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An Investigation of Students' Perspectives on the Application of Chat GPT as an Academic Tool: A Case Study at HIUC

Ahmed Ali Hussein [1, a)] and Saad Sameer Dhari[2,b)]

[1] Al Hikma University College, Baghdad, Iraq

[2] Al Hikma University College, Baghdad, Iraq

[a)] Corresponding author: hicnas.2024@hiuc.edu.iq

[b)] hicnas.2024@hiuc.edu.iq

Abstract. This research dedicates to investigate students' perspectives on the application of ChatGPT as an educational tool. This investigation employs a quantitative methodology using a descriptive study design. The research was conducted on a representative sample of 100 undergraduate students registered at HIUC. This sample included 50 female students and 50 male students. The findings derived from the descriptive statistics analysis suggest a significant degree of favorable disposition towards using ChatGPT as an educational instrument. The present study proposed instructions to promote the adoption of the ChatGPT model among instructors in Iraqi universities.

Keywords: Chat GPT, Academic Tool.

INTRODUCTION

Artificial intelligence (AI) is a computer program replicating social conversation through text or voice-based interactions. The fundamental objective of this technology is to serve as an online aid, streamlining regular operator tasks. Chatbots may be classified into two distinct categories based on their development approach: governed whereby rules and artificial intelligence-based devices. [13].

These chatbots possess significant educational potential and positively impact students' learning outcomes and satisfaction levels. Chatbots operating on a system of rules are programmed with predetermined guidelines that govern how they respond to particular queries. Nevertheless, their capacity to understand intricate inquiries is limited, [19]. Conversely, chatbots that employ artificial intelligence are educated using extensive databases, which allows them to attain knowledge and generate responses to a wide range of Precipitates, [10]. ChatGPT, developed through Open AI and generalized in October 2023, is an example of an artificial learning-based conversational agent. The core linguistic model (LLM) was created utilizing a substantial dataset [16]. ChatGPT demonstrates a commendable capability in generating well-crafted sentences and a wide range of academic papers and adeptly addressing test queries. It is worth highlighting that such particular attribute also plays a role in debugging whereby enabling the model to anticipate, elucidate, rectify errors, and convey knowledge [12]. Engaging and communicating with technology is Ubiquitously perceived as a transformative event and the dawn of a novel epoch [22].

The ChatGPT system underwent an update in March 2023, and it was introduced as a helpful tool for instructional purposes, [15]. Additional research is necessary to examine and assess the potential uses of ChatGPT in other academic fields, research undertakings, and real-world contexts. Several recent investigations in the literature have examined the benefits of ChatGPT in different areas, such as healthcare, mathematics, language, and medical education, [25]. Furthermore, further scholarly investigations have been conducted to quantify the advantages and disadvantages of specific fields of study, such as those within medicine. Despite the existing body of research on the influence of perspectives on the embrace, implementation, and willingness to use the tool, there is a lack of empirical investigation specifically focused on examining students' views towards this emerging tool. As defined in academic works, attitude refers to a cognitive term encompassing a person's feelings that focus on conduct. The phenomenon under consideration is distinguished whereby the aspiration to achieve a particular result. Multiple research investigations in educational technology have Invariably indicated that attitude is crucial in determining individuals' Proclivity to integrate ChatGPT into the educational process, [23]. Moreover, previous research has demonstrated a significant association between an individual's attitudes toward ChatGPT and their Proclivity to adopt or refrain from its use, [29].

Nevertheless, people's perceptions of ChatGPT can impact their comprehension and willingness to use it; for example, some may find it intimidating or ambiguous. [18]. Because of the profound effect that user attitudes towards newly introduced technologies have on their uptake, it is essential to gauge their level of acceptance. by Ajlouni et al. (2023)[2-4]

The examination of learners' perspectives on the utilization of ChatGPT within an educational setting holds significant importance. New academic research on the application of ChatGPT within learning has primarily focused on highlighting its inherent possibilities, benefits, and constraints within specific areas, Baidoo-Anu, D., & Ansah, L. O. (2023). Furthermore, the International Conference arranged whereby UNESCO has emphasized the importance of fostering fair and just utilisation of artificial intelligence (AI) technologies in various sectors, focusing on education, [21].

