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"I USE IT TO POLISH MY ENGLISH": HOW RESEARCHERS IN KAZAKHSTAN USE AI IN SCHOLARLY WRITING

Abstract. The growing use of artificial intelligence (AI) is transforming academic writing practices in higher education and research, creating an urgent need to understand how young researchers in underexplored contexts conceptualise and use these tools in their research. Addressing the limited qualitative research on AI-assisted research writing in Kazakhstan, this study aims to explore the use of generative AI tools in research writing practices among young researchers and how they position these tools within the research writing process. Using a qualitative design, the study analyses 171 responses to an open-ended question as follows: "Please describe how you use generative AI tools in your research writing." Applying Braun et al.'s six-phase thematic analysis, researchers found that participants used AI for idea generation, literature review, drafting, editing, paraphrasing, translating and clarifying complex concepts, particularly to support participation in English-dominated academic publishing. The survey respondents described AI tools as "an assistant", "editor" and "co-writer", while maintaining that final responsibility remains with the human author. The study highlights the importance of critical AI literacy, institutional guidance, and context-sensitive approaches to responsible AI integration in research writing. These findings have implications for the development of AI-informed academic writing support, policy frameworks, and future pedagogical practices in multilingual and non-Western research contexts.

Keywords: AI tools, research writing, academic writing in Kazakhstan, multilingual scholars, critical AI literacy, internationalisation

Introduction

Research writing is a cornerstone in academia. Thus, this type of writing constitutes a prerequisite for participation in global scholarly communication (Wingate, 2018). Within this rapidly evolving academic landscape, generative AI tools have emerged as powerful tools for supporting research writing, particularly for multilingual scholars working in non-Anglophone contexts. Despite growing global interest in AI-assisted academic writing, little is known about how young researchers in Kazakhstan apply and conceptualise these tools in their research practices, making this an important area for understanding the future of academic literacy, ethical AI integration, and research capacity building in emerging higher education contexts (Bodaubekov et al., 2025; Zheldibayeva, 2025).

Kazakhstan has intensified efforts to internationalise its higher education and research system, placing increasing pressure on young researchers to publish in English-medium and internationally indexed journals (OECD, 2017). The national higher education system of Kazakhstan has undergone significant reforms aimed at aligning research evaluation policies with international standards; these discrepancies are especially apparent. Publications in Scopus- and Web of Science-indexed journals, which serve as key indicators of research quality and academic promotion, are regulated by the Committee for Quality Assurance in Science and Higher Education (CQASHE) under the Ministry of Science and Higher Education of the Republic of Kazakhstan (OECD, 2017). These publications are required for obtaining a doctoral degree, for participation in competitive research grants, and for the awarding and conferral of academic titles such as associate professor and professor. Thus, there is a pressure to publish in academia, known as "publish or perish", which is relevant in Kazakhstan.

These policies and regulations were introduced to stimulate and promote global integration and strengthen the international competitiveness of Kazakhstani scholars and universities.

Scholarly writers in non-anglophone contexts encounter persistent structural challenges and barriers, including linguistic bias among reviewers, the dominance of English language publication norms, and the marginalisation of knowledge produced outside Western academic traditions (Curry & Lillis, 2019). The research on the peer-reviewing process demonstrates that manuscripts written in non-standard academic English are often evaluated less favourably, even when the research content is comparable (Politzer-Ahles, 2020). The principles of "standard" English are frequently reflected in editorial and review processes, as shown in *Paltridge's* (2019) analysis of reviewer feedback, which indicates that authors are frequently directed to conform to dominant and Anglophone linguistic norms.

This simultaneously creates substantial challenges for scholars and researchers, including the need to write and publish in English; they also have to meet international publication standards and compete for publication in highly selective journals (Kuzhabekova & Ruby, 2018; Yessirkepov et al., 2015). Additionally, all PhD students are required to publish at least one article before they graduate (OECD, 2017). These requirements encourage scholars to publish in English-language international journals while maintaining national publication platforms (Politzer-Ahles, 2020). Consequently, researchers in Kazakhstan must improve their critical AI literacy, as well as their academic writing skills and research visibility (Kuzhabekova & Ruby, 2018; Yessirkepov et al., 2015). This can often be done via collaboration with international scholars and the active use of digital and AI-supported writing tools.

However, the compulsory nature of English-language publishing may lead researchers to engage with AI tools in ways that differ substantially from patterns observed in Anglophone settings, where AI may serve as a form of linguistic and epistemic mediation, enabling participation in global academia (Hyland, 2016). Understanding how researchers conceptualise and use AI tools in their writing practices is essential for developing context-sensitive pedagogical approaches, institutional policies, and ethical frameworks. Therefore, it is important to explore how researchers at Kazakhstan's higher education institutions describe their use of generative AI tools in research writing and how they conceptualise the role of these tools in the writing process. The study foregrounds the voices of young multilingual researchers and contributes to ongoing debates on human-AI collaboration in academic literacy and on the evolving nature of scholarly writing in the age of AI. This research gap is particularly significant in Kazakhstan, where linguistic barriers continue to shape academic participation, access, and international visibility (Kuzhabekova & Ruby, 2018; Yessirkepov et al., 2015).

The study is guided by the following research question:

RQ1. *How do researchers in Kazakhstan describe their practices and experiences of using generative AI in research writing?*

Conceptual Framework

This study employs a conceptual framework grounded in three interconnected concepts as follows: academic literacy, AI-enabled writing practices, and critical AI literacy. These concepts were selected to explain how researchers in Kazakhstan use and conceptualise generative AI tools for research writing within a multilingual, English-dominated academic environment.

