

A Corpus-Based Sentiment Analysis of Okara University Students' Attitudes Toward Artificial Intelligence Tools in Higher Education

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Abstract

This study is a multiple-methods empirical study analyzing the perspectives of University of Okara students on the integration of generative AI tools in higher education, in light of the policy directive by the Higher Education Commission of Pakistan, which mandates students to be AI literate for all public sector universities by the end of 2026. The adopted approach is a mixed methodology consisting of a quantitative survey of 45 postgraduate academics (MPhil) and a qualitative computation corpus-based sentiment analysis of 60 reflective essays written by students. As shown in the quantitative analysis based on the Technology Acceptance Model, 88.9% of the respondents agree that AI technologies improve their conceptual understanding and save time in completing tasks. These technologies are largely accepted for their pragmatic benefits, but fundamental concerns around cognition and ethics restrict the acceptance since 95.6% of researchers believe in the possibility of severe intellectual overdependence and 75.6% more believe that these technologies cause academic dishonesty. The qualitative corpus is analyzed with keywords in context. The positive evaluations in the computational analysis are structurally related to responsible human agency and precise prompt engineering, while the negative evaluations are structurally related to the loss of students' voices and digital isolation with passive learning. Data indicate that students employ conversational agents as scaffolding devices for operation, but they are worried about cognition offloading and academic integrity. The study concludes with strategic institutional recommendations and clear ethical disclosure standards for balanced and responsible use of technology in Pakistani higher education.

Keywords: Artificial Intelligence in Education, Corpus Linguistics, Sentiment Analysis, Technology Acceptance Model, Higher Education in Pakistan, University of Okara

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Introduction

The rapid development of Generative Artificial Intelligence (GenAI) tools in higher education has moved from an experiment to a core component of teaching and learning practices around the world, transforming the ideas of inquiry, writing, and knowledge creation in higher education (Shahzad et al., 2025). The advent of large language models (LLMs) has changed the role of conversational AI systems such as ChatGPT, Google Gemini, and Anthropic's Claude to allow universities to provide students with more personalized academic support, instant feedback, and automated research compilation. Conversational AI tools can be useful learning utilities in developing non-Western societies like Pakistan, where physical libraries are often under-resourced and access to costly scholarly textbooks is limited (Basit et al., 2025).

They work as virtual tutors, available at all times, filling the resource gap for institutions and providing pedagogical support tailored to the needs of each student in areas with a high student-teacher ratio. Consequently, students are turning to conversational algorithms to translate academic texts, improve their grammar, and navigate cumbersome research processes.

In this context of such a rapid pace of technological progress and the present global digital economy, which is estimated to be around 2.6 billion dollars in Pakistan, the regulatory bodies of Pakistani higher education have made a series of comprehensive structural reforms to standardize the education of AI. The Higher Education Commission (HEC) of Pakistan announced a nationwide mandate for a three-credit-hour mandatory course on Artificial Intelligence (AI) for all undergraduate and postgraduate degree programs in public and private Higher Education Institutions (HEIs) in the academic session of 2026 (HEC, 2026). It is a far-reaching policy initiative developed in collaboration with the Information Technology University of Lahore and will change the way the country's youth is prepared to meet the demands of the Fourth Industrial Revolution and remain competitive on the global stage. Simultaneously, global technology companies have collaborated with the HEC to initiate large-scale programs on digital literacy and train teachers at public universities. This highlights that AI literacy is becoming an integral component of digital skills, and it should be included as a core component of the national curriculum.

At the institutional level, the University of Okara, a progressive public sector university, has emerged as an active participant in this system-wide digital transformation. Vice Chancellor Prof. Dr. Sajjad Mubin has given clear orders to the university to update all academic methods to include AI tools and digital technologies in every area, aiming to produce highly employable graduates, promote entrepreneurship, and strengthen connections between local industries and academia. The University of Okara has a strong faculty of computing, with departments of computer science, software engineering, information technology, and data science as the main technological hub for training and skill development of the region. Following the vice chancellor's clear instructions to include different fields and technology that meets market needs, several academic departments, like the Faculty of Education and the Department of English, have begun to consider how students can use conversational agents for academic writing and research.

It can be seen that AI implementation is common across different institutions, but worries regarding the lack of receptivity to the use of AI in low-resource settings have been noted, suggesting structural and cognitive barriers to implementation. In developing countries like Pakistan, the level of infrastructure is inadequate: unconnected or substandard Internet networks, poor quality or expensive access to digital resources, and premium and paid computing facilities. This evidence implies that AI language needs to be actively modified to sound more real. The current generation of LLMs is mostly trained with Western datasets with predominantly English texts, which may result in AI language sounding like a robot.

