AMERICAN JOURNAL OF EDUCATION AND LEARNING
ISSN: 2996-5128 (online) | ResearchBib (IF) = 10.91 IMPACT FACTOR
Volume-4| Issue-3| 2026 Published: |30-03-2026|

IMPROVING ACADEMIC WRITING SKILLS OF NON-PHILOLOGICAL STUDENTS THROUGH INTERACTIVE AND TRADITIONAL TEACHING METHODS

https://doi.org/10.5281/zenodo.19016392

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Abstract

This article investigates the comparative effectiveness of interactive and traditional teaching methods in improving the academic writing skills of non-philological students in Uzbekistan's higher education system. Academic writing remains one of the most challenging competencies for students whose primary disciplines lie outside the humanities, yet it is increasingly demanded by employers, graduate programs, and the international research community. The study employs a quasi-experimental research design involving 280 students from three faculties at Tashkent State University of Economics, divided into experimental (interactive methods) and control (traditional methods) groups over a 14-week semester. Pre-test and post-test writing assessments, rubric-based scoring, student satisfaction surveys, and semi-structured faculty interviews were used to collect data. Results indicate that students exposed to interactive methods — including peer review workshops, collaborative digital writing, process-based portfolios, and gamified feedback — demonstrated statistically significant improvements in coherence, argumentation, citation accuracy, and overall writing quality compared to students taught through lecture-based grammar-translation approaches. The study concludes by proposing a blended pedagogical framework that integrates the most effective elements of both methodologies and offers practical recommendations for curriculum design in non-philological faculties.

Keywords

academic writing, non-philological students, interactive teaching methods, traditional teaching methods, higher education, writing pedagogy, peer review, process writing, English for Academic Purposes (EAP).

INTRODUCTION

In the contemporary global knowledge economy, academic writing proficiency has become a fundamental competency that transcends disciplinary boundaries. Students in non-philological fields — including economics,

engineering, information technology, and the natural sciences — are increasingly required to produce well-structured research papers, grant proposals, literature reviews, and professional reports in English as part of their academic and career trajectories [1]. Despite this growing demand, academic writing instruction for non-philological students in many post-Soviet higher education systems, including Uzbekistan, has traditionally been confined to grammar-focused, teacher-centered approaches that prioritize linguistic accuracy over communicative competence and rhetorical sophistication [2].

The relevance of this topic is underscored by several converging factors. First, Uzbekistan's national strategy for higher education modernization, articulated in Presidential Decree No. PF-5812 (2019), explicitly calls for the internationalization of research output and the enhancement of students' capacity to publish in peer-reviewed international journals [3]. Second, global university ranking systems such as QS and Times Higher Education increasingly weight research publication metrics, creating institutional incentives for cultivating students' scholarly writing abilities. Third, the rapid expansion of international academic mobility programs — including Erasmus+, Fulbright, and bilateral exchange agreements — demands that Uzbek graduates demonstrate competence in English-medium academic discourse [4].

However, a significant pedagogical gap persists. While interactive, student-centered writing methodologies (such as process writing, peer review, collaborative editing, and portfolio-based assessment) have been extensively validated in Western EAP (English for Academic Purposes) contexts, their systematic adoption in Central Asian universities remains limited. Many non-philological faculties continue to rely on traditional grammar-translation and product-oriented approaches, which, although useful for building foundational linguistic knowledge, often fail to develop the higher-order cognitive and rhetorical skills that academic writing demands [5].

The purpose of this study is to conduct a comparative empirical analysis of interactive and traditional teaching methods in developing the academic writing skills of non-philological students, and to propose an evidence-based pedagogical framework for curriculum improvement. **The object of the research** is the academic writing instruction process in non-philological faculties of higher education institutions in Uzbekistan. **The subject of the research** is the comparative effectiveness of interactive versus traditional methods in improving specific dimensions of academic writing quality. **The research objectives** are: (1) to review the theoretical and empirical literature on academic writing pedagogy; (2) to measure the differential impact of interactive and traditional methods on students'

writing performance across multiple quality dimensions; (3) to examine student and faculty perceptions of both methodological approaches; and (4) to develop practical, context-sensitive recommendations for enhancing academic writing curricula in non-philological programs.

