

Generative AI and the Future of Academic Writing: Examining AI Literacy, Critical Thinking, Academic Integrity, and English Writing Skills Among University Students in Pakistan

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ABSTRACT

Generative Artificial Intelligence (AI) is transforming higher education by changing the way students process information, develop ideas, share knowledge and generate academic text. AI technologies like ChatGPT and other large language models have become commonplace for brainstorming, idea generation, outlining, drafting, paraphrasing, summarization, translation, grammar checking, vocabulary building, and language refinement. While these uses might be helpful in the students' learning process, they have also been found to harbor some serious problems on academic integrity and the development of students' sustainable competence in writing, academically and linguistically. These are special concerns in Pakistan where English is one of the higher education languages, as well as the language for academic evaluation, professional communication and scholarly publications. The fact is that students do not need to choose between using or not using generative AI, they need to use it with critical thought, ethics, and good intentions but not doing the cognitive and linguistic work involved in their learning.

The current research focuses on the changing attitude of generative AI in the academic writing of university students in Pakistan with the involvement of English language writing skills, academic integrity, and critical thinking regarding generative AI in academic writing. The study is of a qualitative and interpretivist nature which recognizes that the students' educational worlds, language experiences, disciplinary expectations, technological experiences, and institutional contexts influence the ways in which they experience and understand generative AI. Qualitative documentary analysis used to address relevant scholarly literature and documentative evidence on generative AI, higher education, academic writing, AI literacy, critical thinking, academic integrity and English-language development. Thematic analysis is employed to uncover patterns, relationships, tensions and/or interpretative dimensions that tie in with the selected evidence with respect to AI-assisted academic writing. In keeping with the qualitative design, this study does not measure statistically the effects that take place or generate fake interviews, quotations, survey results, or participant responses.

There are some themes that can be identified through the analysis, which are interconnected. In the first place, generative AI is emerging as an Acceptable Writing Support Tool (AWST) that can assist students at many steps of the writing process. Secondly, AI literacy is a prerequisite for responsible use, and entails thinking critically about what AI produces, an understanding of its limitations, verifying sources, and understanding ethical boundaries. Third, the potential of generative AI in critical thinking appears to be a paradox – it can stimulate ideas and alternative viewpoints in a reflexive manner, but it can also stifle independent thought, the development of arguments, and the assessment of ideas when it becomes too much of a crutch. Fourth, generative AI introduces issues to current conceptions of academic integrity and authorship, including what is acceptable as a source of assistance, originality, disclosure and responsibility for produced work. Finally, it has context-specific relevance to the development of English writing. AI can help with grammar, vocabulary,

clarity and confidence in language, but... AI can also be used too much and not allow for independent practice and the development of a personal academic style.

Rather than envisioning the future of academic writing as a battle between techno-solution and the demise of education, the study proposes that it should be considered as a mix of both. Instead, the universities in Pakistan need to be provided with a model that includes some aspects of being 'AI-literate', critical thinking, educational interventions on academic integrity, English, and responsible assessment, and clear guidance from the universities. The findings have implications for students, university teachers, English language teachers, university administrators, policy makers, and educational-technology professionals. Lastly, the potential of generative AI tools for educational use does not solely depend on the quality of the text they create, but on the ability of students and institutions to protect their intellectual agency and critical thinking, their academic obligations and their authentic possibilities of creating and learning independently.

keywords: *generative artificial intelligence, ChatGPT, academic writing, AI literacy, critical thinking, academic integrity, English writing skills, higher education, university students and Pakistan, interpretivism, qualitative research*

INTRODUCTION

The world of higher education has undergone a transformation with the advent of digital technologies, and generative artificial intelligence (AI) has introduced a major shift in the learning experience, transforming ways that students learn, communicate and produce academic knowledge. The generative AI systems like ChatGPT and other large language models (LLMs) can interact with human users in a human-like fashion to natural-language instructions and are increasingly engaged in tasks traditionally viewed as fundamental academic tasks. In the University setting, they will be used to brainstorm ideas, organise them, write sections, paraphrase, summarise passages, translate and correct, improve vocabulary and develop academic language. As more and more systems can be accessed and are becoming increasingly versatile, generative AI is increasingly becoming a topic of interest when it comes to academic writing, with some confusion also regarding what is acceptable as technological support and what is unacceptable as a replacement for students' intellectual effort (Kasneci et al., 2023; UNESCO, 2023).

The potential benefits and the possible negative outcomes of generative AI are in balance in education. But, on the contrary, the assistance provided by AI for writing can be of immediate linguistic and organizational support for students learning academic English or finding it difficult to express complex ideas. Conversely, overreliance can limit the opportunities for students to think of ideas on their own, to assess evidence, to create arguments, and to edit their own texts. Being grammatically correct isn't the only thing that makes a writing academic—it's a way that learners build their reasoning, disciplinary understanding, intellectual voice and communication skills. With the increased capability of AI systems in creating well-structured text, it is important to be mindful of the gap between ease of technology and advancement of education. The question is not about allowing or not allowing the use of generative AI, but about how students navigate a balance between assistive and relying use.

AI literacy is a key concept in the field of education. Using AI responsibly is a far more complex than what it takes to operate a chatbot or craft a highly effective prompt. Students need to understand that answers generated by AI may not be completely accurate, may include biases, or may not provide complete explanations, and that citations may be incorrect. They should be able to analyze created information, identify reliable sources, identify restrictions, safeguard confidential and personal information, and comprehend the expectations of institutions regarding the proper use of AI. UNESCO (2023) highlights the need for human agency, values and ethics, and responsible use in educational applications of generative AI. AI literacy can then be understood as part of academic and

information literacy, and it is more than just the ability to use, misuse and abuse AI; it is the ability to make informed decisions about its use, misuse and abuse.

