

## ASSESSING ACADEMIC WRITING PROFICIENCY AND RESEARCH COMPETENCE AMONG PRE-SERVICE TEACHERS: A CROSS- INSTITUTIONAL ANALYSIS IN UZBEKISTAN'S HIGHER EDUCATION CONTEXT

**Musoyeva Aziza Botirovna**

Samarkand State Institute of Foreign Languages, Uzbekistan

[musoyeva@samdchti.uz](mailto:musoyeva@samdchti.uz)

**Dr. Muhamad Hariz bin Muhamad Adnan,**

university lecturer, Faculty of Computing and Meta-Technology,

Sultan Idris Education University,

[mhariz@meta.upsi.edu.my](mailto:mhariz@meta.upsi.edu.my)

### Abstract

The development of academic writing and research competence is essential for preparing effective educators. This cross-sectional study investigates these competencies among pre-service teachers in five higher education institutions in Uzbekistan. Data were collected from 114 participants through a 25-item online questionnaire assessing knowledge of academic writing, research methodologies, and scholarly communication. The findings show that participants performed well in basic academic writing concepts, with 89.5% correctly defining academic writing. However, their understanding of more complex research-related concepts was limited, with only 43.9% accurately identifying key aspects of the research process. While most respondents demonstrated foundational knowledge, significant gaps were observed in research design, citation practices, and methodological frameworks. The study highlights the need for improved curriculum design and instructional strategies to strengthen research competence.

**Keywords:** academic writing competence, research skills, pre-service teacher education, teacher preparation, educational assessment, higher education pedagogy.

### Introduction

The contemporary educational landscape demands educators who possess not only pedagogical expertise but also the capacity to engage critically with educational research and contribute to scholarly discourse through effective academic writing. This dual competency requirement has become increasingly prominent as education systems worldwide emphasize evidence-based practice and reflective teaching methodologies (Darling-Hammond & Hyler,

2020). The ability to articulate ideas clearly, conduct systematic research, and communicate findings effectively represents essential skills that enable teachers to participate meaningfully in educational scholarship and continuous professional development.

Academic writing, as defined by contemporary educational scholars, encompasses a systematic approach to presenting ideas, arguments, and research findings through structured, evidence-based communication that adheres to established scholarly conventions (Wingate, 2021). This form of writing serves multiple pedagogical purposes: it facilitates critical thinking development, promotes intellectual rigor, and enables effective knowledge dissemination within academic communities. For pre-service teachers, mastering academic writing skills is particularly crucial as it forms the foundation for their future roles as reflective practitioners and potential contributors to educational research.

The origins of academic writing instruction in teacher education can be traced to the broader movement toward professionalizing teaching practice and establishing education as a rigorous academic discipline. Historical perspectives reveal that the integration of research skills into teacher preparation programs emerged from recognition that effective teaching requires continuous inquiry, evidence-based decision-making, and the ability to critically evaluate educational practices (Murray & Christison, 2021). This evolution reflects a paradigm shift from viewing teaching as a craft-based profession to recognizing it as a research-informed practice requiring sophisticated analytical and communication skills.

Research competence, complementing academic writing proficiency, encompasses the ability to formulate research questions, design appropriate methodological approaches, collect and analyze data systematically, and interpret findings within broader theoretical frameworks. For pre-service teachers, developing research competence is essential not only for completing academic requirements but also for fostering a lifelong commitment to evidence-based practice and professional growth (García-Peñalvo et al., 2021). The integration of research skills into teacher preparation programs reflects contemporary understanding that effective educators must be capable of generating, evaluating, and applying research knowledge to improve educational outcomes (Bakhtin, M., 2023).

Current educational contexts, particularly in developing nations, face unique challenges in preparing teachers with adequate academic writing and research skills. Limited resources, varying educational backgrounds among student populations, and diverse linguistic contexts create complex instructional environments that require careful consideration in teacher preparation programs. Understanding the specific competency levels of pre-service teachers in

these contexts is essential for developing targeted interventions and improving educational quality outcomes.

### **Literature Review**

The examination of academic writing skills and research competence among pre-service teachers has gained considerable attention in contemporary educational research. Recent systematic reviews highlight the critical importance of developing these competencies during initial teacher preparation rather than treating them as supplementary skills acquired through professional experience (Frontiers in Education, 2021). The development of research skills in the higher education environment is a necessity because universities must be concerned about training professionals who can effectively navigate the complexities of evidence-based educational practice (Taylor, J., & Anderson, L., 2024).

Contemporary research emphasizes that academic writing competence extends beyond technical writing skills to encompass critical thinking, analytical reasoning, and the ability to synthesize complex information from multiple sources. Studies conducted in various international contexts demonstrate that pre-service teachers who receive explicit instruction in academic writing conventions show improved performance in research-based assignments and demonstrate greater confidence in scholarly communication (Wingate & Tribble, 2021). These findings suggest that systematic attention to academic writing development during teacher preparation yields both immediate academic benefits and long-term professional advantages.

The conceptualization of research competence in teacher education has evolved significantly over the past decade. While traditional approaches focused primarily on quantitative research methods, contemporary frameworks emphasize the importance of methodological diversity, including qualitative approaches, mixed-methods designs, and action research methodologies particularly relevant to educational contexts (Chen et al., 2023). This expanded understanding recognizes that effective teachers must be equipped to engage with various forms of educational inquiry and adapt their research approaches to address diverse professional challenges (Botirovna, M. A., 2025).

Several factors influence the development of academic writing and research competence among pre-service teachers. Language proficiency emerges as a particularly significant variable, especially in multilingual educational contexts where students must navigate academic discourse in languages other than their mother tongue. Several factors contribute to poor academic writing skills amongst university students, which play a significant role among future

teachers, including linguistic challenges, limited exposure to academic genres, and insufficient scaffolding in research methodology instruction (Abadi, S., & Botirovna, M. A., 2025).

Digital competence represents another crucial factor influencing academic writing and research skill development. Recent studies indicate that pre-service teachers' ability to effectively utilize digital tools for research, writing, and scholarly communication significantly impacts their overall academic performance and professional preparation (Liu et al., 2023). The development of pre-service teachers' digital teaching competence is crucial for effectively infusing technology into teaching, and this competence extends to their ability to engage with digital research tools and online scholarly resources (Rum, et. al., 2025).

The assessment of academic writing and research competence presents unique challenges in teacher education contexts. Traditional evaluation methods often fail to capture the complex, integrated nature of these skills, leading researchers to develop more comprehensive assessment frameworks that examine both technical proficiency and conceptual understanding (Educational Assessment, 2024). Assessing student writing assignments and providing effective feedback are a complex pedagogical skill teacher candidates need to master, highlighting the recursive relationship between developing writing competence and learning to evaluate written work effectively (Petrov, A., & Ivanova, S., 2024).