However, academic integrity is a major concern for the academic community, as misuse of generative tools could result in plagiarism in content, creation of fake or fictional research citations, and passive consumption of thoughts (Afzal et al., 2026). At this juncture, it is vital to include AI, as one must weigh the advantages of its operation against its future intellectual and moral considerations.

In an exploratory and subjective way, it is important to study the explicit beliefs and the implicit sentiment patterns to understand how students cope with this transition. Some initial quantitative research has been performed on the general acceptance of technology by Pakistani students, but few studies have used qualitative corpus linguistics and semi-structured questionnaires to discover the rich emotional areas and attitudes that are shared by local student communities. In this case, corpus-based sentiment analysis is a promising approach to go beyond

questionnaires of unstructured and spontaneous written student reflections about their daily experiences of AI only.

However, this study aims to highlight the distinctive voice of scholars amidst a forced nationwide academic transition through the student body of the University of Okara (Khan, 2023).

Pakistani public institutions quickly embraced mandated artificial intelligence courses without considering students' subjective experiences, cognitive changes, and ethical concerns due to a policy void. To meet employment needs, the Higher Education Commission and University of Okara leadership have advocated for rapid integration, but empirical research on how students process these tools intellectually and emotionally is behind structural implementation. Universities encourage AI to speed up research and writing, but they penalize originality and AI-assisted writing. Conversational agents interfere with engaged mental processes essential for independent critical thinking, creative voice, and cognitive resilience. Rigid technology policies that inhibit innovation and require students to adopt technology without careful and locally detailed empirical research may fail and polarize student sentiment, use, and socio-technical issues. This study uses corpus-based sentiment analysis and quantitative surveys to examine the attitudes, emotional dispositions, and ethical concerns of higher education students at the University of Okara toward the use of AI tools in academics.

The study provides theoretical and practical insights into higher education in developing countries. This research is based on the technology acceptance model. It deals with the cognitive and ethical risks, especially those related to the socio-cultural problems of students from the Global South in top-down education change. The multi-methods approach, using the quantitative survey and corpus-based computational linguistics, accounts for both emotional and semantic parts of the student's contribution, which are missed in a single-method survey. The study results provide empirical data at the local level, which will help the administration, curriculum designers, and University of Okara policymakers to implement the compulsory AI curriculum by 2026. These findings can help local teachers to develop their own pedagogical guidelines to fill the gap in premium access to learning resources, language robotization, and evaluation anxiety instead of just "trial and error" or by applying a Western approach. It is also proposed to change the anti-

plagiarism approach to proactive hybrid teaching with the focus on critical thinking and prompt engineering.

Limitations and Delimitations

The scope of this study is limited to allow for academic rigor and depth of study. The study geographically restricts itself to the students of the University of Okara and institutionally to the students of Punjab, Pakistan. The quantitative phase is designed for MPhil students from different departments, as these students are more involved in writing at a high level, literature review, and research methodologies with generative AI tools. The quantitative sample (N=45) and qualitative essay corpus (60 files) may not represent the full range of undergraduate experience in the provinces of Pakistan, even though they are highly representative of the postgraduate student population at the University of Okara. The qualitative analysis might miss the sophisticated, multilingual, or coded sentiments, such as Roman Urdu, that circulate in informal student communication in the English essays of the corpus. Finally, because generative AI is a rapidly evolving technology, changes in technological advancements, legislation, and detector models may affect student views and sentiments by mid-2026.

Review of the Literature

The widespread use of generative artificial intelligence in university classrooms has triggered a controversial debate in higher education worldwide, with some scholars enthusiastic about its innovation and others skeptical (Yasin & Safdar, 2025). Proponents of AI tools contend that tools such as ChatGPT, Google Gemini, and Claude are a step toward the democratization of education as they provide highly personalized learning pathways, conceptual clarity in real time, and individual feedback to suit the learning pace of each student (Baidoo-Anu & Owusu-Ansah, 2023). On the other hand, there are serious objections to the ethical, cognitive, and structural dangers of the technologies, with worries that over-automation will rob students of critical thinking skills, that it will lead to wider academic cheating, and that it will reinforce digital divides. In empirical research, it is a complex, multi-dimensional student acceptance—not one or the other, but rather a complex combination of factors, including immediate academic pressures, digital literacy, and sociocultural environments.