There is also an intriguing paradox in thinking, created by generative AI. AI can be used effectively to explore multiple perspectives, brainstorm ideas, defuse potential counterarguments, and brainstorm ideas for a writing prompt. When learners actively question and critique the material generated, such interactions can be used to aid learning. It can, however, create the opposite problems of complacency in the mind, with the rote-learned answers without due thought and let AI systems do much of the thinking work. A concern is not that AI will replace critical thinking, but that relying on AI could create a reduction in opportunities for students to engage in critical thinking, which is an integral aspect of the learning process. More recent research also highlights the importance of the pedagogical context and the way students apply generative AI tools in the learning process in shaping the pedagogical implications of generative AI (Kasneci et al., 2023).

Academic honesty and authorship is another issue associated with it. Generative AI blurs the lines between originality, assistance, paraphrasing, and unauthorized production, raising barriers to determining originality. Originality, assistance, paraphrasing, and unauthorized production are all complex concepts in the age of generative AI. If a student has written something that is not a verbatim copy of another source, but has been heavily generated by an AI system then it may be considered part of their original work. This poses new questions regarding authorship, originality, attribution, disclosure and responsibility in the development of academic products. The traditional methods of plagiarism detection may thus not be enough to tackle the wider impacts of generative AI. In universities, it is becoming more important to establish the limits of acceptable and unacceptable use of AI in the academic setting and ensure that academic-integrity policies have both educational and disciplinary elements. Universities need to define what is acceptable and unacceptable usage of AI in academic pursuits and make sure that academic-integrity policies are more educational than punitive (UNESCO, 2023).

The problems assume significant importance in Pakistan's higher education scenario. English remains an important language in university teaching, university evaluation, communication in research and scholarly publications. The starting English proficiency and linguistic and educational backgrounds of students entering higher education vary. Generative AI can then have its own applications in learning for each student. It can be used as a language-support mechanism for Grammar, Vocabulary, Clarity, Translation and Organisation for some. Relying on generated text to the exclusion of other activities can also decrease the opportunities for students to practice independent writing and build up their own academic voice. The disparities should not be interpreted as an indication of how all Pakistani students use AI. Instead, their experiences need to be interpreted in the context of language proficiency, disciplinary context, access to digital tools, AI literacy, teacher support, institutional policy, and opportunities for independent learning.

The scholarship on generative AI in education is rapidly expanding worldwide, yet there is significant research that can bridge the gap between the use of generative AI and critical thinking, academic integrity, and English academic writing in Pakistani universities. Previous studies have tended to study these dimensions individually, on one of the following topics: technological affordances, student attitudes, academic dishonesty, language learning or educational transformation. Less emphasis has been placed on the relationship between the dimensions in students' conceptions and processes of academic writing. The qualitative interpretivist perspective is valuable as it can be used to view the issue of the use of AI as a socially and educationally situated phenomenon, which is beyond just frequency or performance measures.

Thus, the study examines the three realms of understanding, utilization and negotiation of generative AI with regards to University students who write in Pakistan. It sets out to answer five questions: What is the meaning of generative AI for academic writing? What are the various forms of AI literacy responsible and problematic uses could arise from? How does students see AI in terms of their critical

thinking? What do students think about AI-assisted academic writing in the context of their academic integrity and authorship? How do students view the use of AI in academic writing in comparison to their conceptions of the academic writing development? The study will be of Interpretivist qualitative study type in which thematic analysis will be used to provide a contextualised view of the opportunities, tensions and challenges generative AI poses in the context of Higher Education in Pakistan. The relevance of the book to students, to those who teach them English, to the university teacher, to the administrator, to the curricular designer, to the policy maker, and to the educational-technology expert are all relevant. The study does not suggest that AI is by nature good or bad, but that using AI should be coupled with critical thinking, academic accountability, linguistic growth and opportunities for students to continue to be active learners.

LITERATURE REVIEW

The Influence of Generating Artificial Intelligence (AI) in Higher Education and Academic Writing

The advent of generative artificial intelligence (GenAI), and specifically large language models (LLMs) like ChatGPT, is a substantial shift in the methods used to create knowledge, communicate, and write in postsecondary education. GenAI can be directly involved in intellectual and authorial tasks such as idea generation, building arguments, paragraph structuring, literature summarizing, text translation, and language revision, in contrast to previous education technologies, which were mostly applied to information retrieval or language correction. It is not only a question of access to digital technologies for students, but of how the interaction between students, teacher, knowledge and AI might be changed. Recent years have witnessed a swift transformation in the landscape of Higher education as the field of GenAI applications has seamlessly woven itself into the fabric of teaching and learning, assessment, research, and academic communication (Baig & Yadegaridehkordi, 2024; Dwivedi et al., 2023; Kasneci et al., 2023). (DOI)

This change is very important to academic writing, because writing is learning and it is a learning activity. The typical ways students build academic competence are by ideating, gathering evidence, structuring arguments, drafting, getting feedback, revising, and making language decisions. GenAI can be used in nearly every aspect. It can provide word suggestions and/or recognize grammatical errors, give revisions to sentences, provide outlining, provide formative feedback, or any combination of these. This technology could however be leveraged to create substantial portions of an assignment, and there is a fundamental distinction between authorship that is supported by AI and authorship that is substituted by AI. Thus, the educational significance of GenAI is not just about the technology itself, but how students utilize it as part of their own writing practices. When it comes to students' academic communication, research additionally indicates that GenAI is not only a proofreading tool, but is also revolutionizing conventional writing practices (Liu, 2024; Zhao et al., 2024). (Wiley Online Library)

The use of AI is only regarded as responsible when it fulfills the AI Literacy as a condition

Understanding this distinction can be done by looking at AI literacy. Educating students about AI literacy shouldn't be about how to use it to get a well-formulated answer. It's not about how to use it to come up with a well-formulated solution to AI literacy. The modern definition of AI literacy is the understanding of the key principles of AI, using it ethically, critically evaluating its output, recognising its limitations and understanding its biases, and making informed decisions about its implications (Kassorla et al., 2024). At the academic level, then, AI literacy involves prompt literacy, assessment of academic work, attribution and author awareness, understanding of hallucination, awareness of privacy issues, and when AI assistance may be inappropriate in the academic context.

