27.073	.001 *	27.8	18.8	53.4	100
*p<.05								

Perspectives regarding the presence of AI in EFL classes

Views about the weakness and strengths of use of AI in EFL courses

As depicted in **Table 9** below, an examination of the views of the participants regarding the strengths and weakness of AI revealed that whilst a majority of the respondents, 79.7% and 59.1%, felt the technology was 'fair' and 'reasonable' respectively, a considerably lower proportion of the participants, 27.2%, 25%, 23.4% and 19.4%, regarded it as 'user friendly', 'convenient', 'impersonal' and 'fascinating' respectively; indicating a decline in the relevance of the items.

Regarding the weaknesses of use of AI in EFL courses, lack of emotion and interaction emerged as the major shortcomings of the technology supported by 68.8% and 67.5% of the participants. The two relate to the critical aspects of human reaction and interaction among learners during English teaching and learning. Other aspects relating to individual learners' responses to the technology among them cannot be trusted, frightening, frustrating, and foreign ranked lower. See Table 9 below.

Table 9: Views about the weakness and strengths of use of AI in EFL lessons

Rank	Weaknesses	N (%)	Rank	Strengths	N (%)
1	Lacks emotion	220 (68.8)	1	Fair	255 (79.7)
2	Lacks interaction	216 (67.5)	2	Reasonable	189 (59.1)
3	Foreign	182 (56.9)	3	User friendly	87(27.2)
4	Frustrating	153 (47.8)	4	Convenient	80 (25)
5	Frightening	94 (29.4)	5	Impersonal	75 (23.4)
6	Can't be trusted	86 (26.9)	6	Fascinating	62 (19.4)
		Out of 320 (100)			Out of 320 (100)

Views regarding presence of AI in EFL courses

An examination of the AI presence preferred in EFL courses revealed most of the participants were in favour of human teacher over all other alternatives. As shown in **Table 10** below, 84.8% of the participants exclusively preferred human instructors, 34.8% human instructors supported by AI, 24% AI as an instructor supported by human teachers, and only 2% preferred AI as an instructor on its own.

A comparable trend was observed for classmates with most of the participants preferring having human peers, a smaller proportion opting for a combination of both human and AI peers and even a less significant proportion preferring having AI classmates only. There is consistency in the results reflecting an acknowledgement of the critical function played by interaction in EFL learning and teaching and which can only be possible with human classmates and instructors.

Table 10: The presence of AI preferred in EFL classes

Instructor		Classmates/peers	
Type	N (%)	Type	N (%)

Human	270 (84.4)	Human peers	282 (88.0)
AI	6 (2.0)	AI peers	6 (2.0)
Human instructor-AI supported	111 (34.8)	Combined AI & human peers	78 (24.5)
AI instructor- human supported	77 (24.0)	--	
Total	320 (100)	Total	320 (100)

The respondents were further required to describe using three words their views regarding the presence of AI in EFL courses and in particular its sole use as a classmate or instructor. Table 11 below presents condensed responses given based on their frequency. Strong negative responses were obtained regarding the exclusive use of AI as an instructor given that of the 449 expressions used to describe the thought only 28 were positive, 67 neutral, and over 354 words negative. The huge proportion of negative expressions used to describe AI teachers indicated the negative perceptions of the participants towards the thought of having AI systems as instructors in their EFL classrooms and their likelihood to cease attending the classes if AI teachers took over.

Table 11: Open-ended responses describing thoughts of AI presence in EFL classes

AI as the Teacher (449)		AI as Peers/Classmates (385)	
Expression Type	N	Expression Type	N
Positive	28	Positive	7
Neutral	67	Neutral	48
Negative	354	Negative	330
Total	449	Total	385

Similarly, the participants expressed strong negative responses towards the thought of having AI as classmates in their EFL classrooms. Of the 385 words used, 330 were negative expressions, 48 neutral and only seven were positive. The high frequency of use of strong negative words such as 'scary', 'alarming', 'frustrating', and 'boring' to describe AI classmates indicates the participants detested the thought of having AI classmates more than AI instructors. Words reflective of interaction aspects of EFL teaching and learning such as 'unsociable' and 'loneliness' were used indicating the concern by the participants that the presence of AI classmates would preclude human interaction in their classrooms.

DISCUSSION

This study investigates the readiness of first-year students at a public Saudi university to use AI in their EFL courses based on their general views regarding AI and AI technology and their perspectives about the uses and functions of AI in English teaching and learning. From the results, it is apparent that while a majority of the students have access to AI tools and technology, only a fraction of them use the technology in their learning. The findings also indicate that while first-year university students have an interest in the technology, only a fraction of them are keen to utilise it, and even fewer have utilised it in their EFL learning. This trend mirrors the findings of Ali (2023), who found that faculty members in Egypt struggled with AI applications due to a lack of knowledge and skills but expressed a willingness to learn more. Similarly, Hammoudi Halat et al. (2024) observed that dental students in Qatar had a strong desire to increase their knowledge of AI, but the actual use remained limited.