Drawing from the academic literacies tradition (e.g., Lea & Street, 1998), which views literacy as a collection of socially situated practices embedded in institutional norms, power relations, and epistemological traditions, the conceptual framework places academic literacy at the center. According to this viewpoint, critical reading, analytical writing, and the co-construction of disciplinary knowledge within particular cultural and educational contexts are all examples of academic literacy that go beyond language proficiency. In multilingual and non-Anglophone contexts, where language and epistemic disparities influence knowledge generation, this framing is especially pertinent (Lillis & Curry, 2010). In the context of Kazakhstan, academic literacy offers a lens for understanding how researchers engage with AI tools as they navigate the demands of English-medium scholarly communication.

Building on this perspective, the study conceptualises AI-enabled writing practices as forms of human-AI collaboration in which researchers use generative AI tools to support various stages of the writing process, including content creation, structural organisation, and preliminary data analysis. This cooperation is seen as a type of hybrid intelligence in which human and artificial agents share cognitive activities (Wilson & Daugherty, 2018). However, human agency remains crucial, in line with sociocultural and cognitive perspectives on writing (Vygotsky, 1978; Flower & Hayes, 1981). The framework views AI not as an autonomous author but as a mediating tool that supports cognitive and linguistic aspects of scholarly writing while human researchers preserve accountability for epistemic and ethical choices in knowledge production. The researchers work on interpretive synthesis, iterative refinement, and authorial voice construction. This concept directly informs the study's focus on how researchers describe their practical use of AI tools and how they position AI within the writing process.

The third concept, critical AI literacy, acts as a regulating layer around these processes. Emerging research on AI and data literacy (Selwyn, 2019; Holmes et al., 2022) informs this dimension, highlighting researchers' capacity to critically evaluate AI-generated outputs and reflect on the ethical implications of AI use in academic writing. This layer also takes into account more specific ethical issues covered in AI ethics literature (Crawford, 2021), such as epistemic (bias, hallucination, transparency), ethical (accountability and authorship), and socio-economic (inequality and access) issues (Lutz, 2019; Joshi, 2025; Hanief, 2026). Rather than serving as the central focus of the framework, critical AI literacy functions as an interpretive dimension for understanding how participants negotiate responsibility, trust, and ethical decision-making when using AI tools in research writing.

Together, these three interconnected concepts offer an integrated framework for examining AI-mediated research writing practices among young researchers in Kazakhstan. The framework informs the study by guiding the interpretation of participants' descriptions of their use of AI tools, their conceptualisation of the role of AI in scholarly writing, and their negotiation of issues of authorship, responsibility, and academic participation in an increasingly AI-mediated academic environment.

Methods and materials

This research utilises a qualitative methodology to explore participants' experiences through written narratives rather than numerical trends (Cohen et al., 2018). Specifically, we explored how researchers in Kazakhstan describe their use of AI in their research writing and the meaning they attribute to these technologies. The use of open-ended questions is argued to encourage more truthful answers and critical comments, and give respondents a voice (Neuert et al., 2021; Riiskjær et al., 2012; Singer & Couper, 2017). A qualitative research design using an open-ended survey enabled us to collect experience-based data from a large and diverse sample and to gain broader insights into how researchers consider and use AI tools in their research writing (Braun et al., 2021). Although a single open-ended survey question may not offer a deeper exploration of the issue compared to interview data, it allows researchers to identify regular patterns and broader thematic tendencies (Fraser, 2024). To analyse the data, the researchers used NVivo qualitative data analysis software. The current research constitutes the qualitative component of a large-scale quantitative study, which is part of a funded project (Research Grant No. AP27511501) aimed at examining the use, benefits, and challenges of generative AI tools in academia and research.

Data collection

Qualitative data were collected through a single open-ended question that was part of a larger-scale survey distributed via Google Forms. The open-ended survey question encouraged respondents to openly describe their use of AI tools in research, a topic that many researchers may be reluctant to discuss publicly (Bahammam, 2025). The survey was distributed through official emails, social media, and colleagues in different cities, and data collection lasted for one month from January 24, 2026, to February 24, 2026. Immediately after a one-month period, the completed survey was downloaded, and the responses to the open-ended question were extracted and prepared for thematic analysis. This research primarily focuses on the qualitative component of the collected data.

Specifically, the survey included one open-ended question as follows: “Please describe how you use generative AI tools in your research writing.” This specific question encouraged respondents to share their practices, strategies, and perceptions.

Participants and context

Postgraduate students, early-career researchers, and experienced faculty members from various universities in Kazakhstan responded to the open-ended survey question. Out of 288 responses, 171 participants provided additional comments, whereas 117 indicated that they had no further remarks, and it could be seen from the following responses to the open-ended survey question: ‘No’, ‘None’, ‘Nothing’, ‘---’, and ‘I have no other thoughts’. Participants had a mean age of 32.53 years ($SD=11.04$), with ages ranging from 20 to 78 years, indicating a diverse age distribution. However, their work experience was 2.84 years ($SD=1.68$), suggesting that participants are a relatively early-career sample overall. So, the interpretations of this research could be directly related only to early-career researchers (Table 1). Since the purpose of this research was to explore how researchers in Kazakhstan use AI tools in their research writing, other characteristics of respondents, such as gender, regions, and universities, were excluded.

