



Exploring peer review as a pedagogical tool to enhance paragraph-writing skills in university students

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This study explores the role of structured peer review as a pedagogical tool to enhance paragraph-level writing skills among university students in Indonesia. Academic writing remains one of the most demanding competencies for learners, particularly in producing cohesive and coherent paragraphs. In contexts where large classes and limited teacher feedback constrain the learning process, peer review offers a collaborative approach that distributes responsibility for feedback while fostering deeper engagement with writing. Employing a qualitative case study design, this research involved 25 fourth-year students in an English composition course. Data were gathered from multiple sources, including students' writing drafts collected across several peer review cycles, classroom observations, surveys, and semi-structured interviews. This triangulated approach allowed for a rich exploration of how students' paragraph writing developed over time and how they perceived the peer review process. The findings indicate that students demonstrated notable progress in crafting clearer topic sentences, elaborating supporting details, and producing more consistent concluding sentences. Beyond textual improvements, students reported increased confidence, greater accountability toward peers, and stronger reflective habits. These gains were facilitated by scaffolding strategies such as rubrics, checklists, and teacher modeling, which guided students to provide feedback that moved beyond surface-level corrections toward higher-order concerns of coherence and unity. The study concludes that structured peer review supports not only the improvement of writing products but also the cultivation of collaborative and self-regulated learning practices. As such, it underscores the potential of peer review to be integrated as a core component of English as a Foreign Language (EFL) writing instruction in higher education.

Keywords: academic writing, higher education, paragraph writing, peer review, writing skills, qualitative case study

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INTRODUCTION

Academic writing is a cornerstone of higher education as it enables students to engage deeply with course material, demonstrate their understanding, and develop critical thinking skills (Geithner, A. C. & Pollastro, N. A., 2015). The writing process is fundamental in this endeavor, allowing students to sharpen their ideas, structure their thoughts, and express themselves with clarity and coherence. It requires meticulous planning, revision, and critical self-evaluation to produce well-crafted academic work. Given its complexity, academic writing is often considered one of the most challenging skills for university students to master,

frequently leading to reluctance among some to engage with writing-intensive courses (Dewi et al., 2024).

Paragraph writing is a fundamental component in university-level writing instruction. (Rohim, A., 2019). A well-developed paragraph typically includes a focused topic sentence, supporting details, and a concluding sentence that reinforces the main idea (Siddiqui, A. K., Abbasi, H. R. & Soomro, A., 2023). Mastery of paragraph structure contributes significantly to the development of logical flow, coherence, and the appropriate use of grammar and vocabulary. However, many students still struggle to produce cohesive and focused paragraphs. This struggle often manifests as underdeveloped arguments, disjointed ideas, or a lack of clear progression within their written assignments (Dewi et al., 2024). Such difficulties highlight the necessity for pedagogical approaches that actively engage students in refining their writing processes, moving beyond traditional instruction to more interactive and reflective practices (Trimbur et al., 2001).

In the Indonesian higher-education context, these challenges are compounded by structural factors. Large class sizes and limited opportunities for individualized teacher feedback often prevent students from receiving the level of guidance necessary to refine their writing. This highlights the need for pedagogical approaches that not only strengthen students' paragraph-writing skills but also distribute responsibility for feedback more equitably across the classroom.

Peer review has emerged as a promising pedagogical tool to address these challenges. Through peer review, students exchange feedback, critically analyze each other's work, and improve their understanding of writing conventions (Rahman, 2022; Parr & Timperley, 2010). Studies have shown that peer review enhances paragraph coherence, organization, and clarity by encouraging students to reflect on their writing processes and engage in collaborative learning (Cho & MacArthur, 2009; Coit, 2004; Tsui & Ng, 2000). This interactive approach not only aids in identifying areas for improvement but also fosters a deeper comprehension of rhetorical strategies and grammatical precision (Mallia, 2017).

This collaborative activity reinforces students' grasp of essential paragraph components, such as topic sentences, supporting evidence, and concluding remarks (Cho & MacArthur, 2010).