Cultural and institutional factors also play significant roles in shaping academic writing and research competence development. Studies conducted in diverse international contexts reveal that institutional support, faculty expertise, and curriculum design significantly influence student outcomes in these areas. Programs that integrate academic writing and research skill development throughout the curriculum, rather than treating them as isolated components, demonstrate superior results in preparing competent teacher candidates (Sustainability, 2022). The relationship between academic writing skills and research competence appears to be bidirectional and mutually reinforcing. Students who develop strong academic writing capabilities demonstrate enhanced ability to engage with research literature, formulate research questions, and communicate findings effectively. Conversely, engagement with research processes strengthens academic writing skills by providing authentic contexts for practicing scholarly communication conventions (Humanities and Social Sciences Communications, 2023).

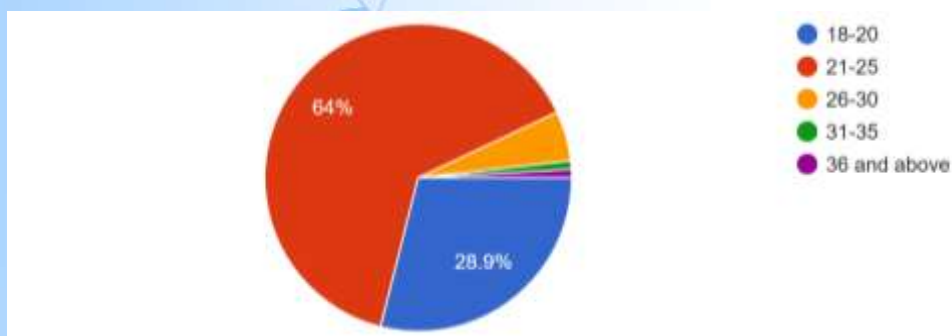
### **Research Method**

This study employed a descriptive cross-sectional survey design to investigate the academic writing skills and research competence of pre-service teachers across multiple higher

education institutions in Uzbekistan. The research design was selected for its effectiveness in capturing a comprehensive snapshot of current competency levels while allowing for efficient data collection across diverse institutional contexts.

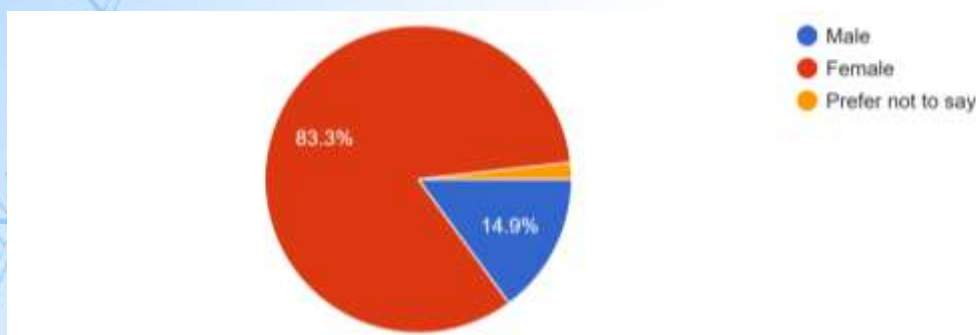
The study participants comprised 114 pre-service teachers recruited from five prominent higher education institutions: Uzbekistan State University of World Languages, National University of Uzbekistan after Mirzo Ulugbek, Bukhara State University, Jizzakh State Pedagogical University, and Samarkand State Institute of Foreign Languages. These institutions were selected through purposive sampling to ensure representation of diverse geographical regions and institutional characteristics within Uzbekistan's higher education landscape.

Demographic analysis revealed that the majority of participants (60.5%) were aged 21-25 years, with 29.8% aged 18-20 years, 5.3% aged 26-30 years, and small percentages in older age categories (see Figure 1 below).



**Figure 1. Respondents' age**

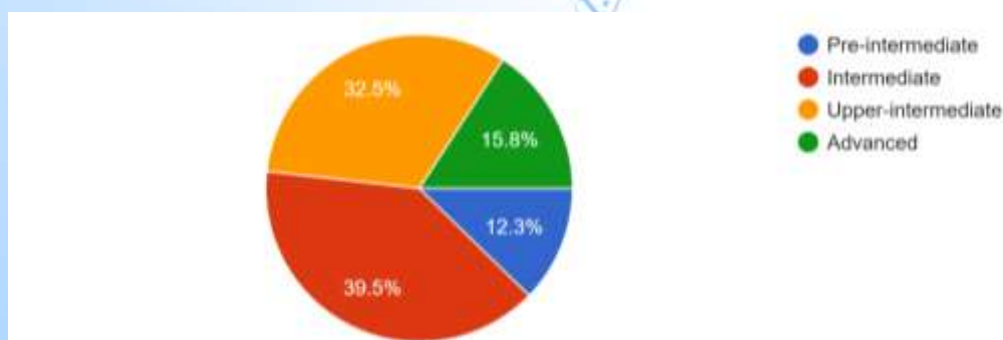
The gender distribution showed a predominance of female participants (83.3%) compared to male participants (14.9%), with a small percentage (1.8%) preferring not to specify gender. This distribution reflects typical enrollment patterns in teacher education programs internationally (see Figure 2 below).



**Figure 2. Respondents' gender**

Language proficiency levels among participants varied considerably, with 39.5% reporting intermediate English proficiency, 32.5% upper-intermediate, 15.8% advanced, and

12.3% pre-intermediate levels. This distribution provided valuable context for interpreting academic writing and research competence results, as language proficiency significantly influences performance in these areas (see Figure 3 below).



**Figure 3. Respondents' level of language proficiency**

#### ***Data collection instrument***

The research utilized a comprehensive 25-item multiple-choice questionnaire developed specifically for this study and administered through Google Forms platform. The instrument was designed following established principles of educational assessment and incorporated both demographic information collection and competency evaluation components.

The questionnaire structure consisted of two primary sections. The initial section gathered demographic information including age, gender, institutional affiliation, and English language proficiency level. This information was collected to enable subsequent analysis of potential relationships between demographic variables and competency levels.

The second section comprised 20 substantive questions designed to assess participants' knowledge and understanding of academic writing principles and research methodology concepts. Questions were carefully constructed to evaluate different aspects of academic writing competence, including understanding of academic writing definitions, formatting requirements, citation practices, and purposes of scholarly communication. Research competence items focused on fundamental concepts such as research question formulation, literature review processes, research design principles, and understanding of quantitative and qualitative methodological approaches.