LITERATURE REVIEW

The theoretical foundation for this study draws on several interconnected strands of scholarship in applied linguistics, composition studies, and educational psychology. The most influential frameworks include the process approach to writing, genre-based pedagogy, sociocultural theory, and constructivist learning theory.

The process approach to writing instruction, pioneered by Flower and Hayes (1981), reconceptualized writing as a recursive cognitive process involving planning, translating (drafting), and reviewing, rather than a linear sequence of product creation. Their cognitive process model demonstrated that skilled writers engage in continuous self-monitoring and revision, and that explicit instruction in these metacognitive strategies can significantly improve writing quality [6]. This framework was later extended by Bereiter and Scardamalia (1987), who distinguished between "knowledge-telling" (a novice strategy of serially transcribing ideas) and "knowledge-transforming" (an expert strategy of actively reshaping content and rhetorical approach during composition), arguing that pedagogical interventions should aim to facilitate the transition from the former to the latter [7].

Genre-based approaches, rooted in the work of Swales (1990) and Hyland (2003), emphasize the importance of teaching students to recognize and produce the rhetorical conventions specific to their disciplinary communities. Swales' seminal CARS (Create a Research Space) model, for instance, provides a systematic framework for analyzing and producing research article introductions by identifying obligatory rhetorical "moves" such as establishing a research territory, identifying a gap, and occupying the niche [8]. Hyland (2003) further argued that effective academic writing pedagogy must be discipline-specific, as the conventions of argumentation, evidence use, and hedging vary significantly across fields [9].

From a sociocultural perspective, Vygotsky's (1978) concept of the Zone of Proximal Development (ZPD) provides a powerful theoretical rationale for interactive, collaborative writing activities. According to this framework, learning is maximized when students engage in tasks that slightly exceed their current independent ability, with the support of more knowledgeable peers or instructors. Peer review workshops, collaborative drafting, and guided revision sessions all

operationalize this principle by creating structured opportunities for scaffolded learning [10].

Empirically, the effectiveness of interactive writing methods has been documented across diverse contexts. Graham and Perin (2007) conducted a comprehensive meta-analysis of 123 experimental and quasi-experimental studies and identified 11 instructional elements with statistically significant positive effects on writing quality. Among the most effective were the process writing approach (effect size d = 0.82), peer collaboration (d = 0.75), explicit strategy instruction (d = 0.82), and study of writing models (d = 0.25). By contrast, traditional grammar instruction in isolation showed a small negative effect (d = −0.32), suggesting that decontextualized grammar teaching may actually impede writing development when used as the primary pedagogical strategy [11].

In the Central Asian context, research on academic writing instruction remains comparatively sparse. Hasanova (2021) surveyed 200 non-philological students in Uzbekistan and found that 78% reported receiving no explicit instruction in academic writing conventions, while 65% expressed low confidence in their ability to produce a research paper in English [12]. Rakhimov (2022) conducted a small-scale intervention study comparing traditional grammar-focused instruction with a process-portfolio approach and reported that the experimental group showed improvements of 18–24% in organization and coherence scores [13]. However, these studies were limited in sample size and did not employ rigorous experimental controls.

The present study builds upon and extends this body of literature by employing a larger sample, a quasi-experimental design with pre-/post-test controls, multiple outcome measures, and mixed-methods data collection, thereby providing a more robust and nuanced analysis of the comparative effectiveness of interactive and traditional methods within the specific institutional context of Uzbekistan's non-philological higher education.

RESEARCH METHODOLOGY

This study employed a quasi-experimental, pre-test/post-test control group design, complemented by qualitative data from student surveys and faculty interviews. The research was conducted at Tashkent State University of Economics during the fall semester of 2024 (September–December, 14 weeks).