Prior studies also suggest that peer review fosters metacognitive awareness, independent learning, and student confidence in revising written work (Feng, 2023; Cho & Schunn, 2004; Lundstrom & Baker, 2009). It allows learners to internalize academic standards and develop self-assessment skills. Moreover, feedback from peers often complements or even surpasses instructor comments in improving writing quality. These benefits underscore the value of integrating peer review into writing pedagogy, particularly given the challenges students face in achieving effective written communication (Cho & MacArthur, 2009).

Despite these benefits, few studies have explored the specific effects of peer review on paragraph-level writing, particularly in the context of higher education. Much of the existing literature focuses on broader essay structures or

general writing improvement (Yalch, Vitale, & Ford, 2019; Jegerski & Ponti, 2014). The limited attention to paragraph-focused outcomes leaves a gap in our understanding of how peer feedback supports the development of foundational writing units.

Therefore, this study aims to explore the effectiveness of structured peer review in improving paragraph-level writing skills among university students. By focusing on paragraph elements such as topic sentences, supporting details, and concluding sentences, this study addresses a critical gap in the literature and contributes new insights into how peer review can be implemented to enhance academic writing instruction at the tertiary level.

To guide this investigation, the following research questions were formulated:

1. How does engaging in structured peer review activities influence the paragraph-level writing skills of higher-education students?
2. What specific aspects of paragraph writing (topic sentences, supporting details, and concluding sentences) are most affected by the peer review process?
3. What factors (student perceptions and instructional strategies) contribute to the effectiveness of peer reviews in enhancing paragraph-level writing skills?

METHODS

Research Design

This study employed a qualitative case study design to investigate the effects of peer review on paragraph-level writing skills among higher education students. A case study approach was selected because it allows for an in-depth and contextually grounded exploration of how peer review participation shapes students' ability to produce well-structured and coherent paragraphs within an authentic classroom setting. (Ebneyamini & Moghadam, 2018). Conducted over a semester-long English composition course, the study integrated peer review systematically into writing assignments, enabling the documentation of both observable changes in student writing and students' own reflections on the process.

The peer review intervention was implemented across three review cycles over a 14-week semester. Each cycle included four stages: (1) initial drafting, (2) peer feedback using the provided rubric, (3) self-revision, and (4) teacher confirmation. Classroom observations were conducted five times to examine how students interacted, negotiated meaning, and applied peer feedback. In addition, ten students were purposively selected for semi-structured interviews to represent varying levels of writing performance.

Participant

The participants consisted of 25 undergraduate students enrolled in a fourth-year English composition course at a private university in Indonesia. All participants had previously completed an introductory course in paragraph writing, ensuring a shared foundation in paragraph structure, topic sentence development, supporting detail organization, and coherence techniques. As is common in Indonesian

higher education, the class was relatively large, and opportunities for individualized teacher feedback were limited. This context made peer review a particularly relevant pedagogical strategy, allowing feedback responsibilities to be distributed among students while still strengthening paragraph-writing competencies. Informed consent was obtained from all participants, and ethical approval was secured from the university's research ethics committee.

Data Collection

Data were gathered from multiple sources to provide a comprehensive and triangulated understanding of the phenomenon. The three primary techniques included:

1. Analysis of student writing samples

Writing samples were collected at two points: before the structured peer review intervention and after several cycles of peer review. These samples provided evidence of development in paragraph writing, including changes in structure, coherence, unity, and elaboration of supporting ideas. The comparison of pre- and post-intervention samples offered valuable insights into the extent of improvement in students' paragraph writing.

2. Observation of peer review sessions

Peer review sessions were observed throughout the semester to document how students engaged in the process of giving and receiving feedback. The observations focused on the nature of peer comments (e.g., surface-level corrections vs. content-oriented suggestions), the interactional patterns between reviewers and writers, and the strategies students used to respond to peer feedback in their subsequent drafts. Field notes and observation protocols were used to systematically capture these dynamics.

