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Artificial Intelligence and English Language Teaching: Preparing for The Future

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Abstract

AI can be defined as computer systems that replicate human intelligence AI as a language instructor. AI provides constant, one-on-one instruction, giving students the amount of feedback and scaffolding exercises they need to become fluent in a low-stakes environment. AI is that it will reduce the time required to learn skills .Problem research in employing AI applications in teaching specifically, this role remains neither effective nor prominent as required. Their involvement in using AI applications ranges from moderate to weak due to several factors, including the lack of necessary resources, limited teacher proficiency in using AI applications, and weak conviction regarding their importance in teaching. The objective research to investigate the degree of using AI influence on teaching English language and highlight on the effectiveness of AI on teaching English language. To conduct the research by a quantitative descriptive questionnaire was used to collect data from 50 the English language teachers at secondary schools in the second Rusafa Directorate. The questions focused on the impact of artificial intelligence (AI) technology in teaching. The results indicate that there are noticeable differences in the methods that English language teachers using AI in class. In addition, recommendations are made to enhance teachers' performance in these classroom.

Key Words: Artificial intelligence, English Learning Speech Assistant, Doulingo Fourth Revolution .

Section One

Introduction

AI can be defined as computer systems that replicate human intelligence (Sindermann et al., 2021). AI as a language instructor. AI provides constant, one-on-one instruction, giving students the amount of feedback and scaffolding exercises they need to become fluent in a low-stakes environment where learners are more willing to take risks and make errors. The main promise of AI is that it will reduce the time required to learn skills (Devi et al., 2020). The advancement of digital platforms and technology has also made teaching and studying English easier. These now provide the chance to enhance English language proficiency. This implies that we might not require any English teachers or English instruction in the classroom if we had a machine that can teach the language. (Shin ,2018). Therefore, English education need not be replaced by the Fourth Revolution. Instead of that the development of an English class model using Artificial Intelligence should work in cooperation with the English teaching process" .(Ribeiro , 2020 ,p.214) states that Artificial Intelligence in English Language Teaching (ELT) is the most realistic way English language teachers can use it. English is one of the common world languages which has a systematic grammatical structure." Therefore, learning English has always been substantially difficult for ESL/EFL (English as Second/Foreign Language) students .that need for suitable teaching methods that could facilitated student teaching language learning difficulties (Mehrotra, 2019,p.214)"

١,٢ Problem statement

Form rapid development, especially in the use of artificial intelligence, which contributes to the improvement and efficacy of the educational process, provide serious problems for teachers in our day and age. As a result, nations are competing with one another to improve and enhance education by using technology tools that keep up with the latest developments in the digital era (Al-Rawahy, et al., 2023)". Many studies have highlighted the importance of integrating artificial intelligence (AI) applications in teaching and have called for training teachers on their use, as well as designing educational software suitable for all educational levels. Despite the significant role of teachers in the educational process in general and in employing AI applications in teaching specifically, this role remains neither effective nor prominent as required. Their involvement in utilizing AI applications ranges from moderate to weak due to several factors, including the lack of necessary resources, limited teacher proficiency in using AI applications, and weak conviction regarding their importance in teaching. This was confirmed by the study of (Ababneh, 2022, p.3)"

١,٣ Research questions

.١ what does the degree of using AI influence on teaching English language?

.٢ How does AI effect on teaching English language?

١,٤ Research objectives

The research aims at :

.١ Investigate the degree of using AI influence on teaching English language.

.٢ Highlight on the effectiveness of AI on teaching English language.

١,٥ Operational definitions

.١ Artificial Intelligence (AI) is a human intelligence simulation based on computers and designed to function as human beings. AI is one of the drivers of the 4.0 industrial revolution to facilitate education in teaching and learning. (Fryer & Carpenter, 2006).

.٢ English Learning Speech Assistant (ELSA) this application makes use of Artificial Intelligence (AI) and speech knowledge to help improve and perfect English pronunciation .

.٣ Duolingo this website is used to learn foreign languages. It is a language-teaching tool that matches words and filling in the blank parts of sentences in a game-like fashion

١,٦ Significant of study

This study could be a starting point in exploring the impact and methods related to teaching English language by using AI in classes at Secondary schools. The first research question aims to investigate the degree of using AI influence on teaching English language. The second question attempts to highlight on the effectiveness of AI on teaching English language . Overall, this study will not only raise attention to the impact associated with teaching English language in the classes at Secondary schools 'but it also provides valuable solutions to this issue.

١,٧ Limitation of the study

This study was conducted in the academic year 2024-2025 in Baghdad Governorate on English language teachers in secondary schools in the Second Rusafa Directorate. The number of schools were 10.

