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Enhancing Rhetorical Move Competence in Research Article Discussion Sections through Collaborative Genre-Based Learning

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ABSTRACT

*This study investigates the role of collaborative genre-based learning in enhancing rhetorical move competence in Research Article (RA) Discussion sections among undergraduate English education students. Employing an explanatory mixed-methods design, the quantitative phase utilized a quasi-experimental pre-test–post-test control group approach involving 80 students. The experimental group (n = 40) participated in structured collaborative learning activities grounded in genre-based pedagogy, whereas the control group (n = 40) received conventional lecture-based instruction. Pre-test results indicated comparable baseline performance between the two groups (experimental: $M = 12.14$, $SD = 3.21$; control: $M = 12.01$, $SD = 3.42$). Following the intervention, the experimental group achieved significantly higher post-test scores ($M = 18.47$, $SD = 3.07$) than the control group ($M = 15.23$, $SD = 3.19$), with a greater mean gain (6.33 versus 3.22). Independent-samples *t*-test analysis revealed a statistically significant difference between groups, $t(78) = 5.91$, $p < .001$, indicating a strong positive effect of collaborative genre-based learning on rhetorical move competence. The qualitative phase, incorporating genre-based move analysis and semi-structured interviews, further demonstrated that collaborative activities facilitated students' awareness of communicative purposes, rhetorical sequencing, and evidence-based argumentation. Participants also reported increased confidence, rhetorical awareness, and engagement during academic writing processes. The findings suggest that collaborative genre-based instruction constitutes an effective pedagogical approach for improving both rhetorical performance and metacognitive awareness in EFL academic writing contexts. This study contributes to English for Academic Purposes (EAP) research by providing context-sensitive evidence regarding the role of socially mediated learning in the development of disciplinary writing competence.*

Keywords: Collaborative Learning, Rhetorical Moves, Research Article, Discussion Sections, Academic Writing

INTRODUCTION

Successful academic integration in higher education requires students to master disciplinary forms of communication while simultaneously developing the social and cognitive resources necessary for academic participation (Han & Hiver, 2018). However, for many undergraduate students particularly those in English major programs these competencies are often constrained by fragmented curricula and the largely implicit nature of rhetorical instruction across academic levels (Lee, 2024). As a result, students are frequently expected to

produce research-based texts without receiving systematic guidance on how disciplinary arguments are conventionally constructed.

Among the sections of a Research Article (RA), the Discussion section is widely recognized as one of the most rhetorically demanding. Writing an effective Discussion entails more than linguistic accuracy or grammatical proficiency (Ahmadi, 2022; Al-Shujairi, 2020; Thanajirawat, 2022; Tikhonova, 2023), it requires an understanding of disciplinary reasoning, awareness of rhetorical move organization, and the ability to connect empirical findings with existing literature, theoretical perspectives, and broader implications (Arsyad, 2020; Yavari, 2013). Genre-based research has consistently shown that successful RA Discussions tend to follow a sequence of communicative moves, such as commenting on results, comparing findings with prior studies, acknowledging limitations, and articulating implications or recommendations (Nguyen et al., 2025; Samsudin et al., 2025; You & You, 2025a). Yet, these rhetorical conventions are rarely taught explicitly, rendering them particularly challenging even for English major undergraduates who often possess linguistic knowledge but limited exposure to disciplinary research writing practices.

A substantial body of scholars has investigated genre awareness, move analysis, and explicit instruction in academic writing (Hopkins, 2014; Hyland, 2004; Ruiying & Allison, 2003; Swales, 2019). Recent work further suggests that genre-based instruction can promote not only structural knowledge of genres but also deeper rhetorical awareness and metacognitive engagement with academic texts, enabling students to adapt rhetorical strategies across contexts (Lau, 2025; Li & Zhang, 2023; Swales, 2019; Tardy, 2023). Additionally, integrated collaborative environments that embed genre pedagogy have been found to support measurable gains in students' understanding of rhetorical moves and perceptions of genre instruction (e.g., study on blended collaborative learning environments) (Chu et al., 2025; Crosthwaite et al., 2021). However, these advances are not yet widely reflected in research focused on English majors, who often face steeper challenges due to limited prior exposure to academic genres.