Table 1
Age and Work Experience Descriptive Statistics

Variable	Mean	SD	Min	Max
Age (years)	32.53	11.04	20	78
Work Experience (years)	2.84	1.68	1	5

Data analysis

Collected open-ended survey responses were imported into NVivo (Release 14.24.3) and analysed following Braun et al.’s (2023) six-phase thematic analysis approach. To be specific, at the starting point (Phase 1: Familiarisation), the researcher read the textual data several times and took notes on potentially interesting points, including how respondents describe their actual practices and experiences using AI tools in research writing. This phase allowed the researcher to understand the data rather than to generate new codes. In phase two, which is coding, the researcher coded survey responses line by line in NVivo, taking both deductive and inductive approaches to analyse the data, which is a hybrid approach as noted by Fereday and Muir-Cochrane (2006). Then, in phase three, the researcher clustered similar codes to generate initial themes based on ‘potential patterns of shared meaning’ (Braun et al., 2023, p. 28). This phase enabled the researcher to develop key themes informed by the reviewed literature and the research question. These themes were then revised and developed to confirm they precisely represented the dataset, which is phase four. In phase five, systematically coded data were organised under four main themes, such as ‘General comments on AI tools in research’, ‘Perceived roles of AI tools’, ‘Practical uses’, and ‘Need for training in AI use’. These themes were developed through reviewing, developing or even radically changing them to ensure each theme tells the story (Braun et al., 2023). Finally, in phase six, the researchers named and defined the themes, included illustrative data excerpts with interpretive explanations to show the findings in light of the research question, and reviewed the literature. Two researchers were involved in the data analysis process. Both authors independently reviewed and verified the codes and emerging themes to ensure consistency, credibility and alignment with the data. After comparing and discussing any discrepancies, the researchers reached consensus on the final set of codes and themes.

Ethical considerations

Ethical clearance was sought from the Ethics Committee of Abay Kazakh National Pedagogical University on November 25, 2025, prior to any data collection. This research follows the recognised ethical standards to do research with human respondents, including the principles of voluntary

participation, informed consent, and confidentiality as outlined in the Declaration of Helsinki (World Medical Association, 2013). Respondents encountered an initial consent page in the Google Form survey that clearly explained the research aims, procedures, potential risks, and their right to withdraw at any time with no consequences. They then provided consent by ticking a checkbox to continue responding to the survey. This is consistent with best practices, according to Fowler (2013), because the researchers did not design the survey to collect respondents' personal information. Consequently, this practice enabled the researchers to analyse anonymous data, protecting respondents' privacy and minimising risks, in accordance with Israel and Hay's (2006) recommendations for data collection and management in educational research. All data were stored securely on a password-protected device accessible only to the researchers. After completing data analysis, the researchers securely archived the data. The researchers may share cleaned data upon reasonable request for research purposes.

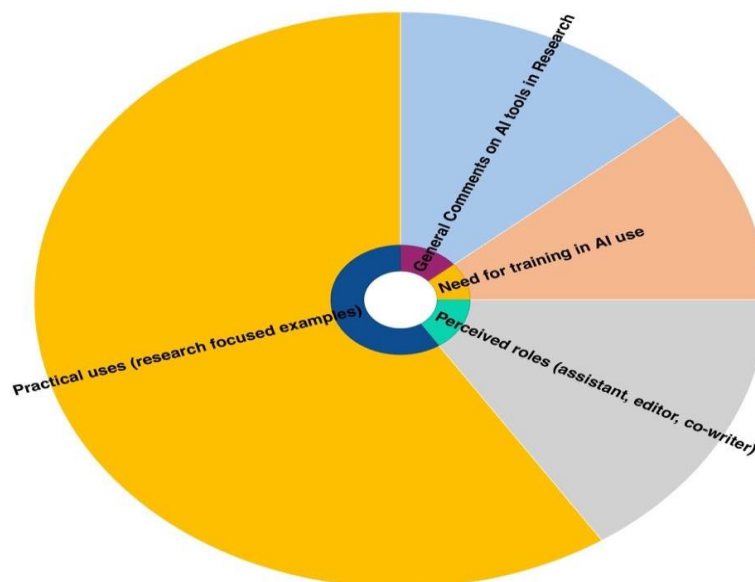
Findings and discussion

Analysing the open-ended survey data revealed four main themes that illustrate how researchers use AI tools in their research activities. Figure 1 shows the following main themes: General Comments on AI Tools in Research, Practical Uses, Perceived Roles, and Need for Training in AI Use. Respondents mainly focused on sharing their practical experiences and describing how they use AI tools in their research activities, whereas reflections on conceptualisation, general reflections on AI in research, and the need for AI-related training received comparatively less attention.

This rich data can reveal how AI tools have been integrated into research writing by emerging scholars and how their views of AI tools' functions in academia have developed. The findings indicate that AI tools are no longer perceived as peripheral or optional. However, AI tools have become embedded in multiple stages of scholarly writing. Interpreted through the perspectives of academic literacy, human-AI collaboration, and critical AI literacy, the findings suggest that AI tools are reshaping how research papers are generated, structured, and communicated, especially in multilingual and non-Anglophone contexts.

