

The Use of Artificial Intelligence Tools in Graduation Research Projects by Iraqi EFL Undergraduate Students

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Abstract

The study explores Iraqi EFL undergraduates' perceptions of artificial intelligence tools such as ChatGPT in academic research writing. The use of such tools is becoming pervasive in academic writing, especially within the Iraqi academic context. Thus, an on-line questionnaire was conducted and distributed to 208 Iraqi EFL students from various universities around Iraq. The results showed that students frequently used AI tools such as ChatGPT in their work results also revealed strong student agreement on the advantages of such tools which involved, time saving, effort saving, spelling correction structure check and most importantly idea generation. However, major concerns were raised such as academic writing integrity and plagiarism. The study calls for an urgent action to recontextualize AI tools within the Iraqi context where discussions and training should take place to embrace such tools instead of forbidding them totally. More studies are needed to investigate such topic within the Iraqi context were its effect on higher education could be studied.

Keywords: AI writing tools, ChatGPT, academic writing, academic integrity, plagiarism

استخدام أدوات الذكاء الاصطناعي في مشاريع أبحاث التخرج لطلبة البكالوريوس العراقيين
الدارسين للغة الإنجليزية بصفتها لغة أجنبية
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الملخص

تهدف الدراسة إلى استكشاف تصورات طلاب المرحلة الرابعة في الجامعات العراقية الذين يدرسون اللغة الإنجليزية كلغة أجنبية حول أدوات الذكاء الاصطناعي مثل ChatGPT في كتابة بحوث التخرج. لقد أصبح استخدام هذه الأدوات منتشرًا في الكتابة الأكاديمية في الآونة الأخيرة، وخاصة في السياق الأكاديمي العراقي. وبالتالي، تم إجراء استبيان عبر الإنترنت وتوزيعه على 108 طالبًا عراقيًا يدرسون اللغة الإنجليزية كلغة أجنبية من جامعات مختلفة في جميع أنحاء العراق. أظهرت النتائج أن الطلاب يستخدمون أدوات الذكاء الاصطناعي مثل ChatGPT بشكل متكرر في عملهم. كشفت النتائج أيضًا عن توافق ملحوظ بين إجابات الطلاب بخصوص مزايا هذه الأدوات والتي تتضمن توفير الوقت والجهد وتصحيح الأخطاء الإملائية والتحقق من البنية وعلاوة على ذلك توليد الأفكار. ومع ذلك، أثارت مخاوف رئيسية مثل نزاهة الكتابة الأكاديمية وتالانتحال. تدعو الدراسة إلى اتخاذ إجراءات عاجلة لإعادة تعريف هذه الأدوات الذكاء في السياق العراقي حيث يجب إجراء المناقشات والتدريب لتبني هذه الأدوات بدلاً من حظرها تمامًا. هناك حاجة إلى مزيد من الدراسات للتحقيق في هذا الموضوع في السياق العراقي حيث يمكن دراسة تأثيره على التعليم العالي.

الكلمات المفتاحية: أدوات الكتابة بالذكاء الاصطناعي، ChatGPT، الكتابة الأكاديمية، النزاهة الأكاديمية، الانتحال.

1 – Introduction

Artificial intelligence is one of the many modern technological tools which is having a profound impact on the way academic work is being produced today. It has been proved that the use of AI in academic writing can actually enhance the writing process, aiding researchers in drafting and editing their writing quite proficiently (Barrot, 2023; Mhlana, 2023). One of the most outstanding AI-assistant writing tools is called ChatGPT, developed by Open AI and designed to generate, process, and understand natural language (Song & Song, 2023). Although the positive effects for using such tool in academic writing can be enormous, negative consequences on the development of the writing process cannot be overlooked. It is believed that AI-assistant writing tools can impede the progress of certain cognitive abilities essential for writing academically such as, creativity, authenticity and critical thinking (Ozfidan, et al, 2024). Moreover, the extensive reliance on such tools in

academic work can violate academic integrity and put its users under plagiarism accusations.

To ensure a transparent use of AI and to control its spreading in academic research, the Iraqi Ministry of Higher Education and Scientific Research has allowed the use of ChatGPT under fixed proportions, not exceeding 5% (<https://one.iq/NewsDetails/30286>). This step shaped the way AI-assistant writing tools should be embraced within the Iraqi academic discourse community, "serving as a supportive tool rather than the primary source of information" (ibid).

Considering the information mentioned above, this study aims at investigating Iraqi EFL university student's' perception on the use of ChatGPT writing tools in graduation research projects. It is hypothesized that the transparent use of such tools can have positive consequences on the academic writing process. It can help students on many levels such as grammar, vocabulary, citation, synthesizing, and summarizing. Conversely, using them in a nontransparent way can violate academic writing integrity and put students under plagiarism accusation.

It should be mentioned that much research has been conducted on the impact of AI tools in academic writing. However, research on the way Iraqi EFL undergraduate students embrace such tools within their research writing projects seems to be lacking. Thus, the main purpose of the study is to fulfill this gap and to provide the body of literature with information regarding this issue.