The viewpoints of the students illustrate that the value attached to AI varies from user to user and is shaped by individual views on whether the technology is regarded as useful, convenient, or easy to use. Findings indicated students are concerned by their perceptions that AI could be unfamiliar, threatening, and difficult to control. This attitude is echoed in Yoon (2019), where university students also felt both intrigued and threatened by AI, reflecting similar concerns about its unfamiliarity and potential difficulty.

There are negative perceptions across the English proficiency levels with respect to the students' interest in the use of AI in their EFL courses. This was observed in relation to the need to utilise the technology in EFL teaching and learning. Thus, while AI portends the capacity to enhance student engagement and involvement among other immense benefits, the findings indicate early-year university students are not ready for the integration of AI in their EFL education. This aligns with Kim and Kim (2017), who found that EFL teachers in Korea, despite their willingness to adopt new technologies, remained skeptical of AI's role in language education.

Regarding the takeover of EFL instruction by AI instructors, the results indicate students are averse to the possibility of being exclusively taught by AI. A majority of students across the English proficiency levels prefer human instructors, and a significant number prefer human teachers with AI support systems. This preference is consistent with Jones et al. (2018), who highlighted that native speaker teachers in Korean universities feared being replaced by AI, emphasizing the irreplaceable role of human instructors.

Students appear concerned by the inability of AI instructors to effectively undertake some of the roles currently reserved for human instructors, such as academic counselling and other human intuition-dependent roles. However, there seems to be a preference for a combination of the use of personal computers and human teachers given the familiarity of learners with personal computers during online classes. The preference for human teachers is attributed to their ability to facilitate human interaction and offer friendly instruction and interesting lessons, as opposed to the impersonal and impassive instruction associated with AI.

Pertaining to the effectiveness of the use of AI technology in language skills instruction, it is apparent that beginners have the most positive responses and those in the advanced level the least positive perspectives. There appears to be a consensus across the proficiency levels that AI is inappropriate for language output items among them pronunciation, writing, and speaking, and appropriate for content items like English culture and literature. However, students with advanced proficiency levels consider AI instructors inappropriate in stark contrast with those at the beginner level. This is attributable to the differences in knowledge of and exposure to the complexities of EFL learning between students in the advanced levels and the beginners. This finding contrasts with Park and Shin (2017), who found that younger students in elementary schools held more favorable views of AI than older students, highlighting the variability in perceptions of AI across different educational contexts and proficiency levels.

Perspectives of the students regarding the presence of AI in EFL courses are wide and diverse. Students regard the tendency of AI to be impartial and emotionless as a weakness and hence their preference for human instructors supported by the technology. This comparison underscores the importance of understanding specific learner needs and attitudes when integrating AI into education.

CONCLUSION

This study has examined the readiness of Saudi first-year university students for using artificial intelligence (AI) in EFL courses. Through a detailed analysis of the general views regarding AI, the function and utilisation of artificial intelligence in EFL learning and teaching, it has been established that first-year university students are interested in AI and find it helpful and convenient, though they also view it as a potential threat. Their perceptions indicate that AI is unsuitable for some contexts

and areas of language instruction. The findings also indicate a statistically significant difference in proficiency levels among the students. Notwithstanding their perception of AI's suitability, a strong preference for human instructors for EFL courses was established. Further, the negative perceptions of the students towards AI indicate what they deem suitable is not necessarily what they prefer implemented in their own EFL courses. The study findings indicate that while first-year EFL students in Saudi Arabia are interested in AI, they do not perceive it necessary to use it. They deem human instructors to be suitable at the university level and feel language output-related contents and skills are better taught by human instructors, with personal computers being their preferred information and language input tools. The perspectives and readiness of the students to use AI are not as amenable as anticipated, hence the need for universities and EFL instructors to approach any efforts to integrate AI or related tools in EFL courses diligently.