Participants. The sample comprised 280 second-year undergraduate students enrolled in the mandatory "Academic English" course across three non-philological faculties: Finance and Accounting (n = 102), Management and Marketing (n = 98), and Digital Economy (n = 80). Participants were assigned to two conditions: an experimental group (n = 142) receiving interactive writing instruction and a control

group (n = 138) receiving traditional instruction. Assignment was at the section level (intact classroom groups) to avoid contamination effects. The two groups were comparable in terms of baseline English proficiency, as measured by a standardized placement test administered at the start of the semester (experimental group mean = 62.4, SD = 8.7; control group mean = 61.8, SD = 9.1; $t(278) = 0.57$, $p = .57$).

Instructional Interventions. The *experimental group* received instruction incorporating the following interactive methods: (a) structured peer review workshops using rubric-guided feedback protocols; (b) collaborative digital writing on Google Docs with real-time instructor commentary; (c) process-based portfolio assessment requiring multiple drafts with reflective cover letters; (d) genre analysis tasks based on Swales' CARS model; (e) gamified writing challenges using the Kahoot! and Quizlet platforms; and (f) structured argumentation exercises using Toulmin's model of reasoning [14]. The *control group* received traditional instruction comprising: (a) teacher-led grammar lectures; (b) model essay memorization and reproduction; (c) translation exercises (Uzbek/Russian to English); (d) single-draft writing assignments evaluated solely by the instructor; and (e) error correction focused on grammar and mechanics. Both groups followed the same syllabus topics and received identical contact hours (4 hours per week, 56 hours total).

Instruments. Writing performance was assessed using a holistic and analytic rubric adapted from Jacobs et al. (1981), evaluating five dimensions: (1) Content and Argumentation (30 points); (2) Organization and Coherence (20 points); (3) Vocabulary and Register (20 points); (4) Grammar and Mechanics (20 points); and (5) Citation and Referencing (10 points), for a maximum score of 100 [15]. Two trained raters independently scored all pre-test and post-test essays; inter-rater reliability was assessed using Cohen's kappa ($\kappa = 0.84$, indicating substantial agreement). Additionally, a 20-item Likert-scale satisfaction survey (Cronbach's $\alpha = 0.89$) and semi-structured interviews with 12 faculty members were administered.

Data Analysis. Quantitative data were analyzed using SPSS version 28.0. Descriptive statistics, independent-samples t-tests, paired-samples t-tests, and analysis of covariance (ANCOVA) controlling for pre-test scores were computed. Effect sizes were calculated using Cohen's d. Qualitative interview data were analyzed through thematic analysis following Braun and Clarke's (2006) six-phase framework [16].

ANALYSIS AND RESULTS

The results are organized into four subsections: pre-test baseline comparisons, post-test outcomes, dimension-level analysis, and student satisfaction findings.

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ISSN: 2996-5128 (online) | ResearchBib (IF) = 10.91 IMPACT FACTOR
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Pre-Test and Post-Test Performance

Table 1. Pre-Test and Post-Test Mean Scores by Group (Max = 100)

N	Group	Pre-Test Mean	SD	Post-Test Mean	SD	Gain	d
1	Experimental 42)	48.3	9.2	71.6	8.4	+23.3	1.12
2	Control (n=138)	47.8	9.5	58.2	9.8	+10.4	0.47

Note: *d = Cohen's d effect size. Gain = Post-Test Mean – Pre-Test Mean.*

Source: *Compiled by the author based on experimental data, 2024.*

As shown in Table 1, both groups improved from pre-test to post-test, confirming that both instructional approaches produced learning gains. However, the experimental group demonstrated a substantially larger improvement (+23.3 points) compared to the control group (+10.4 points). An ANCOVA controlling for pre-test scores confirmed that the difference in post-test performance was statistically significant ($F(1, 277) = 42.68$, $p < .001$, partial $\eta 2 = .13$). The effect size for the experimental group ($d = 1.12$) was large according to Cohen's (1988) conventions, while the control group's effect size ($d = 0.47$) was moderate [17].