This is particularly important as the term technological fluency isn't necessarily synonymous with critical AI literacy. A student might be very good at producing an essay with ChatGPT, but have no

idea whether what it has written is true, if it has any real references, or if what it has written is the student's own thoughts. More and more AI-literacy research focuses on the technical, evaluative, practical, and ethical skills, rather than just using tools. With this in mind, responsible academic uses will involve students as evaluators and editors of the AI-generated content, rather than simple recipients.

Leveraging AI tools to stimulate creativity and critical thinking skills

The link of critical thinking with GenAI is under discussion. Bright side stories feature its possibilities as a conversation partner that can generate alternative explanations, counterarguments, examples and perspectives. Carefully and with intention this can encourage pupils to think about things in different ways, to question their own beliefs, to identify weaknesses in arguments and to remember what they were originally thinking. But experimental and review-based evidence indicates that higher order thinking skills can be facilitated to some degree through well-designed ChatGPT interventions, with some effects more pronounced than others and/or more sustainable than others. While there are some experimental and review evidence of the effectiveness of interventions designed by ChatGPT in the promotion of aspects of higher order thinking, there is uncertainty as to how and for how long this can be achieved. (DOI)

However, when students are accustomed to taking their answers for granted, GenAI can be a tool for cognitive offloading. On the other hand, GenAI can help to foster the phenomenon of cognitive offloading when students take their answers for granted. Rather than merely giving incorrect information, the threat with AI is that it gives incorrect information and its language sense makes it seem authoritative. Recent studies indicate that the cognitive impact of ChatGPT is quite context-dependent, suggesting that the cognitive outcomes of scaffolded, inquiry-based interaction can be positive, as in reasoning, but the unstructured interaction can have negative effects, such as dependency and reduced cognitive interaction (Ngo Cong-Lem & Nguyen Thi Thuy-Dung, 2025; 2026). Critical thinking in AI-writing is a novel skill: Students must critically evaluate their own ideas and sources, but also the epistemic reliability of machine-generated text.

Academic Integrity and Authorship and the Changing Nature of Cheating

Concurrently, the rise of the AI revolution has called into question traditional ideas of academic integrity. The era of the artificial intelligence has made understanding academic integrity more challenging, as well as understanding what it does not look like. A traditional discussion of plagiarism typically focuses on the plagiarism of the words or ideas of another person without crediting the person. The main reason for this is that AI-generated writing does not necessarily have a typical human writer who has just copied their writing style. The primary concerns then are authorship, originality, disclosure, unauthorized assistance and contribution to the creation of the AI submission by the student. The new scholarship highlights the learning opportunities and serious risks with academic dishonesty surrounding GenAI usage, but also the need for institutional measures that are more than just detection, and actually address the issue (Dwivedi et al., 2023; Cotton et al., 2023). A recently published systematic review also suggests that GenAI could present integrity challenges and recommends enhanced literacy efforts, institutional support measures and assessment. (MDPI)

The literature suggests that there is a growing emphasis on academic integrity with regard to the process of writing itself and not just the written product. While students may create ideas with AI, get feedback on grammar and translation, or utilize AI to improve their writing parts, the educational value of using AI could differ, for example, composing an AI generated essay. Thus, it is necessary to have better delineations of acceptable support and unacceptable substitution and to be transparent with disclosure expectations and assessment designs that bring to the surface the students' thinking and writing processes.

This course is designed to help students develop their written English academic writing skills in the context of Generative AI

There is also an ambivalent image of writing in English from the literature. GenAI can give instant feedback on grammar, vocabulary, sentence structure, coherence and organization, academic style and revision. Examples from ESL/EFL contexts have demonstrated that the proper application of ChatGPT can be beneficial for certain elements of students' written compositions, and that ChatGPT could provide students with easily accessible formative feedback (Mahapatra, 2024; Song & Song, 2023). The qualitative survey (Springer Link) also showed that students would like to use GenAI to understand the meaning of words, for writing essay suggestions, and improving essay quality. (Taylor & Francis Online)

Even better text doesn't necessarily mean better writer, however. When a student asks AI to correct all the grammatical mistakes in their work, they might submit a grammatically enhanced work and not be aware of what went wrong. Similarly, automatic introductions, transitions, arguments and conclusions might restrict the use of the very processes through which academic writing competences are developed. Research that has examined the distinctions between the two types of grammar-checking programs has found that perceived learning benefits and risks of excessive reliance, inequities around privacy and access (2024) So, the question is, will AI be the scaffolding for independent writing skills or a replacement for thinking/language in writing?

Students will be given feedback from the Context and also from the Pakistani Higher-Education Environment besides deliverables

Student's motivation for using GenAI can be functional and/or learning related including time pressure, workload, language barriers, curiosity, perceived usefulness, fear of failure, and need for immediate feedback. These reasons ought not to be taken as proof of academic dishonesty. A student can take advantage of AI for brainstorming in one task and heavily rely on AI in another. One student might use AI to automate part of a single task and then use it to brainstorm for other tasks. Student practices, in turn, are seen as negotiated and situated between demands of the academy, benefits perceived by the students, technological affordances, and expectations for students from within the institution.