3. Surveys and interviews with participants

At the end of the course, surveys and semi-structured interviews were conducted to explore students' reflections and experiences with peer review. The surveys captured general perceptions of peer review's effectiveness, while the interviews provided richer, narrative accounts of the perceived benefits, challenges, and learning processes. These instruments added a personal and reflective dimension to the study, highlighting students' voices in relation to their experiences.

The instruments used consisted of a peer review rubric and checklist adapted from remarks ([Cho & MacArthur, 2010](#)), covering clarity of topic sentences, elaboration of supporting details, and paragraph unity. Example items included: "Does the paragraph have one clear focus?" and "Are supporting sentences logically connected to the topic?" Sample interview questions were: "What kind of peer feedback helped you the most?" and "How did peer comments influence your revision decisions?" These instruments ensured consistency and transparency in the data collection process.

The use of multiple data sources ensured methodological triangulation strengthening the credibility of the study by allowing the researchers to examine peer review from different perspectives: textual, observational, and experiential ([Oliver-Hoyo & Allen, 2006](#)).

Data Analysis

Data analysis followed the logic of a qualitative case study, emphasizing contextualized and in-depth understanding. Student writing samples were assessed using a rubric adapted from established criteria for paragraph-level writing, providing descriptive evidence of improvement in coherence, cohesion, unity, grammar, and overall effectiveness. Observational data, survey responses, and interview transcripts were analyzed using manual coding procedures. Open coding was first employed to identify recurring ideas and key concepts, followed by axial coding to group them into broader categories, and selective coding to develop overarching themes. This iterative process enabled close engagement with the data and supported the triangulation of textual, observational, and experiential evidence. The integration of rubric-based analysis with thematic coding provided a holistic narrative of how peer review functioned as a pedagogical tool to enhance paragraph-level writing skills.

RESULTS AND DISCUSSION

The findings in this section are derived from authentic classroom data, including students' paragraph drafts, observation notes, and written reflections collected during the semester. All examples and comments cited here are based on genuine student work rather than simulated or generated data.

Before discussing each research question in detail, it is important to highlight the overall improvement observed in students' paragraph writing. At the beginning of the course, most students wrote short and general paragraphs with vague topic sentences and underdeveloped supporting details. After several peer review cycles, their writing became more organized, focused, and elaborated.

To illustrate this improvement, the following examples show writings taken from students' drafts before and after peer feedback.

Before peer review: "My hometown is big and noisy."

After peer review: "My hometown is a busy city with crowded streets and many vehicles, but I like living here because people are friendly."

Before peer review: "Pollution is bad."

After peer review: "Pollution from cars and factories makes the air dirty and causes health problems for many people in the city."

These examples represent the typical progress made by many participants, who learned to add more specific information and connect their ideas more coherently.

Overall, most students demonstrated improvement in at least one key area of paragraph development—clarity of topic sentences, elaboration of supporting details, or completeness of concluding sentences.

RQ1: Influence of Structured Peer Review on Paragraph-Level Writing Skills

Growth in Overall Writing Competence

The findings revealed that structured peer review had a substantial impact on students' paragraph-level writing competence. By comparing pre- and post-intervention writing samples, it became evident that students made marked

progress in organizing ideas, achieving coherence, and producing unified paragraphs. At the beginning of the semester, many drafts showed weak internal connections; topic sentences were often vague, supporting details were underdeveloped, and paragraphs sometimes contained multiple unrelated ideas. By the end of the course, however, most students demonstrated clearer topic sentences, more elaborated supporting details, and stronger closure through concluding sentences.

Several students attributed these improvements directly to peer review. One participant reflected:

"Before the peer review, I didn't know my sentences were not connected. My friend told me to make it more related, and I understood my mistake." (Student 3)

Another emphasized the motivational effect of knowing peers would read their work:

"I tried to write better because my classmates would read my paragraph. I didn't want to make it messy." (Student 14)

These accounts highlight how peer review fostered not only skill development but also a sense of accountability and audience awareness, both of which encouraged higher-quality writing.