Figure 1

Main Themes



General Comments on AI Tools in Research

This section covers general reflections of respondents on the AI tools' roles in research activities. The data show that AI tools have become an integral part of current research processes across various fields, making it hard to avoid using them. As one participant explained, *"AI tools are becoming an essential part of our daily lives, and now it is hard to imagine life without them."* Similarly, another

respondent stated that *“we cannot completely stop using AI, as it is continually being integrated into every field we know.”* Some participants also emphasised that the growing existence of AI reveals broader technological progress in the current digital age. In this regard, AI tools were described as helpful novelties that help individuals navigate new technological realities. One respondent explained that *“AI tools are supportive tools for innovative individuals adapting to the trends of the new era.”* Another participant highlighted that the use of AI has become necessary in today’s information-driven environment and suggested that its functioning should continue to improve. This finding is consistent with other research, which found that integrating AI into research writing has become progressively important, offering solutions to various challenges (Khalifa & Albadawy, 2024).

At the same time, respondents frequently stressed that AI should be understood as a *“supportive tool rather than a substitute for human intellectual work.”* Several participants emphasised that while AI can assist researchers, the final responsibility for decisions should remain with the latter. As one respondent noted, *“It is only an additional tool, not a machine that writes everything for us.”* Likewise, another respondent detailed that *“AI is a helper, but the final decision should still be made by the person.”* This reflects a hybrid model of writing in which AI supports but does not supersede human agency, in line with current ethical guidelines that prohibit recognising AI as an author while allowing its use as a support tool (COPE, 2023; Nature, 2023). Furthermore, AI tools help authors improve clarity, coherence, and logical organisation, enabling researchers to produce more structured and readable texts (Deep and Chen, 2025; Williams, 2025). The findings of the current research regarding their general overview of AI tools are consistent with the previous studies, and these findings support the central assumptions of the conceptual framework, particularly the view that human agency is still considered important (Flower & Hayes, 1981) to interpret and refine outputs.

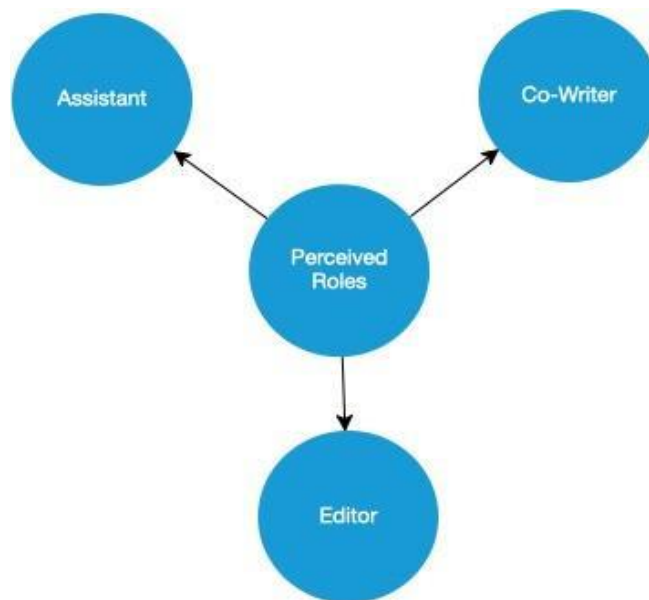
Additionally, another respondent considered AI tools not a *“second brain”* but a *“crutch that makes mental work easier.”* They also warned that excessive reliance on tools might lead to a marked decline in analytical thinking skills. Notwithstanding this concern, most respondents reported positive experiences with AI tools. For instance, one respondent noted that they had a *“positive, productive, and continuously evolving”* experience with AI tools, whereas another participant admitted that AI tools have become a fundamental part of their regular activities in research and academia. However, respondents acknowledged that the overall impact of AI tools depends on how scholars choose to use them. These findings clearly indicate the importance of AI literacy, which may encourage researchers to critically analyse results generated through algorithms (Holmes et al., 2022).

Perceived Roles of AI Tools: Assistant, Editor, Co-Writer

As shown in Figure 2, respondents assigned AI tools distinct roles in their research and academic work, primarily as assistants, editors, or co-writers. This pattern highlights that the commonly described role was that of an assistant, where AI functions as a supportive collaborator rather than a replacement for the researcher. Respondents highlighted that AI assists in generating ideas, structuring content, exploring research opportunities, and elucidating complex topics. For instance, one participant noted, *“I use AI before starting my research work as a supportive tool to understand the essence of the topic,”* while another commented, *“AI is not a full author in this process, but I accept it as an assistant.”* These comments indicate that researchers primarily view AI tools as helpful assistants that improve productivity and proficiency.

Figure 2

Perceived Roles



This aligns with emerging research studies, including Sallam (2023), who claimed that “AI tools could assist with various stages of academic literature reviews and writing process, suggesting that AI is increasingly positioned as a collaborative partner rather than a purely instrumental tool” (p.7). For instance, it could save time during systematic reviews, aid in forming research questions, develop a research protocol, help define the search strategy, come up with inclusion and exclusion criteria or assist with data extraction and data quality assessment (Mahuli et al., 2023). However, it should only be seen as a starting point for the refinement. A study by Sallam (2023) demonstrated ChatGPT’s ability to “extract specific data from chosen articles,” such as “mean values” and “sample sizes,” and advised cautious implementation and human supervision (p. 3). This means AI tools have become an assistant in the research writing process (Khalifa and Albadawy, 2024; Semrl et al., 2023).