This is an important issue in Pakistan, as there is a special status of English in higher education, assessment, professional communication and scholarly participation. Students at the Pakistani universities are immersed in a multilingual setting and may have markedly different levels of English proficiency, access to digital technologies, awareness and experiences concerning AI, and support from their institutions. New Pakistani studies have started revealing the rising popularity of ChatGPT and GenAI among university students, from exploring how they perceive and use GenAI to understanding their knowledge, attitudes, practices, and ethical concerns about it. Some of the studies conducted on under-graduates in Lahore have investigated about the knowledge, attitude and practices of ChatGPT; while some studies conducted in Pakistan have focused on association of ChatGPT with learning and skills development. But most of this new research evidence is quantitative and focuses on adoption, attitudes or relations between variables and not on students' lived meanings and decisions, or on what happens between the students.

In collaboration with teachers and institutions, AI Governance

This literature is increasing in its effort to shift the burden away from students as the only entities that are responsible for responsible application of GenAI. The learning environment is a room that is co-created with teachers and institutions – AI can be used as a learning room or a room of teaching. Explicit learning in AI-literacy, teacher training, clear institutional policies, redesign assessment, process oriented writing tasks, oral tasks, reflective writing, checking the source, and space to explain how AI was used are all clear solutions. An educational environment predating AI is no longer a

realistic or achievable scenario, but an alternative approach to academic writing education is required: one that is based on human judgment, verification, authorship, and intellectual accountability.

Critical Research Gap

In summary, the literature reveals that GenAI can be utilized for either good or bad purposes. It affects implications based on the students' understanding of the technology, the purpose of its use, a critical evaluation of the products of the technology, and the institutional and pedagogical setting where the technology is used. There have been numerous studies conducted in the past which have yielded knowledge on each of these individual dimensions (e.g., AI adoption, academic writing, critical thinking, academic integrity, language learning), and these dimensions have been studied separately. Even though there are many diverse emerging AI studies in Pakistan, most of them have been quantitative studies of learners' attitudes towards, use of, learning with, and perception of the advantages of AI, rather than on the complex and overlapping experiences with which learners interact with AI, which include negotiation of and for developing their AI literacy, critical thinking, integrity, and English writing development. (ijciss.org)

This leaves a big gap in the concepts and methodology. The grey area between support and replacement is yet to be explored and understood by the students of the Pakistani universities, and it is expected that an AI-literate student's perception of AI generated content will be different from that of a non-AI-literate student. Also, the effect of the use of AI on the engagement of students with the writing process and their critical thinking is not yet a researched topic and is not well understood by the students of Pakistani universities, and the perception of the new normal of academic honesty will be different among the students who are AI-literate and those who are not. The use of a qualitative interpretivist approach is especially suitable for these questions as they relate to meanings, perceptions, motivations, experiences and practices which cannot be properly captured by frequency measures alone. Hence, in the present study, the concepts of GenAI, AI literacy, critical thinking, academic integrity, and academic writing in English are incorporated under an interpretative lens to not only examine the extent to which students are utilizing GenAI, but also consider the implications of this use on the development of academically responsible and independent writers in the Higher Education sector in Pakistan.

RESEARCH METHODOLOGY

Research Paradigm

The nature of this study is qualitative interpretivist which is appropriate for the study of meaning making of university students on the use of generative artificial intelligence (GenAI) and academic writing in their specific educational and linguistic context. Interpretivism recognizes that social and educational realities are not simply objective conditions that can be measured separate from the human experience but that it's the meaning that people make of their experiences, interactions, and practices. (Creswell & Poth, 2018). Call to action was not achieved by simply looking at the volume of use and the score of their performance, as this does not provide clarity on key concepts in this study, such as responsible use of AI, authorship, academic integrity, critical thinking and writing competence. This language-based writing practice can be understood in different ways based on the students' expectations, English language proficiency, familiarity with technology, requirements of the disciplines, and the students' perception of local institutional rules. In this way, from an interpretivist perspective the study could discuss how the student may interpret the meanings as well as how the meanings may impact the student, rather than assuming that the impact of GenAI on the student would be positive or negative.

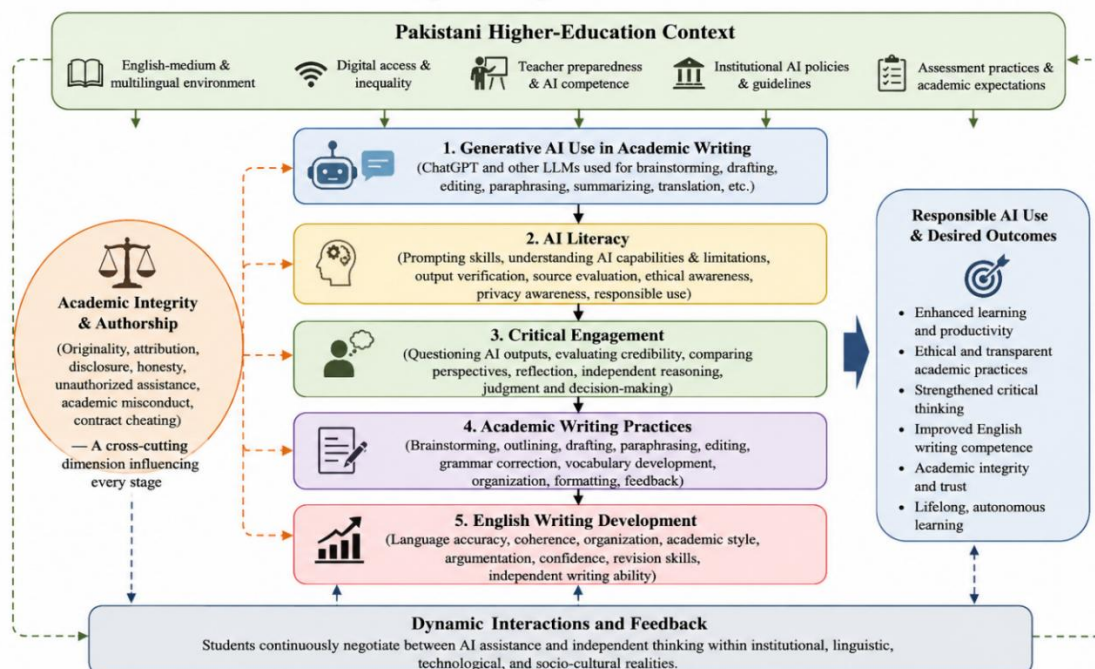
Research Design

The study is exploratory qualitative in nature and aims to explore the experiences, perceptions, interpretations and practices of academic writing with the help of GenAI by the students of the university of Pakistan. When the phenomenon is evolving quickly and current research does not completely capture how individuals engage with the phenomenon (e.g., think and feel about it), exploratory qualitative research is appropriate (Aspers & Corte, 2019). GenAI is such a phenomenon because of its capabilities, educational applications, institutional policies, and social meanings are still changing.

