Improvement of Coherence and Cohesion in Academic Essay Writing through the Process-Based Approach

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INTRODUCTION

Academic writing remains one of the most challenging aspects for ESL learners, particularly in contexts where English is taught as a foreign language. Coherence and cohesion, critical components of effective academic writing, are often underdeveloped due to insufficient instruction on how to logically structure ideas and use cohesive devices appropriately.

Coherence refers to the logical arrangement and progression of ideas in a text (Grabe & Kaplan, 1996), while cohesion involves the linguistic elements that link sentences and paragraphs together, such as conjunctions, reference words, and lexical repetition (Halliday & Hasan, 1976). Despite being closely related, these two concepts require distinct and focused pedagogical attention (Carrell, 1982).

Internationally, researchers such as Flower and Hayes (1981) have emphasized the cognitive dimension of writing, proposing that skilled writing involves recursive processes of planning, drafting, and revising. Badger and White (2000) further expanded on this by introducing a process-genre approach that integrates both the social and cognitive aspects of writing instruction. Similarly, Hyland (2003, 2007) has contributed significantly to the field of second language writing, highlighting the importance of scaffolding and genre awareness in improving academic literacy.

In Kazakhstan, research into academic writing pedagogy for ESL learners is still developing. While there has been growing interest in genre-based instruction and communicative approaches, few studies have examined the implementation of a process-based writing instruction specifically aimed at improving coherence and cohesion. Existing research tends to focus primarily on grammar accuracy or general writing proficiency, rather than on the explicit teaching of strategies that support textual organization. Therefore, this study addresses a significant gap by exploring how a process-based approach can foster these key aspects of writing among secondary school ESL learners.

The purpose of this action research is to investigate how a process-based approach can improve coherence and cohesion in academic essay writing among Grade 9 ESL students in Kazakhstan. This study intends to provide ESL educators with an evidence-based method for improving these essential elements of writing through structured instruction. It also aims to empower students by fostering deeper cognitive engagement with the writing process.

Action Research Questions and Hypotheses

- **Qualitative:** *How do the steps of a process-based approach influence students' development of coherence and cohesion in academic essay writing?* This question aims to explore students' perceptions and experiences with various stages of the process-based approach—such as brainstorming, outlining, drafting, peer feedback, and revising—and how these stages contribute to their ability to logically organize ideas and connect sentences and paragraphs in a meaningful way.

- **Quantitative:** *To what extent does a process-based approach improve coherence and cohesion in Grade 9 ESL students' academic essays?* This question seeks to measure the impact of the process-based approach on students' performance using a 6-point rubric across four academic terms.

Data Collection and Methods

This action research employed a mixed-methods approach to investigate the impact of a process-based writing approach on improving coherence and cohesion in academic essay writing. The research was conducted at one of the renowned schools for gifted students located in Atyrau city, Kazakhstan. The site was selected due to its academic emphasis on developing students' higher-order thinking and English language proficiency. The study involved a single Grade 9 class consisting of 13 students, including 5 female and 8 male participants. These students were identified as having English proficiency levels ranging from low B1 to high B2, based on classroom assessments and teacher evaluations. This range of language competence provided a meaningful context for exploring how a process-based approach could impact the development of coherence and cohesion in academic essay writing.

The lessons were guided by two key learning objectives from the Grade 9 English Course Plan of the AEO "Nazarbayev Intellectual Schools" (NIS): W1, which involves planning, writing, editing, and proofreading work at the text level with minimal teacher support, and W6, which focuses on writing coherently at the text level using a variety of connectors. These objectives provided a foundation for instructional planning and formed the basis for assessment criteria throughout the study. Their integration into lessons enabled students to become familiar with expectations and fostered the development of self-regulated learning. By constructing and using clear success criteria and descriptors aligned with W1 and W6, students were better able to understand the desired outcomes and the steps necessary to achieve them.

The instructional sequence for the intervention was based on the process-writing model introduced by Oshima and Hogue, as well as the cognitive theory of writing proposed by Flower and Hayes. The students have been taught various academic essay types, including opinion essays, advantage/disadvantage essays, and problem/solution essays. These essay types were selected to provide diversity in structure while maintaining a clear focus on coherence and cohesion in academic writing.

