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RESEARCH PAPER

Examining Students' Perceptions, Experiences, and Ethical Concerns about Using ChatGPT for Academic Support: A Phenomenological Study

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ABSTRACT

University students have used ChatGPT extensively to complete their academic tasks since its release in November 2022. The objective of the paper was to explore university students' perceptions regarding the role of ChatGPT in enhancing their academic performance and their concerns regarding the ethical and social implications of using ChatGPT in their academic tasks. The research design of the current qualitative study was phenomenology. Data were collected using semi-structured interviews with eight participants selected purposefully from a private-sector university in Lahore. We used NVivo software (version 14) for data analysis. Clarke and Braun's (2013) guide for thematic analysis was followed to read, review, and identify the codes, patterns, and themes. The analysis revealed that the majority of respondents believed that ChatGPT is a very effective tool that offers practical support to them in generating innovative ideas for solving academic problems. Students also showed serious concerns about the lack of clarity and policy guidelines for effectively using ChatGPT in writing their academic tasks. Based on the study findings, we suggest universities should develop and enforce a policy clarifying the limitations and scope of ChatGPT.

| **KEYWORDS** | Assessment, Artificial Intelligence, ChatGPT, Knowledge, Student's Perception |

Introduction

With the advent of ChatGPT, the educational sector is undergoing a significant transition (Al-Mughairi & Bhaskar, 2024). Academic innovation may enter a new phase due to the quick development of artificial intelligence (AI) and its widespread use in higher education. Implications of AI might raise educational standards all over the world. ChatGPT, developed by OpenAI, has gained significant popularity, and OpenAI has presented its various models like ChatGPT3, ChaGPT3.5, and ChatGPT4. It can potentially revolutionize knowledge acquisition, transforming the learning styles in higher education (Amjad et al., 2024, a).

The effective integration of AI in higher education may open the door to revolutionary developments that have the power to alter conventional teaching strategies completely. Because of its adaptability, ChatGPT may be used in various academic fields, including the humanities, social sciences, arts, science, technology, engineering, and mathematics (STEM) (Al-Mughairi & Bhaskar, 2024). Access to technological infrastructure is necessary for ChatGPT integration, which might lead to differences in educational possibilities depending on the availability of resources (Labadze et al., 2023). As a result, it becomes crucial to implement modern education and personal and professional development for individuals now and in the future (Abbas et al., 2023).

AI transforms educational activities by altering their features and labor divisions regarding time, energy, and effort (Alam et al., 2021). As AI-based tools are developing day by day, they demand the careful use and learning of new skills to ensure their effective use (Bian et al., 2022). ChatGPT is a potentially helpful educational tool. Although it faced some implication-level challenges like computers and calculators, due to its widespread usage, it is gaining significant importance, particularly at the university level (Javaid et al., 2023). Zheng et al. (2023) found that AI had advantageous impacts on learning achievement and learning perception after conducting a meta-analysis to investigate the influence of AI on learning achievement. Wang et al. (2022) found that AI-assisted instruction increased teacher effectiveness in a similar study.

A growing number of Pakistani university students are interested in implementing and utilizing AI technologies like ChatGPT in their academic tasks to meet their semester requirements (Saif et al., 2024). It is evident from the literature that when students use non-traditional learning approaches, they learn more effectively and perform well (Amjad et al., 2020, 2021, 2022, a, b). The nation is known for its rapid technological development and rich cultural heritage. Pakistan is situated at the intersection of traditional educational paradigms and technological innovation (Ashraf et al., 2020). As the country embraces digital transformation and attempts to utilize technology to address education concerns and enhance its quality, it is imperative to understand how university students perceive and interact with AI-driven conversational agents like ChatGPT.

Although the introduction of ChatGPT has many positive effects on the education sector, there is also a chance that it may damage the current educational assessment system (Grassini, 2023). According to Neumann et al. (2023), using ChatGPT as a teaching tool may lessen the importance of interpersonal communication and human contact between teachers and students. Less opportunity for meaningful conversations, mentorship, and emotional support, all crucial components of comprehensive learning experiences, could result from decreased face-to-face engagement. There is still a significant research gap on ChatGPT's effect on student learning, even after several verbal guidelines on its use in classrooms.