The data obtained of the primary participants have not been given for this article, so that the research method used for this article is not an interview study, but a study with a qualitative documentary study approach. Therefore, it is not claimed that any participant, questions, quotations or field observations of this work belong to the author. The documentary approach allows for a systematic analysis of the literature, institutional policies and guidance, scholarly documents, and other credible documents that discuss GenAI, academic writing, AI literacy, critical thinking, academic integrity, and English-language learning. Another popular method of qualitative research is document analysis, which allows researchers to examine documents as information and evidence rather than simply background information (Bowen, 2009).

It is particularly appropriate for the present study because it is possible for a study to situate the new experiences of the Pakistani students within the broader education, language, moral and institutional debates. Another advantage to the documentary approach is that it would not be possible to make unsupported statements about what learners are actually doing when evidence from the learners themselves is not collected.

Figure 1. Conceptual Framework for Interpreting Generative AI and Academic Writing Among University Students in Pakistan



Note. This framework illustrates the interconnected dimensions explored in this qualitative study. Arrows indicate influences and reciprocal relationships rather than linear causation.

Data Sources and Selection Strategy

The purposive method was used in conceptual selection of documents, only documents related to the research questions of the study were selected. Peer-reviewed scholarly articles about GenAI and higher education, AI-assisted academic writing, AI-literacy, critical thinking, academic integrity and English as a second/foreign language writing were emphasized, in addition to student experiences with generative AI. Institutional and policy documents, if available, which provided authoritative guidance around the use of AI, assessment, academic integrity and the responsible implementation of AI in education were also considered.

Special focus was placed on literature on the higher education sector in Pakistan and similar South Asian settings where there are credible evidence. Selection criteria were not based on the number of publications but on relevance, scholarly credibility, transparency of methodology and conceptual contribution. This approach is analogous to qualitative inquiry which seeks to create an "analytically meaningful work of evidence" and not a representative sample of a population in a "statistically meaningful way" (Creswell & Poth, 2018, p. 100).

The same interpretivist approach might be used for a subsequent study using purposive sampling of university students with experience with academic uses of GenAI. However, if data are not collected these participants and their accounts are not part of the present documentary analysis.

Selection of data and Analytical Corpus

The documentary corpus was organized according to the key conceptual domains of the study: AI-assisted writing, AI literacy, critical thinking, academic integrity, English writing development, student motivations and institutional governance. Documents were analysed for evidence of using GenAI for brainstorming, drafting, editing, paraphrasing, grammar checking, vocabulary building, translation, summarization and feedback and the implication and impact of these uses.

The analysis also contained discussions on the two issues of using AI as a scaffold for learning, and of using AI to replace students' intellectual and linguistic work. The issues discussed were particularly: output verification, hallucinatory information, sourcing, writing autonomy, academic dishonesty, dependency and institutional uncertainty. The conditions of English-medium higher education, multilingual educational environment, unequal access to technology, preparedness of teachers and institutional capacity were also taken into consideration in the documentary analysis, but the assumption was not made that these conditions would affect all the students and universities in the same way in the Pakistani context.

Data Analysis

Documentary analysis was conducted using a thematic analysis approach which is widely used by Braun and Clarke (2006). Thematic analysis was selected as this provides a flexible, yet systematic approach to identifying common themes, patterns, tensions and relationships within qualitative data.

The analysis was conducted in various stages which were interrelated. First, the selected documents were read multiple times to get acquainted with the evidence and to find the material that would be relevant to the research questions. Second, meaningful passages were given initial codes which involved concepts of AI assistance, verification, dependency, authorship, ethical decision making, language support and institutional uncertainty. Thirdly, codes were compared and aggregated into higher level categories. Fourth, patterns and relationships between categories was explored to develop themes. Finally, candidate themes were matched with the documentary evidence to see whether they were patterns of thought that were coherent and supported. Sixth, themes were further elaborated, subdivided and conceptually named. Finally, the themes were explained in terms of the research questions and the overall interpretivist perspective on academic writing with the help of GenAI.

Themes explored in analytical possibilities encompassed AI-supported learning, AI literacy, critical engagement, cognitive dependency, academic integrity, authorial practice, support in English-language, writing development, institutional uncertainty, and responsible use of AI. These are analytical possibilities and do not necessarily constitute facts, but can only be facts that are found in the selected corpus. This distinction is very important in order to not confirm the analysis, the study of the themes that are expected in the literature.

Trustworthiness and Reflexivity

Several strategies were used to augment the trustworthiness of the qualitative analysis. The systematic interaction with the documentary corpus, comparative analysis of different perspectives in each source, careful extrapolation of the research questions, codes, themes and interpretations added to the credibility. Triangulation was conceptual, involving as appropriate, a comparison between peer-reviewed scholarship and appropriate institutional and policy documents. Selection and analysis procedures were documented to make it possible to systematically follow the development of interpretations, thus ensuring dependability.