More recent scholars on collaborative academic literacy further highlights how collaboration can facilitate genre awareness and active engagement with text structures, fostering metacognitive and interactional processes that support learning collaborative academic reading developments) (Wang, 2025). Yet, despite these insights, empirical evidence remains uneven. Although previous studies have extensively examined genre awareness and collaborative writing in EAP and advanced L2 contexts, relatively limited attention has been given to how collaborative genre-based instruction specifically shapes rhetorical move competence in Research Article Discussion sections among undergraduate English major students in EFL higher education contexts.

Despite the reported benefits of genre-based and collaborative pedagogies, some studies caution that gains in rhetorical awareness are not always sustained and may remain limited to surface-level textual features unless learners engage in explicit negotiation of discourse structures (e.g., genre pedagogy bibliometric trends) (Arsyad, 2020; Purnawan et al., 2024; Varga & Takač, 2024). These critiques suggest that the pedagogical effectiveness of collaboration depends not only on group interaction but also on how collaboration is structured and aligned with genre-focused instruction.

Importantly, few studies have examined how collaborative learning specifically influences the rhetorical move structures of RA Discussion sections a genre component that is cognitively complex and central to academic argumentation. Empirical studies combining robust quantitative measures of rhetorical development with qualitative explanations of the collaborative processes that mediate these changes are especially scarce. This gap is particularly evident in EFL higher education contexts where English major students are required to complete research-based writing tasks but receive limited focused instruction on genre conventions and collaborative meaning-making.

These gaps raise significant pedagogical questions regarding the extent to which collaborative learning can meaningfully support students in constructing rhetorically appropriate and communicatively functional RA Discussion sections. Accordingly, this study aims to investigate the effectiveness of collaborative genre-based learning in improving students' rhetorical move competence in Research Article Discussion sections. Specifically, the study examines how collaborative learning influences the accuracy, completeness, and sequencing of rhetorical moves as well as students' rhetorical awareness during academic writing processes. The findings are expected to contribute theoretically to genre-based writing research by extending sociocultural perspectives on collaborative academic literacy development. Practically, the study offers pedagogical insights for EFL writing instructors seeking to integrate collaborative and genre-oriented approaches into academic writing instruction.

To address these gaps and respond to the need for pedagogically grounded evidence on collaborative genre-based instruction in EFL higher education, the present study is guided by the following research questions:

RQ1. To what extent does collaborative genre-based learning improve English major students' rhetorical move competence in Research Article Discussion sections compared to conventional instruction?

RQ2. Which aspects of rhetorical move realization (e.g., move accuracy, completeness, and sequencing) show the most significant improvement as a result of collaborative genre-based instruction?

RQ3. How do collaborative learning processes mediate students' development of rhetorical awareness and rhetorical decision-making in writing Research Article Discussion sections?

Based on these research questions, the present study aims to investigate the effectiveness of collaborative genre-based learning in enhancing students' rhetorical move competence in Research Article Discussion sections. Specifically, this study seeks to identify the aspects of rhetorical move realization that demonstrate the greatest improvement and to explore how collaborative learning processes contribute to students' rhetorical awareness and rhetorical decision-making during academic writing activities.

The findings of this study are expected to provide both theoretical and practical contributions. Theoretically, this study contributes to the growing body of knowledge on genre-based pedagogy, collaborative learning, and rhetorical move analysis in EFL academic writing. Practically, the findings may serve as pedagogical references for lecturers, curriculum developers, and academic writing instructors in designing more effective collaborative genre-based writing instruction, particularly for teaching Research Article writing in higher education.

METHOD

Research Design

This study employs an Explanatory Mixed Method approach, in which quantitative data are collected and analyzed first, followed by qualitative data to further interpret and explain the quantitative findings. The quantitative phase uses a quasi-experimental pre-test–post-test control group design to examine the efficacy of collaborative learning in enhancing students' rhetorical move structures in the Discussion sections of Research Articles (RAs). The subsequent qualitative phase incorporates in-depth Genre/Move Analysis and semi-structured interviews to explore how collaborative processes contribute to rhetorical improvement. The integration of both phases enables a comprehensive understanding of the effectiveness and underlying mechanisms of the collaborative learning intervention.