As indicated previously, further study is needed on students' views towards integrating ChatGPT in educational settings. This highlights the significance of the present research, which aims to consider the viewpoints of university students in Iraq about the platform of ChatGPT as an educational tool for learning. This study serves as an opening investigation into an emerging range of research that has the potential to meaningfully effect students' capacity to adapt to and hold novel technology innovations. The ChatGPT platform determines considerable potential within the realm of instruction. The results of this research have noteworthy implications for participants in higher education and instructors regarding enhancing academic value whereby combining ChatGPT technology inside educational settings. The current study aims to systematically and comprehensively investigate the following research question: What is the prevailing disposition of learners at the HIUC concerning the utilization of ChatGPT as an educational instrument? This section presents a comprehensive overview of the theoretical underpinnings and contemporary research about the integration of ChatGPT within academic environments and the attitudes held towards technology-mediated learning tools. The subsequent part offers a comprehensive account of the research framework before Meticulously analyzing and scrutinizing the findings. Ultimately, the investigation culminates by providing suggestions for prospective studies.

LITERATURE REVIEW

The existing body of research on views about ChatGPT in educational settings needs to be improved. The examination of general perceptions about ChatGPT has been limited to two research, while an additional study has focused on investigating teachers' attitudes. Consequently, we must draw upon previous investigations that have explored undergraduates' perspectives on virtual assistants and intelligent tools, which need more research in the literature. One of the initial instances of research undertaken in general perceptions regarding ChatGPT included an investigation that employed spoken language understanding techniques, including emotion investigation and subject modeling techniques, on statistics derived from the x platform. [7].

The research findings indicate that the general attitude towards the subject is predominantly neutral to positive, as evidenced whereby the prevalence of positive tweets. The numerical value provided by the user is 103. A Study on Students' Perceptions of ChatGPT as an Educational Resource: The University of Jordan: An Academic Examination ChatGPT demonstrates a higher prevalence of hostile tweets while exhibiting more posts expressing indifferent feelings than the number of tweets expressing optimistic sentiments. Similarly, a study was undertaken by Ajlouni, A. O., et al (2023)[6]. to identify the concerns and attitudes surrounding the utilization of ChatGPT within the domain of instruction.

The research employed sentiment and topic modeling techniques based on BERT, a state-of-the-art language model. The dataset used in this study comprised 247,484 posts that were collected from October 1, 2023, to December 1, 2023. These posts were subjected to analysis using Machine learning technologies. The sentiment analysis results indicate that Twitter users favor incorporating learning tools within academic environments.

During the study conducted in Pakistan, a qualitative approach was employed to examine teachers' attitudes toward the utilization of ChatGPT. The research employed semi-structured interviews and included a sample of 20, a representative group from a private institution. The results of the study indicated that the usual group exhibited unfavorable views regarding learning machines and expressed certain apprehensions, such as the potential for academic dishonesty and the occurrence of plagiarism. Prior research examining the attitudes of educators or learners concerning Machine learning or chatbots has exhibited some degree of variability in terms of findings, sample populations, and research methodologies. In a study conducted by [20]., an investigation was carried out to determine students' views on using chatbots and artificial intelligence (AI) within medicine.

The research employed a mixed approaches approach, including identical quantitative surveying and qualitative investigation of interviews. The study elaborate a sample of 12 medical learners, and the outcomes showed that the vital opinions regarding accepting artificial intelligence (AI) were mostly satisfactory amongst the learners. However, they expressed certain questions about its implementation, mainly concerning data safekeeping and protection. Moreover, a study steered by Jepkemoi, B., et al (2024)[17]. in Kenya intended to inspect teachers' attitudes towards exploitation chatgpt in the classroom.