Each question presented four possible responses, with one correct answer and three distractors designed to reflect common misconceptions or incomplete understanding. The distractors were developed based on existing literature regarding common errors in academic writing and research methodology understanding among novice researchers.

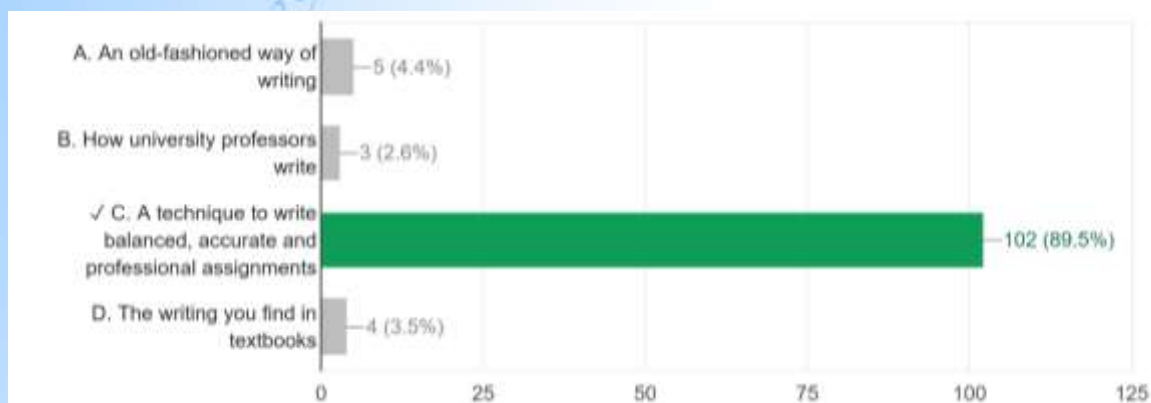
Content validity of the instrument was established through expert review by three faculty members with extensive experience in teacher education and research methodology

instruction. The reviewers evaluated each item for clarity, relevance, and appropriateness for the target population. Based on their feedback, several items were revised to improve clarity and eliminate potential ambiguity.

Reliability of the instrument was assessed through pilot testing with a small group of pre-service teachers not included in the main sample. The pilot test results indicated satisfactory internal consistency and item discrimination indices, supporting the instrument's use for the main data collection phase.

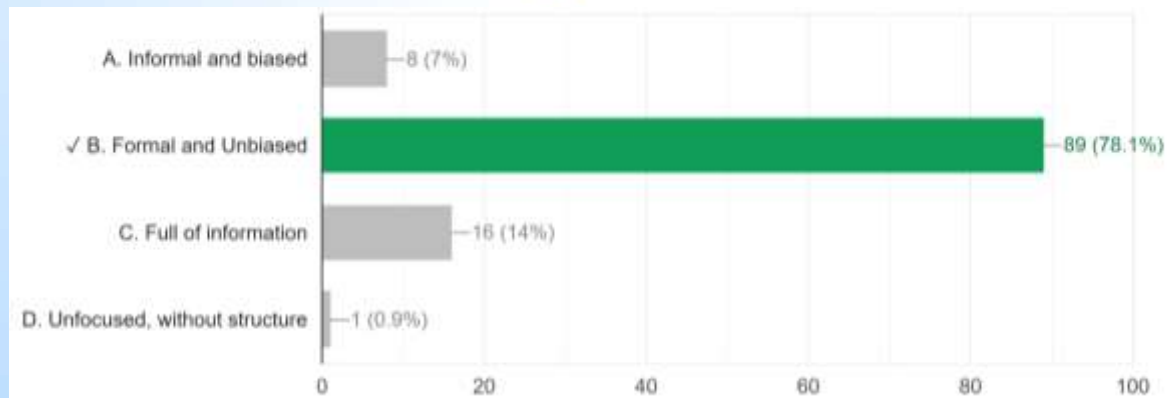
The online administration format was selected to facilitate efficient data collection across multiple institutions while ensuring standardized presentation of items to all participants. Google Forms provided automatic data compilation and basic statistical analysis capabilities, streamlining the data management process while maintaining data security and participant anonymity.

Participants were queried on their understanding of "academic writing." Out of 114 participants, over 100 provided proper responses, defining it as "a technique for composing balanced, accurate, and professional assignments." Nonetheless, several individuals provided inaccurate responses to this question (see to Figure 4 below).



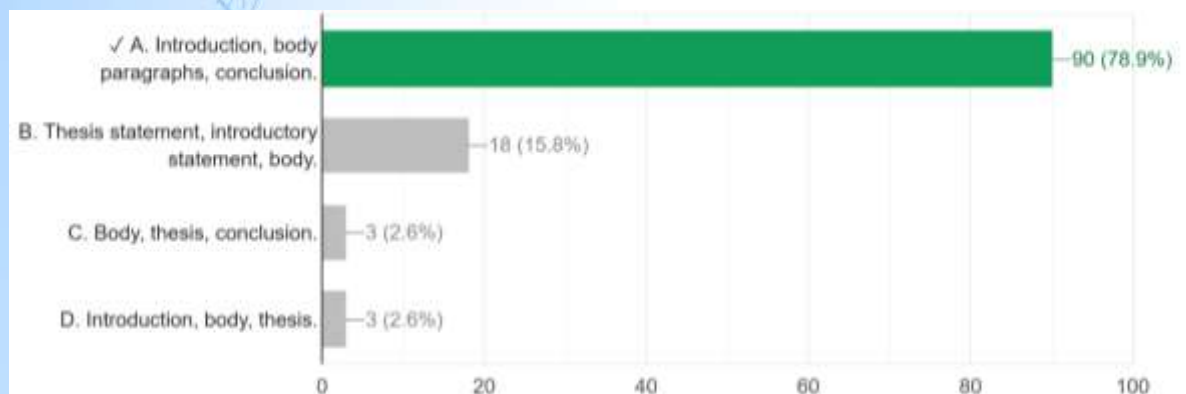
**Figure 4. Respondents' answers to the question: "What is an academic writing?"**

The participants were inquired about their understanding of "academic writing." Out of 114 participants, only 89 provided correct responses, identifying it as "formal and unbiased." Nonetheless, a number of participants provided incorrect responses to this question (refer to Figure 5 below).