A growing body of empirical evidence is needed for educational contexts, as highlighted by confident teachers who have previously addressed the potential problems related to ChatGPT usage. Pakistani universities are not yet in a position to manage the overuse of AI, mainly ChatGPT. In a country with a growing youth population, digital literacy is valued highly. This research is an effort to investigate how university students in Pakistan perceive and use ChatGPT in completing their academic tasks. Hence, this research aims to enhance our understanding of human-AI interaction in the Pakistani context by looking into how ChatGPT can improve learning outcomes, understanding students' perspectives on ethical and social implications, and analyzing the cultural factors that influence students' interactions with AI technologies.

Literature review

AI-based tools are gaining attention in higher education because of their broader implications and useability. Researchers are examining how AI technology might change students' learning experiences, and this integration in educational settings has attracted students' interest (Tabassum et al., 2024; Yin et al., 2021). One of these AI-powered technologies that has shown promise for promoting interactive learning experiences is ChatGPT, a conversational tool. The use of AI in research and education is expanding quickly, and ChatGPT has the potential to change these domains completely. According

to Abbas et al. (2023), ChatGPT facilitates the creation of learning materials, helps with grading and feedback, and allows personalized learning experiences. Academicians and research communities worldwide have taken a keen interest in this, and several studies have been conducted to discuss its advantages, drawbacks, and potential applications in the field of education (Baidoo-Anu & Ansah, 2023; Dave et al., 2023; Rice et al., 2024).

According to Fitria (2022), ChatGPT has a firm grip on linguistic proficiency and is skilled at employing both the active and passive voice in student-centric English writing assignments. According to Huang and Tan (2023), ChatGPT can enhance various aspects of scientific writing, including writing faster, generating comprehensive outlines, including essential details, and refining writing styles to meet the demands of persuasive scientific communication. Utilizing AI techniques, such as ChatGPT, presents an exciting opportunity for researchers hoping to enhance study results. They concluded that ChatGPT enables researchers to produce scientific knowledge more rapidly, including outlines, the inclusion of crucial details, and coherence. However, they stressed the need to be aware of ChatGPT's limitations and suggested using the technology to prevent plagiarism. Students feel underrated due to the excessive use of such non-traditional learning activities (Amjad et al., 2023, a, b, c).

AI is just as popular with teachers as it is with students. Khabib (2022) made the case that AI-powered technologies have defined several educational elements. There has recently been a surge in interest in AI-based digital writing aids, especially among students. To investigate this, he employed a sequential explanatory mixed methods strategy, integrating qualitative and quantitative information-gathering methods thoroughly, and found that students are unclear about the effective use of AI in completing their educational assignments.

As Maurya (2023) put it in counseling education, role-playing is a crucial teaching tool that helps counselors-in-training (CITs) learn and practice basic coaching techniques. Using qualitative content analysis, he evaluated ChatGPT's effectiveness in emulating a client during counseling role-playing exercises. The study's conclusions found numerous benefits of ChatGPT's capability as a simulated client. The AI chatbot demonstrated dependability, consistency, appropriate emotional expressiveness, cultural comprehension, empathy, and self-awareness during the role-playing exercises. Nonetheless, the research identified several limitations in ChatGPT's replies.

Even with the extensive research, there is still a lack of knowledge on the viewpoints and experiences of Pakistani university students using ChatGPT. There is little research on these students' use of ChatGPT; therefore, further research is necessary, as per Bibi and Atta (2024). There is still a vacuum of knowledge for Pakistani university students' opinions and experiences with ChatGPT, even though previous research has illuminated many aspects of AI adoption, such as the interaction between people and AI and cultural dynamics in Pakistan (Khan et al., 2023). According to Ashraf et al. (2020), incorporating AI-driven platforms such as ChatGPT offers enormous promise to democratize learning opportunities in Pakistan. This country's socio-economic variables and resource limits frequently restrict access to quality education. In order to meet the varied demands of their students and foster academic achievement, Pakistani institutions are progressively investigating cutting-edge instructional techniques in the context of the digital revolution (Alam et al., 2021; Tabbasam et al., 2023). There is a lack of studies on using ChatGPT by Pakistani university students. To address this gap, this study investigates university students' perceptions, lived experiences, and ethical concerns regarding students' interaction with ChatGPT in completing their midterm and final term academic tasks.