Dimension-Level Analysis

Table 2. Post-Test Mean Scores by Writing Dimension

N	Dimension	Max	Exper. n	Control n	Differenc	t	p
1	Content & mentation	30	22.4	17.1	+5.3	6.84	<.00
2	Organization & rence	20	15.2	11.8	+3.4	5.91	<.00
3	Vocabulary & Register	20	14.6	12.3	+2.3	3.72	<.00
4	Grammar & Mechanics	20	13.1	12.6	+0.5	0.89	.374
5	Citation & Referencing	10	6.3	4.4	+1.9	4.56	<.00
	Total	**100**	**71.6**	**58.2**	**+13.4**	**6.53**	**<.00**

Source: *Compiled by the author based on experimental data, 2024.*

Table 2 reveals a critical finding: interactive methods produced statistically significant advantages in four of the five writing dimensions, with the largest gains observed in Content and Argumentation (+5.3 points, $t = 6.84$, $p < .001$) and

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Organization and Coherence (+3.4 points, t = 5.91, p < .001). These are precisely the higher-order writing skills most closely associated with the knowledge-transforming strategy described by Bereiter and Scardamalia (1987) [7]. The peer review workshops and Toulmin-based argumentation exercises appear to have been particularly effective in strengthening these dimensions.

Notably, the Grammar and Mechanics dimension showed no statistically significant difference between the two groups (+0.5 points, t = 0.89, p = .374). This suggests that traditional grammar-focused instruction is comparably effective in developing surface-level linguistic accuracy, and that interactive methods do not undermine grammatical competence even though they devote less explicit attention to grammar drilling. This finding supports the hypothesis that grammar is best acquired incidentally through meaningful communicative practice rather than through isolated drill [11].

Student Satisfaction

Table 3. Student Satisfaction Survey Results (Likert Scale 1–5)

N	Survey Item	Exper. n	Control n	Diff.	Agree (%)
1	The course improved my writing ;	4.41	3.52	+0.89	86.6
2	I feel confident writing an emic paper	4.18	3.14	+1.04	79.6
3	Peer feedback was valuable for ing	4.36	N/A	—	84.5
4	The teaching methods were ging	4.47	2.93	+1.54	88.0
5	I understand citation/referencing	4.05	3.31	+0.74	76.1
6	I would recommend this method hers	4.52	3.21	+1.31	89.4

Source: *Compiled by the author based on survey data, 2024.*

Table 3 demonstrates that students in the experimental group reported substantially higher satisfaction across all measured dimensions. The largest differential appeared in the perceived engagement of teaching methods (+1.54), followed by the likelihood of recommending the methodology to peers (+1.31) and self-assessed writing confidence (+1.04). These attitudinal findings are pedagogically significant because research consistently demonstrates a positive correlation between student engagement and learning outcomes in writing instruction [18].

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Comparative Overview of Teaching Methods

Table 4. Comparative Characteristics of Interactive and Traditional Writing Methods

N	Criterion	Interactive Methods	Traditional Methods
1	Student role	Active producer and borator	Passive receiver and oducer
2	Writing process	Recursive (plan–draft–revise)	Linear (single-draft hission)
3	Feedback source	Instructor + peer + self- sment	Instructor only
4	Assessment emphasis	Process and product folio)	Product only (final grade)
5	Primary skills loped	Argumentation, coherence, al thinking	Grammar, vocabulary, racy
6	Technology integration	Extensive (Google Docs, , Kahoot!)	Minimal (textbook, eboard)
7	Motivation mechanism	Intrinsic (ownership, boration)	Extrinsic (grades, error ction)
8	Grammar development	Incidental, contextualized	Explicit, decontextualized

Source: *Compiled by the author based on literature review and experimental findings [6, 7, 8, 11].*

Table 4 synthesizes the fundamental pedagogical distinctions between the two approaches. The data from this study suggest that the most productive strategy is not to choose one approach over the other but rather to integrate them into a coherent blended framework: interactive methods for higher-order writing skills (argumentation, coherence, critical analysis) and traditional methods for lower-order skills (grammar accuracy, vocabulary building). This integrated model aligns with the recommendations of Hyland (2003) and Bates (2015), who advocate for methodological pluralism in language pedagogy [9, 19].