Development of Reflective Habits

Beyond structural improvements, students also developed reflective writing habits. By engaging in the dual roles of writer and reviewer, they learned to approach their texts more critically. Several described how reviewing peers' paragraphs led to greater self-awareness. For instance, Student 8 stated:

"When I corrected my friend's paragraph, I found we made the same mistake. Then I changed my paragraph too."

Such reflections suggest that peer review operates as a cognitive mirror: by evaluating others, students internalize strategies that they can transfer to their own writing. This process supports the idea that peer review is not just about receiving feedback but also about learning through giving feedback.

Progress Across the Semester

Observational data further showed that the effectiveness of peer review increased over time. In early sessions, students tended to focus on surface-level features such as grammar and word choice. Comments like "check your spelling" or "this sentence is too long" dominated initial feedback sheets. However, as students became more familiar with the structured checklists and gained confidence, their feedback shifted toward higher-order concerns. By mid-semester, they were consistently commenting on idea development, paragraph unity, and logical flow. For example, one mid-semester peer comment read:

"You have two ideas in this paragraph. Try separating them so that the topic sentence is clear."

This progression suggests that structured peer review is a developmental process: with repeated practice and scaffolding, students learn to engage with deeper dimensions of writing quality.

RQ2: Specific Aspects of Paragraph Writing Most Affected by Peer Review

Improvements in Topic Sentences

Among the three paragraph components examined, topic sentences were the most visibly affected. Early drafts often contained first sentences that were either too general or disconnected from the paragraph's content. Peer reviewers frequently highlighted this weakness, prompting students to revise.

For example, Student 7 admitted:

"My friend told me that my first sentence was not clear. After that, I tried to write topic sentences that really show what I want to say."

By the end of the semester, most paragraphs began with clear, purposeful topic sentences that effectively framed the discussion.

Strengthening Supporting Details

Another area of significant growth was the development of supporting details. Initially, many students provided vague or underdeveloped evidence. Peer reviewers often flagged this problem, using comments such as "your example is not specific enough" or "explain this more." In response, students began incorporating more concrete elaboration into their writing.

For instance, Student 12 revised a paragraph originally written with a single general claim ("Pollution is a big problem in my city") into one that included specific supporting evidence, such as descriptions of traffic congestion and air quality statistics. The student explained:

"My peer told me my supporting sentences were too general. I revised them by adding examples about the smoke from vehicles and factories."

This shift reflects a deeper understanding of paragraph development, where claims are supported by relevant and specific details rather than abstract generalizations.

Growth in Concluding Sentences

Although less frequently discussed by students at first, concluding sentences emerged as another key area of improvement. Early drafts often ended abruptly or without synthesis. Through repeated peer review, students became more aware of the need for closure. Peers often wrote comments such as "add a sentence to finish your idea" or "connect back to your topic sentence."

One student remarked:

"Before, I just stopped writing. My peer said I should write one more sentence to finish the paragraph. So I wrote a conclusion." (Student 18)

By the final submissions, many paragraphs included concluding sentences that reinforced the topic sentence and synthesized the supporting ideas. Although still an area of challenge for some, the collective progress demonstrated that peer review encouraged greater attention to this overlooked but crucial component of paragraph unity.

Integration of All Three Components

Overall, the peer review process helped students view paragraph writing not as a string of disconnected sentences but as a unified structure with a clear beginning, middle, and

end. This holistic perspective was evident in both student reflections and improved drafts. As Student 20 explained:

“Before, I only thought about grammar. Now I think about how my paragraph starts, develops, and ends.”

RQ3: Factors Contributing to the Effectiveness of Peer Review

Student Perceptions and Attitudes

A critical factor influencing the success of peer review was students' perceptions of its value. Most participants expressed positive attitudes, emphasizing that peer feedback felt more immediate and less intimidating than teacher comments. Several noted that learning from peers' mistakes was just as valuable as correcting their own.