Studies on the adoption of new technologies in education are conceptually based on the Technology Acceptance Model, which states that the perceived usefulness and perceived ease of use mainly affect the behavioral intention to use a system (Davis, 1989). The literature review shows that in the case of generative AI for higher education, the most important predictor of AI adoption is performance expectancy, which is the degree to which a student perceives that AI will increase academic productivity (Shahzad et al., 2025). Students usually perceive generative assistants as practical study companions that help them manage heavy workloads, overcome “blank page” syndrome when facing difficult tasks, and accelerate the process of writing research papers.

However, recent developments and extensions to technology acceptance models highlight the necessity to include specific affective factors such as trust, AI anxiety, and facilitating conditions for a better comprehension of the intricacies of generative AI integration in developed and developing countries (e.g., Ahmad et al., 2022).

The Higher Education Commission (HEC) of Pakistan has recently issued a policy directive, which has put AI education on the urgent agenda of Pakistan. By 2026, all degree programs in public and private universities will have an introductory course on AI. Systemic integration occurs in a socio-technical environment with several structural constraints, such as the level of internet access, funds to purchase cutting-edge technology, and digital literacy training for students and teachers (Basit et al., 2025). Local studies show that while Pakistani university students are optimistic about AI's future use, they feel a tension between its rapid adoption in education and slow policy changes.

Moreover, researchers have pointed out the role of digital technology in enhancing the participation and engagement of students in the classroom in the context of Pakistani higher education (Raza and Mahmood, 2020). Similarly, advanced linguistic methodologies can be employed to understand students' feelings in their local context about emerging digital tools more deeply (Ghilzai & Javeria, 2025). Of particular concern is the cognitive impact of AI tools on language learning and academic writing, particularly in the academic landscape of Pakistan, where English is the medium of instruction, but for most learners it is a second language. There is plenty of research on the development of language skills.

It is observed that AI has helped the students strengthen their language skills to a significant extent in both receptive and productive areas, but its excessive use has a considerable impact on the critical thinking and problem-solving skills of the students in the long run (Khan, 2023). Conceptually, the phenomenon of cognitive offloading or cognitive debt can be explained as a situation in which students continue to transfer heavy cognitive work to conversational algorithms and their cognitive abilities become observable. (Canan Güngören, 2026). Linguists also observe that the particular voice of the student is coming to an end, as the genuine, imperfect, and very creative writing style of young scholars is being replaced by a standardized, refined, and conversational style (Al-Mughairi & Bhaskar, 2024).

Furthermore, the literature has suggested that ethical skepticism is a significant dimension of students' attitudes towards educational technology. Students know that generative writing tools are much faster than handwritten tools, but they are also very aware of the dangers that these tools pose, including the possibility of plagiarising or citing inaccurate sources, as well as being detected by software (Villarama et al., 2025). The sense of moral anguish is further compounded by the new security and socio-cultural threats, including the rise of deepfakes, cyber-extortion, and data privacy concerns, which create a sense of emotional distress and moral uncertainty in closely knit university infrastructures (Afzal et al., 2026). As the 2026 mandatory integration draws nearer, there is a growing academic consensus in Pakistan that a middle-ground solution is urgently required. This solution should blend strong principles of digital literacy and ethical frameworks to transition the paradigm of AI from a tool of passive cognitive replacement to a useful scaffold for human learning.

Methodology

This study uses mixed-methods research; it is a combination of quantitative and qualitative methods. The current study aims to analyze the attitudes of students towards AI tools using a mixed-method approach that combines statistical analysis and computational corpus linguistics analysis. Then in 2026, Pakistan introduced AI classrooms across the country, and the University of Okara conducted the research. The method is based on a series of standardized questionnaires with Likert scales and unstructured reflective essays of students, where explicit and conscious judgments and implicit or natural sentiments have been included in the everyday language of students.

For the quantitative part, a purposive sampling technique was employed to select 45 postgraduate academics at the University of Okara. The most keen users of generative technology for academic support are postgraduates since they employ advanced research methods, literature synthesis, and complex academic writing. One responder provided no answers to department questions; their response was not entered into data and was subsequently left blank but classified as 'undisclosed' to keep the data's integrity. One participant in the final sample reported not using AI tools but had valid attitudes and beliefs toward technology integration. The detailed, structured questionnaire of 15 items included literature related to technology acceptance, such as perceived utility and ethical skepticism. The responses were on a 5-point Likert scale.

In addition to the survey data, a written reflection corpus of 60 essays and texts of reflective writing by students of higher education at the University of Okara was used (10,000 words). Then students shared their experiences, beneficial and detrimental, of AI use in their university class and future expectations. The qualitative corpus was a real language data base that very vividly described students' natural talk about technology in the absence of survey questions.