The next role emphasised by the respondents was an editor who refines writing, improves clarity, and provides objective feedback to help researchers polish their work. Respondents noted that AI tools can detect issues in logic, consistency, and readability that might be unnoticed by researchers. One respondent remarked: *“When I write any paper, it seems logical to me, but after editing or AI feedback, I understand that it might be complicated to understand.”* These findings confirm the cooperation between humans and AI tools that share cognitive activities (Wilson & Daugherty, 2018). As an “editor”, AI contributes to improving linguistic accuracy, clarity, and coherence, which is particularly valuable for multilingual scholars (Deep and Chen, 2025; Williams, 2025), whereas researchers are responsible for epistemic and ethical issues (Joshi, 2025; Hanief, 2026) and maintain originality of research.

Certain respondents further described AI tools as co-writers, specifically for exploratory or iterative research tasks. In this role, AI tools offer suggestions, recommend analysis methods, and assist with brainstorming, working alongside researchers rather than performing tasks independently. For instance, one participant noted:

When I didn’t know what other analyses could be done, I asked AI about the available data, and it suggested research and analysis methods. I think AI is not a bad thing, but it needs to be used correctly, more as an assistant than as the main productive force.

Another respondent highlighted AI tools’ adaptive capabilities, noting, *“I am particularly impressed by their ability to learn and adapt, offering increasingly relevant assistance,”* suggesting that AI tools can iteratively contribute ideas and insights that can enhance the research process. Together, these excerpts illustrate that researchers perceive AI tools not as a replacement for human intellectual work but as a collaborative partner that supports exploration, decision-making, and the development of research outputs. It is encouraging to compare these findings with those of Khalifa

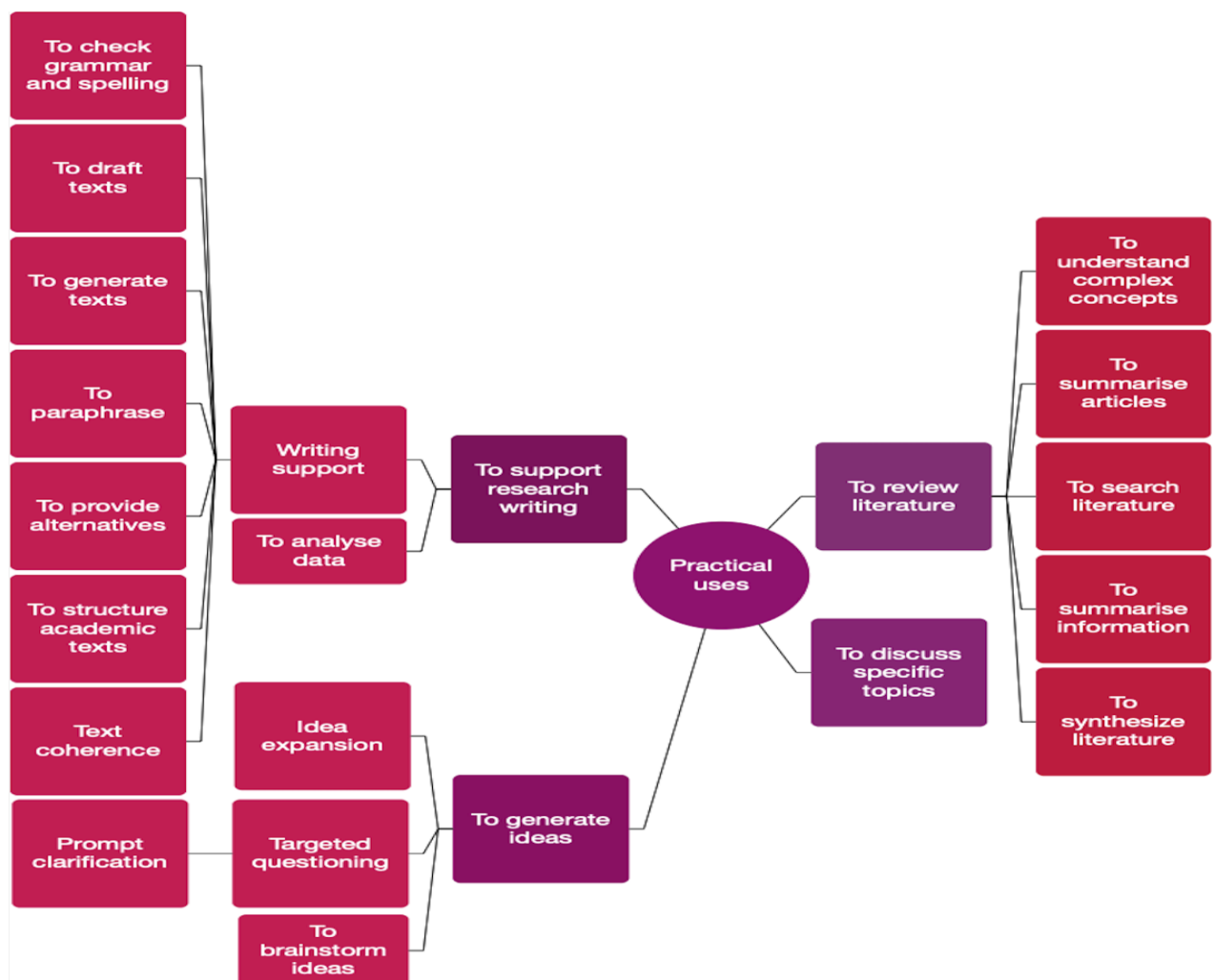
and Albadawy (2024), who noted that as a “co-writer”, AI participates in iterative writing processes by suggesting ideas, proposing structures, and engaging in dialogic interaction with the researcher.