One participant reflected:

“When my friend told me my paragraph was confusing, I didn't feel shy. I just wanted to fix it.” (Student 11)

Positive perceptions fostered higher engagement and a willingness to revise. Conversely, a few students initially expressed skepticism, doubting their peers' ability to provide useful input. However, as the semester progressed and they observed tangible improvements in their writing, even these students acknowledged the value of the process.

Role of Instructional Strategies

Equally important was the role of structured instructional support. Peer review in this study was not left to chance; it was carefully scaffolded through checklists, rubrics, and teacher modeling. Students consistently emphasized that these tools gave them confidence to provide constructive feedback.

As one participant explained:

“The checklist helped me to know what to check. Before, I didn't know what to say.” (Student 5)

The teacher also gave examples of how to give feedback politely and clearly. This made students more confident when discussing their writing. By mid-semester, most students were confidently applying the rubric categories—topic sentences, supporting details, and concluding sentences—when reviewing their peers' work.

Challenges and Limitations

Despite the overall positive outcomes, several challenges were observed. Some students felt hesitant to critique peers strongly for fear of causing offense. Others noted time constraints, particularly during in-class peer review sessions. Nevertheless, these obstacles were mitigated by the structured nature of the activity. Explicit instructions, respectful feedback norms, and the supportive classroom climate encouraged students to overcome initial discomfort.

Importantly, the findings suggest that peer review's effectiveness depends on the interplay between student perceptions and instructional strategies. Positive student engagement, combined with clear scaffolding, created an environment in which feedback was both meaningful and actionable.

Influence of Peer Review on Paragraph-Level Writing Skills (RQ1)

The first research question sought to understand how structured peer review activities influenced students'

paragraph-level writing skills. The findings revealed notable improvements in students' ability to construct paragraphs with greater clarity, organization, and logical flow. These gains were most evident in the enhanced quality of topic sentences, the stronger use of supporting details, and the greater consistency in concluding sentences. Beyond the textual features, peer review also fostered metacognitive awareness, as students became more attentive to the conventions of academic writing and more reflective about their own writing processes.

These findings align with earlier studies that underscore the positive role of peer feedback in promoting writing development (Cao et al., 2022; Nguyen, 2016). Peer review provided students with opportunities to critically evaluate the work of their classmates, which in turn encouraged them to internalize standards of effective writing and transfer those insights into their own revisions. This reciprocal process resonates with Vygotskian perspectives on learning, particularly the notion of the zone of proximal development (ZPD), where learners achieve more with the guidance of peers than they might independently. In this sense, peer review did not function merely as a corrective mechanism but as a dialogic and collaborative learning tool that scaffolded students toward greater proficiency.

Importantly, the study highlights that peer review is particularly effective when structured and guided by clear criteria. Students reported that using rubrics and checklists helped them focus their feedback and reduced the anxiety of critiquing peers' work. This corroborates findings from (Cho & Cho, 2010) who noted that structured peer review fosters higher-quality feedback and more substantial revisions. In the current study, structured peer review not only shaped students' technical skills in writing but also fostered greater confidence in their ability to evaluate and produce academic text.

Specific Aspects of Paragraph Writing Affected by Peer Review (RQ2)

The second research question addressed which specific aspects of paragraph writing were most affected by the peer review process. The findings indicated that while all three aspects (topic sentences, supporting details, and concluding sentences) showed improvement, the most substantial gains occurred in the use of supporting details. Students became more adept at providing examples, evidence, and explanations that substantiated their topic sentences. This suggests that peer review was particularly effective in moving students beyond surface-level writing toward deeper elaboration and argumentation.

The improvement in supporting details can be attributed to the dialogic nature of peer review, where students were prompted to ask for clarification, request elaboration, or challenge weak arguments in their peers' writing. This interaction mirrored authentic academic discourse and encouraged students to consider the expectations of an audience. Previous research has emphasized the importance of audience awareness in academic writing and the present findings extend this work by illustrating how peer review cultivates that awareness at the paragraph level (Baker, 2016; Caux & Pretorius, 2024). This collaborative knowledge-

building process, where students engaged in providing feedback, significantly contributed to their ability to develop and articulate comprehensive supporting arguments within their paragraphs (Lim & Tay, 2024). This active engagement in providing feedback also cultivated self-assessment skills, as students began to apply similar evaluative criteria to their own work (Bergamin et al., 2019).