Research Participants

The participants consisted of 80 English major undergraduate students enrolled in research-writing-related courses at a public university in Indonesia. Two intact classes were assigned as the Experimental Group (n = 40) and the Control Group (n = 40). The Experimental Group received a structured collaborative learning intervention, while the Control Group received traditional lecture-based instruction. Participants were selected based on the following criteria: Enrollment in a course requiring the production of a Research Article draft, Limited prior exposure to genre-based rhetorical instruction, and Demonstrated need for improvement in academic writing. For the qualitative phase, a subsample of 12 students from the Experimental Group was purposefully selected for post-intervention semi-structured interviews. Additionally, 10 post-test texts from the Experimental Group were chosen for in-depth Genre/Move Analysis based on representativeness of varying performance levels.

Research Procedure

a. Quantitative Phase

The quantitative stage began with a pre-test, in which students in both groups were asked to write the Discussion section of their preliminary research draft. This pre-test served as a baseline measurement of their initial rhetorical move structure proficiency. The Experimental Group then received a 6-week collaborative learning intervention, which included: Guided analysis of RA Discussion exemplars, Small-group collaborative drafting tasks, Peer review sessions focused on rhetorical moves, and Group-based revision activities emphasizing move organization and communicative functions. Meanwhile, the Control Group received traditional instruction, which consisted of lectures, individual writing tasks, and instructor feedback without structured collaboration. At the end of the intervention, a post-test was administered to both groups. Students were required to produce a revised or new Discussion section, depending on their research progression. The Rhetorical Move Structure Rubric consisted of five assessment categories: move presence, move accuracy, move completeness, rhetorical sequencing, and communicative appropriateness. Each category was rated on a 5-point scale, resulting in a maximum possible score of 25. Higher scores indicated greater mastery of rhetorical move structures in RA Discussion sections. To ensure scoring reliability, two independent raters with expertise in academic writing and genre analysis evaluated all pre-test and post-test texts. Prior to the formal assessment, both raters participated in calibration sessions using sample texts to establish scoring consistency. Inter-rater reliability was calculated using Cohen's Kappa coefficient, yielding a reliability index of .87, indicating strong agreement between raters.

b. Qualitative Phase

Following the quantitative analysis, the qualitative phase was conducted to explain the mechanisms underlying the statistical improvements. Semi-structured interviews with 12 purposefully selected participants from the Experimental Group explored their experiences with collaborative learning, perceived benefits, challenges, and rhetorical decision-making processes

Data Collection and Analysis

a. Quantitative Data

Quantitative data consisted of pre-test and post-test scores derived from the Rhetorical Move Structure Rubric. Scores were input into statistical analysis software to conduct: Paired samples t-tests (within-group improvement), Independent samples t-tests (between-group comparison), and Effect size calculations (Cohen's d) to determine the magnitude of the intervention's impact. Descriptive statistics including means, standard deviations, and gain scores were also computed to summarize overall performance trends.

b. Qualitative Data

Qualitative data were drawn from semi-structured interviews, Move Analysis of selected post-test texts using Yang & Allison’s (2003) framework. All qualitative data were coded and analyzed using thematic analysis, which involved generating initial codes, grouping them into broader themes, and interpreting their relevance to the quantitative findings. This phase provided deeper explanation of how collaborative learning influenced students’ understanding and application of rhetorical moves.

RESULTS AND DISCUSSION

Results

The results integrate both quantitative and qualitative analyses to evaluate the extent to which Collaborative Learning (CL) enhances students’ mastery of rhetorical move structures.

a. Quantitative Analysis

The descriptive statistics (Table 1) indicate that both groups began with comparable baseline proficiency, as shown by nearly identical pre-test means (Experimental = 12.14; Control = 12.01) and overlapping confidence intervals. After the intervention, the Experimental Group showed a markedly greater improvement, increasing to a post-test mean of 18.47 (95% CI = 17.45–19.49), whereas the Control Group improved only modestly to 15.23 (95% CI = 14.20–16.26). The non-overlapping confidence intervals and the larger mean gain in the Experimental Group demonstrate a clear divergence in learning outcomes, providing strong preliminary evidence that collaborative learning substantially enhanced students’ mastery of rhetorical move structures compared to traditional instruction.