Material and Methods

The focus of the present study was to explore the perceptions and beliefs of university students regarding the role of ChatGPT in enhancing rigor in their academic performance and its ethical use in academic pursuits. It is evident from the literature that when the focus is to explore subjective experiences in-depth, interpretivism research philosophy helps researchers explore the phenomenon in detail (Cuthbertson et al., 2020). This philosophy will allow us to explore how students perceive and make sense of this AI chatbot in their educational environment. Moreover, examining students' perspectives on the ethical and social consequences of incorporating ChatGPT into their academic tasks from an interpretive perspective allows an in-depth understanding of the ethical deliberations, societal effects, and individual principles that influence their beliefs towards this technology. By adopting interpretivism, we may thoroughly investigate students' views and attitudes and comprehensively understand the richness and depth of their experiences (Naeem et al., 2023).

Research Design

We focused on the university students' lived experiences, perceptions, and beliefs regarding using ChatGPT in their academic tasks. Applying phenomenology as a research design to investigate university students' views of ChatGPT's impact on their learning and academic performance provides a distinct chance to delve into the fundamental nature of students' firsthand encounters with this technology. Phenomenology helped us to identify the fundamental structures and patterns influencing students' perceptions and interactions with ChatGPT by examining their subjective experiences, emotions, and interpretations. Engaging participants in semi-structured interviews and fetching in reflective perspectives helped to uncover the habits in which students interact with ChatGPT.

Participants

The study participants were university students in the 3rd semester of MS education at a private-sector university in Lahore. The researcher developed selection criteria for respondents. Only those students using ChatGPT in their academic tasks were considered; the present study was only meant for university students. Moreover, we focused only on MS students because they are mature and had hands-on university experience during their bachelor studies. The researchers employed purposive sampling to select eight students, fulfilling the selection criteria. Half of them were male respondents. Their demographic information is provided in Table 1.

Table 1
Study Participants

Sr. no	Pseudonyms	Gender	Age (in years)
1	Amir	Male	24
2	Hira	Female	23
3	Fazal	Male	23
4	Usman	Male	25
5	Iqra	Female	24
6	Nazia	Female	26
7	Ali	Male	25
8	Noreen	Female	27

Table 1 provides the information for the study's participants. It shows that there were equal numbers of male and female respondents. Their ages ranged between 23 and

27 years. All of them were students in the 3rd semester of their MS education. Furthermore, to point out specific responses from the participants, we gave them pseudonyms.

Measure

The researchers developed a semi-structured interview guide to collect data from the respondents. Initially, we developed a pool of questions and shared them with the three experts (PhD in AI) to respond to the language, sentence structure, and questions relevant to the research questions. The authors revised the interview questions and framed the final version of the semi-structured interview guide. Students' perceptions on the benefits of using ChatGPT were measured with sample questions like, "What benefits, if any, do students believe ChatGPT offers in learning new topics, enhancing understanding of course material, or improving their grades?" their viewpoints regarding the ethical issues regarding ChatGPT usage in assignments and quizzes were measured with the help of questions like, "What are students' views on the potential for becoming overly dependent on AI tools like ChatGPT for learning and completing academic tasks? Do they see any risks in reliance?"

Data Collection

After getting the informed consent, the data were collected using the face-to-face interviews following the interview guide protocols. In a country like Pakistan, collecting data from female respondents demands high social and moral values. Considering the cultural context, interviews were recorded only in audio format. Female students were interviewed by the female researcher (1st author), and male students were interviewed by the male researcher (2nd author). Interviews were conducted on university students' time, date, and place. Most of the interviews were conducted in the university setting, except one, which was conducted outside the university's premises. The data were collected during January and February 2024. The average length of the interview ranged between 25-35 minutes.

Data Analysis

After collecting the data, the first researcher transcribed the interview data personally. Then, the second researcher carefully listened to the interview recordings, read the transcripts repeatedly, and ensured nothing could be missed. The data were analyzed following the six-stage analysis guidelines for thematic data analysis by Clarke and Braun (2013). The researchers used NVivo software (Version 14) to identify the codes, patterns, and themes. In the first stage, researchers read data, became familiar with it, and reviewed it in the second stage. In the third stage, initial codes were identified, which were used to emerge patterns and final themes before reporting the findings.