Topic sentences also showed significant improvement, with students demonstrating a clearer ability to state the main idea of each paragraph concisely and appropriately. Peer reviewers frequently identified vague or overly broad topic sentences, prompting writers to revise them for precision and focus. This reflects the findings of (Baker, 2016; Lundstrom & Baker, 2008), who argue that peer feedback strengthens writers' awareness of rhetorical structure and coherence. In the present study, peer feedback guided students toward recognizing the central role of topic sentences in paragraph unity.

Concluding sentences exhibited moderate improvement compared to topic sentences and supporting details. Many students still struggled to provide effective summaries or reflective statements at the end of paragraphs. While peer review raised awareness of this weakness, fewer comments directly addressed concluding sentences, suggesting that this aspect of paragraph writing may require more explicit instructional intervention. This finding underscores the need for teachers to integrate targeted instruction on paragraph closure into peer review activities, ensuring that students fully grasp the rhetorical purpose of concluding sentences.

Factors Contributing to the Effectiveness of Peer Review (RQ3)

The third research question focused on the factors that contributed to the effectiveness of peer review, with particular emphasis on student perceptions and instructional strategies. Several key factors emerged.

Student Perceptions

Students overwhelmingly viewed peer review as beneficial for their writing development. They appreciated the opportunity to receive immediate and varied feedback, which they often described as more relatable and less intimidating than teacher feedback. Many students also reported that reviewing others' work helped them recognize flaws in their own writing, reinforcing the dual benefits of giving and receiving feedback. This supports findings by (Nicol et al., 2013), who argue that peer assessment enhances students' evaluative judgment and self-regulated learning.

However, the study also uncovered challenges in student perceptions. Some students initially doubted their ability to provide useful feedback, expressing concern about their own limited proficiency. Over time, the provision of structured rubrics and guided practice alleviated these anxieties, enhancing students' confidence and willingness to engage. This suggests that perceptions of self-efficacy play a critical role in shaping the success of peer review.

Instructional Strategies

Instructional design was another critical factor. The effectiveness of peer review depended heavily on the teacher's ability to provide clear guidelines, scaffolding, and follow-up. Rubrics and checklists proved indispensable in

helping students focus on the key aspects of paragraph writing. Moreover, teacher modeling of effective feedback demonstrated the expected tone, specificity, and constructiveness of peer comments. Without such instructional scaffolds, peer review risked devolving into superficial praise or unhelpful critique.

Another instructional factor was the integration of peer review into a cyclical process of drafting, feedback, and revision. Students recognized that peer review was most valuable when it directly informed subsequent revisions rather than functioning as an isolated activity. This aligns with (Manchón & Matsuda, 2016), who emphasizes the iterative nature of writing development and the importance of multiple opportunities for feedback and revision. The current findings affirm that peer review must be embedded within a broader pedagogical framework that prioritizes writing as a process rather than a product.

Social and Cultural Dynamics

Finally, social and cultural dynamics influenced the peer review process. In some cases, students were reluctant to provide critical feedback to peers for fear of causing offense, particularly in collectivist cultural contexts where maintaining group harmony is valued (Carson & Nelson, 1994). Teachers addressed this by emphasizing the constructive purpose of feedback and by framing peer review as a collaborative effort toward mutual improvement. Over time, students became more comfortable offering critical yet respectful suggestions, highlighting the importance of cultural sensitivity in peer review implementation.

Theoretical Implications

The findings of this study contribute to theoretical discussions on peer review and writing pedagogy in several ways. First, they reinforce sociocultural perspectives on learning, illustrating how writing development is mediated through interaction with peers and guided by shared tools such as rubrics. The observed improvements in paragraph structure confirm that learning is not merely individual but co-constructed through social processes. This resonates with Vygotsky's claim that higher mental functions develop first on the social plane before becoming internalized.