2– Literature Review

2.1– ChatGPT: An AI assistant academic writing tool

As mentioned previously, the use of AI tools has simplified the process of knowledge construction making it less time and effort consuming. These tools have found their way in academic research through certain natural language processing Chabot such as ChatGPT. Ever since its release back in 2022, ChatGPT has gained the attention

of researchers worldwide. Many studies have proved that ChatGPT can actually improve the academic writing abilities of most students especially undergraduates (Deng & Lin, 2022). It has been shown that ChatGPT can easily provide constant access to relevant information and explore different research directions within various academic disciplines . Thus, many universities around the world are encouraging prominent academic members to openly discuss with their students the positive impact of ChatGPT on their writing development (Shiri, 2023). In Canada, for example, instructors and researchers are encouraged to educate about the tool and to point out the advantage of using it as a supportive academic writing technique (ibid). In most universities in the UK students are allowed to use ChatGPT in their assignments but in fixed proportions put by their disciplines. Moreover, some highly academic journals are now allowing the explicit use of ChatGPT and requiring researchers to "explicitly state how they have used the tool in their work" (ibid).

Likewise, in Iraq the Ministry of Higher Education has allowed the use of ChatGPT under fixed proportions, not exceeding 5% (<https://one.iq/NewsDetails/30286>). In pointing out the positive role ChatGPT could play in academic research, the Iraqi Ministry of Higher Education explicitly states through its official website that:

ChatGPT can assist researchers in several ways: [1] generating Ideas: Researchers can use ChatGPT to brainstorm ideas... [2] Information Retrieval: The AI model can efficiently retrieve relevant academic papers and resources...[3] Drafting and Editing: ChatGPT can help researchers draft and edit their work more effectively...[4] Language Translation: For multilingual research, ChatGPT can assist in translation tasks, breaking down language barriers.

However, concerns regarding the overuse of such a tool are also being raised constantly. Issues regarding academic integrity and

plagiarism have been at the heart of most debates and discussions in the academic institutions around the world (Abdul-Ameer, 2020; 2024). Computer detecting programs have been developed for tracing the use of ChatGPT in academic work (van Dis, et al, 2023). One of these programs is a detecting tool by the name of "chatzero" which is created by a number of computer science students in Princeton University in Canada. Applications such as turitin and grammarly are also being used to find out approximate percentages which can indicate how much of a given text has been AI-generated (ibid).

The same concerns have also been raised by the Iraqi Ministry of Higher Education and scientific research, stating that cautions among Iraqi academia regarding the use of AI in research have been explicitly expressed. The ministry clearly assures that "maintaining the integrity of academic work and ensuring that AI does not replace critical thinking and human expertise" is a priority which will never be overlooked.

Therefore, to produce sophisticated texts which could be recognized within their academic fields, some students might heavily rely on ChatGPT as means to such an end. In doing so, the progress of certain academic writing skills, such as summarizing, quoting, and synthesizing: could be impeded. The master of these skills is, to some extent, naturally developed when students get to study and read through the literature of their academic fields. Depending on AI- tools in carrying out these important skills might prevent undergraduates from the opportunity of building up their own disciplinary repertoire.

Another quite salient issue might arise regarding the use of ChatGPT in academic writing which is plagiarism. Using the ideas and words of others without attribution is an act of fraud which is severely condemned in most academic communities around the world. Relaying on ChatGPT in carrying out the whole work could put students in plagiarism accusations. The use of such tools should be transparently signaled out

and the voice of the writer should be separated from that of the AI-tool.

In order to gain a better understanding on how Iraqi EFL undergraduates perceive the use of AI-tools such as ChatGPT in their graduation research writing, a survey has been conducted and distributed among Iraqi EFL students who were in the midst of their graduation research writing projects. The findings of the survey will be reported in the next section.

3- Methods

3.1- Participants and Data Collection

In fulfilling the aim of the study a mixed research method was adopted, integrating both qualitative and quantitative research tools. Thus an online questioner has been developed and dissimulated to (208) EFL Iraqi fourth year students in the midst of their graduation research writing projects and from various Iraqi universities.

The online questionnaire was conducted via Google form in Standard Arabic (participants' native language). The questioner was divided into two parts: a close ended part and an open ended part each of which contained five questions. In the close-ended part participants were asked to choose between three options: (yes, no, undecided). While in the open ended part participants were asked to answer five question showing their opinions and attitudes toward the use of ChatGPT in research writing. Figure (1) bellow shows the English translation of the questionnaire.

3.2. Data Analysis

3.2.1. The analysis of the close-ended answers

The close-ended part was analyzed using Excel. The Excel spread sheet opens directly from Google form. These sheets can easily analyze large amount of responses in only one click because it contains

sophisticated statistical tools designed for this purpose. The frequency of each response along with the percentages will be shown below in table (1).

It should be noted that the percentages are for the first five (Q1, Q2, Q3, Q4, Q5) questions, since they are close ended which requires a choice from three options.