The database was analyzed using advanced tools for computational and corpus processing to extract the structural semantic patterns and emotional registers (Ghilzai & Javeria, 2025). The compiled text files were subjected to a systematic Key Word in Context analysis of the evaluative descriptors used in the key terms, noting the contexts of space used for good and negative in the corpus. Furthermore, advanced computation platforms can allow researchers to automate the classification of student language, thus providing a strong foundation to examine student sentiments and qualitative texts in educational research (Kaur et al., 2020). The quantitative data were analyzed statistically to determine the percentage distribution, mean scores, and number of frequencies of each Likert item and to enable a direct and accurate comparison between the quantitative attitude of the students and their linguistic choice.

All research activities were performed with a high level of ethics during design, collection, and analysis. The academic body approved the request, and all MPhil students were told that their participation was voluntary and that their information would be kept confidential. All quantitative and qualitative data, or qualitative corpora, are free from personal identities or sensitive information about institutions.

This ensures the unparalleled privacy and the completeness of the corpus during the study.

Theoretical Framework

The theoretical framework of this study is the Technology Acceptance Model (TAM) proposed by Davis (1989). TAM is one of the most widely used, highly validated, and best-established theoretical models for predicting and explaining technology use in educational settings. The basic elements of the classical TAM assume that attitude towards the use of a new technological system directly affects the individual's behavioral intentions to use the system, which are determined by two important cognitive beliefs: Perceived Usefulness, the extent to which the user believes that the technology will improve his/her productivity or job performance, and Perceived Ease of Use, the extent to which the user believes that using the technology will not require any physical or mental effort. In educational settings, the perceived usefulness and ease of use are generally linked to positive affective responses, which means a high behavioral intention to use the technology for regular learning activities.

However, in recent empirical studies, the role of highly autonomous and generative technologies such as conversational LLMs has introduced novel cognitive and ethical considerations to the pragmatic utility factors that are traditionally the focus of the classical TAM. Therefore, the present study employs the extended TAM framework, where AI skepticism is a key construct of moderation, including issues of overdependence, unreliability, and academic dishonesty. The researchers can use this conceptual framework to study the high perceived ease of use, psychological and ethical challenges of the dependency on technology, loss of creativity, and broader context of technology acceptance in regional state universities. This framework includes ideas that are relevant to the higher education of Pakistan.

Data Analysis

The data analysis section is intended to give a detailed multi-dimensional integration of the results of the survey (quantitative) and computational corpus linguistics (CCL) to understand the complex socio-cognitive environment at the University of Okara. Quantitative data was collected from 45 MPhil researchers who were actively exercising and utilizing AI technologies and could be analyzed to

obtain an accurate frequency distribution and percentage value for each of the 15 different attitude factors. By means of a very deep computer study of the sixty evaluative qualitative essays written by the students, the following are examined: The semantic structure, KWIC concordance configurations, and contextual collocational forms of the key evaluative terms in the essays. This analysis adds to the statistical breakdown. Triangulating these datasets allows for a more comprehensive analysis of systemic patterns, causal links, and policy implications of mandated technology integration.

To establish the statistical foundation of the study, the demographic and operational profiles of the quantitative survey participants were analyzed, focusing on the specific software platforms adopted by MPhil scholars.

Table 1: Demographic and Tool Usage Profiles of MPhil Respondents (University of Okara, 2026a).

Variable	Classification	Frequency (N=45)	Percentage (%)
Department	MPhil Postgraduate Cohort	45	100.0%
Prior AI Academic Usage	Yes	44	97.8%
	No / Undisclosed	1	2.2%
Primary Tools Utilized	ChatGPT (OpenAI)	36	80.0%
	Gemini (Google)	18	40.0%
	Claude (Anthropic)	4	8.9%
	Grammarly	8	17.8%
	Specialized research assistants (SciSpace, Jenni AI, QuillBot)	3	6.7%

Postgraduate students of the University of Okara use generative AI almost universally; Table 1 shows that 97.8% of the MPhil scholars reported using these tools in their academic activities. In the academic world, OpenAI's ChatGPT is doing the best from a computational perspective with 80.0% of adoption, followed by Google's Gemini with 40.0% and Anthropic's Claude with 8.9%. The evidence is obvious in the qualitative corpus of the texts, which indicates that students are the

prime users of DeepSeek or Gemini since they obtain their relevant data in an instant. When they are assigned an assignment, they take a picture of it, put it in ChatGPT, and get their data back (University of Okara, 2026b). The results indicate that the profile of this tool demonstrates a high preference for conversational platforms with more sophisticated natural language processing capabilities compared to specialized proofreading software, indicating that AI acts as a working conversational partner in the research process.