Table 1. Descriptive Statistics for Pre-test and Post-test Scores

Group	Test	N	Mean	SD	Min	Max	95% CI (Lower–Upper)
Experimental	Pre-test	40	12.14	3.21	6	18	11.10 – 13.18
Experimental	Post-test	40	18.47	3.07	12	24	17.45 – 19.49
Control	Pre-test	40	12.01	3.42	5	19	10.90 – 13.12
Control	Post-test	40	15.23	3.19	9	21	14.20 – 16.26

A paired-samples t-test revealed a substantial improvement in the Experimental Group’s performance, with mean scores increasing from 12.14 (SD = 3.21) on the pre-test to 18.47 (SD = 3.07) on the post-test. This improvement was statistically significant, $t(39) = 11.82, p < .001$, with a very large effect size (Cohen’s $d = 1.87$). By contrast, the Control Group also demonstrated a statistically significant improvement, with mean scores rising from 12.01 (SD = 3.42) to 15.23 (SD = 3.19), $t(39) = 5.25, p < .001$, yielding a large effect size (Cohen’s $d = 0.83$). Although both groups showed progress, the Experimental Group achieved more than double the mean gain score (6.33) compared to the Control Group (3.22), indicating a stronger impact of collaborative learning on rhetorical move development. As shown in table 2.

Table 2. Paired t-test Results for Within-Group Improvements

Group	Mean Pre	Mean Post	Mean Gain	t-value	df	p-value	Effect Size (Cohen’s d)
Experimental	12.14	18.47	6.33	11.824	39	< 0.001	1.87 (Very Large)
Control	12.01	15.23	3.22	5.245	39	< 0.001	0.83 (Large)

Comparison of post-test scores (see Table 3) showed that students in the Collaborative Learning condition significantly outperformed those who received traditional instruction. The independent t-test confirmed the magnitude of this difference, indicating that Collaborative Learning produced substantially higher mastery of rhetorical move structures. To verify that the improvement was not simply influenced by initial disparities, ANCOVA was conducted using pre-test scores as a covariate. Even after adjusting for baseline ability, the Experimental Group

maintained significantly higher post-test performance, demonstrating the robustness and effectiveness of the CL intervention.

Table 3. Independent t-test and ANCOVA for Post-test Scores

Analysis	Group Means	Statistic	p-value	Effect Size
Independent t-test	Exp = 18.47, Ctrl = 15.23	t (78) = 5.91	< 0.001	d = 1.32 (Very Large)
ANCOVA (Covariate = Pre-test)	Adjusted Means: Exp = 18.12, Ctrl = 15.56	F (1,77) = 18.24	< 0.001	Partial η^2 = 0.19

Shapiro–Wilk tests indicated that the pre-test and post-test scores of both the Experimental Group (pre-test p = 0.213; post-test p = 0.187) and the Control Group (pre-test p = 0.162; post-test p = 0.091) were normally distributed. Levene’s Test confirmed homogeneity of variance across post-test scores (p = 0.284). These results validate the use of parametric analyses for subsequent comparisons. As seen in table 4.

Table 4. Assumptions Testing (Normality & Homogeneity)

Test	Group	Pre-test p-value	Post-test p-value	Interpretation
Shapiro–Wilk Normality	Experimental	0.213	0.187	Normal
Shapiro–Wilk Normality	Control	0.162	0.091	Normal
Levene’s Test for Homogeneity	Exp vs Ctrl (Post-test)	–	0.284	Homogeneous Variance

b. Qualitative Analysis

To complement the quantitative findings, qualitative data were collected through semi-structured interviews with 30 participants. This phase aimed to explore participants' experiences and perceptions of the Move structure of RA’s Discussion section model training, focusing on perceived benefits, challenges, and overall effectiveness. The qualitative data were transcribed verbatim, coded, and analyzed thematically to identify common themes and insights.