Figure 1

The Questionnaire

Dear EFL fourth year students

This questionnaire aims at investigating the Iraqi EFL students' perceptions to the use of AI – writing tools such as ChatGPT in improving their research writing abilities. The questionnaire consists of 10 questions addressing the basic aim of study. It should be noted that all information provided by you will be highly protected by the researcher, after all, your names will not be needed. Therefore, the researcher hopes that all students would answer the questions openly and objectively. Finally I would like to thank you all for your help and participation in the questionnaire.

The questions

1. Do you think that AI – writing tools such as ChatGPT are useful in writing?

Yes No Undecided

2. Do you think that most EFL student use AI – writing tools such as ChatGPT in their writing?

Yes No Undecided

3. Do you think that there is no problem in using AI – writing tools such as ChatGPT in writing?

Yes No Undecided

4. Do you use AI – writing tools such as ChatGPT in your writing?

Yes No Undecided

5. Do you think that it is hard to write without AI – writing tools such as ChatGPT?

Yes No Undecided

6. What is the most common AI writing tool used among EFL students?

7. State two advantages to using AI – writing tools in writing?

8. State two disadvantages to using AI – writing tools in writing?

9. In your opinion, why do students use AI – writing tools in writing?

10. Which part of your research would you use ChatGPT in?

Table (1) Frequencies and Percentages for The Close-Ended Questions

QUESTIONS	RESPONSES					
	Yes		No		Undecided	
1. Do you think that AI – writing tools such as ChatGPT are useful in writing?	182	89%	20	9%	6	2%
2. Do you think that most EFL student use AI – writing tools such as ChatGPT in their writing ?	208	100%	0	0%	0	0%
3. Do you think that there is no problem in using AI – writing tools such as ChatGPT in writing?	156	75%	52	25%	0	0%
4. Do you use AI – writing tools such as ChatGPT in your writing?	170	82%	13	6%	25	12%
5. Do you think that it is hard to write without AI – writing tools such as ChatGPT ?	130	63%	52	25%	26	12%

The results in table (1) show great agreement in the way students answered the five close-ended questions of the questionnaire. Regarding question one, most participants (89%) responded by (yes). This means that a large number of participants think that such tools are useful in writing. As for question (2) all students (100%) responded by (yes) and agreed to the fact that most undergraduate use AI tools in writing. In the third question 75% of the participants said there is no

problem in using AI tools while 25% participant said there is .In the fourth question most participants 82% declared the fact that they do use AI tools in their writing, while only 6% disagreed. In the last question 63% of the participant said that it is hard to use AI tools in writing while 25% participant said it is not.

3.2.1– Analyzing the open–ended responses

Regarding question six, which is the first open ended question, 92% of the students pointed out to ChatGPT as the most commonly used AI writing tool while the rest (18%) mentioned other application such as grammarly, Google gemini, and chatsonic.

As for the remaining four open ended questions, an inductive approach was adopted to the analysis of the responses. This means following a bottom–up approach where interpretations are reached at through limited data. Thus, the researcher went through the responses extensively in search of reoccurring themes and topics. Searching for common themes was done by highlighting key words and phrases mentioned in the responses. After thorough reading basic themes were elicited and classified.

In response to questions 7 and 8 about the advantages and disadvantages of using AI writing tools in research writing most responses reflected a notable agreement to the fact that using AI tools helps in automatic correction of language including structure, spelling, and vocabulary. Some also pointed out to the role these tools play in saving both time and effort.

As for the disadvantages, most students' shard a common concern regarding the heavy reliance on such tools which could lead to the blockage of fundamental academic writing literacies such as paraphrasing and summarizing. In addition some students were cautious regarding some issues related to academic integrity and how the overuse of such tools could put them under plagiarism accusations.

These results were also confirmed by the responses to question (9) which asked the students to show their opinions of why they think most EFL students use AI tools such as ChatGPT in their research writing.

Nearly all students (97%) answered by pointing to the advantages mentioned above with more emphasis on the poor language abilities most students suffer from. As to the last question, 88% of the responses declared that literature review was the most part were students use ChatGPT in.

Finally, it could be concluded from the findings of the study that AI tools are becoming common among the Iraqi students community today. The way students perceive such tools highlights a crucial need for educators and those holding high positions to openly discuss the issue with students. What is reported in this study might actually add to the growing body of literature on this debated topic within the Iraqi academic community

4- Conclusion

The study aimed at investigating Iraqi EFL undergraduate students' perception of the use of AI tools in research writing. The findings of the study highlighted insightful issues which need careful consideration within the Iraqi academic context. Results show that ChatGPT was one of the most common AI Tools used in writing among students. The advantages of using such a tool were explicitly pointed out by the students as being both time and effort saving not to mention the speed of synthesizing any topic. The way AI tools are perceive by the students is actually shaping the way those students view the writing process as a whole. It can be concluded but with slight caution that student' roles are shifting from being active producers of texts to passive consumers of the outcome of language processing models.

Thus there should be an urgent call to recontextualize AI tools in the Iraqi academic community, through encouraging the use of it as a secondary tool rather than the primary one.

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