Section Two

Introduction

The integration of AI into educational environments represents a paradigm shift and offers previously unimaginable enhancements in administrative efficiency and learning. As artificial intelligence (AI) gets more and more ingrained in educational institutions, its effects on student involvement, individualized learning, and resource optimization are significant and exciting a future where technology will be crucial in producing a more flexible and efficient learning environment (Kolodn, 2017).

٢,١ Artificial Intelligence Technology in English Language Teaching.

According to (Han, 2019) as one of the most advanced information systems in the world, artificial intelligence technology investigates how robots can perform intelligent tasks that are initially only capable of being completed by humans .Additionally, technology evolves in a manner that facilitates the completion of certain tasks, including the acquisition and teaching of English (Fryer & Carpenter, 2006). According to (Luo & Cheng, 2020) Artificial Intelligence (AI) technologies are utilized to facilitate the teaching of foreign languages. Artificial Intelligence (AI) technology can effectively address the challenges of a monotonous measurement method, limited space, limited resources, and brief teaching hours". Thornton (2007, p. 1) defines that almost all programs/technologies Artificial Intelligence (AI) can be said to be doing some form of problem-solving ". It implies that Artificial Intelligence (AI) is a broad area of science that incorporates this dynamic

problem-solving and human-like capacity to sense behavior and purpose.(Cobar, 2019)". The goal of AI can create smart machines that think and act like humans, with the ability to simulate intelligence and produce decisions through a process in a similar manner to human reasoning (Salvaris et al., 2018, pp. 3–4)". "Teaching and learning English has become easier with the development of digital platforms. Artificial intelligence (AI) technology now offers the opportunity to improve English language skills. Language literacy and digital literacy are a neat combination to improve global competence. AI bases its process on the text processing of a language. The more sophisticated the AI, the more and more accurate the language he mastered. Therefore, the use of AI technologies would strengthen foreign language teaching and learning. (Yingsoon, 2021,chapter)." AI is effective in conveying a variety of information and in enhancing the English learning process. Also facilitates the comprehension of the teacher's explanations for these students. Even students can the ease of learning even without having to face the teachers directly .

٢,٢ English Learning Speech Assistant

English Learning Speech Assistant (ELSA) and designed by Vu Van in 2015, and is based in San Francisco, United States. This application makes use of Artificial Intelligence (AI) and speech recognition to help enhance and perfect English pronunciation. English Learning Speech Assistant, or (ELSA) Speak is a speech recognition and artificial intelligence application for learning English. Unlike the majority of previous speech recognition algorithms, the ELSA framework is trained to understand the speech patterns of non-native speakers using voice data of persons speaking English with diverse accents. An evaluation test is administered to users in order to ascertain their degree of proficiency. The majority of native speakers receive ratings of 95 or higher on the ELSA scale, which runs from 0 to 100.. By identifying which sounds are effective and what still requires improvement, the results assist ELSA in customizing the user's learning route. ELSA recommends particular lessons based on the user's skill level. Regarding the instruction and acquisition of English, Application English Learning Speech Assistant, or ELSA Speak is an English language learning software that uses speech recognition and artificial intelligence to assist students become more proficient speakers of the language. A two-way learning process is made possible by this technology; for instance, users can utter specific English phrases or sentences, and the system will analyze them and offer corrections (Eka, 2020).

٢,٣ Duolingo

A website called Duolingo is used to learn foreign languages. It is a language-learning tool that matches words and fills in the blanks in phrases in a game-like fashion. This approach seeks to teach the words, phrases, and syntax required for a sentence. According to Duolingo, any learner, regardless of English proficiency, may learn a new science. In order to match users' learning materials to their ability, It first administers exams. Following the test, users will be able to determine their current level of English proficiency. It will only then offer English content that has been tailored to the user's proficiency level. In addition to teaching grammar, Also helps users learn terms, vocabulary, and other things. The English language learning approach offered by Duolingo is also intended to be "competitive" with other users and resemble a game. Users of this program can so observe how their English language proficiency has improved thus far.

٢,٤ previous studies

According to the current study, artificial intelligence (AI) is defined by (Mukhallafi , 2020) as the use of AI systems to improve the selection, organization, and layout of content in English language instruction. Depending on the skill levels of the students, it further diversifies the sources of instruction and educational streams. Additionally, it is used to replicate intelligent and expert systems and personalize self-study processes in order to construct teaching and evaluation strategies. According to (Wang 2019 ,p.216) in his research entitled "Research on Artificial Intelligence Promoting English Learning Change", there is the relationship between Artificial Intelligence and English teaching . The environment in which English is learned is altered by artificial intelligence. An excellent learning environment for immersive English learning is provided by artificial intelligence. Learning English becomes more stereoscopic and visual when information like text, music, and visuals are integrated and rationally interpreted in an intelligent gadget. Through the human-computer interface, students interact with AI, which enhances the authenticity of language settings. The claim that AI can significantly build a tailored environment where adult learners employ all of their senses to simultaneously practice English skills in connection with their current level of English or occupational demands or wishes is further substantiated by (zilberman ,2019). Artificial intelligence maximizes the effectiveness of English instruction. AI will offer a realistic simulated dialogue platform for English language instruction. In addition to improving their cognitive abilities, we will assist students in using English vocabulary, speaking, and writing