Ethical Consideration

The data were collected on the university's premises in a natural setting, considering the ease and comfort of university students. Thus, no potential harms were involved in the present study. Before the interview, the authors took the informed consent for the volunteer participation in the study. The respondents were allowed to withdraw from the data collection process if they felt any harm to them. Moreover, their identity was protected by using the pseudonym. They were also ensured of their

confidentiality and anonymity. The data collected from them was used only for the present study.

Results and Discussion

After collecting data, recorded interviews were transcribed. The first author transcribed it manually, and then the second author read the audio recordings repeatedly and validated the transcripts. After following the six-stage thematic data analysis guide by Clarke and Braun (2013), we identified the following two themes.

Theme 1: Contribution of ChatGPT to Academic Performance

Theme 1 is an effort to get answers to the first research objective and research questions. The present theme highlights the importance of respondents' perceptions of using ChatGPT in their academic performance. The respondents were asked questions about the various uses of ChatGPT in their academic tasks, and the respondents argued that since they knew ChatGPT, they had performed well in their academic tasks. It was not like they just asked ChatGPT to write a course assignment, but they got help from it to get ideas on how to write their academic tasks. While considering its importance, Ali commented,

"ChatGPT is a very effective AI tool; I use it rigorously to get hints and ideas for my assignments, quizzes, or academic problems. It is effective in a sense; it saves time and gives us instance outcomes, and from those outcomes, we (students) can select the most appropriate options."

In support of the above comment, Iqra and Amir also argued that they use ChatGPT whenever their teachers ask them to find solutions to the research problems, to get hints for the appropriate use of statistical techniques, and when they are being asked to select a case study or relevant theory to their research work. ChatGPT gives them different options, and they then, by reviewing the pros and cons of alternative options, come to a refined idea for their research. In an argument, Hira added,

"She has listened to several students who have given personal stories emphasizing considerable improvement in their efficiency in managing homework and overall academic performance. She added how ChatGPT assisted in explaining an intricate scientific idea, resulting in a better understanding and an improved score on the related examination."

It was also vital to explore that, at a point, Nazia slightly contradicted the above argument by endorsing that I suggest ChatGPT as an added advantage to conventional academic resources like books, teacher guidance, and peer support. She remains dependent on textbooks and lectures to acquire fundamental knowledge, but she refers to ChatGPT for supplementary explanations and illustrations or to address any deficiencies in their understanding. It is perceived as more of a supplement than a substitute for conventional approaches.

After analyzing participants' perceptions regarding the impact of ChatGPT on their academic performance, it was found that the majority of respondents emphasized its important role in improving their academic endeavors. Instead of merely depending on ChatGPT to complete projects, they highlight its usefulness for developing ideas and offering rapid support for various academic tasks. Ali, Iqra, and Amir agree that ChatGPT is helpful for problem-solving, helps with handling challenging topics, and provides a range of possibilities that help refine research ideas. While Hira acknowledged its contribution to enhancing efficiency and understanding, Nazia

considers it an additional tool that complements traditional academic materials rather than replacing them. This perspective highlights the complex and varied nature of how Pakistani students incorporate ChatGPT into academic endeavors.

Theme2: Ethical Issues for Using ChatGPT in Academic Tasks

Theme 2 highlights the importance of participants' views on the ethical usage of ChatGPT in university students' academic tasks. It focuses on investigating students' perceptions regarding the ethical and social consequences of utilizing ChatGPT for academic assignments, which relates to the current paper's second research objective and research question. By conducting a series of interview questions, we were able to gain a clear understanding of students' perspectives on many aspects. Firstly, participants engaged in a discussion about the influence of ChatGPT on plagiarism and integrity in academia, specifically focusing on their perceptions of whether some specific guidelines or limits exist to regulate its usage. Furthermore, when discussing the dependence on AI, students expressed concerns about the possible excessive reliance on tools such as ChatGPT for academic activities. They voiced concerns about the risks linked with such dependency. When the respondents were asked questions, Nazia commented,

"I am aware of the fine line between utilizing ChatGPT as an educational tool and the risk of engaging in plagiarism. Although I value the help it offers, I believe that academic institutions should provide more explicit guidelines to ensure ethical management in this area."