To evaluate the core constructs of the Technology Acceptance Model, the frequency distributions of students' beliefs regarding Perceived Usefulness and Perceived Ease of Use were statistically calculated.

Table 2: Perceived Usefulness, Perceived Ease of Use, and Behavioral Intentions

Survey Statement (TAM Construct)	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)	Mean Score (1-5 Scale)
AI tools help me understand difficult concepts effectively (PU ₁).	33.3%	55.6%	6.7%	2.2%	2.2%	4.16
AI tools improve the quality of my academic writing (PU ₂).	26.7%	57.8%	13.3%	2.2%	0.0%	4.09
Using AI tools saves time in completing assignments (PEU ₁).	42.2%	48.9%	8.9%	0.0%	0.0%	4.33
AI tools enhance my learning efficiency (PU ₃).	22.2%	57.8%	13.3%	4.4%	2.2%	3.93
I intend to continue using AI tools for academic purposes (BI ₁).	24.4%	62.2%	11.1%	2.2%	0.0%	4.09

The classical TAM circuits are statistically useful and usable, statistically speaking, as shown in Table 2. The majority (88.9% agree + strongly agree, mean = 4.16) agree that AI tools are effective cognitive scaffolds for students to learn difficult academic

subjects. Furthermore, 84.5% of students use these tools to help them with their academic writing. Many are familiar with generative automation in terms of time efficiency. The average time saved by AI tools on assignments was 91.1 per cent, with a mean TAM score of 4.33. This perception of efficiency affects their future intention to use AI tools for academic purposes, with 86.6% of the MPhil respondents indicating this purpose. These pragmatic, benefit-oriented measures were assessed on AI skepticism, ethical concerns, and perceived cognitive hazards of AI.

Table 3: Perceived Cognitive Risks, Skepticism, and Ethical Anxieties

Survey Statement (Skepticism Construct)	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)	Mean Score (1-5 Scale)
AI encourages academic dishonesty and cheating (ES ₁).	20.0%	57.8%	13.3%	8.9%	0.0%	3.89
Students may become overly dependent on AI tools (CR ₁).	42.2%	53.3%	4.4%	0.0%	0.0%	4.38
AI-generated information is often unreliable (UR ₁).	17.8%	51.1%	24.4%	6.7%	0.0%	3.80
AI tools negatively affect student's creativity (CR ₂).	24.4%	48.9%	20.0%	6.7%	0.0%	3.91
The use of AI may weaken problem-solving abilities (CR ₃).	26.7%	53.3%	13.3%	6.7%	0.0%	4.00

The contradiction in attitudes is significant, as shown in Table 3. The majority of MPhil scholars have a positive perception of the benefits of AI in terms of productivity and time saving but are very concerned about the negative cognitive and ethical impacts of AI. 95.5% strongly agreed/agreed that students could become "over-reliant on AI tools." This group recorded the highest overall mean score (4.38). Furthermore, 80.0% of the respondents indicated a decrease in human problem-solving skills in supervision of the use of these tools (mean 4.00), and 73.3%

indicated a decrease in student creativity in supervision of the use of these tools (mean 3.91).

There was also a concern that the AI could produce content that was plagiarized or incorrect. The general ethical concern: 77.8% of academics said that AI encourages academic dishonesty and cheating, while 68.9% said that AI-written content is often inaccurate or factually incorrect. This tension illustrates the challenges that many students may face in understanding how learning occurs when presented with a tool that interferes with their current learning and may be beneficial to their future learning.

The survey focused on students' perceptions of policy, training, and pedagogical design to examine how they think these tensions should be solved at the institutional level.