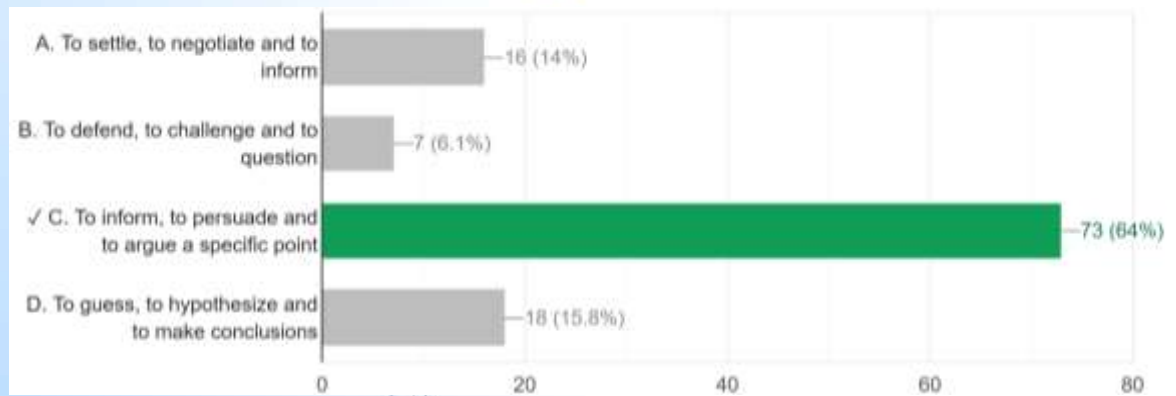
**Figure 5. Respondents' answers to the question: "Academic writing has to be"**

The participants were subsequently queried regarding their understanding of the recommended standard format for academic writing. Out of 114 participants, only 90 provided correct responses, identifying the format as comprising an introduction, body paragraphs, and a conclusion. Nonetheless, there remain participants who provided incorrect responses to this question, citing "Body, thesis, conclusion" or "Introduction, body, thesis," among others (refer to Figure 6 below).



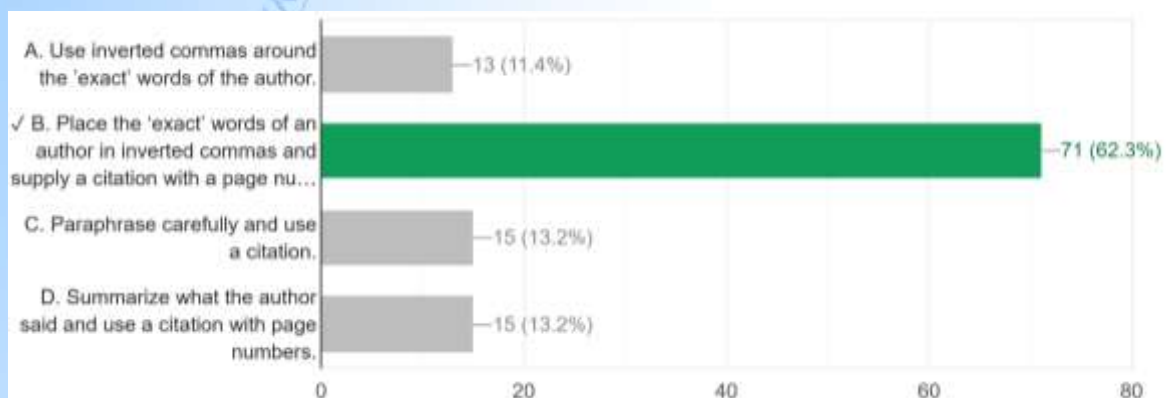
**Figure 6. Respondents' answers to the question: "What is the recommended standard format for an academic writing?"**

The participants were also inquired about their understanding of the purposes of academic writing. Out of 114 participants, only 73 provided correct responses, identifying the purposes as "to inform, to persuade, and to argue a specific point." Nonetheless, certain participants provided incorrect responses to this question, citing phrases such as "to settle, to negotiate and to inform" or "to guess, to hypothesize and to make conclusions," among others (refer to Figure 7 below).



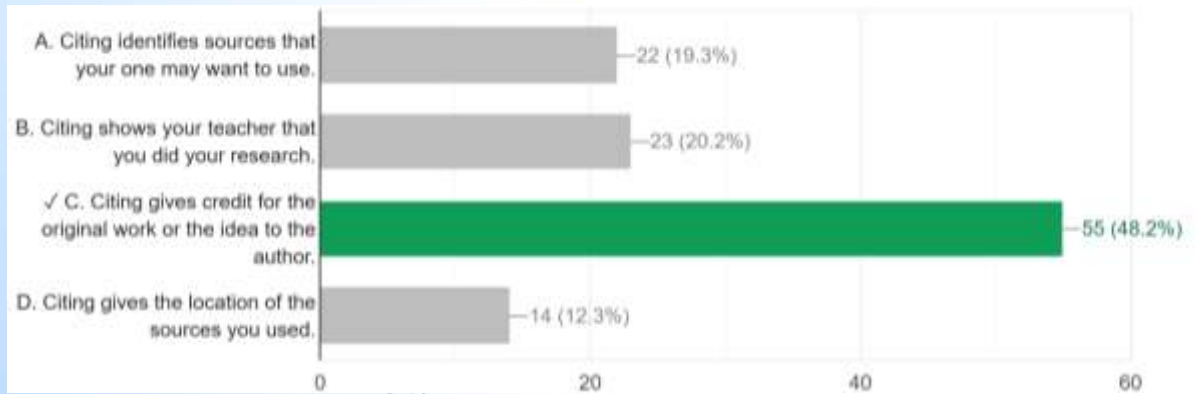
**Figure 7. Respondents' answers to the question: "What are the purposes of doing an academic writing?"**

It was insightful to ascertain the participants' understanding of quotation usage, as the appropriate application of quotations is essential for enhancing academic writing skills; hence, we posed this question. Out of 114 participants, only 71 provided the correct response, defining it as "placing the exact words of an author in inverted commas and supplying a citation with a page number." Nonetheless, a number of participants provided incorrect responses to this question, indicating "to paraphrase carefully and use a citation," among other things (refer to Figure 8 below).