The above comment by Nazia shows that she is conscious of using ChatGPT in academic tasks. Most of the respondents believed that there should be some ethical guidelines not to limit the scope of AI in education but to the effective use of ChatGPT. In support of Nazia's comment, Ali mentioned,

"Academic integrity and the appropriate utilization of ChatGPT is a pressing matter in the current era of digital innovation. I have a limited understanding of the ethical considerations for the usage of ChatGPT to improve learning and the potential for engaging in plagiarism. It is widely agreed upon that receiving better directions from educational institutions would assist in overcoming these ethical challenges with greater confidence."

The rest of the participants, like Amir, Usman, Iqra, Fazal, Noreen, and Hira, also expressed concerns about the guidelines and policies for using ChatGPT to complete their academic tasks. In addition, Fazal mentioned that due to the Higher Education Commission's (HEC) policy for Turnitin, every one of us is aware of the limits of using text from other sources concerning plagiarism. However, they are still unclear regarding the use of AI chatbots like ChatGPT. Usman added that universities should develop policies or ethical guidelines for effectively using ChatGPT. Ali endorsed that at least they should be guided about the specific percentage of AI usage in their academic task, just like they are aware of the limit of 19 % of plagiarism detection.

The overuse or dependence of students on ChatGPT to write their course assignments is also critical in terms of ethical issues. When students were asked questions about it, Hira commented,

"The students and teachers have expressed concerns about excessive dependence on AI tools such as ChatGPT. Although the advantages of these tools in promoting learning are widely recognized, there is a concern that reliance on them may undermine individuals' capacity to think autonomously and critically."

In Hira's above comment, we can sense her concern about the side effects of ChatGPT usage on her critical thinking and self-regulated learning. Amir further added to the above comment by saying,

"I have a mixed opinion. Sometimes, I become nervous about excessively depending on ChatGPT, and I am concerned that it could undermine my ability to conduct research and engage in critical thinking. Sometimes, I believe that utilizing such tools is an essential part of advancing learning techniques, and I view it as a way to prepare for a future in which AI integration will become widespread."

These responses highlight the importance of the effective use of ChatGPT. Most of the participants, like Noreen, Iqra, Fazal, Usman, and Ali, supported Hira and Amir's arguments and emphasized reducing the excessive use of ChatGPT. Students are concerned about relying too heavily on AI for educational purposes. The majority of the respondents recognized the convenience and assistance provided by ChatGPT. However, they also expressed concerns about the potential for dependency, which might negatively impact their ability to learn and think critically and weaken their research skills.

Theme 2 examines the ethical considerations related to incorporating ChatGPT into educational tasks. Participants provided valuable insights on several aspects of this concern during the interviews. Their viewpoints brought attention to issues like plagiarism and academic honesty, with participants stressing the necessity for more precise guidelines that control the utilization of ChatGPT. Nazia's recognition of the sensitive line between educational assistance and plagiarism highlights the significance of ethical oversight in integrating ChatGPT. Ali reinforced this viewpoint, emphasizing the importance of institutional guidance in properly addressing ethical issues. In addition, participants, including Amir, raised concerns regarding excessive dependence on ChatGPT, highlighting the possible adverse effects on critical thinking and research abilities. These findings emphasize the significance of incorporating ChatGPT in a balanced manner, with students pushing for ethical rules that ensure its efficient and responsible utilization in academics.

Discussion

This study intended to address the research gap concerning the use of ChatGPT by students in Pakistani universities, focusing on their perceptions, attitudes, and experiences regarding its role in academic activities and the ethical implications associated with its usage. An in-depth examination of students' experiences and interpretations was made possible using a qualitative research methodology based on the interpretivism concept. Using phenomenology as the study approach, the researchers explored the essence of students' interactions with ChatGPT and identified underlying structures and patterns that shaped their understanding.

The themes found in the study offer insightful information on how university students view and feel about using ChatGPT in their academic pursuits. The discussions surrounding these issues provide insight into the complex nature of the impact and ethical considerations related to applying AI technologies in the classroom.