more effectively. AI can be used to interact and communicate with students by gathering cultural and customary knowledge from different English-speaking nations. It can also greatly increase students' enthusiasm in teaching English. Students in English classes have more practical skills because to artificial intelligence. Currently, the most popular social science technology in the sector is artificial intelligence (AI). Teachers and students must be able to operate the system and find quick solutions to issues in order for science and technology to be applied in English Language Teaching (ELT). Thus, when AI is used to teach English, students' practical operational capacity is increased.

Liu & Huang,)2022 , p.11(

"This study aimed to explore how artificial intelligence can be used in English language lessons to assist electronic learning platforms. The study adopted an experimental approach, with the researcher using a sample of 100 students. The results indicated that artificial intelligence helps students improve their communication skills and enhances their ability to acquire knowledge outside the classroom. Additionally, it was found that AI increases student motivation through learning English via the internet, as it encourages high-level cognitive talents. Moreover, several challenges in English language teaching and learning were identified, including knowledge and experience gaps, as well as a lack of resources and qualifications".

Al-Ruwahi & Al-Rahbi)2009 , p. 11(

"This study aimed to identify the obstacles to employing artificial intelligence technologies and applications among Islamic education teachers in the Sultanate of Oman. The researcher used a questionnaire consisting of 21 items, which was administered to a sample of 151 male and female teachers in Al-Sharqiyah Governorate. Using the descriptive approach, the study's findings highlighted several challenges, such as the lack of suitable classrooms in schools, insufficient training, and teachers' lack of experience in implementing AI applications in teaching Islamic education. Additionally, no statistically significant differences were found based on gender".

Section Three

Methodology

٣,١ Research Design

This study is a quantitative descriptive research design to investigate the impact of artificial intelligence (AI) technology in teaching. The primary data collection tool is a structured online questionnaire that was distributed English language teachers in secondary schools electronically via Google Forms to ensure accessibility and ease of response. The questionnaire adapted from previous validated instruments developed by (Zulkarnain & Yunus ٢٠٢٥ ,) and (Reina-Parrado et al. ,(2024). The questionnaire were selected and simply modified to align with the objectives of the present study, focusing on teachers' perceptions, familiarity, and usage of AI tools in the classroom.

٣,٢ Participants of the Study

The research is being done with the purpose to find out the teachers' view about the use of AI in English language learning. The researcher conducted a survey with English teachers at secondary schools. Selected randomly during the academic year (2024-2025). The researcher targeted both the male and female teachers regardless of their age. Thus they are supposed to know the use of AI in order to deal properly with understanding and using of technology. The sample of study contains the English language teachers at secondary schools in the second Rusafa Directorate. The purposive sample consists of (50) teachers selected randomly to answer the questionnaire.

٣,٣ Research Procedures

In this study, a paper questionnaire (appendix A) was administered and presented to the research supervisor and a group of referees (appendix B). After modifications were made, the final questionnaire (appendix C) was completed. An electronic questionnaire was distributed to secondary school English teachers. Additional questionnaires were sent to a group of teachers who agreed to complete both the electronic and paper questionnaires before distribution. All responses were recorded, analyzed, and the results obtained.

٣,٤ Research Instruments

In the current study, which was conducted to determine the impact of AI Technology in Teaching , a questionnaire was prepared and distributed in paper form to a group of English teachers in secondary schools. Due to the teachers' working different hours, another questionnaire was prepared online and sent to them to answer in order to obtain a good number of responses that would help in obtaining information.

٣,٥ Questionnaire

This questionnaire was created by adapt several sources, including (Zulkarnain and Yunus , 2025) and (Reina-Parrado et al. , 2024). It was conducted on a group of English language teachers at the secondary schools at march 2025. The main purpose of this questionnaire is to collect different views in a short period and to determine the impact of AI technology that teachers use in teaching English language in the classes. The questionnaire is divided into three parts. Part one consists of demographic information: gender, qualification, and years of experience. Part two is about the methods of teaching that could be used in the classes with AI. Part three is about the impact of AI technology in teaching . The research was based on a questionnaire that used the five-point Likert scale. The initial of the questionnaire (Appendix A). After that presented to a group of (5) for their feedback the arbitration panel assembled for this matter consists group of qualified and experienced professionals. It is important to note that the individuals selected possess the necessary knowledge and expertise to effectively arbitrate this case (Appendix B). After modifying and rephrasing it, the questionnaire was approved in its last image (Appendix C) for distribution and use .