Throughout the process-based instruction, students engaged in guided sessions that emphasized planning, drafting, revising, and proofreading. Before drafting, students collaborated in pairs and small groups to set individual writing goals related to the logical structuring of ideas and the effective use of linking words. They were introduced to brainstorming techniques such as freewriting, listing, and clustering to facilitate idea generation. Essay structure was explicitly taught, with attention given to writing clear topic sentences, developing supporting details, and using examples to strengthen arguments. Students also studied various cohesive devices and practiced applying them to connect ideas meaningfully across sentences and paragraphs. During the revision phase, students engaged in peer-editing and used self-assessment checklists to identify and correct logical or linguistic inconsistencies. The final proofreading stage emphasized attention to grammar, clarity, and the overall flow of the essay.

Data for the study were collected using several tools. Firstly, pre- and post-intervention writing assessments were administered. Each student wrote four academic essays over the course of the academic year—one in each term—as part of the data collection for this study. These essays were evaluated using a six-point analytic rubric, developed specifically for this research, which assessed key components of coherence and cohesion. The rubric focused on the clarity and presence of topic and concluding sentences, the logical sequencing of ideas within and across paragraphs, the appropriate and consistent use of cohesive devices, and the clarity and organization at the sentence level. This longitudinal assessment enabled a detailed analysis of students' progress and allowed for a more reliable evaluation of the impact of the process-based approach on their academic writing skills.

In addition to these summative assessments, formative assessment activities were embedded into the lessons. These included paragraph reordering tasks to help students recognize logical structure, exercises that required them to fill in gaps with appropriate cohesive devices, and editing activities in which they identified and revised misused or redundant linking words. These formative tasks provided ongoing insights into students' progress and guided instructional adjustments.

To explore students' perceptions of the process-based approach, feedback was gathered through surveys and face-to-face interviews. The surveys included Likert-scale items and open-ended questions, designed to assess

students' attitudes toward the new approach and their awareness of coherence and cohesion in their own writing. The interviews allowed for deeper exploration of students' experiences, challenges, and reflections during the process.

Additionally, classroom observations were conducted by a critical friend—an experienced English teacher from the same institution. The observer attended lessons and provided constructive feedback on the implementation of the teaching strategies. Their insights helped to validate findings and informed necessary modifications to the instruction throughout the cycle of the action research.

The combination of quantitative data from writing scores and qualitative data from student feedback and peer observation allowed for a comprehensive understanding of how the process-based approach influenced the development of coherence and cohesion in student writing. This mixed-methods design ensured that improvements could be measured not only by numerical results, but also by shifts in student behavior, engagement, and awareness of writing as a structured process.

Ethical Considerations

This study adhered to strict ethical guidelines to ensure the protection and rights of all participants. Prior to data collection, informed consent forms were sent to the parents of all participating students. These forms clearly explained the purpose of the research, the procedures involved, potential risks and benefits, and the voluntary nature of participation. Parents were given the opportunity to ask questions before providing written consent for their child's involvement. Participation was voluntary, and students were assured that they could withdraw from the study at any time without any negative consequences. All collected data were kept confidential and used solely for the purposes of this research. The study was conducted with respect for the privacy, dignity, and welfare of all participants.

Data Analysis and Findings

The quantitative data collected (Summative assessment results) over four academic terms for thirteen students, coded as ST1 to ST13, provides clear evidence of the positive impact of the process-based writing approach(Table1). Each student was assessed on a 6-point scale in terms of coherence and cohesion in their academic essays, and scores were recorded at four intervals across the school year:

Topic sentences are clearly written in each paragraph, signaling the main idea effectively.	1
Cohesive devices (e.g., linking words, pronouns, conjunctions) are used precisely and appropriately to connect ideas.	1
Logical sequencing of ideas is maintained throughout the essay	1
Paragraphing is appropriate and supports clarity — each paragraph contains a single, clear idea with development.	1
Transitions between sentences and paragraphs are smooth, making the text easy to follow.	1
Repetition, referencing, and lexical cohesion (e.g., synonyms, pronouns) are used to avoid redundancy and enhance flow.	1

The data demonstrates a consistent pattern of improvement in students' writing performance, particularly in the logical flow of ideas and the use of cohesive devices. For instance, ST2 began the year with a low score of 2 in Term 1 but showed steady progress, reaching 4 by Term 4. Similarly, ST3 progressed from a 4 to a 6, showing clear benefits from the structured and recursive nature of the process-based approach, which included brainstorming, outlining, drafting, and revising. (see Appendix1)

Students who initially demonstrated strong writing ability, such as ST1 and ST12, maintained high scores throughout the year (mostly 6s), but their sustained performance also reflected deeper refinement in writing clarity and cohesion over time. Their stable success suggests that the process-based approach not only helps

students who need improvement but also reinforces advanced writing habits among more proficient learners.