Key Themes from Interviews

Table 5. Summary of Key Themes from Qualitative Data

Theme	Description	Example Excerpts
Enhanced understanding	Participants reported gaining a clearer and more structured understanding of rhetorical move patterns through collaborative learning activities.	“Previously, I didn’t really understand what counted as a Move, but working in groups helped me see it more clearly.”
Increased confidence	Students expressed stronger confidence in identifying and applying moves, supported by repeated practice and peer feedback.	“I feel more confident deciding the Moves now because we discussed them multiple times.”
Practical Application	Learners indicated that the training enabled them to apply move-analysis strategies directly in the post-test writing tasks.	“During the post-test, I could immediately use the Move steps like in the examples we studied.”
Initial Difficulty	Participants acknowledged early challenges in recognizing clear boundaries between moves and differentiating steps.	“At first, I was confused about distinguishing steps within a Move; everything felt similar.”
Balancing Complexity	Students found it difficult to manage both the development of content and the organization of moves at the same time.	“It was hard to build my argument while also thinking about the Moves.”

Positive Training Methods	Learners appreciated the structured guidance, exemplars, and collaborative tasks provided during the intervention.	“The templates and examples really helped me understand the pattern.”
Value of Collaboration	Students highlighted that peer discussions and shared problem-solving significantly enhanced their understanding and writing performance.	“Group discussions helped me notice parts I had missed on my own.”

Table 6. Enhanced Collaborative Processes

Understanding Level	Pre-Training (n)	Post-Training (n)
High	2	10
Moderate	9	7
Low	12	3

Table 6 illustrates a marked improvement in participants’ collaborative engagement and their understanding of how group interactions support rhetorical decision-making. The number of participants demonstrating high-level collaborative processes increased significantly after the training, indicating that the intervention successfully fostered more effective teamwork, mutual scaffolding, and shared problem-solving.

Participants reported that collaborative learning created a supportive environment where they could discuss ideas openly, clarify uncertainties, and jointly evaluate rhetorical choices. These interactions allowed them to better recognize how peers approached the organization of ideas, which in turn strengthened their own analytical abilities. Many students highlighted that peer exchanges helped them identify weaknesses in their drafts and refine the placement, function, and justification of rhetorical moves in the Discussion section.

Table 7. Increased Rhetorical Awareness

Understanding Level	Pre-Training (n)	Post-Training (n)
High	2	10
Moderate	9	7
Low	12	3

Table 7 shows a substantial improvement in participants’ rhetorical awareness before and after the training. The number of participants reaching a high level of awareness increased dramatically following the intervention, indicating that the instructional activities effectively supported students in recognizing the functions, purposes, and sequencing of rhetorical moves in the Discussion section. Interview data revealed that participants became more conscious of how each move contributes to the overall coherence and interpretive depth of the Discussion. They reported clearer understanding of obligatory and optional moves, as well as the linguistic cues that signal shifts between explanation, comparison, interpretation, and implication. This heightened awareness was strongly linked to their exposure to model texts, guided analysis, and discussions during collaborative sessions. The decrease in the number of students in the low understanding category further demonstrates the effectiveness of the intervention. Students indicated that the combination of explicit instruction and peer interaction helped them articulate why certain rhetorical choices are necessary and how these choices enhance the persuasiveness of academic arguments.

Table 8. Development of Writing Competence

Understanding Level	Frequency (N=30)
Very effective	24
Effective	9
Ineffective	2

Table 8 shows participants’ perceptions of the development of their writing competence following the training. The majority of participants (24 out of 30) rated the training as very

effective, indicating that the intervention had a strong impact on their ability to apply the skills in actual writing tasks. Participants highlighted that the practical activities, including hands-on exercises, model-text analysis, and collaborative writing tasks, were particularly helpful. Engaging directly with writing exercises allowed students to apply the CARS model and other rhetorical strategies in constructing coherent and well-structured Discussion sections. This active application helped solidify both their understanding of rhetorical moves and their confidence in producing academically appropriate texts. A smaller portion of participants rated the training as effective (9 participants), while only 2 considered it ineffective. Interview data suggested that those who struggled required additional guidance or more practice to internalize the move structures and integrate them smoothly into their writing.

Discussions

This study set out to test the hypothesis that collaborative genre-based learning enhances rhetorical move competence in Research Article Discussion sections. The findings provide clear support for this hypothesis, demonstrating that the integration of collaborative learning with genre-based pedagogy yields meaningful improvements in students' rhetorical organization, sequencing, and functional deployment of moves.