To confirmability, the researcher had to be careful in keeping clear the evidence presented in the documents and the interpretation of the evidence. The analysis avoided the conclusion of the finding, when the evidence presented in the text was less convincing to come to the conclusion. In addressing the issue of transferability, the context of the Pakistani higher-education system was described and the fact that conclusions drawn from documents do not necessarily apply to all Pakistani universities and students was acknowledged.

Researcher reflexivity was also key to interpret the meaning of GenAI due to assumptions about technology, academic integrity, English-language education, and student behaviors. Another issue needing constant discussion in reflexive analysis was whether the researcher was favouring the technological optimists or the technological sceptics. An interpretivist perspective recognizes that qualitative knowledge is generated by evidence and its interpretation; and not as “a total body of content free facts.”(Creswell & Poth, 2018, p. 102).

Ethical Considerations

Despite this it is important to consider issues of ethics when interpreting and representing student related evidence in the present study. Appropriate treatment of documentary materials, citing and not making assertions of facts. The topic of academic dishonesty was very much on the mind when considering academic research with GenAI: What do students disclose and/or do?

If additional primary interviews or focus groups are held, such ethical procedures as voluntary participation, informed consent, anonymization, confidentiality, and secure data storage, along with the right to withdraw, are examples. Any actual instances of academic dishonesty detected by a student should not be forced on him or her. If any questions or comments regarding potentially sensitive practices are raised, they should not be considered a form of evidence to support disciplinary measures. This is especially important when it comes to having open conversations about the blurred boundaries between permissible and prohibited AI usage as a tool and as a replacement. In particular, this separation applies to the conversation of having honest discussions about the fuzzy area between AI tools and AI replacement.

Methodological Limitations

Some of the constraints to the qualitative documentary design are the following: Second, it is not able to provide direct access to students' personal experiences or how students in Pakistan are utilizing GenAI. Secondly, there can be bias in published literature in terms of publication, geographic, disciplinary, and methodological. Third, the interpretation of GenAI technologies and university

policies are evolving quickly, and may need to be routinely updated. Fourth, Pakistan's higher-education system is institutionally and linguistically diverse, so that generalisations from a specific context to the whole system are restricted. Finally, documentary analysis does not allow for making causal connections between critical thinking and English writing skills, and the use of GenAI technologies.

The restrictions do not undermine the worth of the study, but they do indicate the type of knowledge the study may legitimately generate. The methodology is designed to provide a description of the changing patterns, arguments and interpretations that emerge, rather than an estimate of the prevalence of, or causality effects of GenAI use, and to offer a context-sensitive interpretation. Interviews or focus groups may provide further insights if future primary research is undertaken, enabling students to express their own knowledge or experiences of motivations, AI-literacy practices, critical evaluation and decisions on academic honesty and development of English-writing skills.

FINDINGS AND DISCUSSION

No primary data have been collected in the form of interviews, focus group and observation, so the results presented below are based on the qualitative documentary analysis of the primary and secondary data obtained from scholarly and institutional sources and from the respondents. Themes should not then be understood in the context of specific Pakistani students, rather they should be treated as an overall pattern established through the literature and should be viewed as a pattern. The findings indicate that the effects of generative AI (GenAI) on writing education are not necessarily about the technology itself, but more about the students' AI literacy, GenAI usage, critical thinking, ethical assessments, and the context in which writing is done with the use of GenAI.

Theme 1: Access to AI to meaningful AI literacy

A consistent message in the literature is that there is no such thing as being genAI-literate. Although ChatGPT and other language generating systems are easily accessible, getting them to produce new, coherent text is much more difficult than simply typing a prompt and getting back something coherent. Higher education AI literacy is now being proposed as a combination of knowledge, understanding and critical thinking about the capabilities and limitations of AI, and awareness of the ethical implications and responsible use of AI (Kassorla et al., 2024). This is important because GenAI can generate grammatically correct, seemingly authoritative answers, and may also include inaccurate information, fabricated references, a biased representation or an inappropriate interpretation.

The documentation evidence, therefore, indicates that whether a user uses AI or not is not the most crucial factor, rather the most essential is how they assess their findings from AI. AI academic writers, on the other hand, are more likely to be used to checking the AI-generated text and using it as a source of information. These include source checking, questioning statements, comparing different information, identifying uncertainty, personal information protection, and deciding the appropriateness of using AI to complete an academic task. This aligns with the expanding body of scholarship and literature on AI literacy in higher education which highlights the importance of critical assessment and ethical considerations (Kassorla et al., 2024). (EDUCAUSE)

So, AI literacy is more of an academic ability than a technical ability. This is particularly significant for Pakistani universities because the students might have learned GenAI practices informally from peers, social media or experimentation because of the inequality in formal AI education. The question here isn't whether or not you're ready for AI, but how much the explicit learning of AI is encapsulated in your opportunity to develop informed and responsible practices.

Theme 2: Writing Support, NOT Writing Substitution: The Power of AI

The second theme is related to the duality of the use of GenAI as an assistant to students as authors, and as an alternative to students as authors. Based on the existing research findings, the students can use GenAI at different stages of the writing process including brainstorming, outlining, vocabulary selection, grammar correction, paraphrasing, translating, drafting, and revising the text (Zhao et al., 2024; Mahapatra, 2024). Research on the application of ChatGPT with English as a Second Language (ESL) learners reveals some benefits in terms of vocabulary acquisition, immediate feedback and accuracy, which is not limited to using it as a “bots for answers” resource but as a formative learning tool. (Springer Link)

The difference between helping students to extend their writing processes and helping students to replace their processes is, therefore, the important consideration for analysis. AI can be used as a "scaffold" for students to develop their own thoughts, and then have the AI identify grammatical errors and offer different word or phrase choices. Alternatively, by placing the tasks of topic development, argument construction, evidence selection and entire drafting into the AI system, the technology could be used to replace the cognitive processes of learning academic writing skills.