REFERENCES

- Abdelatfi, K., & Siddiqui, A. (2021). Incorporating artificial intelligence (AI) tools in EFL classes at King Khalid University (KKU). *Journal of Tianjin University Science and Technology*, 54 (10), 197-221.
- Alhalangy, A. G., & AbdAlgane, M. (2023). Exploring the impact of AI on the EFL context: A case study of Saudi Universities. *Journal of Intercultural Communication*, 23 (2), 41–49.
- Ali, A. (2023). *Assessing Artificial Intelligence Readiness of Faculty in Higher Education: Comparative Case Study of Egypt* [Master's Thesis, the American University in Cairo]. AUC Knowledge Fountain. <https://fount.aucegypt.edu/etds/2096>
- Allen, G. C. (2020). Understanding AI technology. *Joint Artificial Intelligence Center (JAIC)*, 1-20. <https://www.ai.mil/docs/Understanding%20AI%20Technology.pdf>.
- Almaleki, W. S. (2020). Saudi international students' perceptions of the utility of artificial intelligence and intelligent personal assistant tools in EFL learning. *ProQuest Dissertations*, 28028490.
- Beck, J., Stern, M., & Haugsjaa, E. (2000). Applications of AI in education. *The ACM*, <https://dl.acm.org/doi/fullHtml/10.1145/332148.332153>.
- Boulay, B. d. (2022). Artificial intelligence in education and ethics. *Handbook of Open, Distance and Digital Education*, 2-13. https://link.springer.com/content/pdf/10.1007/978-981-19-0351-9_6-2.pdf.
- Chen, L., Chen, P., & Lin, Z. (2020). Artificial intelligence in education: A review. *IEEE Access*, 8, 75264-75278.
- Deranty, J.-P., & Corbin, T. (2022). Artificial intelligence and work: a critical review of recent research from the social sciences. *AI & Society*, <https://doi.org/10.1007/s00146-022-01496-x>.
- Freedman, R., Ali, S. S., & McRoy, S. (2000). What is an intelligent tutoring system? *Intelligence*, 11 (3), 15-16.
- Hammoudi Halat, D., Shami, R., Daud, A., Sami, W., Soltani, A., & Malki, A. (2024). Artificial Intelligence Readiness, Perceptions, and Educational Needs Among Dental Students: A Cross-Sectional Study. *Clinical and Experimental Dental Research*, 10(4), e925.
- Jöhnk, J., Weißert, M., & Wyrтки, K. (2021). Ready or not, AI comes—an interview study of organizational AI readiness factors. *Business & Information Systems Engineering*, 63 (1), 5–20.
- Karan, B., & Angadi, G. R. (2023). Artificial intelligence integration into school education: A review of Indian and foreign perspectives. *Impact Factor*, <https://doi.org/10.1177/09763996231158229>.

- Kim, H. S., & Kim, H. Y. (2017). A study of Korean English teachers' future readiness for the fourth industrial revolution. *Multimedia-Assisted Language Learning*, 20(3), 179-205.
- Kim, J., Merrill, K., Xu, K., & Sellnow, D. D. (2020). My teacher is a machine: Understanding students' perceptions of AI teaching assistants in online education. *International Journal of Human-Computer Interaction*, 36 (1), 1-10.
- Kissinger, H. A. (2018). How the enlightenment ends. *The Atlantic*, 1-6.
- Kwok, V. H. (2015). Robot vs. human teacher: Instruction in the digital age for ESL learners. *English Language Teaching*, 8 (7), 157-163.
- Li, J., & Huang, J.-S. (2020). Dimensions of artificial intelligence anxiety based on the integrated fear acquisition theory. *Technology in Society*, 63, <https://doi.org/10.1016/j.techsoc.2020.101410>.
- Masriadi, Dasmadi, Ekaningrum, N. E., & Hidayat, M. S. (2023). Exploring the future of work: Impact of automation and artificial intelligence on employment. *International Journal of Future Studies*, 6 (1), 125-136.
- Muñoz-Basols, J., Neville, C., Lafford, B. A., & Godev, C. (2023). Potentialities of applied translation for language learning in the era of artificial intelligence. *Hispania*, 106 (2), 171-194.
- Park, J. H., & Shin, N. M. (2017). Students' perceptions of artificial intelligence technology and artificial intelligence teachers. *The Journal of Korean Teacher Education*, 34 (2), 169-192.
- Reiss, M. J. (2021). The Use of AI in education: Practicalities and ethical considerations. *London Review of Education*, 19 (1), 1-14. <https://doi.org/10.14324/LRE.19.1.05>.
- Silver, D., Schrittwieser, J., Simonyan, K., Antonoglou, I., Huang, A., Guez, A., et al. (2017). Mastering the game of Go without human knowledge. *Nature*, 550, 354-359.
- Stenberg, L., & Nilsson, S. (2020). Factors influencing readiness of adopting AI: A qualitative study of how the TOE framework applies to AI adoption in governmental authorities. *Master of Science Thesis TRITA-ITM-EX 2020:137*, <https://www.diva-portal.org/smash/get/diva2:1460888/FULLTEXT01.pdf>.
- Sumakula, D. T., Hamied, F. A., & Sukyadi, D. (2022). Artificial intelligence in EFL classrooms: Friend or foe? *LEARN Journal: Language Education and Acquisition Research Network*, 15 (1), 232-256.
- Syed, W., & Al-Rawi, M. B. (2023). Assessment of awareness, perceptions, and opinions towards artificial intelligence among healthcare students in Riyadh, Saudi Arabia. *Medicina*, 59, 828-840. <https://doi.org/10.3390/medicina59050828>.
- Tahiru, F. (2021). AI in education: A systematic literature review. *Journal of Cases on Information Technology (JCIT)*, 23 (1), DOI: 10.4018/JCIT.2021010101.
- Wang, Y., Liu, C., & Tu, Y. F. (2021). Factors affecting the adoption of AI-based applications in higher education. *Educational Technology & Society*, 24 (3), 116-129.
- Yoon, S. Y. (2019). Student readiness for AI instruction: Perspectives on AI in university EFL classrooms. *Multimedia-Assisted Language Learning*, 22 (4), 134-160.
- Zhai, C., & Wibowo, S. (2023). A systematic review on artificial intelligence dialogue systems for enhancing English as foreign language students' interactional competence in the university. *Computers and Education: Artificial Intelligence*, 4, <https://doi.org/10.1016/j.caeai.2023.100134>.