Section Four

٤,١ Data analysis

In this section, present and analyze the data collected from the teachers' questionnaire .

Part one: personal information

Item 1: gender

Table 1: Teachers 'gender

Gender of Participant	Male	Female
Respondents	30	17
Percentage	63.8%	36.2%

The male participants are 30 with percentage of 63.8% and female participants are 17 with percentage of 36.2%.

Item 2: qualification

Table 2: Teacher's Qualification

Qualification	Diploma	Bachelor	Master or High
Respondents	19	1	27
Percentage	40.4%	2.2%	57.4%

This table shows the qualification for teachers who participated in this study with 19 teachers with Diploma degree with percentage (40.4%) and other 27 teachers with Master or High degree with percentage (57.4%). The last one is one Bachelor degree with percentage (2.2%) . This data indicates that a greater proportion of individuals hold a Master or high compared to those who hold a Diploma.

Item 3: years of experience

Table 3: Teaching Experience

Years of Experience	1-5 years	6-10 years	11 + more
Respondents	19	16	12
Percentage	40.4%	34%	25.4%

This table shows the teaching experience of the teachers who participated in this study, with 12 other teachers with (25.4%) having taught for (11+ more) and 16 other teachers (34%)having (6-10) years of experience. Finally, 19 teachers with (40.4%) having (1-5) years of experience. After analyzing the data, it is evident that the highest percentage of teachers have (1-5) years of experience.

Item 2: Techniques of teaching

Table 4: Approach of Teaching

Technique	IBT	CLT	CLL
Respondents	8	32	7
Percentage	17,02%	68,08%	14,89%

This table above shows the most important techniques used from teachers in this study, the highest percentage for IBT technique used from 8 teachers with (17,02%), other 32 teachers used CLT with (68.08%) and other 7 teachers used CLL with (14.89%) percentage. "It is evident that communicative language teaching (CLT) is the most commonly used approach by teachers."

Part 3 : Impact of AI Technology in Teaching.

The data indicates that about 47 teachers of the respondents After analyzing the data and obtaining the results, the percentages were as follows:

The choice for the first point, which is the (I have used AI in my classes), with percentage of (32.7%). The choice for the second point, which is (I think AI can improve the learning experience for students.), with percentage of (41.7%). The third point, which is (I would like to see more integration of AI into my teaching work as a teacher), with percentage of (26.5%). The fourth point, which is that (Keeping up with developments in artificial intelligence is an interesting activity.), with percentage of (29.2%). The choice of the fifth point, which is that (I have experiences related to artificial intelligence.), with percentage of (25%). The sixth point, which is (I believe that AI technology can enhance creativity and innovation among students), with percentage of (29.2%). The seventh point, which is (I feel properly prepared to interact with AI technology in my academic pursuits), achieved a percentage of (23.5%). The eighth point, which is (I support the use of AI technology to assist teachers in grading assignments and exams) with percentage of (29.2%). The ninth point which is (Artificial intelligence enhances overall efficiency, making study more effective) with percentage of (35.4%). Finally, the last point, which is (AI technology as having the potential to level the playing field for all students, regardless of their circumstances), achieved the lowest percentage of (20.8%).

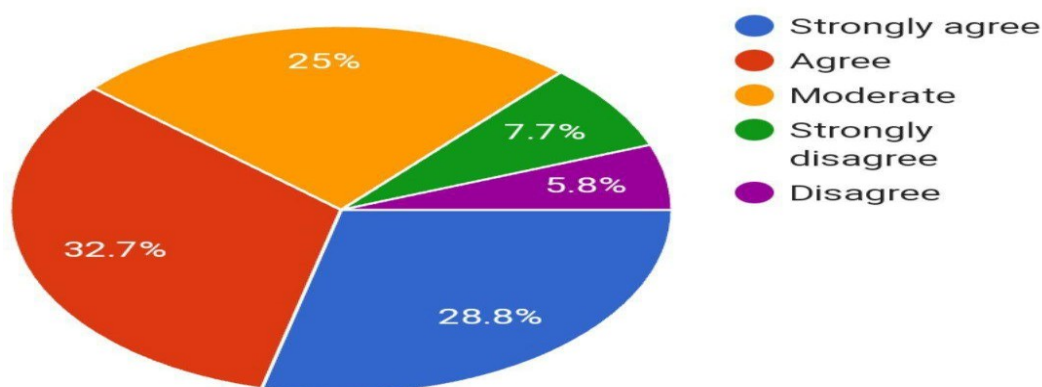


Figure1.1 I have used AI in my classes.

This question was answered by the participants. Item (1) I have used AI in my classes so it was the highest percentage 32.7% for the variable agree as for the variable moderate it had the average percentage 25% as for the lowest percentage, it is 5.8% and it was for the share of the disagree variable.