Moderate performers such as ST4, ST5, and ST6 also benefited, showing growth from mid-range scores (e.g., 2–5) toward consistently higher performance in the final term. This steady improvement supports the view that repeated exposure to the writing process—especially collaborative planning and guided revision—helps internalize academic writing structures.

Lower-performing students such as ST9 and ST10, who started at 3 in Term 1, showed incremental gains by Term 4, reaching scores of 4. While not dramatic, these gains highlight the role of regular scaffolding, feedback, and teacher modeling in promoting gradual development in writing competence, particularly for those who require more support.

Overall, the findings align with cognitive writing theories, such as those of Flower and Hayes (1981), which conceptualize writing as a recursive and strategic process. Through repeated engagement in pre-writing, drafting, and revising, students gained control over the structure and clarity of their writing. The upward trend across nearly all participants indicates that a process-based approach is effective in improving coherence and, both of which are essential for academic essay writing. While the extent of progress varied by individual, the consistent overall improvement affirms the value of process-based writing instruction in developing the academic writing skills of Grade 9 ESL students. The data provides strong support for integrating such an approach into regular classroom practice to enhance students' ability to produce structured, coherent, and cohesive texts.

In addition to the quantitative improvements in coherence and cohesion scores, the following table(see Appendix 2) illustrates a comparative analysis of students' writing practices and outcomes before and after implementing the process-based approach. It highlights significant shifts not only in the structure and quality of essays but also in students' engagement with the stages of the writing process and their confidence levels. Before the intervention, only a small fraction of students demonstrated clear organization and effective use of cohesive devices, with minimal engagement in planning or revision activities. For example, just 10% of essays featured logical organization and coherence, and a mere 5% of students actively revised drafts or engaged in peer editing.

Following the process-based approach, the majority of students exhibited significant gains: 85% of essays showed clear and logical structure, 80-85% demonstrated improved coherence and effective use of cohesive devices, and nearly all students engaged in structured brainstorming, drafting, revising, and peer editing activities. Notably, student-reported confidence in their writing process rose dramatically from 10% to 100%.

These qualitative improvements were systematically quantified through thematic coding of classroom observations, student reflections, and writing samples, which identified recurring patterns such as increased planning and peer collaboration. Frequency counts were then applied to measure the prevalence of these behaviors and writing characteristics across the student cohort.

The qualitative data for this research were collected through post-intervention interviews with students, aimed at understanding how the process-based approach influenced their ability to develop coherence and cohesion in academic essay writing. The open-ended questions encouraged students to reflect on specific stages of the writing process, such as planning, peer feedback, and revision. In response to questions about planning strategies (e.g., brainstorming and outlining), most students reported that these pre-writing activities helped them organize their ideas more clearly and structure their essays more effectively. When asked about the impact of peer feedback, many participants shared examples of how comments from classmates prompted them to improve transitions and clarify the logical flow between paragraphs.

Students' reflections on their confidence levels revealed that, while several felt more prepared to write cohesive essays independently, others—particularly five out of thirteen students with lower English proficiency—continued to struggle with linking ideas and using cohesive devices. These students found stages like planning and peer editing more difficult and required more time and teacher support to apply feedback successfully. This highlights that, although the process-based approach generally promoted greater awareness and skill development in coherence and cohesion, its impact varied depending on language proficiency. The findings emphasize the need for differentiated instruction to meet the diverse needs of learners when teaching academic writing.