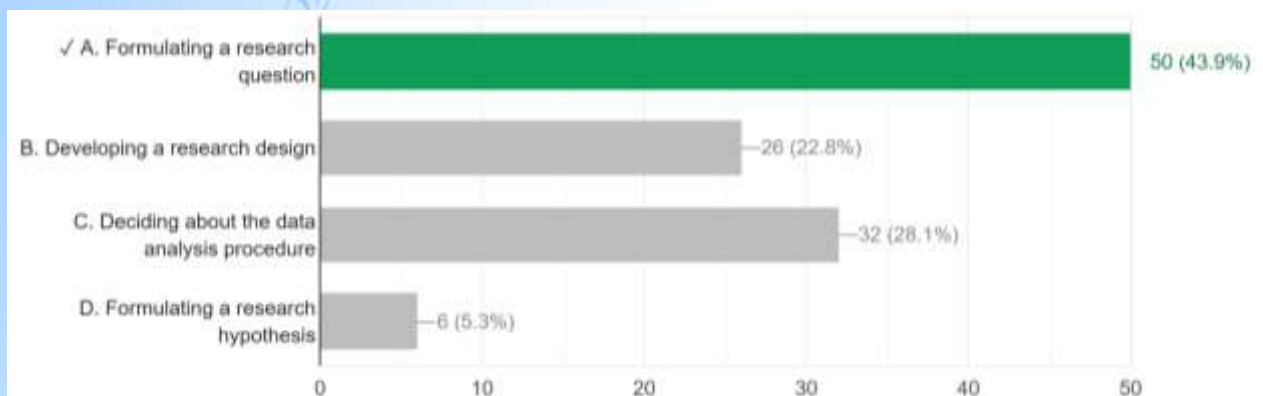
**Figure 8. Respondents' answers to the question: "When do you use quotation, you should:"**

Another important question was whether they understand the purpose of using citations, as prospective educators are expected to incorporate citations in their research. Analysis of the responses from 114 participants indicates that fewer than half provided the correct answer, defining it as "citing gives credit for the original work or the idea to the authors." However, other participants selected incorrect answers such as "citing identifies sources that one wants to use" or "citing shows your teacher that you conducted your research" (see Figure 9 below).



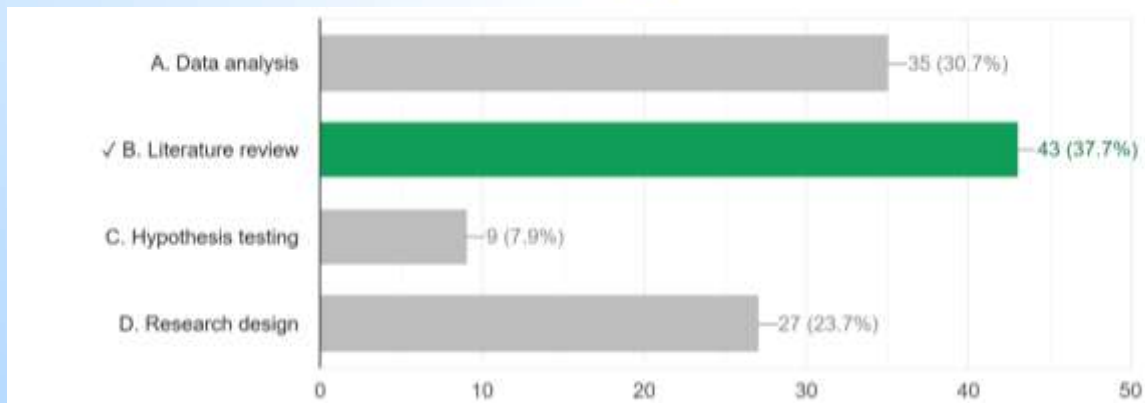
**Figure 9. Respondents' answers to the question: "What is the best reason for citing your sources?"**

The participants were also inquired about "which of the following is required beforehand to pursue the research?". Out of 114 participants, only 50 provided the correct response, identifying it as "formulating a research question." Nonetheless, some participants were reluctant to respond and selected incorrect options, including "developing a research design," "deciding about the data analysis procedure," or "formulating a research hypothesis" (refer to Figure 10 below).



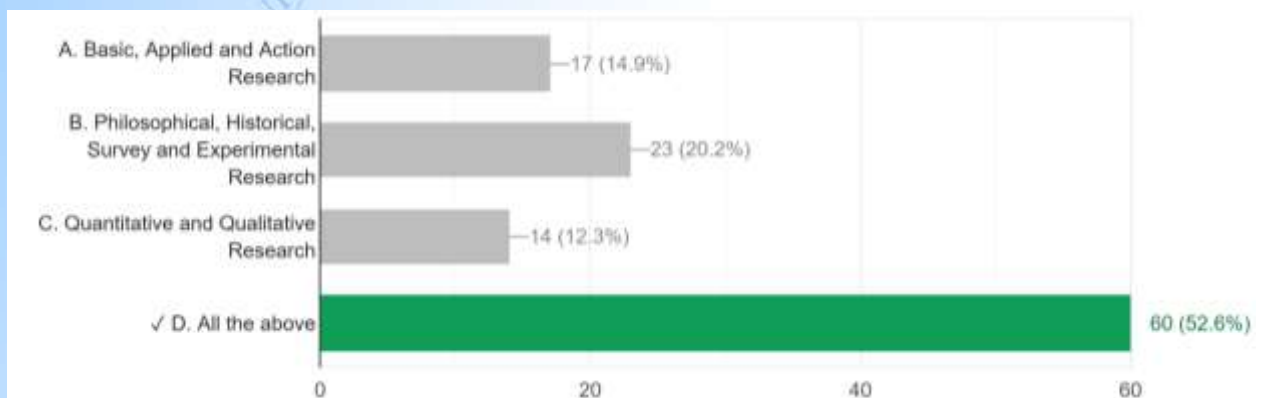
**Figure 10. Respondents' answers to the question: "In order to pursue the research, which of the following is priorly required?"**

An additional significant inquiry was regarding their awareness of the initial step in the research process. Out of 114 participants, it is evident that fewer than half provided the correct response, identifying it as a "literature review." Nevertheless, some participants selected incorrect responses such as "data analysis," "hypothesis testing," or "research design" (refer to Figure 11 below).



**Figure 11. Respondents' answers to the question: "What is the first step in the research process?"**

To assess their understanding of research classifications, the following question was posed: "Research can be classified as." Analysis of the responses from 114 participants indicates that over half provided correct answers, identifying the correct options as "all above." This is due to the presence of multiple correct answers in the choices, including "basic, applied and action research," "philosophical, historical, survey and experimental research," as well as "quantitative and qualitative research." Nonetheless, fewer than half of the participants selected a single alternative rather than opting for all available options (refer to Figure 12 below).