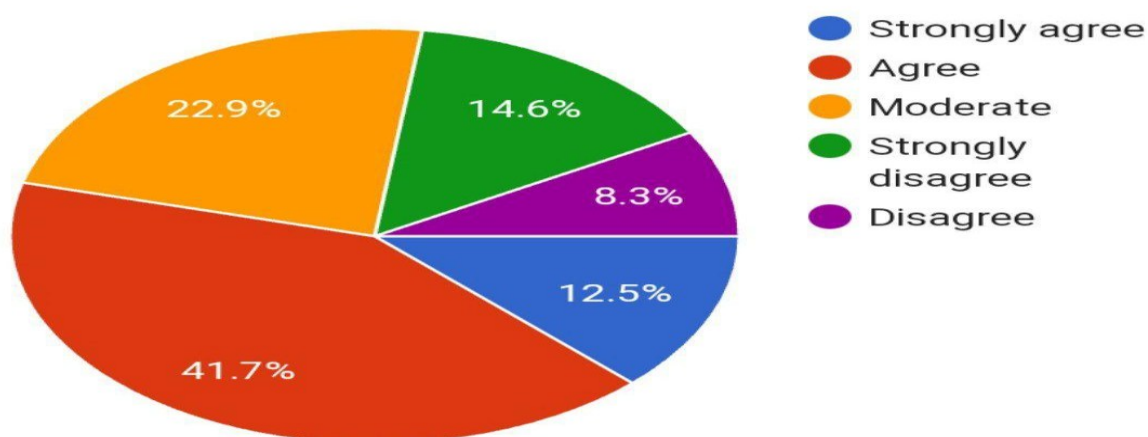


Figure1.2 I think AI can improve the learning experience for students.

This question was answered by the participants. Item (2) I think AI can improve the learning experience for students so it was the highest percentage 41.7% for the variable agree as for the variable strongly disagree it had the average percentage 14.6% as for the lowest percentage, it is 8.3% and it was for the share of the disagree variable.

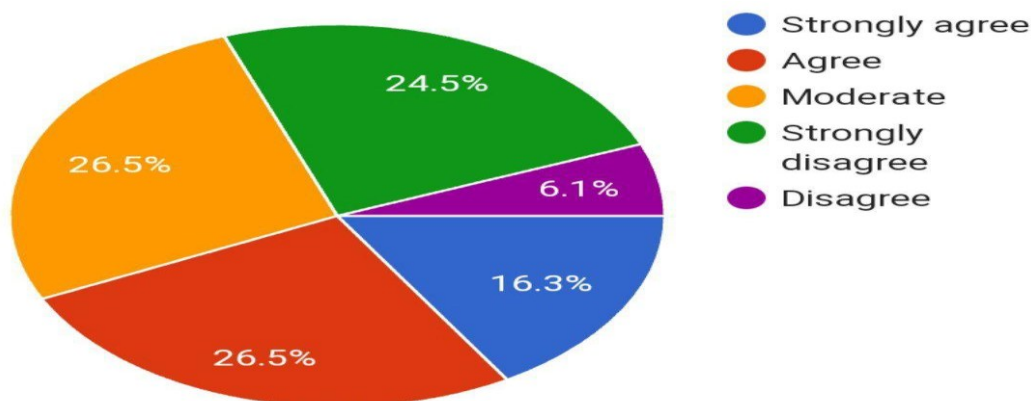


Figure1.3 I would like to see more integration of AI into my teaching work as a teacher.

This question was answered by the participants. Item (3) I would like to see more integration of AI into my teaching work as a teacher so it was the highest percentage 26.5% for the variable agree and moderate as for the variable strongly agree it had the average percentage 16.3% as for the lowest percentage, it is 6.1% and it was for the share of the disagree variable.

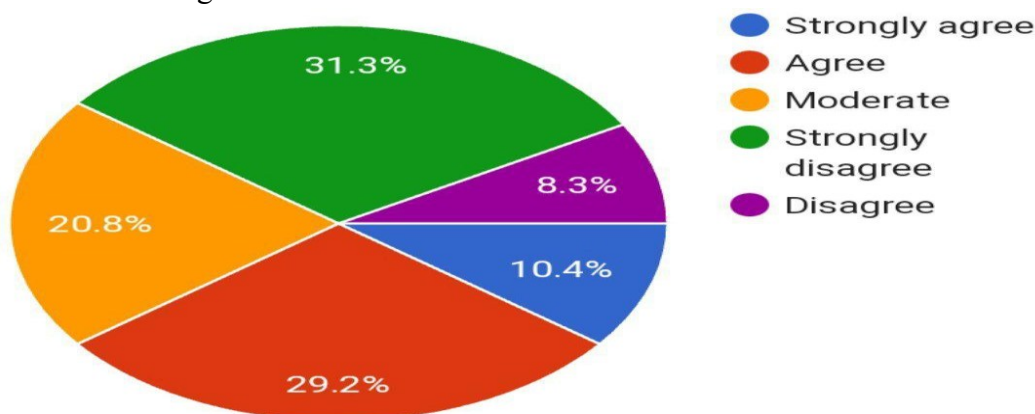


Figure1.4 Keeping up with developments in artificial intelligence is an interesting activity.