The study used a quasi-experimental approach and surveyed ten instructors in two governmental schools: one for males and one for females. The study's findings indicate that educators favor using chatbots as a pedagogical tool. In a similar vein, Alenizi, M. A. K., et al (2023)[6]. surveyed educators in (KSA) to about their thoughts on using chatgpt to instruct students with special needs. According to the study, teachers generally support using chatbots in the classroom. The sample for this study consisted of 150 teachers, with 103 men and 48 girls. Based on the results, the instructors' attitudes toward communicating chatgpt in special education classes seem moderate. Additionally, they reported encountering moderate challenges when incorporating these chatbots into their teaching practices. A descriptive study investigated whereby medical students in Jordan feel about AI and ML machine learning Al Saad, M. M., et al (2022)[5]. The results were obtained whereby administering a validated questionnaire to 900 medical students in six universities. Based on the descriptive analysis, it seems that most students believe that artificial intelligence (AI) is important for healthcare and that there are many ways in which medical professionals can benefit from AI training. Additionally, a systematic review was conducted by Young, A. T., et al (2021)[30]. to investigate the attitudes of healthcare students toward artificial intelligence (AI). The present study encompasses 38 studies from reputable academic databases: PubMed, Embase, Scopus, and Web of Science. Examining healthcare students' perspectives revealed they generally favored using AI in healthcare settings. Based on the literature mentioned earlier, a significant imperative exists to investigate student's perspectives on the educational application of ChatGPT. Hence, this research aims to address a gap in the literature whereby examining whereby different academic discipline's view ChatGPT as a teaching tool.

THE APPLICATION OF CHATGPT IN THE EDUCATIONAL SPHERE

ChatGPT offers substantial prospects within the field of education through its ability to assist students in completing homework assignments, suggest scholarly articles, and equip them with vital information and inventive problem-solving strategies. The platform's ability to generate conversations resembling humans enables this accomplishment. The user has provided two references, numbered 39 and 40. In the education field, ChatGPT can augment multiple facets of the learning process, including developing writing and research proficiencies, facilitating personalized learning experiences, cultivating learner autonomy, and promoting motivation and engagement. Moreover, this tool's utilization can be advantageous in medical education and the process of making clinical decisions [11]. Research conducted in education has demonstrated various aims and results pertaining to the application, advantages, and limitations of ChatGPT [24].

An illustrative instance is provided by an investigation by Ajlouni, A. et al. (2023)[3]. in the field of healthcare education, wherein it was demonstrated that ChatGPT possesses the capacity to enhance scientific research, personalized learning, critical thinking, problem-based learning, and practical application. The study by Song, C., & Song, Y. (2023)[27]. emphasized the motivational efficacy of instructional methods utilising ChatGPT and proposed ChatGPT as a feasible educational tool. Several scholars, however, have identified particular challenges that may arise while implementing ChatGPT within educational settings. They have recognized plagiarism as one of this category's ethical, legal, and privacy issues. Furthermore, the integration of ChatGPT in educational settings raises several concerns, as evidenced by Adeshola, I., & Adepoju, A. P. (2023)[1]. These concerns comprise confidentiality, uniqueness, rationality, the potential for distribution incorrect reports, academic dishonesty, and manipulative conduct. These aspects pose noteworthy fears to the reliability and safety of information, potentially resulting in the distribution of harmful or dishonest content. However, prior studies have projected a sequence of plans and procedures that can be employed to confirm the exact and Efficacious application of ChatGPT in educational settings, [24].

In conclusion, research has been conducted on using ChatGPT within educational settings to assess its efficacy as a pedagogical instrument. Scholarly investigations have examined the advantages and disadvantages associated

with their practicality. However, additional research is imperative to investigate the psychological consequences of unfavorable environments on students, including negative attitudes that could impede their acceptance, adjustment, and willingness to utilize ChatGPT in the educational context.

How Students Feel About New Educational Technology

Traditionally, "attitude" has been understood to mean one's mental stance or preparedness in response to a confident person or topic. The viewpoint above may provoke positive or negative feelings depending on one's prior experiences with the targeted individual or issue, [31]. According to the Affect, Performance, and Perception (ABC) model, attitude is a triune psychological concept comprising three parts: emotion, Performance, and Perception. The term "affect" refers to the subjective emotional component of perspective, which includes one's feelings or reactions toward a particular thing or idea. The idea of "performance" refers to the acts or conduct performed whereby an individual in response to a given item or circumstance, whereas "perception" applies to one's views or ideas concerning the topic, as mentioned earlier or scenario, [28]. Direct experience, modeling, incentives, and socialization often shape one's perspective. thereby, [14]. found that student perspectives on technology significantly impacted their psychological and social growth. The concept of views can be understood as a psychological structure that exhibits variability instead of being a fixed and unchanging state. The analysis of attitudes is considered a crucial factor because it influences the acceptance and utilization of technology, specifically in education.