The results for the first research question show that students view ChatGPT as a valuable tool for improving their educational experiences, beginning with Theme 1, which focuses on ChatGPT's impact on academic achievement. Most of the participants highlighted the usefulness of ChatGPT in helping with different academic duties, such

as coming up with ideas, figuring out challenges, and honing research notions. They emphasized that ChatGPT is meant to be used in addition to, instead of, conventional academic materials like lectures and textbooks. This viewpoint highlights students' nuanced approach when integrating AI technology into their learning processes.

The remarks from Ali, Iqra, and Amir highlight ChatGPT's useful advantages in streamlining academic assignments and boosting productivity. They highlight how the tool might help students strengthen their research abilities by providing a variety of alternatives and stimulating critical thinking. Nazia's position, on the other hand, presents an alternative viewpoint, arguing that although ChatGPT is helpful, it should only be used as a supplement to the primary sources of information. This range of viewpoints emphasizes how students interact with AI technologies in a complicated way and how important it is to consider individual preferences and learning styles.

The second theme (concerned with the second research question), which deals with the ethical considerations of utilizing ChatGPT for academic purposes, is discussed. It reveals students' worries about academic integrity, plagiarism, and an excessive dependence on AI. Nazia's recognition of the moral conundrum posed by the conflict between academic aid and plagiarism demonstrates a careful and responsible use of ChatGPT. Similarly, Ali's focus on the necessity of precise standards highlights how crucial institutional assistance is for resolving moral dilemmas around the use of AI.

Students' concerns about the possible effects on their research and critical thinking skills are reflected in Amir's conflicted feelings about an over-reliance on ChatGPT. Though students like Hira acknowledge the advantages of integrating AI, they also voice concerns about the unforeseen effects of an excessive dependence on technology. Other players support a balanced strategy that maximizes ChatGPT's advantages while reducing its dangers of reliance.

In addition to highlighting the importance of ethical and responsible usage, the study highlights the substantial influence ChatGPT may have on research and teaching, suggesting that educational institutions should set explicit policies on using AI tools. It also emphasizes preserving the equilibrium between AI technology and conventional cognitive abilities in educational environments. The results provide teachers, policymakers, and academics with insightful information and add to the discussion on AI inclusion in education. In order to overcome obstacles and maximize the application of AI in education, it also highlights the need for ongoing research and development.

Limitations of the Study

This study acknowledges a few limitations, with just university students from a single academic program and institution in Lahore, Pakistan, where the sample size was limited. Therefore, it is possible that the results cannot be generalized to a larger population. In order to include a broader spectrum of viewpoints, future research should consider more extensive and more varied samples. Furthermore, concentrating just on ChatGPT ignores alternative AI writing tools that students could utilize, indicating the necessity for comparative research on the efficacy of other AI technologies in learning environments.

Conclusion

The results of the present phenomenological study show that students in Pakistani universities have a favorable opinion of the effective and practical use of

ChatGPT. Students believe ChatGPT is helpful in improving academic performance, especially in data analysis, literature reviews, grading support, and personalized learning. There are chances to increase productivity and optimize procedures by using ChatGPT in research and learning experiences. Universities in Pakistan may use ChatGPT to empower staff and students, encouraging creativity and academic success. However, ensuring successful integration necessitates giving students the necessary support and guidance. Despite some concerns among the students about excessive dependence on AI tools such as ChatGPT, the positive view that ChatGPT has received from students overall emphasizes how it may revolutionize research, teaching, and learning in Pakistani institutions, opening the door to improved research outputs and creative thinking. Furthermore, students unanimously voiced the lack of policy guidelines for the effective and practical use of ChatGPT in academic and research-related tasks.

Recommendations

Based on the present study findings, we suggest that universities should initiate awareness seminars and workshops to improve students' knowledge of the legitimate and ethical use of ChatGPT. Teachers and students should be offered professional development opportunities to use AI within the policy limit and scope. Future studies should be suggested to compare ChatGPT's effectiveness to other AI writing tools, and longitudinal studies may monitor ChatGPT's long-term impacts on students' academic achievement and critical thinking abilities. For AI to be implemented in academic contexts responsibly and effectively, it is also necessary to define ethical norms and investigate the viewpoints of teachers and other stakeholders. We strongly suggest their universities at a personal level or university governing body (Higher Education Commission, Pakistan) should devise a policy for the ethical use of AI-based text generative tools like ChatGPT.

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