This question was answered by the participants. Item (4) Keeping up with developments in artificial intelligence is an interesting activity so it was the highest percentage 31.3% for the variable strongly disagree as for the variable moderate it had the average percentage 20.8% as for the lowest percentage, it is 8.3% and it was for the share of the disagree variable.

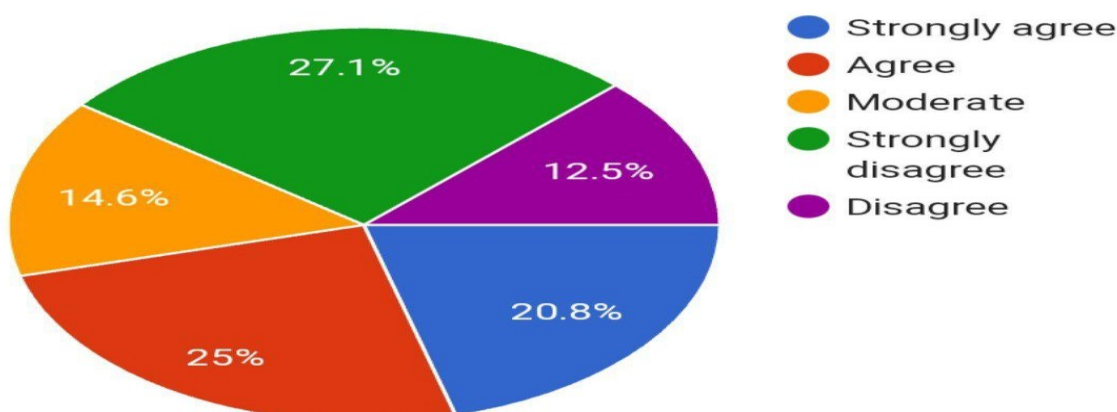


Figure1.5 I have experiences related to artificial intelligence.

This question was answered by the participants. Item (5) I have experiences related to artificial intelligence so it was the highest percentage 27.1% for the variable strongly disagree as for the variable strongly agree it had the average percentage 20.8% as for the lowest percentage, it is 12.5% and it was for the share of the disagree variable.

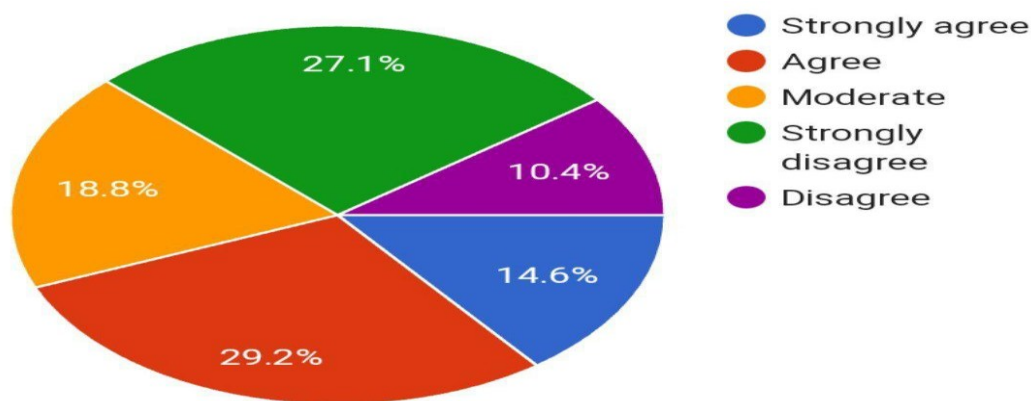
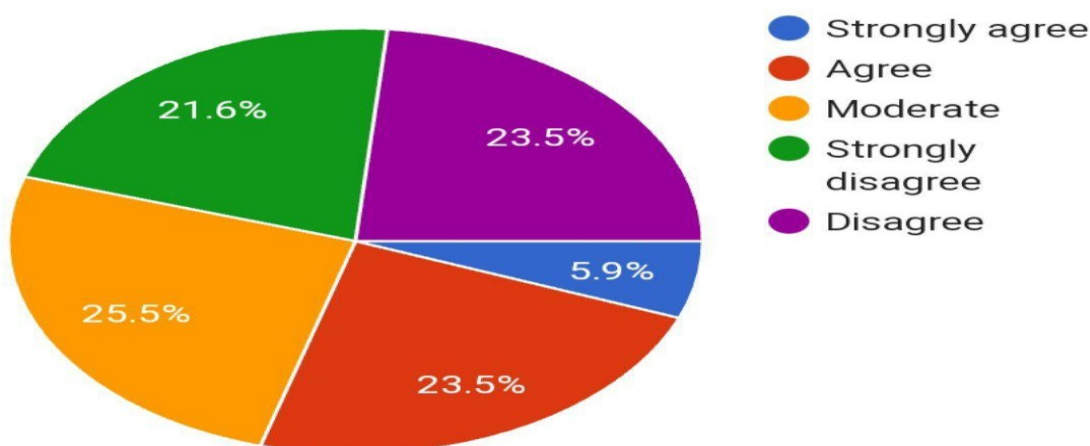