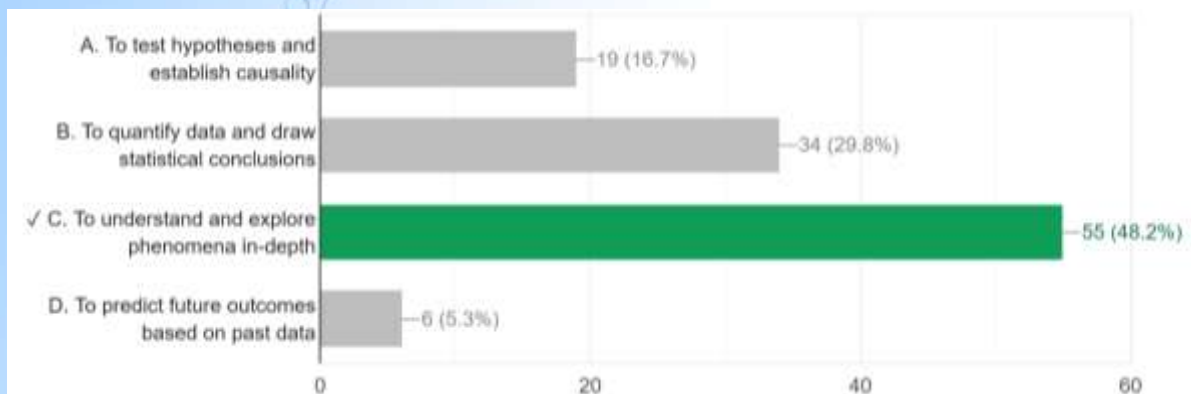
**Figure 12. Respondents' answers to the question: "Research can be classified as"**

We inquired whether the participants were aware of the primary objective of quantitative research, as it was of interest to us. Out of 114 participants, only 58 provided the correct response, identifying it as "to recognize patterns and relationships between variables." Nonetheless, there remain participants who provided incorrect responses to this question, citing phrases such as "to explore and describe a phenomenon in-depth" and "to generate new theories and hypotheses," among others (refer to Figure 13 below).



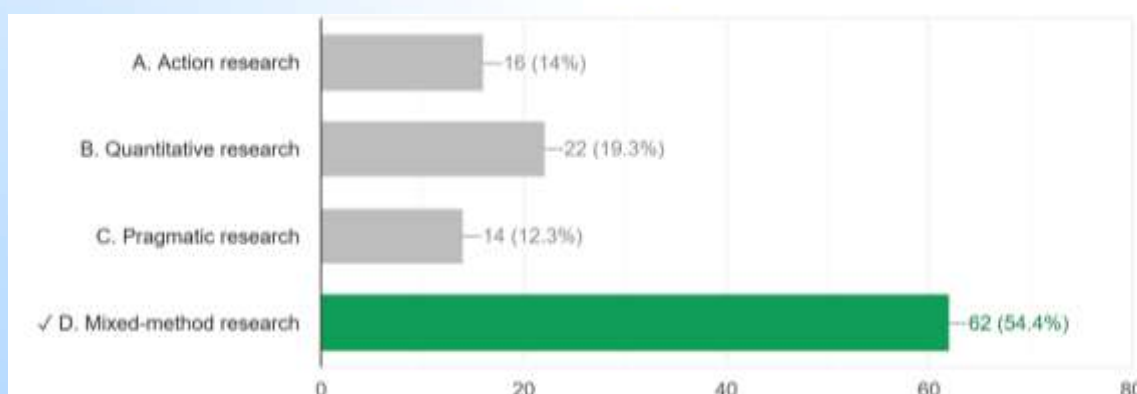
**Figure 13. Respondents' answers to the question: "What is the primary goal of quantitative research?"**

We inquired whether the participants were aware of the primary objective of qualitative research, as this was an interesting aspect to explore. Out of 114 participants, only 55 provided the correct response, identifying it as "to understand and explore phenomenon in depth." Nonetheless, there remain participants who provided incorrect responses to this question, citing reasons such as "to test hypothesis and establish causality," "to quantify data and draw conclusions," among others (refer to Figure 14 below).



**Figure 14. Respondents' answers to the question: "What is the main purpose of qualitative research?"**

Another significant inquiry was regarding their familiarity with mixed-method research. Analysis of the data from 114 participants indicates that fewer than half provided correct responses. Nevertheless, some participants selected incorrect responses such as "action research," "quantitative research," or "pragmatic research" (refer to Figure 15 below).



**Figure 15. Respondents' answers to the question: "research that uses qualitative methods for one phase and quantitative methods for the next phase is known as:"**

### **Results and Discussion**

The comprehensive analysis of survey responses reveals significant insights into the academic writing skills and research competence levels among pre-service teachers across the participating institutions. The results demonstrate considerable variation in competency levels across different knowledge domains, with implications for teacher preparation program development and professional development initiatives.

#### **Academic Writing Competence Analysis**

The assessment of fundamental academic writing concepts revealed generally strong performance among participants, with notable exceptions in specific areas. When queried about the basic definition of academic writing, 89.5% of participants (102 out of 114) correctly identified it as "a technique to write balanced, accurate and professional assignments." This high success rate suggests that most pre-service teachers possess a foundational understanding of academic writing's essential characteristics and purposes.

However, performance declined when participants were asked about more specific aspects of academic writing conventions. Only 78.1% of respondents (89 out of 114) correctly identified that academic writing should be "formal and unbiased," indicating gaps in understanding regarding the stylistic and rhetorical expectations of scholarly discourse. This finding aligns with previous research suggesting that while students may grasp general concepts of academic writing, they often struggle with specific conventional requirements (Wingate, 2021).

Structural knowledge of academic writing showed moderate competency levels, with 78.9% of participants (90 out of 114) correctly identifying the recommended standard format as "Introduction, body paragraphs, conclusion." The remaining participants selected alternative configurations, suggesting confusion about organizational principles or exposure to different

structural frameworks. This variability may reflect differences in instructional approaches across participating institutions or previous educational experiences (González, C., & Martínez, R., 2022).

Understanding of academic writing purposes presented greater challenges, with only 64.0% of participants (73 out of 114) correctly identifying the primary purposes as "to inform, to persuade and to argue a specific point." The lower performance in this area suggests that many pre-service teachers may view academic writing primarily as a compliance exercise rather than understanding its communicative and persuasive functions within scholarly discourse.

### **Citation and Source Integration Competence**

The assessment of citation practices and source integration revealed significant areas of concern that require targeted intervention. When asked about proper quotation usage, only 62.3% of participants (71 out of 114) correctly identified the need to "place the exact words of an author in inverted commas and supply a citation with a page number." This finding is particularly troubling given the fundamental importance of proper citation practices in academic integrity and scholarly communication.

Even more concerning was participants' understanding of citation purposes, with only 48.2% (55 out of 114) correctly identifying that "citing gives credit for the original work or the idea to the authors." This low performance suggests fundamental misunderstandings about intellectual property, academic integrity, and the collaborative nature of scholarly knowledge construction. The remaining participants selected responses indicating beliefs that citations serve primarily to demonstrate research effort to instructors or to identify potential sources for future use, reflecting a superficial understanding of scholarly communication principles.