Table 4: Institutional, Policy, and Pedagogical Orientations

Survey Statement (Policy Construct)	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)	Mean Score (1-5 Scale)
Universities should develop policies on the ethical use of AI (PO1).	35.6%	51.1%	8.9%	2.2%	2.2%	4.16
Students should receive training on how to use AI responsibly (TR1).	40.0%	51.1%	6.7%	2.2%	0.0%	4.29
AI tools will become an important part of future higher education (FU1).	35.6%	55.6%	8.9%	0.0%	0.0%	4.27
The impact of AI depends on how students use these technologies (PO2).	40.0%	48.9%	8.9%	0.0%	2.2%	4.24
AI should complement rather than replace traditional learning (PO3).	28.9%	53.3%	13.3%	4.4%	0.0%	4.07

Table 4 shows that students are not so much against the use of AI as for it. As indicated in table 4, the students are not all against the use of AI but are for it. They do not. They want institutions to govern actively and protectively. The majority of them (86.7%) think that it is important for universities to urgently create policy frameworks related to ethical use, with a mean score of 4.16. Similarly, 91.1% of students strongly agreed (mean score 4.29) that they need formal training on responsible prompting and ethical validation. 82.2% of the scholars think that AI is better with teachers rather than without teachers; 88.9% are not sure what the final implications are for the use of this technology.

To computationally explore the language features, qualitative contexts, and emotional tones that underlie these survey statistics, a specialized corpus of 60 student essays was used. The KWIC concordances of the evaluative descriptors good and negative were analyzed to investigate the semantic preferences and constraints in the students' language.

Concordance Analysis of the Node Words "Negative" and "Good"

❖ Concordance Procedure

The data were searched for concordance in AntConc (Version 4.2.4) using the case-insensitive and whole-word options. KWIC concordance lines were generated with a fixed context window of 5 words to the left and 5 words to the right (L5-R5) of the node word. In the searches, negative was found 11 times and good was found 11 times. All the concordance lines were manually verified and coded for phraseological and evaluative functions of each line. The student language was not changed for grammatical reasons and to preserve authentic corpus evidence. The complete KWIC concordance data for both node words are provided in Tables 5 and 6, and the unstructured contextual blocks are noted in Appendix A and Appendix B.

Table 5: Selected KWIC Concordance Lines for the Node Word Good

No.	Left Co-text	Node Word	Right Co-text
1	use of AI is generally	<i>good</i>	if it is used in a proper and responsible way
2	AI is neither completely	<i>good</i>	nor completely bad
3	it is not a	<i>good</i>	practice

4	We need a	<i>good</i>	prompt
5	become a	<i>good</i>	researcher or scholar
6	need a	<i>good</i>	response from AI
7	not be a behaviour of a	<i>good</i>	scholar
8	students can make exceptionally	<i>good</i>	use of these tools
9	students are getting	<i>good</i>	results with AI tools
10	depend on	<i>good</i>	university and scholars
11	AI requires a	<i>good</i>	prompt for effective output

The qualitative concordance lines of the corpus suggest that the semantic structure of “beneficial” is highly conditioned and reflexive. The descriptor is typically a qualified good. The meaning of good is systematically narrowed down to moral, behavioral, and operational requirements. It is often qualified with conditions such as “if used in a proper and responsible way” or is always immediately offset in dualistic statements such as “not completely good or evil.”

Furthermore, the word good is also present in the corpus, e.g., in questions such as ‘need a suitable prompt’ or ‘important for a satisfactory response from AI.’ This evidence shows that successful interaction is a skill that the learners want to learn, and it is not a trick that they think the computer can do. On the other hand, the collocations “unsatisfactory practice” and “incompetent scholar behavior” are systematically used in warning against the copying of whole papers, which slows down students’ abilities and their apathy.

The analysis of the lexeme negative shows that the systemic, intellectual, and psychological deterioration of the student are important aspects of his/her anxieties. The word negative is consistently associated with severe disruptions, such as negative impacts on human effort, negative impacts on human knowledge, and negative impacts of passive learning, all of which reinforce the survey results indicating that students are very aware of the cognitive cost of dependence on technology.

The structural correlative of these patterns was tested by analysis of the KWIC concordance map of the word negative to break down the anxieties that are embodied in the corpus.

Table 6: Selected KWIC Concordance Lines for the Node Word Negative

No.	Left Co-text	Node Word	Right Co-text
1	highlights a clear distinction between its positive capabilities and its	<i>negative</i>	impacts on human effort
2	balance between its positive capabilities for gathering information and its	<i>negative</i>	impacts on human knowledge
3	class has two sides, the use of AI has its	<i>negative</i>	impacts as well
4	Students should be aware the	<i>negative</i>	impacts of passive learning using AI
5	My point of view is neither entirely positive nor	<i>negative</i>	
6	several positive features alongside a specific	<i>negative</i>	consequence
7	of Artificial Intelligence involves balancing its positive features against its	<i>negative</i>	consequences
8	harmful excessive use carries a	<i>negative</i>	effect mental & physical health
9	it creates a	<i>negative</i>	privacy effect, making data less confidential
10	AI tools both give us both positive and	<i>negative</i>	results
11		<i>negative</i>	disadvantages / effects in learning behavior

The corpus links the term negative with the negative health effects of its use, such as 'depression and anxiety,' stating that 'destructive excess use hurts mental and physical health' and 'creates a negative privacy effect, making data less confidential.' Pupils are worried about invasion, the manipulation of information, and aggressive computational feedback loops.