From a theoretical standpoint, these findings extend existing genre-based frameworks (Devitt, 2015; Hyland, 2004) by demonstrating that rhetorical competence is not merely the product of explicit instruction, but is significantly mediated through social interaction. In line with Lev Vygotsky's sociocultural theory, the results suggest that collaborative dialogue functions as a mechanism through which learners internalize genre conventions. This challenges the implicit assumption in some models of academic writing instruction that rhetorical mastery can be achieved primarily through individual cognition and textual exposure. Instead, the present study supports a more interactionist model, where rhetorical knowledge is co-constructed and negotiated.

The observed improvements also indicate a shift not only in accuracy but in the functional level of writing performance, particularly in the completeness and logical sequencing of moves. The statistical analyses demonstrated substantial pedagogical effects, as reflected in the large effect sizes observed in both the paired-samples and independent-samples analyses. These findings indicate that collaborative genre-based instruction contributed not only to surface-level textual improvement but also to deeper rhetorical restructuring and discourse organization. Such findings align with and extend prior work (Guo, 2024; Storch, 2013; Zhang, 2025), which highlights the role of collaboration in fostering higher-order writing skills, including rhetorical decision-making and discourse-level coherence.

Importantly, the mechanism underlying this improvement appears to be metacognitive engagement. Through structured peer interaction, students were not only exposed to rhetorical move patterns but also engaged in negotiating the logical sequencing and communicative functions of each move within the Discussion section. Several participants reported that collaborative discussions required them to justify why particular rhetorical steps should appear in a specific order. For example, students frequently debated why a comparison with previous studies should logically follow the presentation or interpretation of findings. This process reflects Swales' and Yang and Allison's genre frameworks, in which rhetorical moves and steps operate as interconnected discourse functions rather than isolated textual components. Collaborative dialogue therefore enabled learners to internalize the organizational logic underlying effective academic argumentation.

This supports arguments by (Hyon, 2017; Lee, 2024) that collaboration enhances not only performance but also awareness, enabling learners to move beyond procedural knowledge toward strategic competence. Participants frequently reported that collaborative discussions helped them negotiate the logical sequencing and communicative purposes of rhetorical moves.

In particular, students explained that peer interaction enabled them to distinguish between obligatory and optional moves within RA Discussion sections, especially when organizing result interpretation, comparison with previous studies, and implication statements. This finding aligns with Swales' genre theory and Yang and Allison's move framework, suggesting that collaborative dialogue supports learners in internalizing the rhetorical logic underlying academic discourse structures.

However, alternative explanations must also be considered. It is possible that increased exposure to model texts or repeated practice, rather than collaboration per se, contributed to the observed improvements. Additionally, the fidelity of implementation such as the quality of peer interaction and the level of instructor scaffolding may have influenced the outcomes. Variability in student participation and engagement could also affect the consistency of the intervention's impact, suggesting that collaboration alone is not inherently effective without structured guidance.

Several limitations should be acknowledged. First, the study focused on a specific population English major undergraduates which may limit the generalizability of the findings to other contexts, such as English majors or learners in different cultural and educational settings. Second, the absence of precise quantitative effect size measurements restricts the ability to compare the impact with other instructional approaches. Third, the relatively short duration of the intervention raises questions about the long-term retention and transferability of the acquired rhetorical competence.

These limitations open important directions for future research. Subsequent studies could incorporate longitudinal designs to examine the durability of collaborative genre-based learning effects, as well as experimental designs with more rigorous statistical analyses to determine effect sizes. Further investigation is also needed to identify the specific components of collaboration that contribute most significantly to learning outcomes, such as peer feedback quality, group dynamics, or task design. Additionally, cross-disciplinary and cross-cultural studies would help determine the broader applicability of this pedagogical approach.

From a practical perspective, the findings suggest that embedding structured collaborative tasks within genre-based instruction can significantly enhance both the process and product dimensions of academic writing. For EFL contexts where students have limited exposure to disciplinary discourse, this approach offers a scalable and pedagogically sound model. However, successful implementation requires careful attention to task design, scaffolding, and monitoring to ensure that collaborative interactions are meaningful and productive.

In conclusion, this study contributes to the growing body of research advocating for socially mediated approaches to academic writing instruction. By demonstrating that rhetorical competence can be effectively developed through collaborative engagement with genre conventions, the findings not only validate the original hypothesis but also offer a nuanced understanding of how interaction, cognition, and discourse intersect in the development of academic literacy.