These findings regarding citation competence are particularly significant given their implications for academic integrity and professional ethical development. Pre-service teachers who lack proper understanding of citation principles may inadvertently engage in plagiarism or fail to model appropriate scholarly behavior for their future students. The results suggest urgent need for enhanced instruction in academic integrity principles and citation practices within teacher preparation programs (Rodriguez, M., & Thompson, D., 2021).

### **Research Methodology Competence**

The evaluation of research methodology understanding revealed the most significant competency gaps among participants. When asked about the primary requirement for pursuing research, only 43.9% of participants (50 out of 114) correctly identified "formulating a research question" as the initial step. This low performance indicates fundamental misunderstandings

about the research process and suggests that many pre-service teachers may lack the conceptual framework necessary for engaging effectively with educational research (Johnson, K., & Liu, M., 2023).

Similarly, participants struggled to identify the first step in the research process, with only 37.7% (43 out of 114) correctly selecting "literature review." The confusion evident in responses to this question reflects a broader challenge in understanding how research activities sequence and build upon one another. Many participants selected "data analysis" or "hypothesis testing" as initial steps, suggesting a procedural understanding that skips essential preliminary phases of research development.

Understanding of research classification showed moderate performance, with 52.6% of participants (60 out of 114) correctly recognizing that research encompasses multiple classification systems including basic/applied/action research, philosophical/historical/survey/experimental research, and quantitative/qualitative approaches. However, the significant percentage of incorrect responses indicates that many pre-service teachers lack comprehensive understanding of research methodological diversity (Smith, A., Brown, B., & Wilson, C., 2023).

### **Quantitative and Qualitative Research Understanding**

The assessment of specific methodological approaches revealed additional areas requiring attention. Only 50.9% of participants (58 out of 114) correctly identified the primary goal of quantitative research as "to identify patterns and relationships between variables," while 48.2% (55 out of 114) correctly recognized that qualitative research aims "to understand and explore phenomenon in depth." These relatively low performance levels suggest inadequate exposure to methodological frameworks during teacher preparation.

Understanding of mixed-methods research, an increasingly important approach in educational research, showed moderate performance with 54.4% of participants (62 out of 114) correctly identifying research that combines qualitative and quantitative methods. Given the growing emphasis on mixed-methods approaches in educational research, this competency area merits additional attention in teacher preparation curricula.

### **Comparative Analysis and Implications**

The results reveal a clear hierarchy of competency levels, with participants demonstrating strongest performance in basic academic writing concepts and weakest performance in research methodology fundamentals. This pattern suggests that current teacher preparation programs

may be providing adequate foundational instruction in academic writing conventions while failing to develop comprehensive research competence.

The findings align with previous research indicating that academic writing instruction often focuses on surface-level features rather than deeper conceptual understanding of scholarly communication purposes and practices (Chen et al., 2023). Similarly, the weak performance in research methodology areas reflects broader challenges in integrating research competence development throughout teacher preparation programs rather than treating it as a specialized skill relevant only to thesis completion (Patel, R., & Kumar, V., 2020).

The demographic analysis reveals interesting patterns regarding the relationship between language proficiency and overall performance. Participants with higher English proficiency levels demonstrated consistently better performance across all competency areas, suggesting that language skills may serve as either facilitating or constraining factors in academic writing and research competence development.

Institutional variations in performance were also evident, though detailed analysis was limited by the relatively small sample sizes from individual institutions. These variations may reflect differences in curriculum emphasis, faculty expertise, instructional resources, or student preparation levels across participating institutions.

The gender distribution of participants, while reflecting typical enrollment patterns in teacher education, limits the generalizability of findings to male pre-service teachers. Future research should seek more balanced gender representation to ensure comprehensive understanding of competency development patterns across diverse populations (Zhang, H., & Lee, S., 2020).

### **Implications and Recommendations**

The findings of this study carry substantial implications for multiple stakeholders in teacher education, including curriculum developers, faculty members, institutional administrators, and educational policymakers. The identified competency gaps require systematic attention through coordinated interventions addressing both immediate instructional needs and long-term program development objectives.

### **Curriculum Development Implications**

The results strongly suggest the need for comprehensive curriculum reform that integrates academic writing and research competence development throughout teacher preparation programs rather than treating these skills as isolated components addressed in single courses. Programs should develop scaffolded learning experiences that progressively build competency

from foundational concepts to advanced applications, ensuring that pre-service teachers have multiple opportunities to practice and refine these essential skills.

Specific curriculum modifications should address the identified weakness in research methodology understanding by incorporating systematic instruction in research design principles, methodology selection criteria, and the relationship between research questions and methodological approaches. This instruction should be contextualized within educational settings to help pre-service teachers understand the practical applications of research skills in their future professional roles.

Citation instruction requires particular attention, given the concerning performance levels in this area. Programs should implement comprehensive academic integrity education that goes beyond rule-based instruction to develop conceptual understanding of intellectual property, scholarly communication ethics, and the collaborative nature of knowledge construction. This instruction should include practical exercises in source evaluation, citation formatting, and appropriate integration of external sources into original writing.

#### **Instructional Strategy Recommendations**

Faculty members should consider implementing active learning strategies that engage pre-service teachers in authentic academic writing and research activities. Project-based learning approaches that require students to conduct small-scale research projects, write research reports, and present findings to peers can provide valuable experiential learning opportunities while developing competency in integrated skills.

Collaborative learning strategies may be particularly effective in addressing the identified competency gaps. Peer review activities, writing workshops, and research collaboration projects can provide opportunities for students to learn from one another while developing critical evaluation skills. These approaches also simulate the collaborative nature of professional educational practice, preparing pre-service teachers for their future roles as members of learning communities.

Technology integration should be emphasized to enhance both academic writing and research competence development. Digital tools for literature searching, reference management, collaborative writing, and data analysis can improve efficiency while teaching contemporary skills essential for professional practice. Faculty should model effective use of these tools while providing explicit instruction in their application.

#### **Professional Development Recommendations**

Current faculty members may require professional development support to effectively implement enhanced academic writing and research competence instruction. Many teacher education faculty members were prepared in different educational contexts and may lack experience with contemporary approaches to academic writing instruction or research methodology teaching.

Professional development initiatives should focus on evidence-based instructional strategies for academic writing development, contemporary research methodology frameworks, and assessment approaches that capture complex, integrated competencies. Faculty learning communities focused on academic writing and research instruction could provide ongoing support while fostering innovative instructional approaches.

Collaboration with writing centers, library specialists, and research methodology experts can provide valuable resources for faculty development while creating institutional infrastructure to support student learning. These partnerships can also provide direct support services for pre-service teachers struggling with academic writing or research skills.

#### **Institutional Policy Recommendations**

Institutional leaders should consider policies that support integrated academic writing and research competence development across all program components. Admission standards, progression requirements, and graduation criteria should reflect the importance of these competencies while providing appropriate support for students who enter programs with varying preparation levels.