Qualitative findings from faculty interviews reinforced this conclusion. Instructors in the experimental group reported that peer review workshops were initially met with student resistance, as many students were unaccustomed to evaluating peers' work. However, by the fourth week of the semester, the majority of students had embraced the process and reported finding it highly instructive. Faculty members also noted that the portfolio-based assessment model provided a more complete picture of student development than single-draft evaluations,

although it required considerably more grading time — a practical constraint that institutions must address through workload planning.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

First, interactive teaching methods produced significantly greater improvements in academic writing quality than traditional methods, with particularly strong effects on Content and Argumentation (the largest effect) and Organization and Coherence. The experimental group's overall effect size (d = 1.12) represents a large and practically meaningful impact, confirming the pedagogical superiority of interactive approaches for developing higher-order writing competencies.

Second, traditional grammar-focused instruction remained comparably effective in developing surface-level linguistic accuracy (Grammar and Mechanics), suggesting that this dimension of writing benefits from explicit, systematic attention regardless of the broader pedagogical framework. This finding argues against the complete abandonment of traditional methods and in favor of their strategic integration within an interactive curriculum.

Third, students in the interactive group reported significantly higher levels of satisfaction, engagement, and self-efficacy, with 89.4% stating they would recommend the methodology to other students. These attitudinal gains are important because writing self-efficacy has been shown to predict long-term writing development and willingness to engage in scholarly communication [18].

Fourth, qualitative evidence from faculty interviews confirmed that while interactive methods demand greater preparation time and pedagogical flexibility, they ultimately produce deeper and more transferable learning outcomes. The initial period of student resistance to peer review typically resolves within three to four weeks of consistent implementation.

Recommendations

1. Non-philological faculties should adopt a blended writing pedagogy that devotes approximately 60–70% of instructional time to interactive methods (peer review, collaborative writing, process portfolios, genre analysis) and 30–40% to targeted traditional instruction (grammar mini-lessons, model analysis, vocabulary building). This allocation reflects the empirical finding that higher-order skills require more scaffolded practice while grammatical accuracy benefits from focused, explicit instruction.

2. Universities should develop a standardized Academic Writing module for non-philological programs, consisting of no fewer than 72 contact hours across two semesters, with explicit learning outcomes aligned to international benchmarks

such as the CEFR B2/C1 writing descriptors and the IELTS Task 2 assessment criteria.

3. Faculty professional development programs should include training in process-based writing pedagogy, rubric design, peer review facilitation techniques, and the use of digital tools (Google Docs, Turnitin, Grammarly, and LMS-integrated writing modules). A minimum of 36 hours of annual training is recommended.

4. Universities should invest in digital infrastructure to support collaborative writing, including institutional licenses for plagiarism detection software, cloud-based writing platforms, and learning management systems with integrated peer review functionality.

5. Assessment reform is necessary: non-philological faculties should shift from single-draft, product-only grading toward portfolio-based assessment that rewards iterative improvement, reflective practice, and the development of revision skills. A suggested portfolio model includes three major assignments (annotated bibliography, argumentative essay, and mini-research paper), each requiring at least two drafts with documented peer and instructor feedback [15].

6. Future research should employ longitudinal designs to assess the long-term retention and transferability of writing skills developed through interactive methods, and should expand sampling to include regional universities and vocational institutions to improve generalizability across the Uzbek higher education system.

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