Tension is created through a third-order theme analysis of 60 articles (30 in each group). The phrase "The Death of Unique Student Voice" is emphasized. A

generation of students compelled to use the same structures of conversation and speak middle-of-the-road, polished, sterile English instead of quirky, somewhat awkward, but very real English. This strict language normalization is a resistance to the creativity and “computability” of young authors.

AI is not equally accessible – the best and most reliable AI in the corpus is behind high paywalls. Government-funded colleges use the advanced technologies, whereas colleges that are not funded use free ones, which may have inaccurate information or misleading references. Essays about “digital loneliness” and loneliness are anxious about college becoming a place of messy but meaningful human interaction that an algorithm for talk and counseling might soon replace.

Finally, there is a practical counterpoint to the qualitative article "Breaking Down the Wall of Dread." Concerning tasks, the introspective writings reveal that people tend to procrastinate because they consider the task too daunting and intimidating to begin, causing task paralysis in the brain. AI tools can break through this mental barrier and help you break through worry by replacing anxiety fog with a focused checklist. AI is an emotional and administrative stabilizer, reducing workload stress and encouraging students to engage in activities.

Results

The present study reveals that the students at the higher level of education of the University of Okara have very complex and bifurcated attitude patterns. The results also indicate that the adoption of technology is mainstream, where 97.8 percent of MPhil scholars are using generative AI and 86.6 percent have definitely a behavioral intention to continue using generative AI in their future research processes (University of Okara, 2026a). Conversational NLP is the top platform for student academic questions (80.0%), followed by Google Gemini (40.0%).

The study validates that the perceived high levels of usefulness and ease of use of generative automation are the main drivers for this high adoption rate. 88.9% of students agree that using AI tools helps them to better understand complex topics, 84.5% that they help them to make their academic writing structural, and 91.1% that they help them to save time when completing assignments. The qualitative essay corpus strongly supports these metrics and reports that AI is an invaluable tutor

who provides ongoing support, removes task paralysis, assists with grammar issues, and accelerates structural formatting.

But this pragmatic approach is tinged with a deep cognitive, moral, and psychological ambivalence. The findings indicate that 95.5% of the MPhil scholars believe that students are at a high risk of developing an unhealthy relationship with AI tools, 80.0% believe that it will have a negative impact on their independent problem-solving skills, and 73.3% believe that it will negatively affect creativity. In the qualitative corpus, a concordance study of all the sample texts shows that the negative effects of passive learning, robotic language, loss of authentic student voice, digital isolation, and data privacy breaches are the main issues of concern for the students. Students resoundingly believe that technology should be used in support of, not as a replacement for, traditional human teaching and that formal university policies need to be developed (86.7%) and that ethical training should be mandatory (91.1%).

Discussion

The results of this mixed methods study provide strong local empirical support for the extended Technology Acceptance Model (TAM) in the specific socio-cultural context of the higher education sector in Pakistan (Basit et al., 2025). The statistical evidence combined with the computational analysis of a more specific reflective corpus shows a very complicated pragmatic double-mindedness in students' attitudes towards AI. This conclusion is not to imply that this is a blind, gullible honeymoon period but a continual process of conscious cognitive negotiation in which the overwhelming attraction of operational convenience, task simplification, and time saving is weighed against the psychological challenges of mental deterioration, loss of creativity, and academic penalties.

In this context, socio-cognitive stress arises in relation to cognitive offloading theory. The survey results and the essay corpus (Shahzad et al., 2025) show that students are aware of the cognitive load of the use of conversational algorithms for high-cognitive-demand tasks such as structuring their text, summarizing literature, and drafting their text. This delegation provides workers with an interim respite from the operational stress and also from the fear of load and falling into a state of paralysis. It also enables pupils to feel confident that they are able to think for themselves, analyze, and remember information. Students face an educational

dilemma: they realize they are relying on artificial intelligence to manage the demands of their curriculum studies. But they know AI is often used, so they become passive learners who don't do their research.