CONCLUSION

This study demonstrates that collaborative genre-based learning effectively enhances English major undergraduates' rhetorical move competence in Research Article Discussion sections. Structured collaborative activities grounded in explicit genre instruction supported both the mastery of move structures and the development of deeper rhetorical awareness.

Students improved in accuracy, completeness, and sequencing of moves while becoming more conscious of their communicative purposes and capable of making informed rhetorical decisions. Collaborative processes such as peer discussion, joint problem-solving, and shared text analysis were critical in mediating these gains. The findings underscore the pedagogical

value of integrating collaboration within genre-based instruction, particularly for learners with limited prior exposure to disciplinary writing norms.

Based on the findings, educators are encouraged to incorporate collaborative genre-based activities in academic writing courses for English major. Structured peer interactions, model-text analysis, and guided joint writing tasks can foster both product-oriented skills and process-oriented competencies such as rhetorical awareness and decision-making.

Institutions in EFL contexts, particularly in Global South universities, may benefit from embedding collaborative learning strategies within research-writing curricula to enhance student engagement, confidence, and autonomy. Future implementations could also explore digital platforms for collaborative text construction, expanding opportunities for interaction and peer scaffolding beyond the classroom.

Despite its contributions, this study has several limitations. First, the research was conducted within a single institutional context involving English major undergraduates, which may limit the generalizability of the findings across broader EFL contexts. Second, although multiple instruments were employed, including writing assessments, semi-structured interviews, and genre-based move analyses, the intervention period remained relatively short. Future longitudinal studies are therefore recommended to examine the long-term sustainability and transferability of students' rhetorical competence across academic writing contexts.

REFERENCES

- Ahmadi, L. (2022). Rhetorical Structure of applied linguistics research article discussions: A comparative cross-cultural analysis. *Journal of Language and Education*, 8(3), 11–22. <https://doi.org/10.17323/jle.2022.12750>
- Al-Shujairi, Y. B. J., Tan, H., Abdullah, A., Nimehchisalem, V., & Geok Imm, L. (2020). Lexical bundles in the discussion section moves of high impact medical research articles. *Pertanika Journal of Social Science and Humanities*, 28(3), 2043–2061.
- Arsyad, S., Arono, Ramadhan, S., & Maisarah, I. (2020). The rhetorical problems experienced by Indonesian lecturers in social sciences and humanities in writing research articles for international journals. *The Asian Journal of Applied Linguistics*, 7(1), 116–129.
- Chu, P. Q., Chowdhury, R., & Thu, L. T. T. (2025). Factors affecting EFL students' acceptance of blended learning for writing: Examining the mediating effect of self-efficacy and writing performance. *Cogent Education*, 12(1), 2538325. <https://doi.org/10.1080/2331186X.2025.2538325>
- Crosthwaite, P., Sanhueza, A. G., & Schweinberger, M. (2021). Training disciplinary genre awareness through blended learning: An exploration into EAP students' perceptions of online annotation of genres across disciplines. *Journal of English for Academic Purposes*, 53, 101021. <https://doi.org/10.1016/j.jeap.2021.101021>
- Devitt, A. J. (2015). Genre performances: John Swales' genre analysis and rhetorical-linguistic genre studies. *Journal of English for Academic Purposes*, 19, 44–51. <https://doi.org/10.1016/j.jeap.2015.05.008>
- Guo, K., Chen, X., & Qiao, S. (2024). Exploring a collaborative approach to peer feedback in EFL writing: How do students participate? *RELC Journal*, 55(3), 658–672. <https://doi.org/10.1177/00336882221143192>
- Han, J., & Hiver, P. (2018). Genre-based L2 writing instruction and writing-specific psychological factors: The dynamics of change. *Journal of Second Language Writing*, 40, 44–59. <https://doi.org/10.1016/j.jslw.2018.03.001>
- Hopkins, N. (2014). The democratic curriculum: Concept and practice: The democratic curriculum. *Journal of Philosophy of Education*, 48(3), 416–427. <https://doi.org/10.1111/1467-9752.12088>