This ambiguity has been corroborated by the qualitative research in the field of EFL. Learners understand that GenAI is useful in determining the meaning of words and in overcoming language barrier uncertainties, but they are also aware of various problems associated with GenAI, including authenticity and cultural sensitivity and the need to rely heavily on GenAI (Werdiningsih et al., 2024). AI itself does not inherently have an impact on education that is good or bad; it can be either. Rather, the learning value of AI is when there is something left for the student to do. The application of AI in the context of Pakistani English-medium education raises a number of questions, as AI may offer linguistic assistance, but not the replacement of the chance for students to formulate, organise, revise and defend their own thoughts.

Theme 3: Critical thinking, cognitive engagement, dependence

The third theme focuses on an underlying paradox between GenAI as a cognitive scaffolding tool and as a cognitive offloading tool. Conversely, AI has the potential to reveal to students other explanations, counterarguments, examples, and perspectives. The use of AI can spark reflection and evaluation as students question the work of AI, check against academic sources and edit ideas generated by AI. The relationships between structured uses of ChatGPT and aspects of critical thinking, creative thinking and reflective thinking were reported with university students, and how technology was integrated into learning activities also significantly influenced the relationships. (Lo et al., 2024) (ScienceDirect)

It is also important when it comes to the other direction. The need for retrieval, argumentation, identification of weaknesses and problem-solving will be lessened if students accept answers generated by them because they are fluent, convenient and easily available. In recent years, this has been called an intellectual transfer from the learner to the technological system, or cognitive offloading. There is conflicting evidence of such effects and technological determinism is inappropriate. Recent research and studies show that the cognitive effects of GenAI are very much contextually dependent on how the AI relates to the learner's instructional design and how much students are encouraged to critically analyze and question the output of AI rather than just accepting it. (ScienceDirect)

In the context of academic writing, it means critical thinking is not an isolated ability but one that is deeply intertwined with AI literacy. A student can create the good prompt but can't be able to challenge the conclusion that follows if he/she is technologically able but academically weak. The desired relationship is now one of collaboration, where the AI becomes a facilitator to the students' exploration of possibilities for inquiry, and the students continue to make judgments, decide which evidence is relevant, argue their judgments and make their final decision.

Theme 4: Academic Integrity, authorship and responsible AI governance

The fourth theme is on changing boundaries of academic integrity. AI-generated text often fails to neatly fit into the traditional categories of copying, original writing, assistance, and unauthorized collaboration, complicating the existing boundary between them. The line between original writing and plagiarism, between assisting others and collaboration is blurred by GenAI-generated text. The big one now is who did the thinking and if it is made clear what kind of assistance is being offered by AI.

Research indicates that a complete prohibition on cheating using any AI tools isn't a good method of analysis. There are some legitimate uses of grammar corrections, brainstorming, translation, feedback, etc., which may be used for content, but creating an AI product and submitting that as an "original" is a very different use of the content. Amongst these extremes is a continuum of transparent assistance, too much reliance, and hidden substitution. However, a recent systematic evidence also highlights the educational gains as well as serious integrity issues like academic dishonesty enabled by AI and plagiarism of authorship (Gondaliya & Acharya, 2026). (MDPI)

This means universities should have policies, and not just prohibition policies or AI detection policies, that have a focus on transparency, accountability and education. Teachers should let students know what is ethically acceptable, suitable, or prohibited to use AI for certain tasks. The significance of local classroom contexts is that generic institutional policies alone might not be enough to deal with the disciplinary and linguistic differences within the classroom. In the realm of writing research, there are similar arguments in favor of local solutions and not a single solution for all classrooms. (ScienceDirect)

This is particularly relevant for educational institutions in Pakistan, which might lead to a mismatch in expectations and practices for how students and faculty should utilise AI tools. The idea of pupils as potential offenders should not form part of responsible governance but good disclosure practices, AI-literacy education, re-thinking assessment and explicit teaching about authorship.

Theme 5: students will learn about the importance of writing and the context in which writing is used in Pakistan

The final theme is a combination of language development with students' needs and institutional conditions. Regarding grammar, vocabulary, sentence structure, coherence, organization, and academic style, GenAI can be of great assistance. Findings from the ESL/EFL context showed evidence of gains in aspects of writing when ChatGPT is used as a feedback tool and/or as a learning tool (Mahapatra, 2024). Providing immediate feedback and access to alternative expressions may decrease language barriers and potentially boost students' confidence who are learning English as an additional language. (Springer Link)

However, there is an important disclaimer: the better that AI produces text is no guarantee of the improvement of students' writing. A student who regularly delegates writing the vocabulary terms, building sentences, organizing terms to build an argument, and revising their writing to AI might write better papers, but he or she won't have the same skill set. Therefore, GenAI can be used to enhance the appearance of a product, but its use is likely to result in ambiguous effects on the process of writing. Qualitative EFL studies also show the same concerns, as language support is highly appreciated and the possibility of independent judgment is considered to be a threat to the authenticity of the studies (Werdiningsih et al., 2024). (Taylor & Francis Online)

This is particularly important in the country of Pakistan where English is the primary language of instruction and academic discourse in universities. No, Pakistani students cannot be blamed on being deficient in information technology but rather we need to understand the AI practices of these students

in the context of differing levels of English proficiency, differing access to information technologies, differing levels of institutional support, differing levels of teachers' preparedness and differing academic expectations. Studies conducted in the recent times in Pakistan have found that there is great interest in ChatGPT in higher education and the evidence emerging is largely related to attitude, behavioral intentions, academic performance, or perceived benefits; with students' understanding of the deeper meanings they assign to AI-mediated writing, being limited. (MDPI)

Overall, the five themes converge towards a similar message: genAI is not a threat to academic writing, nor is it a cure-all for students' writing issues. Understanding, use, critical thinking, expectations for academic integrity, development of English writing skills, and institutional governance are all related to the educational implications it has in use. So, a simple AI stance of allow or prohibit is not the most fruitful in higher education in Pakistan. Universities need to teach their students how to question the AI, how to check the information and the claims, when to use AI, who made it and how to make use of technological support without relinquishing their intellectual responsibility. The focus on student writing should gradually shift from assessing students' writing towards assessing the writing process, reflecting on the process, evaluating and selecting resources, revising or improving writing, and offering explanations or justifications for arguments. This not only opens up a space for academic writing but also prevents GenAI from becoming a substitute for academic writing, but rather an education phenomenon that will be guided by human judgment, critical involvement, and responsible institutional design.