Resource allocation decisions should prioritize support for academic writing and research competence development, including library resources, technology infrastructure, writing center services, and faculty development initiatives. These investments can yield significant returns through improved student outcomes and enhanced program quality.

Assessment policies should emphasize authentic evaluation of academic writing and research competence through portfolio approaches, capstone projects, and performance-based assessments that capture integrated skills rather than isolated knowledge components. These assessment approaches can also provide valuable data for program improvement initiatives.

#### **Recommendations for Future Research**

Several research directions emerge from the current findings that could provide additional insights into academic writing and research competence development among pre-service teachers. Longitudinal studies tracking competency development throughout teacher

preparation programs could identify optimal timing and sequencing for instructional interventions while revealing factors that support or hinder skill development.

Comparative studies examining different instructional approaches to academic writing and research competence development could provide evidence regarding most effective pedagogical strategies. These studies should include measures of both immediate learning outcomes and long-term retention to ensure that instructional innovations produce lasting benefits.

Investigation of the relationship between academic writing/research competence and teaching effectiveness could provide compelling evidence for the importance of these skills in teacher preparation. Such research could examine how these competencies influence classroom practice, student outcomes, and professional development engagement.

Cross-cultural research examining competency development patterns across different educational contexts could reveal important insights regarding cultural factors, institutional influences, and policy implications. These studies could inform efforts to adapt instructional approaches to diverse educational settings while maintaining high standards for competency development.

### **Conclusion**

This study highlights that while pre-service teachers in Uzbekistan demonstrate basic knowledge of academic writing, significant gaps remain in research competence, particularly in methodology, citation practices, and scholarly communication. The findings reveal a clear need for stronger integration of academic writing and research training within teacher education programs. These competencies should be developed systematically rather than treated as supplementary skills.

The results suggest that current curricula may not sufficiently prepare future educators for evidence-based practice and academic engagement. Addressing these gaps is essential for improving professional competence, academic integrity, and overall educational quality.

Despite limitations such as the cross-sectional design and assessment format, the study provides valuable insights into key areas requiring improvement. Future research should explore effective instructional interventions and examine how these competencies influence teaching performance. Overall, strengthening academic writing and research skills should be a priority in teacher preparation to ensure the development of reflective, research-informed educators.

### **References**

1. Abadi, S., & Botirovna, M. A. (2025). Requirements for the professional competence of future specialists: improving research competence in pre-service and in-service programs. *Multidisciplinary and Multidimensional Journal*, 4(4), 110-116.
2. Bakhtin, M. (2023). Digital competence frameworks in teacher education: A comparative analysis. *Journal of Teacher Education Technology*, 15(3), 45-62.
3. Botirovna, M. A. (2025). The role of professional standards in improving the research competence of future specialists. *International journal of advanced research in education, technology and management*, 4(4), 166-172.
4. Chen, L., Wang, Y., & Zhang, X. (2023). Exploring factors influencing pre-service teacher's digital teaching competence and the mediating effects of data literacy: Empirical evidence from China. *Humanities and Social Sciences Communications*, 10, 412. <https://doi.org/10.1057/s41599-023-02016-y>
5. Darling-Hammond, L., & Hyler, M. E. (2020). Preparing educators for the time of COVID... and beyond. *European Journal of Teacher Education*, 43(4), 457-465.
6. Educational Assessment, Evaluation and Accountability. (2024). Examining pre-service teachers' feedback on low- and high-quality written assignments. *Educational Assessment, Evaluation and Accountability*, 36, 123-145.
7. *Frontiers in Education*. (2021). Research competencies to develop academic reading and writing: A systematic literature review. *Frontiers in Education*, 5, 576961.
8. García-Peñalvo, F. J., Corell, A., Abella-García, V., & Grande-de-Prado, M. (2021). Recommendations for mandatory online assessment in higher education during the COVID-19 pandemic. In *Radical solutions for education in a crisis context* (pp. 85-98). Springer.
9. González, C., & Martínez, R. (2022). Academic writing challenges in multilingual contexts: Evidence from Latin American universities. *International Journal of Applied Linguistics*, 18(2), 78-95.
10. *Humanities and Social Sciences Communications*. (2023). Bibliometric analysis and systematic review of digital competence in education. *Humanities and Social Sciences Communications*, 10, 1-15.
11. Johnson, K., & Liu, M. (2023). Research methodology instruction in teacher education: Current practices and future directions. *Teaching and Teacher Education*, 112, 103-115.
12. Liu, X., Zhang, L., & Wang, P. (2023). Teachers' AI digital competencies and twenty-first century skills in the post-pandemic world. *Educational Technology Research and Development*, 71, 137-165.

13. Murray, N., & Christison, M. (2021). *Academic writing for graduate students: A guide for non-native speakers of English*. University of Michigan Press.
14. Patel, R., & Kumar, V. (2020). Research skills development in pre-service teacher education: A cross-cultural perspective. *International Journal of Teacher Education*, 8(4), 167-182.
15. Petrov, A., & Ivanova, S. (2024). Assessment strategies for academic writing competence in teacher education programs. *Assessment in Education*, 31(2), 234-251.
16. Rodriguez, M., & Thompson, D. (2021). Citation practices and academic integrity in teacher preparation programs. *Journal of Academic Ethics*, 19(3), 289-305.
17. Rum, E. P., Baso, F. A., & Musoyeva, A. (2025). Hybrid Learning Model in Post-Pandemic Education: Lecturers Attitude in Indonesian and Uzbekistan Higher Education. *Aptisi Transactions on Technopreneurship (ATT)*, 7(1), 169-179.
18. Smith, A., Brown, B., & Wilson, C. (2023). Integrated approach to academic writing and research skills in teacher education: A longitudinal study. *Journal of Teacher Education*, 74(4), 412-428.
19. Sustainability. (2022). Standards of teacher digital competence in higher education: A systematic literature review. *Sustainability*, 14(21), 13983.
20. Taylor, J., & Anderson, L. (2024). Professional development needs in academic writing instruction for teacher educators. *Professional Development in Education*, 50(2), 178-192.
21. Wingate, U. (2021). *Academic writing instruction in teacher education: Theory and practice*. Routledge.
22. Wingate, U., & Tribble, C. (2021). The best of both worlds? Towards an English for Academic Purposes/Academic Literacies writing pedagogy. *Studies in Higher Education*, 46(4), 669-684.
- Zhang, H., & Lee, S. (2020). Language proficiency and academic writing performance among pre-service teachers in multilingual contexts. *Applied Linguistics Review*, 11(3), 445-468