Generally, these findings demonstrate that researchers perceive AI tools as multifaceted tools, with each role serving complementary purposes. As an assistant, AI supports routine and preparatory tasks; as an editor, it improves clarity and coherence; and as a co-writer, it engages in collaborative exploration and idea generation. Across all roles, respondents consistently emphasised that AI tools supplement human effort rather than supersede it, highlighting the significance of human judgment in research and academic practice.

Practical Uses in Research

Turning now to the practical use of AI tools by the respondents, the analysis of the survey shown in Figure 3 below revealed that it can be grouped into four main domains such as generating ideas, which involves brainstorming, expanding ideas, and refining research concepts; reviewing literature, encompassing activities such as drafting, editing, and improving overall text quality; writing support, in which AI tools assists in scanning and summarising related sources; and lastly, discussing specific topics, where AI tools helps to explore new topics, clarify subject matters, and even to enter into a dialogue. These domains indicate the various ways the respondents integrate AI tools into their research practice. These findings contradict Khalifa and Albadawy’s (2024) argument that AI has been progressively integrated into research writing. However, our findings show that researchers apply AI tools vigorously. It may imply that respondents are attempting to accelerate the pace of their research publications.

Figure 3
Practical Uses



Most participants' responses indicate that, particularly in the early stages of their research, AI tools are widely used to generate and develop initial ideas, brainstorm topics, and explore alternative perspectives that might not emerge independently. Additionally, respondents' shared practices suggest that AI tools were used to refine and expand ideas, thereby clarifying research directions and structuring preliminary concepts. This process frequently appeared iterative, with respondents critically evaluating, modifying, and adapting suggestions generated by AI tools rather than accepting them uncritically. For instance, one respondent noted that they "*ask for ideas and then modify them independently,*" and this highlights the active role of the researchers in determining the outputs. Another respondent underlined that even when AI tools provide inaccurate information, "*the process of checking it can still lead to interesting ideas,*" suggesting that AI tools can implicitly stimulate creativity.

These key findings show the predominant influence of AI in research, and its use is favourable, as it "speeds up" research progress (Srivastava & Agarwal, 2024), especially for multilingual scholars (Deep and Chen, 2025). However, it should serve as a supporting tool (Hanief, 2026), and researchers should deepen their knowledge of prompting, as it is considered a "bridge" between researchers and AI tools (Bansal, 2024, p. 15). Several respondents supported this argument, explicitly highlighting that "it is necessary to clearly and precisely formulate the question you need" and "before seeking information, it is important to clearly define the task description," whereas another respondent noted that "sometimes, due to an incorrect request, it can give a completely wrong answer." Likewise, requesting that AI tools respond "as a scholar or researcher" increases the likelihood of obtaining precise answers, as one participant noted.

The next domain revealed was the literature review process. Respondents extensively use generative AI tools for their literature review, specifically in searching, summarising, and synthesising academic sources. Certain respondents reported that they "*use AI tools to search for specific research articles and books relevant to their research topics.*" In addition to searching, respondents frequently relied on AI tools to summarise research articles, including extracting key aspects such as the main idea, research questions, methodology, and findings. As an example, one respondent stated, "*uploading a PDF and obtaining a structured analysis of the article's core components is convenient,*" whereas another respondent highlighted that they use AI tools "*primarily for generating ideas and summarising articles.*" One can see from these findings that AI tools are progressively embedded in researchers' roadmaps for speedy (Srivastava & Agarwal, 2024) information processing and preliminary engagement with research texts. Here, it is important to note that certain participants seem to become AI literate (Selwyne, 2019), but the extent to which they critically check algorithmic results generated by AI tools (Crawford, 2021) remains unclear.

Moreover, respondents described AI tools as useful for generating concise overviews of specific topics and for integrating information from various sources, thereby supporting the development of a coherent understanding of the research background. Respondents emphasised AI tools' role in "*synthesising information*" and "*understanding complex concepts,*" both of which are important for reviewing the literature effectively. Regarding the latter, respondents highlighted AI tools' ability to break down complex or technical material into simpler explanations, making them especially valuable for interdisciplinary research and for engaging with lesser-known fields. For instance, one respondent stated that AI tools "*explain well what I don't understand,*" whereas another noted its usefulness in "*clarifying complex concepts*" and "*structuring ideas.*" These findings show that AI tools are not only increasing the speed and productivity of reviewing literature but also enabling scholars to delve deeper into complex concepts in scholarly publications (Vihari & Kaur, 2024).

Findings further reveal that participants use generative AI tools to support their academic writing, primarily to improve language quality and coherence (Figure 3). Most respondents reported that they rely on AI tools to check grammar and spelling and to enhance the coherence and clarity of general text. As an example, one respondent stated that "*AI tools are mostly used to check grammar or spelling, as well as coherence,*" whereas another noted that they use AI tools to "*improve the clarity of my work.*" In non-Anglophone contexts, where using English is a substantial effort, critical reading and analytical writing are challenging. In this respect, AI tools can assist scholars who use

English as a foreign language in improving clarity and coherence in their research articles (Srivastava, 2024) and in constructing and delivering disciplinary knowledge (Lillis & Curry, 2010). Participants frequently reported using AI to improve grammar, enhance clarity, and align their writing with international standards. This reflects broader structural inequalities in global academia, where access to publication is often mediated by proficiency in academic English (Politzer-Ahles, 2020; Hyland, 2016; Curry & Lillis, 2019).