There is also the computational concordance analysis of the good and the negative, which results in deep linguistic understanding of this attitudinal double-mindedness. Structured training around good outcomes, structured around cueing strategies based on moral and human-centric principles, provides students a valuable look at their deep lack of understanding that AI is a self-learning entity. They know it is man's critical agency and timely engineering that can produce the best output. However, the collocations of negative with "passive learning" and "anxiety and depression" express a profound sense of socio-cultural fear of the dehumanization of education.

The Pakistani universities are forced to go digital, and the students are losing the intellectual freedom and creativity in their personal writing. Students are afraid of losing their individual writing style due to the prevalence of homogenized and sterile language that resembles robot talk.

In Pakistan, a developing country with significant social inequalities, the structural and economic disparities worsen the challenges faced by students. The Higher Education Commission's push to bring AI into universities is a bottom-up process, as the most powerful cognitive AI tools are behind paywalls. This paywall system is creating a new class divide for students of several public regional institutions like the University of Okara. Those from rich families pay more for better technologies, whereas those from poor families are provided free but outdated technologies, which often result in false references, false information, etc. (University of Okara, 2026b). Such imbalance can also exacerbate inequalities and create a formalized and unobstructed education democracy, offering minimal assistance or technology tools for the classroom.

Finally, the students are sensitive to the high demand for university policies (86.7%) and responsible training (91.1%). This finding suggests that the University of Okara students are not calling for a complete ban on technology but rather a more regulated and critical approach to automation. They want an ethical approach rather than a humanistic one, seeking a balance in pedagogical methods. They know

that AI is a major topic that is going to affect their careers, but they feel that it shouldn't take over the learning process and the way that learning is done.

A complete paradigm shift is needed in the design of university courses, moving from the old exam-oriented (memorization) learning to a more modern, blended, interactive, and process-oriented approach that tests critical thinking, validates students' learning skills, and challenges the individuality of student solutions by using technology as a facilitator and enabling tool, rather than a replacement for human thinking.

Recommendations

The statistical and corpus linguistic results of this study offer a lot of useful insights for the Higher Education Commission of Pakistan, the administration of the University of Okara, and the faculty:

Establish Clear Institutional Disclosure and Integrity Guidelines: The University of Okara needs to urgently develop and enact the policy of using AI assistance across the university. Instead of mandating or imposing unrealistic bans that incentivize students to cheat, the university should ask students to submit the prompt they used and explain how they verified the accuracy, transparency, and ethics of the AI-generated content, creating accountability and transparency.

Deploy Mandatory AI Literacy and Ethical Prompting Courses: The Faculty of Computing and Education need to develop HEC 2026-compliant courses for AI literacy development, which should be compulsory for students. The program must include understanding algorithm outputs, identifying hallucinated citations, recognizing algorithm biases, and using prompt engineering to preserve students' voice when creating content with algorithms.

Bridge the Digital Divide through Institutional Access Programs: The University of Okara needs to work with software developers or introduce licensing to develop affordable, high-quality academic AI tools for underfunded students to promote technological equality.

Computer professionals, education experts, students, and ethicists should undertake the creation of an institutional unit for AI policy and integration. This division would involve monitoring technological development, inspecting

technological systems, analyzing trainer input, and modifying rules to promote human values and comprehensive education through technological innovation.

Conclusion

The present study is an attempt to explore the perceptions of students of the University of Okara (UoQ) about the use of AI in higher education, especially after the ban was imposed on its use by the Higher Education Commission in 2026. The study provides a nuanced picture of the attitudes of postgraduate scholars towards their studies, which fulfills the aims of the study. Studies employ statistical data and computer analysis of a corpus of reflective writing. Most students appreciate the conceptualization, grammar checking, and time-saving aspects of generative automation, but the cognitive atrophy, incorrect information, and no real creativity are systemic concerns.

The keyword-in-context analysis of the qualitative corpus shows students' language descriptions of AI. Student AI use is highly contingent; positive use is associated with human activity and validation of ethical use, and negative use is associated with lack of cognitive engagement, plagiarism, and digital isolation. Pakistani regional public colleges are forced to adopt new technology quickly for more efficiency, but on the other hand, students should remember that they are becoming more efficient in a short span of time, while intellectual independence and creative individualism can be attained in a longer span of time.

The report believes that the higher education institutions in Okara and Pakistan can keep pace with technology and be automated. Instead, teach ethically, humanely, and with wisdom. Implementing transparent policies, systematic AI knowledge programs, and academic evaluations that promote critical thinking and creative validation can make talent-centric higher education in Pakistan achievable. This way of training learners is based on equality, and with the help of the knowledge of artificial intelligence, students will be in line with international competition without losing their creative, critical, and unique scholarship.

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