Thematic Synthesis of Generative AI and Academic Writing in Pakistani Higher Education

Major Theme	Central Qualitative Finding	Key Tension	Educational Implication
1. AI Access and AI Literacy	Access to GenAI does not necessarily indicate meaningful AI literacy; responsible use requires evaluation, verification, and ethical awareness.	Technical familiarity vs. critical AI competence	Universities should explicitly teach AI literacy, output verification, source evaluation, and responsible use.
2. AI as Writing Support	GenAI can support brainstorming, drafting, editing, vocabulary, grammar, translation, and feedback.	Writing assistance vs. substitution of student authorship	AI should scaffold students' writing processes rather than replace intellectual and linguistic work.
3. Critical Thinking and AI Dependence	AI can encourage alternative perspectives and reflection when critically interrogated, but excessive reliance may reduce independent cognitive engagement.	Cognitive scaffold vs. cognitive dependence	Assignments should require questioning, comparison, reflection, and independent justification of AI-assisted work.
4. Academic Integrity and Authorship	GenAI complicates conventional distinctions between assistance, plagiarism, authorship, and unauthorized academic support.	Acceptable assistance vs. undisclosed substitution	Institutions need transparent AI-use policies, disclosure expectations, and process-oriented assessment.
5. English Writing Development	AI may improve grammar, vocabulary, coherence, academic style, and writing confidence, but improved AI-assisted text does not necessarily demonstrate improved	Improved textual product vs. genuine writing development	AI should complement rather than replace opportunities for independent writing, revision, and language

	independent writing ability.		practice.
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CONCLUSION

The introduction of generative artificial intelligence (GenAI) into academic discourse at university has challenged traditional notions of student learning, writing, knowledge construction, and authorship. The results of this qualitative documentary analysis suggest that the use of GenAI is not a threat to academic writing nor a panacea to students' educational and linguistic problems. The impact of its use is influenced by the interplay between students' AI literacy, usage patterns, critical engagement, reliance on AI, instructional support, evaluation practices, and institutional readiness. In this context, the question is not one of 'if' students use GenAI, but rather, 'how' students use it, along with the implications that this entails regarding who is responsible for their ideas, evidence and reasoning, as well as their language.

One of the key findings of the study is the difference between AI-assisted writing and AI-substituted writing. When students remain responsible for evaluating and elaborating on the content generated by GenAI, it can contribute to brainstorming, organizing, improving vocabulary, grammar checking, translation, revision, and feedback. But if the AI does much of the work to create an assignment and supplants students' own thinking, drafting, revising, and building arguments, the learning goal of writing is undermined. Therefore, better text quality should not be equated with better learning or competence in writing. This separation is particularly crucial in English as a medium of instruction in higher education, where students can ask for linguistic assistance and still be able to acquire academic writing skills.

The analysis also reveals that AI literacy plays a pivotal role in responsible use of GenAI. In the age of AI, not knowing how to prompt is not enough. It includes the ability to identify its limitations, understand if the outputs are likely to be inaccurate or biased, check information and sources, respect privacy, understand authorship, and ethically consider when and how to use AI. Hence, the concept of AI literacy is intrinsically linked to critical reasoning. Students with doubts, comparisons, fact checking, edits and questioning may rely on GenAI as a cognitive aid, while students who simply take it on the chin may become increasingly reliant on automated reasoning. This means that the educational result is not technologically prescribed (Kasneci et al. 2023; UNESCO, 2023).

Academic integrity needs to be re-thought with a different approach that addresses the various types and uses of A.I. tools. While it is not enough to consider all uses of GenAI as cheating, the unchecked use raises significant issues of originality, authorship, disclosure, and academic responsibility. In the case of universities, clear guidelines are needed regarding acceptable support, the disclosure of significant AI assistance, and accountability for student submissions. The ability to explain one's argument should be more of a focus in assessment systems than AI-detection technologies or final products, and more focus should be placed on the writing process, reflection, source evaluation, and revision.

The implications of these are significant for the Pakistani higher education sector, where demands for English-language learning meet multilingualism, unequal digital access, not everyone is equally digitally literate, not all teachers are equally prepared, and institutions of higher education vary in their capacity to prepare teachers and learners. Deficit assumptions should not be applied to the Pakistani students and GenAI practices should be analyzed under the structural and pedagogical conditions under which they study. These points should therefore be treated as priorities in the development of AI-literacy education, critical AI pedagogy, teacher training, equitable access, academic-integrity education, transparent institutional policies and authentic, process-based assessment for Universities, teachers, curriculum designers and policy makers. The answer to an adaptive institutional response is not prohibition, nor is it liberalization and uncritical acceptance, but rather, critical awareness, transparency, and responsible integration.

There are limitations with the study. Documentary qualitative design does not give direct access to individual students' lived experiences, and the applicability of the results of this study could change over time as a consequence of shifting technologies and policies related to GenAI. The variety of Pakistani universities, the range of subjects, socioeconomic status, and linguistic backgrounds also restrict the wider transferability. Therefore, future studies are recommended to use longitudinal and qualitative empirical research designs with a variety of universities, students, and teachers; focus on real writing processes; consider multilingual context; review AI-literacy interventions; and compare the writing system of Pakistan with other writing systems in the South Asian region.

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