Figure 1.6 I believe that AI technology can enhance creativity and innovation among students.

This question was answered by the participants. Item (6) I believe that AI technology can enhance creativity and innovation among students so it was the highest percentage 29.2% for the variable agree as for the variable moderate it had the average percentage 18.8% as for the lowest percentage, it is 10.4% and it was for the share of the disagree variable.

Figure 1.7 I feel properly prepared to interact with AI technology in my academic pursuits.

This question was answered by the participants. Item (7) I feel properly prepared to interact with AI technology in my academic pursuits so it was the highest percentage 25.5% for the variable moderate as for the variable agree and disagree it had the average percentage 23.5% as for the lowest percentage, it is 5.9% and it was for



the share of the strongly agree variable.

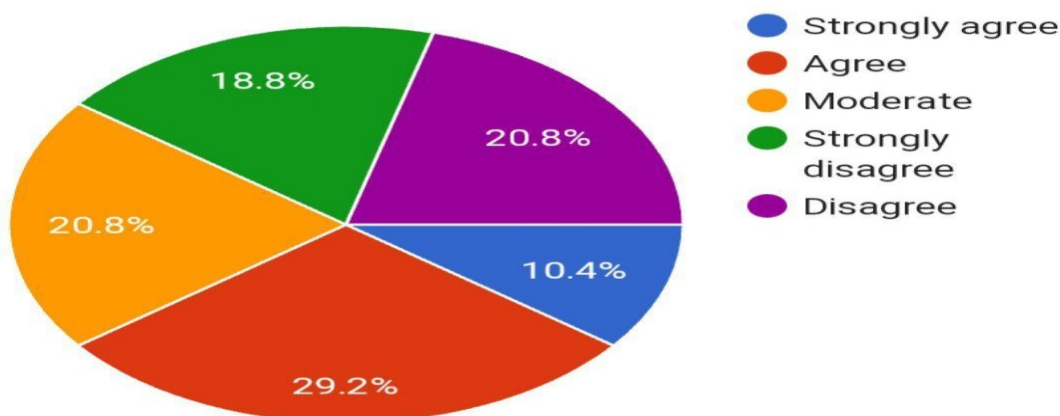


Figure 1.8 I support the use of AI technology to assist teachers in grading assignments and exams.

This question was answered by the participants. 10 Item (8) I support the use of AI technology to assist teachers in grading assignments and exams so it was the highest percentage 29.2% for the variable agree as for the

variable disagree and moderate it had the average percentage 20.8% as for the lowest percentage, it is 10.4% and it was for the share of the strongly agree and agree variable.

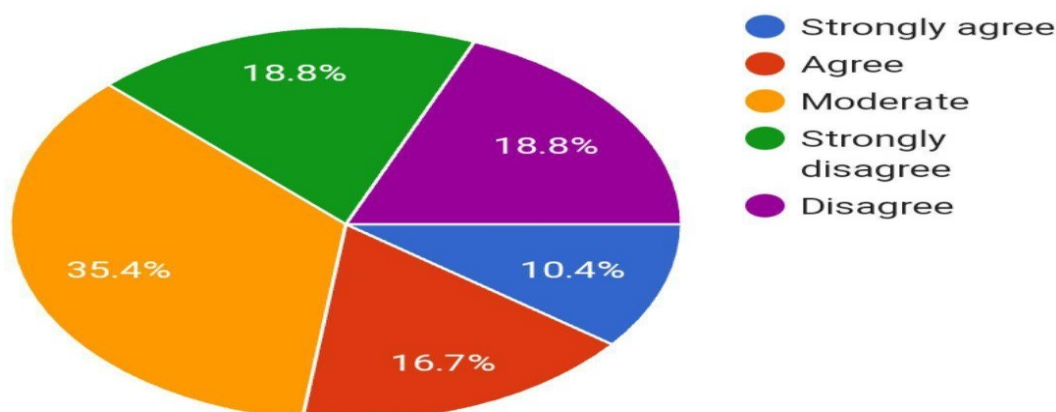


Figure 1.9 Artificial intelligence enhances overall efficiency, making study more effective.