Moreover, it can hinder technology's Efficaciousness as a teaching and learning tool, [14]. Hence, Given the significant impact of attitude on the adoption and utilization of technological devices, it is necessary to construct an evaluative instrument capable of assessing learners' feelings about a unique technical tool that demonstrates potential within the learning sphere. Therefore, academics have developed cutting-edge techniques to evaluate whereby students and teachers think about advanced educational resources like specialized machines, bots, chatbots, and AI software, [9].

Research Design, Participants, and Methodology

The study utilized a quantitative research methodology with a descriptive design to investigate the attitudes of undergraduate students at HIUC toward using ChatGPT as an educational tool. Using a descriptive quantitative design is appropriate for analyzing a particular variable within a defined population and collecting Pertinent data. Moreover, using questionnaires as a survey method is deemed suitable for conducting a descriptive study, mainly when the researcher focuses on attitudes, as supported by prior scholarly investigations. Consequently, a quantitative descriptive survey was conducted, and data were gathered through a questionnaire (as mentioned in the appendix) in October 2023, within the first academic semester of the 2023-2024 academic year. The researcher employed a random sampling technique to guarantee the impartial selection of the sample. Before the study commenced, appropriate consent was obtained from the institutional board at HIUC and the participants involved.

Furthermore, a questionnaire hyperlink was requested to be distributed to 100 students through multiple platforms, including Microsoft Teams, email, and Moodle. The data was collected during two weeks. Then, a total of 100 questionnaires were collected. The model for this research study was segregated to 50 identifying as female and 50 identifying as male. The study's participants were selected through a random sampling method, ensuring that each individual has an equal chance of being included.

Hence, the sample size employed in this study was deemed suitable and adequate to accomplish the research objectives. The appropriate minimum sample size was determined whereby utilizing Thompson's equation (Thompson, 68) with a confidence level of 95% and a margin of error of 5%. Table 1 provides a comprehensive summary of the demographic attributes of the participants.

One hundred participants completed the survey, with 50% self-identifying as female and 50% as male. The study's sample consisted of individuals from the second, third, and fourth stages at the Department of English Language at HIUC. The cumulative average of the respondents varied across a spectrum from low to high quality. Student bodies in their second, third, and fourth years comprised respectively 45 percent, 40 percent, and 5 percent of the sample. Conversely, the first stage wasn't accounted for due to the early months of the academic year in which they could only join the classes in November. The research revealed that most participants, precisely 54%, exhibited essential technological competencies, suggesting a novice level of aptitude. The current study observed that 35% of the participants showed intermediate specialized skills, while 11% demonstrated advanced technical skills.

Table 1. The demographic characteristics of the respondents

Note: F: frequencies, P: percentage.

No	characteristics		f	p
1	gender	male	50	30.3%
		female	50	69.7%
3	GPA	excellent	20	20%
		Very good	46	46%
		good	20	20%
		poor	14	14%
4	School year	second	45	45%
		third	40	40%
		fourth	5	5%
5	Technological skills	beginner	54	54%
		intermediate	35	35%
		advanced	11	11%

Research Question

This study is conducted to answer this question: What are the perspectives of Iraqi EFL Undergraduates in the English Language about using ChatGPT as an educational tool?

Research Instrument

Based on Pertinent literature, the investigators developed a questionnaire. The Likert scale, consisting of five points, was utilized. The participants were provided with the forms to complete. The initial section of the survey collects data on the respondents' genders and their proficiency in information and communication technology. The gathering of data in the next section focuses on the participants' perspectives regarding the utilization of ChatGPT in Iraqi universities. There is a total of 12 statements (as in the appendix). The questionnaire was designed in English and pilot-tested among five participants to ensure clarity and comprehensibility. The researchers used Google Forms to distribute the questionnaire. The questionnaire was designed in a way that excluded all the respondents who did not use the ChatGPT.

Analysis of the data

In order to analyze the perspectives of college students regarding adopting ChatGPT as an educational support, statistical techniques such as means, descriptive statistical techniques, Standard deviations, percentages, frequencies, and averages were utilized. The latest release of the SPSS statistical package was used to conduct the analysis. The following criteria are used to classify means.