Second, the study advances our understanding of peer review as both a cognitive and affective process. Cognitively, students developed greater awareness of paragraph structure and rhetorical clarity. Affectively, they gained confidence, motivation, and a sense of belonging within the writing community. This dual dimension highlights the holistic impact of peer review, suggesting that its benefits extend beyond textual outcomes to encompass broader developmental goals in higher education.

Pedagogical Implications

From a pedagogical perspective, the findings suggest several implications for writing instruction in higher education. First, structured peer review should be integrated as a regular feature of writing courses, supported by clear rubrics and guided practice. Teachers should emphasize not only how to give feedback but also how to use it effectively in revision. Second, special attention should be devoted to aspects of writing that are less frequently addressed in peer feedback, such as concluding sentences, to ensure balanced

development of all components of paragraph structure. Third, teachers should foster a classroom culture that values constructive critique, mutual respect, and collaborative learning, thereby reducing anxiety and resistance to peer review.

The study also highlights the potential of peer review to complement teacher feedback. While teacher feedback remains essential for addressing complex linguistic and rhetorical issues, peer feedback provides immediacy, variety, and opportunities for critical engagement that teacher feedback alone cannot fully replicate. Together, these forms of feedback create a more comprehensive and supportive environment for writing development.

Limitations and Directions for Future Research

Although this study provides valuable insights, certain limitations must be acknowledged. The sample size was relatively small and context-specific, which may limit the generalizability of findings to broader populations. Future research should replicate the study with larger and more diverse cohorts across different institutional and cultural contexts. Additionally, the study relied primarily on qualitative data from observations and interviews, complemented by textual analysis of students' paragraphs. Future work could integrate more longitudinal designs or experimental approaches to examine the sustained effects of peer review on writing development.

Moreover, while this study focused on paragraph-level writing, future research could extend to more complex genres such as essays, reports, or research papers. Investigating whether the benefits of peer review observed at the paragraph level transfer to larger and more sophisticated writing tasks would further enrich our understanding of its pedagogical value.

CONCLUSION

This study investigated how structured peer review activities influence paragraph-level writing skills among university students. The findings confirm that peer review, when designed with clear scaffolding and instructional support, can significantly improve students' abilities to construct coherent and unified paragraphs. It enhances three key elements of paragraph writing—topic sentences, supporting details, and concluding sentences—by fostering critical reflection, reader awareness, and metacognitive engagement.

Three main conclusions can be drawn. First, structured peer review contributes meaningfully to the development of paragraph-level writing by encouraging students to identify and revise structural weaknesses in their work. Second, the most affected components of paragraph writing are those that determine clarity and coherence: the clarity of topic focus, the adequacy of elaboration, and the completeness of closure. Third, the effectiveness of peer review is closely tied to two factors: students' positive perceptions of the activity and the presence of explicit instructional guidance, such as rubrics and checklists. Beyond its impact on writing outcomes, peer review also cultivates student agency, collaboration, and self-evaluation—qualities that are essential in learner-centered pedagogy and reflective academic practice.

Based on these conclusions, several practical and pedagogical recommendations are proposed. Instructors are encouraged to integrate structured peer review into writing curricula not as an add-on, but as a core instructional strategy. To ensure its success, peer review activities should be supported with clear guidelines, feedback forms, and modeling of constructive commentary. Teacher preparation plays a vital role: educators must provide orientation on how to give focused, respectful, and meaningful feedback. Institutions should also consider including peer review frameworks in their academic writing modules, particularly at the paragraph level, which lays the foundation for more advanced writing.

Future research may explore how peer review affects long-term writing development, the role of peer dynamics in shaping feedback quality, or its impact in asynchronous online settings. Moreover, comparative studies across different cultural or disciplinary contexts could enrich our understanding of peer review's pedagogical potential.

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