Although the effectiveness and algorithm of AI tools to paraphrase extensive and complicated sentences may leave scholars susceptible to unintended plagiarism and imprecise paraphrasing (Fitria, 2025), the majority of respondents highlighted the use of AI tools for paraphrasing sentences, with one mentioning that they *“use it to paraphrase sentences.”* Another respondent explained that if they decide to include certain viewpoints in their research, they *“use them through paraphrasing.”* Overall, these findings position AI tools as a valued writing assistant that assists with both micro-level linguistic advances and macro-level organisation of academic texts, while highlighting the significance of critical and ethical use. However, it is imperative to revise the output because human agency is crucial within the sociocultural and cognitive frameworks of writing (Vygotsky, 1978).

Consistent with prior research, AI tools appear to be particularly beneficial for non-native English-speaking scholars, who rely more heavily on these tools to improve readability and linguistic accuracy (Xu, 2025). Xu (2025) claims that “AI tool preferences differ between native and non-native speakers” (p.4). Non-native speakers show higher Grammarly usage, reflecting their greater need for language accuracy, while AI feedback helps narrow the writing gap between the two groups. According to Xu (2025), for non-native English-speaking researchers, “AI tools also support translation and literature access” (p. 5-6). International groups rely more heavily on such tools to address cross-language communication challenges, with unified writing styles reducing the costs of language differences in scholarly work (Semrl et al., 2023; Xu, 2025). In this context, AI serves as linguistic support, enabling researchers to participate more effectively in global academic discourse. According to survey results, research writers use AI to improve the quality of their manuscripts, saying, “I use it to polish my English”.

One can also see from the findings that generative AI tools serve as a platform for discussing specific research topics, especially when opportunities for peer discussion are limited (Figure 3). For instance, one respondent noted that because their research topics may not interest everyone, they use AI as *“a good tool for sharing and discussing ideas.”* In this way, AI tools can support scholarly engagement by imitating discussion and providing immediate advice, particularly in situations where cooperative exchanges with peers or colleagues may not always be available.

Need for training in AI use

Finally, one can emphasise the importance of training to use AI tools effectively and responsibly in the context of research. Some respondents highlighted the necessity of formal training and professional development programmes for both students and faculty, noting that systematic guidance would enhance competence and confidence in applying AI tools. For instance, one respondent stated, *“there should be courses for students and teachers concerning AI tools usage,”* whereas another highlighted that *“providing training for professors and lecturers on using AI effectively is important.”* Moreover, some respondents expressed interest in learning to use AI tools professionally and ethically, with one stating, *“I would like to get a better understanding of how AI can be used ethically because some assignments are really time-consuming.”* It is evident that while higher education institutions accept and prioritise the integration of AI tools through implementing new guiding frameworks, Srivastava et al. (2024) argue that transforming into an “AI-powered culture” is achieved through establishing training projects at all levels of education. Public awareness, skills, and approaches towards AI can be upgraded through these training initiatives (p. 225). Inconsistent practices without training and guidelines can damage academic reputation (Liang et al., 2024).

The findings of this research confirm this argument. For instance, one respondent shared their positive experiences with the training they received, such as the Lerna AI course, stating, *“very useful; it teaches correct use of AI, and if all university staff took this course, it would be highly beneficial.”*

Other respondents called for clear guidelines to support both academic and research work, emphasising the importance of maximising faculty use of AI tools while maintaining ethical and responsible use.

Together, these findings provide important insights into how AI tools have become integral to the research writing process among emerging scholars in Kazakhstan. Moreover, providing professional training on the effective use of AI tools was mentioned as necessary and important. This section has described the four main domains revealed from the open-ended survey question. The four main domains are as follows: General Comments on AI tools in Research, Practical uses, Perceived Roles, and Need for Training in AI Use.

Conclusion

This study contributes to the growing body of knowledge on the use of AI tools in academic and research contexts by providing an empirically grounded understanding of how researchers employ AI tools throughout their research practice. This study demonstrates that AI has quickly become an integral part of the Kazakhstani research landscape, and it is used not only as a writing aid but also as multifaceted research support for literature review, idea generation, research writing, data analysis, and topic exploration. The findings further reveal that researchers position AI tools alternately as assistants, editors, and sometimes co-authors, while retaining final authority of the text. By identifying these interconnected practical uses, the study extends current knowledge of the diverse roles of AI tools in supporting scholarly work and highlights the growing presence within Kazakhstan's research ecosystem.

AI plays a particularly important role for multilingual researchers seeking to publish in English-language journals. Nevertheless, concerns about over-reliance and ethical use warrant robust critical engagement. Based on empirical evidence, this research concludes that as higher education institutions increasingly integrate AI into academic writing pedagogy, it is essential to develop clear guidelines and provide high-quality training to support the responsible, strategic, and ethical use of AI by scholars. This is particularly important because, as Srivasta et al. (2024) argue, creating an AI-informed research environment requires systematic training at all levels of education.

In terms of pedagogical and policy implications, this study offers three key implications for the integration and use of AI in higher education and research. First, it suggests that adopting integrative approaches to AI in higher education teaching can be advantageous, so long as critical literacy and responsible use are equally promoted. Second, it calls for clear national guidelines within research assessment systems, especially considering the role of indexed publications in career advancement (OECD, 2017). Third, the study highlights the importance of further exploring multilingual contexts similar to Kazakhstan, which are underrepresented in the literature. Lastly, the findings may inform the development of institutional and national policies that support responsible AI adoption in higher education and research while ensuring alignment with academic integrity standards and international publishing expectations.