Table 2. The criteria adopted for having the means classified

Range	Level	Attitude
2.33 or less	Low	Negative
2.34-3.66	Moderate	Neutral
3.67 or more	High	Positive

Table 3. The categories and scores of the five-point Likert scale

Category	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
The score it represents	5	4	3	2	1

Findings and Analysis

To delve into the first research question (SQ1): What are the perspectives of Iraqi EFL Undergraduates in the English Language about using ChatGPT as an educational tool? Results on the perspectives regarding using ChatGPT tool were used to derive descriptive statistics, such as percentages, frequencies, standard deviations, and averages, from the study population. The results showed whereby the individuals fared on the subscales measuring their attitudes towards using chatgpt within Iraqi academic settings.

Table 4. The undergraduates' attitudes towards using a Chatgpt learning tool in Iraqi universities

No.	Statement	Mean	Std.	Attitude	Level
1	Utilising a Chatgpt learning tool cancel the importance of teachers.	2.33	0.73	Negative	Low
2	It provides participants with the flexibility to learn at a pace that is tailored to their own requirements.	4.98	0.21	Positive	High
3	fosters a culture of knowledge acquisition among participants	4.79	0.15	Positive	High
4	a chatbot can provide students with information about the schedule	4.87	0.64	Positive	High
5.	increases participants' comprehension of information	4.73	0.96	Positive	High
6.		4.45	0.73	Positive	High
7.	increases participants' satisfaction with the learning process	4.66	0.28	Positive	High
8.	raises participants' extent of engagement in the teaching-learning process inside the classroom.	4.78	0.44	Positive	High
9.	increases participants' reading comprehension	4.83	0.21	Positive	High
10.	increases participants' language proficiency level.	2.18	0.57	Negative	Low
11.	enhances the communication abilities of learners	4.67	0.31	Positive	High
12.	boosts knowledge among participants	2.25	0.46	Negative	Low
	could be an ideal teacher-assistant	4.12	0.47	Positive	High
	Total				

Table (4) provides a summary of the positive opinions of undergraduate students regarding the utilization of a ChatGPT learning tool in Iraqi colleges, with an overall average score of 4.12. These opinions align with the findings of Javaid et al. (2023). The explanation for this phenomenon lies in the fact that participants place a high value on utilizing technology. It has been found that using a Chatgpt learning tool with an average of 2.33 can negate the significance of professors.

The use of technology and multimedia fosters participant engagement and facilitates learning. The faculty staff's ability to Efficaciously manage their lectures is influenced whereby the training they have received. Utilising a chatbot learning tool provides participants with the advantage of being able to study at their preferred speed, as it has an average rating of 4.98. The result, in this particular instance, aligns with the outcome described by Jiaqi Yin et al. The year is 2020. Moreover, the utilisation of a chatbot learning tool promotes participants' learning due to its mean value of 4.78. This hypothesis is plausible as the utilisation of multimedia and technical gadgets stimulates learners to engage in the learning process. The result above aligns with the findings of Daniel H. Chang et al. (2023). With an average rating of 4.87, a chatbot learning tool makes it easier to share scheduling