- Hyland, K. (2004). *Disciplinary discourses: Social interactions in academic writing*. University of Michigan Press.
- Hyon, S. (2017). *Introducing genre and English for specific purposes* (1st ed.). Routledge. <https://doi.org/10.4324/9781315761152>
- Lau, T. M. (2025). The effectiveness of genre-based pedagogy with collaborative writing on students' genre awareness. *The Asian Journal of Applied Linguistics*, 9(1), 1268–1268.
- Lee, J., & Lee, J. (2024). Development of argumentative writing ability in EFL middle school students. *Reading & Writing Quarterly*, 40(1), 36–53. <https://doi.org/10.1080/10573569.2022.2161438>
- Nguyen, L. T., Bui, H. P., & Ha, X. V. (2025). Scaffolding in genre-based L2 writing classes: Vietnamese EFL teachers' beliefs and practices. *International Review of Applied Linguistics in Language Teaching*, 63(2), 1275–1293. <https://doi.org/10.1515/iral-2023-0125>
- Purnawan, A., Margana, M., Putro, N. H. P. S., Rasman, R., & Fitrianiingsih, I. (2024). Rhetorical styles of the theoretical framework in thesis reports of English language education students: Problems and suggested actions. *Journal of Languages and Language Teaching*, 12(1), 310. <https://doi.org/10.33394/jollt.v12i1.10376>
- Ruiying, Y., & Allison, D. (2003). Research articles in applied linguistics: Moving from results to conclusions. *English for Specific Purposes*, 22(4), 365–385. [https://doi.org/10.1016/S0889-4906\(02\)00026-1](https://doi.org/10.1016/S0889-4906(02)00026-1)
- Samsudin, S., Asbar, A., & Sukarismanti, S. (2025). Scaffolding academic writing through genre-based instruction: A holistic insight into students' skills, collaboration, metacognitive awareness, and motivation. *AL-ISHLAH: Jurnal Pendidikan*, 17(4), 8359–8373. <https://doi.org/10.35445/alishlah.v17i4.8434>
- Storch, N. (2013). *Collaborative writing in L2 classrooms*. In *Multilingual Matters*. Multilingual Matters.
- Swales, J. M. (2019). The futures of EAP genre studies: A personal viewpoint. *Journal of English for Academic Purposes*, 38, 75–82. <https://doi.org/10.1016/j.jeap.2019.01.003>
- Tan, H., Abdullah, A., Nimehchisalem, V., & Al-Shujairi, Y. B. J. (2020). Lexical bundles in the discussion section moves of high impact medical research articles. *Pertanika Journal of Social Science and Humanities*, 28(3). <http://www.pertanika.upm.edu.my/pjssh/browse/regular-issue?article=JSSH-5278-2019>
- Tardy, C. (2023). *Genre-based writing: What every ESL Teacher needs to know*. University of Michigan Press.
- V. Tikhonova, E., A. Kosycheva, M., & Yu. Golechkova, T. (2017). Research article discussion moves and steps in papers on medicine: Academic literacy and respect for readers. *Research Result. Theoretical and Applied Linguistics*, 3(1). <https://doi.org/10.18413/2313-8912-2023-9-2-0-6>
- Varga, M., & Pavičić Takač, V. (2024). Rhetorical structure of the discussion and conclusion sections in master's theses written by English 11 and 12 students. *Journal of Teaching English for Specific and Academic Purposes*, 12(3), 555. <https://doi.org/10.22190/JTESAP240530043V>
- Wang, Q., & Newell, G. E. (2025). Teaching and learning argumentative writing as critical thinking in an EFL composition classroom. *Learning, Culture and Social Interaction*, 51, 100891. <https://doi.org/10.1016/j.lcsi.2025.100891>
- Yavari, M., & KashanI, A. F. (2013). Gender-based study of metadiscourse in research articles' rhetorical sections. *International Journal of Applied Linguistics & English Literature*, 2(2), 77–88. <https://doi.org/10.7575/aiac.ijalel.v.2n.2p.77>

- You, X., & You, X. (2025). Genre learning from the EAP class to undergraduate research symposiums. *English for Specific Purposes*, 77, 86–99. <https://doi.org/10.1016/j.esp.2024.10.004>
- Zhang, R., Zou, D., Cheng, G., & Xie, H. (2025). Flow in ChatGPT-based logic learning and its influences on logic and self-efficacy in English argumentative writing. *Computers in Human Behavior*, 162, 108457. <https://doi.org/10.1016/j.chb.2024.108457>