Overall, the study argues that generative AI tools are not simply passive tools, but they actively shape how writing happens by influencing, supporting, and transforming the process among young scholars in Kazakhstan. This research, therefore, highlights the need to strengthen critical AI literacy and develop clear institutional and policy frameworks to support responsible and productive human-AI collaboration in research writing.

Limitations

The current research draws on qualitative data collected through a single open-ended survey question, which may have limited the depth and elaboration of respondents' answers. While this approach enabled the collection of initial insights into researchers' experiences and conceptualisations of generative AI use in research writing, it does not allow for in-depth exploration of individual practices or contextual nuances. Future research could build on these findings by employing in-depth qualitative methods such as semi-structured interviews, focus groups, or longitudinal designs to gain a more detailed understanding of how researchers integrate AI tools into

their writing practices over time. Additionally, comparative studies across different institutional and national contexts could further extend understanding of how policy environments, language backgrounds, and disciplinary differences shape AI-mediated academic writing practices.

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«МЕН ОНЫ АҒЫЛШЫНША МӘТІНІМДІ ЖЕТІЛДІРУ ҮШІН ҚОЛДАНАМЫН»: ҚАЗАҚСТАНДАҒЫ ЗЕРТТЕУШІЛЕРДІҢ ҒЫЛЫМИ ЖАЗУДА ЖАСАНДЫ ИНТЕЛЛЕКТТІ ҚОЛДАНУЫ

Аңдатпа. Жасанды интеллекттің (ЖИ) қарқынды дамуы жоғары білім беру мен ғылыми зерттеулердегі академиялық жазу тәжірибесіне елеулі ықпал етуде. Бұл зерттеу Қазақстандық зерттеушілердің ғылыми жазуда ЖИ құралдарын пайдалану тәжірибесін және олардың жазу үдерісіндегі рөлін қалай түсіндіретінін анықтауға бағытталған. Деректер «Ғылыми жазуда генеративті ЖИ құралдарын қалай қолданасыз?» деген ашық сұраққа берілген жауаптар негізінде жиналды. 171 жауапқа жүргізілген Браун және т.б. ұсынаған тақырыптық талдау бойынша анализ жасалып, нәтижесінде төрт негізгі тақырып айқындалды: ЖИ құралдарына қатысты жалпы көзқарастар, олардың қабылданатын рөлдері, практикалық қолданылуы және ЖИ қолдану бойынша оқыту қажеттілігі. Нәтижелер қатысушылардың ЖИ құралдарын идея генерациясы, әдебиеттерге шолу, мәтін құрастыру, редакциялау, парафраз жасау, аудару және күрделі ұғымдарды түсіндіру үшін қолданатынын көрсетті. Қатысушылар ЖИ-ды “көмекші”, “редактор” және “бірлескен автор” ретінде сипаттағанымен, түпкілікті жауапкершіліктің зерттеушіде қалатынын атап өтті. Сонымен қатар, ЖИ ағылшын тіліндегі мәтінді жетілдіруде және халықаралық академиялық жарияланымдарға қатысуды жеңілдетуде маңызды рөл атқарады. Зерттеу нәтижелері ғылыми жазуда ЖИ-ды жауапты енгізу үшін сыни ЖИ сауаттылығы мен институционалдық қолдаудың маңыздылығын көрсетеді.

Түйін сөздер: ЖИ құралдары, ғылыми жазу, Қазақстандағы академиялық жазу, көптілді зерттеушілер, сыни ЖИ сауаттылығы

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«Я ПРИМЕНЯЮ ЭТО ДЛЯ СОВЕРШЕНСТВОВАНИЯ АНГЛИЙСКОЙ ПИСЬМЕННОЙ РЕЧИ»: ОПЫТ ИССЛЕДОВАТЕЛЕЙ КАЗАХСТАНА В ИСПОЛЬЗОВАНИИ ИИ В НАУЧНОМ ПИСЬМЕ

Аннотация. Стремительное развитие искусственного интеллекта (ИИ) оказывает значительное влияние на практики академического письма в системе высшего образования и научных исследований. Настоящее исследование направлено на выявление особенностей использования ИИ-инструментов казахстанскими исследователями в процессе научного письма, а также на анализ того, как они концептуализируют роль данных технологий в письменной деятельности. Данные были получены на основе ответов на открытый вопрос: «Как вы используете генеративные ИИ-инструменты в научном письме?». Был применен тематический анализ Брауна и т.д. и в результате 171 ответа позволил выделить четыре ключевые темы: общее восприятие ИИ-инструментов, их предполагаемые функциональные роли, практические способы применения и потребность в целенаправленном обучении их использованию. Результаты показали, что ИИ активно применяется для генерации идей, проведения обзора литературы, создания и редактирования текста, перефразирования, перевода, а также разъяснения сложных концептов. Респонденты характеризуют ИИ как

“вспомогательный инструмент”, “редактора” и “соавтора”, одновременно подчеркивая, что окончательная ответственность за содержание и качество текста сохраняется за человеком-автором. Кроме того, установлено, что ИИ играет существенную роль в совершенствовании англоязычной письменной речи и расширении возможностей участия в международной академической коммуникации. Полученные результаты подчеркивают необходимость развития критической ИИ-грамотности, институциональной поддержки и контекстуально обусловленных подходов к ответственному внедрению ИИ в научное письмо.

Ключевые слова: ИИ-инструменты, научное письмо, академическое письмо в Казахстане, многоязычные исследователи, критическая ИИ-грамотность

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