information with learners. Consistent with what Priadk et al. (2020) found, this is the outcome. The ease with which coworkers can share relevant passages from course materials online is a major contributor to this occurrence. The task of providing schedules will be made easier with these brief summaries. Researchers found that using a chatbot as a learning tool improved participants' understanding and knowledge, as shown by an average score of 4.73. In this case, the outcome is consistent with what Daniel Bailey et al. (2021) found. This is how they are able to convey their ideas and put what they have learned into practice in different classroom situations. Students have the chance to ask complex questions in class that they couldn't answer on their own at home. With a mean score of 4.45, the study found that students are more satisfied with their learning experience when they use a chatbot as a tool. In this case, the outcome is in line with what Omar Boubker found in 2023, which means that faculty at the college can tailor their lessons to meet the needs of students. With an average score of 4.66, the chatbot learning tool was found by the researchers to improve classroom participation in the teaching-learning process. The result, in this instance, aligns with the findings of Kuhail, M. A. et al. (2023). Implementing this approach will allow participants to come to the classroom fully prepared. As a consequence, participants will enhance their ability to engage in class debates and educational assignments. The investigators determined that the chatbot learning tool, with an average score of 4.78, enhances the competency of participants' skills. The result in this regard aligns with the findings of Huang W. et al. (2022). Due to the abundance of online resources that will be accessible to learners in regard to reading skills, The researchers determined that the chatbot learning tool, with an average score of 4.83, enhances the language proficiency of participants. The result in this regard aligns with the conclusion drawn by Kim, N. Y. (2019). Participants will get multiple opportunities to engage in online communication with native speakers and develop language skills with their peers outside of class. Based on the average score of 2.19, the researchers concluded that a chatbot learning aid improves the communication skills of learners. The findings in this regard are in direct opposition to the conclusions drawn by Kim, N. Y., Cha, Y., & Kim, H. S. (2019). Utilising a chatbot learning tool will enhance the number of participants' interactions, hence facilitating negotiation, boosting their motivation, and heightening their interest in learning. The researchers concluded that the chatbot learning tool, with an average score of 4.65, enhances users' comprehension. The latter result aligns with the findings of Chang, C. Y., Hwang, G. J., & Gau, M. L. (2022). Utilising a chatbot learning tool will provide students with access to many sources of knowledge. These materials will enhance their expertise and provide them with information. Based on the average score of 2.24, the researchers concluded that utilising a chatbot learning tool could be an excellent helper for teachers. The result, in this instance, aligns with the determination made by Pereira, J. (2016). The instructor's time management skills directly affect their ability to cover the entire curriculum Efficaciously. Many teachers need help managing their time, resulting in an inability to cover the complete syllabus.

CONCLUSION

The results of this study discovered that utilizing ChatGPT as an educational instrument in the context of faculty students encourages and allows them to study to proceed at their highest rate in attitudes. It was demonstrated that employing such a technique facilitates participants' note-taking and enhances their comprehension of academic materials. The findings of this research provide a compelling rationale for decision-makers and educators at HIUC to integrate ChatGPT into their curricula and instructional methodologies while considering student apprehensions and the potential for misuse. The implementation of ChatGPT as an educational instrument has an impact on users' attitudes towards chatbot interactions.

The findings of this study suggests that, the current study is unique since it tries to gauge whereby students think about using ChatGPT for educational purposes. The findings presented in this study provide fresh insights into the overall satisfaction of undergraduate students in Iraqi colleges regarding their use of ChatGPT. Moreover, employing the mentioned tool allows participants to advance at their learning pace. Thus, it fosters a sense of motivation in learners to acquire knowledge. Besides, it streamlines the process of writing notes and enhances learners' knowledge and comprehension. Moreover, this tool increases participants' engagement in the instructional and learning process within an educational setting and improves participants' satisfaction with the learning experience. Additionally, it enhances participants' language and reading comprehension skills. Learners' knowledge is augmented. The importance of the study lies in the fact that it investigates whereby perspectives affect the adoption and utilization of technological advances, with a focus on the educational sector. This investigation made use of quantitative methods within a descriptive research framework. One hundred second, third, and fourth-year HIUC students participated in the autumn of 2023–2024. Because respondents were generally pleased about using ChatGPT, the study's results imply that it is a great resource for learning.

In addition, a large majority of students (76.3%) thought that ChatGPT may improve the quality of their education. A small percentage of participants (23.7%) raised doubts about the reliability of the data generated by ChatGPT.

Alternatively, a small part of those who took part (14.6%) expressed anxiety whenever ChatGPT programs were unavailable. Educational designers and policymakers at HIUC and the Ministry of Higher Education can use the aforementioned results to guide the development of procedures as well as plans for incorporating ChatGPT into course offerings. Besides resolving concerns raised by students, these results help to mitigate the risk of ChatGPT being misused. Scheduled training courses and seminars are one possible way to help educators make good use of ChatGPT. Students' knowledge of the advantages and optimal methods linked with ChatGPT can be enhanced through such activities. Concerning the research's demographics, there were certain restrictions on the investigation.

It should be noted initially that the research was limited to undergraduates attending a single private university in Baghdad. In addition, a total of one hundred students were the intended subjects of the research. Researchers in the field of higher learning are required to undertake regular assessments across different groups and examine physiological aspects such as misuse, as described before.

I recommended that, the further studying must be on all levels of education concerning the process of learning and teaching.

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