This question was answered by the participants. Item (9) Artificial intelligence enhances overall efficiency, making study more effective so it was the highest percentage 35.4% for the variable moderate as for the variable strongly disagree and disagree it had the average percentage 18.8% as for the lowest percentage, it is 10.4% and it was for the share of the strongly agree variable.

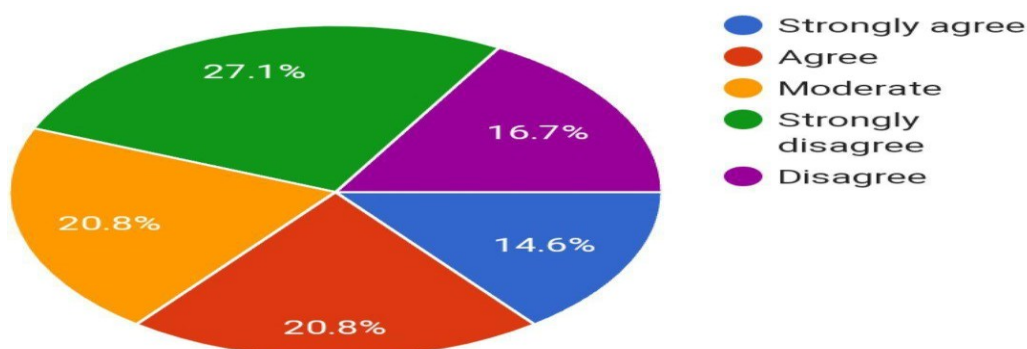


Figure 1.10 AI technology as having the potential to level the playing field for all students, regardless of their circumstances.

This question was answered by the participants. Point Item (10) AI technology as having the potential to level the playing field for all students, regardless of their circumstances so it was the highest percentage 27.1% for the variable strongly disagree as for the variable moderate and agree it had the average percentage 20.8% as for the lowest percentage, it is 14.6% and it was for the share of the strongly agree variable.

4.2 Findings and Results

The results of this study aim to collect data on the impact of AI technology on teaching English and how it use the future of education. The objective is to reveal how AI can help teachers in managing classes effectively and encourage the teaching processes.

male prefer to use AI more than Female do. Many teachers are using AI in their classrooms and believe in its ability to enhance the learning experience. There is a desire for greater integration of AI into teaching, but some teachers feel unprepared to engage with it effectively. They also acknowledged AI's potential to foster creativity and innovation, but concerns remain about its ability to ensure equal opportunities for all students.

4.3 Discussion

In this section, I will discuss the questions raised in the first chapter of this research. The discussion will be in an organized way according to the sequence of questions, in order providing clear answers .

1.What does the degree of AI influence on teaching English language?

Accordingly, AI is important instructional instruments in language classes. They are a significant part of providing high-quality education. Generally, AI offers unlimited educational resources to language learners aiming to learn various English language skills as their second language. Schools that lack the AI capabilities

to embrace emerging learning technologies discourage students from using AI in the classroom this must be resolved promptly.

2. How does AI effect on teaching English language?

The idea is to ensure English students access a comprehensive language learning package, achieving all-around language skills development. AI is an integral part of English learning activity and a means by which teachers can transfer skills to students. English teachers must encourage students to apply AI to develop their language skills. All educational institutions should consider modernizing their technical capabilities using new/emerging technological equipment and labs to support learning and teaching.

4.4 Conclusion

Artificial intelligence is a simulation of human intelligence based on computers and is designed as human beings trying to do things that individuals cannot easily achieve, such as teaching English, improving pronunciation, mastering words, evaluating the language and purpose of the language. The use of artificial intelligence is to reduce working time and the activities can be more efficient and the correct way to teach the English language can be determined according to the needs and schedule of each user. Teaching staff can be trained and qualified for the use of artificial intelligence applications, the acquisition of skills in educational work, and the integration of artificial intelligence applications in teaching. Necessary and limited efficiency of teachers in the use of artificial intelligence

4.5 Recommendations

In the following section, the researcher presents some recommendations for teachers to improve their teaching through using AI:

1. AI plan must be closely aligned with the curriculum standards and teachers know what educational approach is the most effective one when integrating AI in the classroom.
2. AI experts should provide extra assistance for teachers who use it in teaching their English courses.
3. Language teachers should urge their learners to use AI in developing their language skills.
4. Schools should regard AI as a significant part of teaching and learning programs.
5. Teachers should find the ways that AI can help them towards learner-centered instruction as opposed to teacher-centered instruction.
6. Training should be provided for teachers to learn how to use and teach it effectively.

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