Implications

The findings of this study carry significant implications for both classroom practice and curriculum design. Firstly, they highlight the importance of teaching writing as a recursive, developmental process rather than a one-time performance. Teachers should provide explicit instruction in coherence and cohesion, helping students understand how to structure their ideas logically and connect them effectively using appropriate linguistic devices. Moreover, the incorporation of multiple writing stages—planning, drafting, revising, and editing—should be encouraged, allowing students to reflect on and improve their work progressively. Collaborative practices such as peer feedback and group brainstorming can further enhance student engagement and foster a supportive writing community. Finally, educational institutions must allocate sufficient time and flexibility within the curriculum to accommodate process-based writing instruction, recognizing that the development of strong academic writing skills is fundamental to students' overall academic success, especially for those learning English as an additional language.

CONCLUSION

Improving academic writing is not about drilling grammar or memorizing templates. It is about helping students organize their thoughts clearly and connect their ideas logically. The process-based approach provides a powerful structure for doing that.

For ESL students, this method not only improves writing quality but also builds confidence, metacognition, and collaborative skills. This study provides a practical model that can be adapted by teachers in similar contexts—particularly in secondary schools where writing expectations grow rapidly, but students often receive limited support on how to meet them.

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APPENDIX 1

Summative Assessment Results(max-6points)
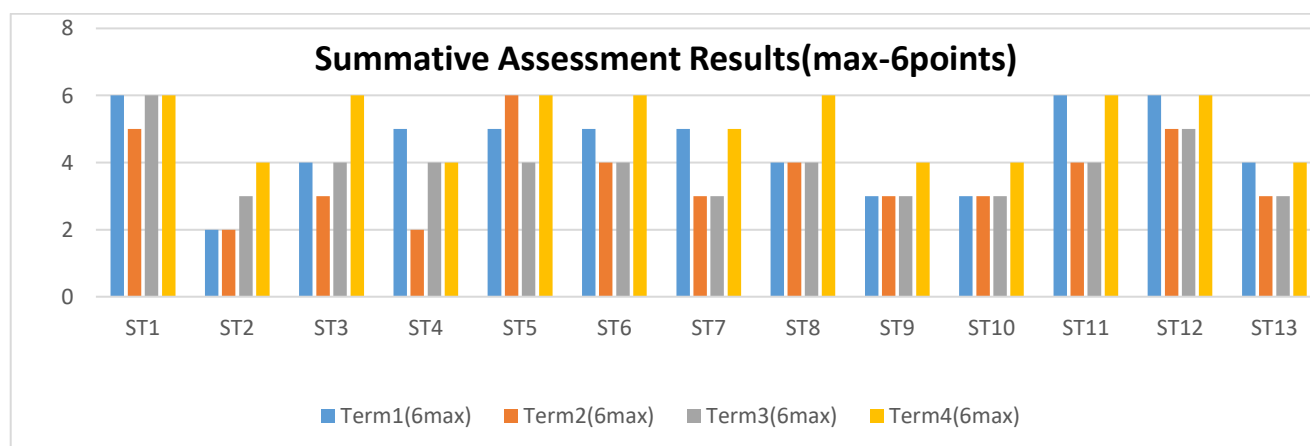
APPENDIX 2

	Before Implementation	**After Implementation**
Essay Structure	10% of students had clear, organized essays.	85% of students demonstrated clear and logical organization in their essays.
Coherence	10% of essays demonstrated logical flow of ideas.	80% of essays showed improved coherence with clear progression of ideas.
Cohesion	10% of essays used cohesive devices correctly and effectively.	85% of essays used cohesive devices appropriately to enhance essay flow.
Pre-Writing Planning	5% of students engaged in planning, with vague outlines or brainstorming.	90% of students engaged in structured brainstorming, outlining, and planning before writing.
Drafting Process	5% of students revised their drafts after writing.	90% of students revised and improved drafts with peer and self-editing.
Revising and Editing	Only 3% of students peer-edited their work.	100% of students actively participated in peer editing sessions.
Writing Confidence	10% of students felt confident in their writing process and structure.	100% of students reported increased confidence in organizing and drafting essays.

APPENDIX 3

Post-Interview Questions for Students

1. How did planning (e.g., brainstorming or outlining) help you organize your ideas more clearly in your essay?

2. Can you describe a time when peer feedback helped you improve the connection between ideas or paragraphs?

3. After completing this writing process, how confident do you feel about writing a coherent and cohesive essay independently?

4. What part of the process do you find most challenging when it comes to improving coherence and cohesion?