



# Structured Reflection in ESL Process Writing: Individual vs. Collaborative Contexts

Irene Yoke Chu Leong<sup>1</sup> , Kuldip Kaur Maktiar Singh<sup>2\*</sup> ,  
Chun Keat Yeap<sup>3</sup> , Gan Kiat Chien<sup>4</sup> , Lai YuhYing<sup>5</sup> 

<sup>1</sup> Academy of Language Studies, University Technology MARA, City Campus, Melaka, Malaysia

<sup>2,3,4,5</sup> Academy of Language Studies, University Technology MARA, Campus Alor Gajah, Melaka, Malaysia

kksekhon@uitm.edu.my

**Abstract.** This study investigates the impact of structured reflective practice on ESL students' process writing in both individual and collaborative writing contexts. Drawing on two theoretical models - process writing and reflective practice as pedagogical frameworks - the study employed a mixed-methods approach, combining students' writing samples, reflective journal entries and learner perceptions to explore how structured reflection supports writing development. A mixed-methods design was employed to examine the impact of structured reflection on ESL learners' writing quality and metacognitive engagement. Sixty undergraduate students were randomly assigned to two groups: individual writers (n=30) versus collaborative writers (n = 30) working in groups of 10 triads. Reflective prompts were embedded at key stages of the writing process. Findings indicate that the collaborative group outperformed the individual group in terms of writing quality, metacognitive and reflective thinking awareness. Conversely, although individual reflection increased learner autonomy, reflective thinking remained at the descriptive levels. The study highlights the importance of incorporating structured reflection within a process writing context to reinforce its pedagogical value. Practical implications include designing writing tasks that integrate both individual and collaborative writing activities, using clear scaffolds to promote reflective thinking at every writing phase.

**Keywords:** structured reflection, collaborative writing, ESL, metacognitive engagement, writing process.

## 1 Introduction

Writing instruction in ESL contexts has often prioritised the final product over the cognitive and metacognitive processes that shape idea development and revision [13]. Historically, product-oriented approaches dominated classrooms, emphasising grammatical accuracy and textual form while sidelining the recursive and problem-solving nature of writing. According to [16], this approach focuses on form and accuracy, and writing

is simply a means of assessing students' ability to manipulate the structures practiced in the classroom. In contrast, process-oriented pedagogy recognises writing as a dynamic activity involving planning, translating, and reviewing, supported by self-monitoring and goalsetting [7, 13, 16]. More recently, reflective practice has emerged as an important dimension of writing instruction, helping learners develop self-awareness, regulate strategies, and engage more critically with their own texts [12]. Reflection not only supports individual growth but also strengthens collaborative learning, as peer dialogue can make tacit thought processes explicit and encourage deeper engagement with audience, coherence, and argumentation.

Despite the established benefits of both process writing and reflective practice, their integration remains underexplored in English as Second Language (ESL) contexts. In particular, limited research examines how structured reflection embedded within process writing influences learners' metacognitive development across different instructional modes, such as collaborative versus individual writing. This study addresses these gaps by integrating Moon's Reflective Thinking Framework [12] with Flower and Hayes' Cognitive Process Model of Writing [7], proposing a reconceptualisation of process writing as both a cognitive and reflective endeavour.

By investigating how structured reflection shapes writing outcomes and reflective depth in collaborative and individual settings, the study aims to contribute a theoretically grounded and pedagogically practical framework for ESL writing instruction. Aligning structured reflection with the recursive stages of the writing process offers a pathway to deepen learners' metacognitive engagement and to promote writing as an intentional, self-regulated practice.

## **2 Theoretical Framework**

This study is guided by integrating two cognitive models as described below.

### **2.1 Flower and Hayes' Cognitive Process Model of Writing.**

Flower and Hayes theorised writing as a recursive, goal-directed cognitive process that involves three interconnected steps: planning, translating, and reviewing [7]. Using past knowledge and long-term memory, writers create ideas, establish writing goals or objectives, and arrange content according to the task during the planning or pre-writing stage.

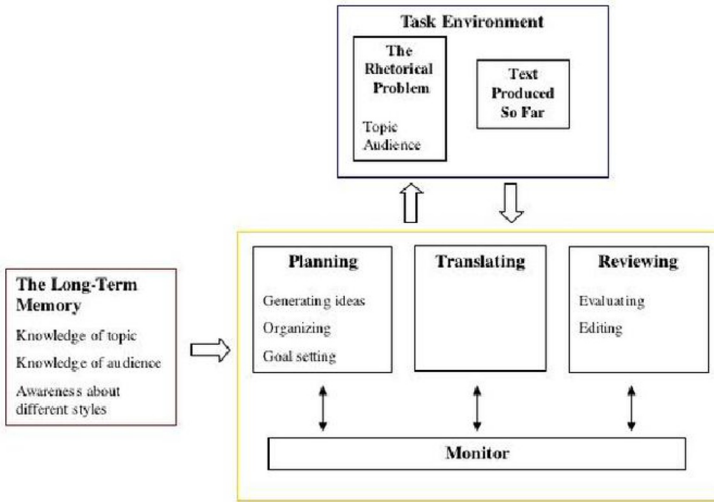


Fig. 1. Flower and Hayes' Cognitive Writing Model

As illustrated in Figure 1 above, the act of translating or composing entails turning these concepts into written language, where writers translate thoughts into words by selecting words, sentence structures and general expressions. In order to increase clarity, structure, and accuracy, writers must assess their work against their intended goals throughout the reviewing or revision step and make necessary adjustments. Crucially, Flower and Hayes stress that these phases are recursive rather than sequential [7]. Hence, good writers frequently review their plans when drafting or making revisions throughout the phases of the writing process.

## 2.2 Moon's Reflective Practice Model

Moon's model is a developmental framework that describes how learners move from surface-level understanding to meaningful, critical reflection [12]. It is widely used in higher education to support metacognitive growth, particularly through structured writing tasks and reflective journals. As illustrated in Table 1, Moon categorises reflection into progressive levels, moving from descriptive level where a lack of self-reflection and metacognition take place, to dialogic which is more self-reflective to a more meaningful and deeply critical reflection [12]. These three levels are not rigid stages but rather a continuum of increasing complexity in thought and self-awareness. One of the key features that Moon's framework is that along this continuum, educators have the opportunities to use prompt to guide and scaffold learners' metacognitive development within a writing process [12]. When structured reflection is embedded into the writing context, active learning takes place. During the writing process, learners are actively reflecting, thinking and linking thoughts to language. It also supports the transfer of learning by helping students connect their experiences to broader contexts and future

applications. Furthermore, the framework is adaptable and practical, as it can be operationalized through structured prompts, rubrics, or journaling activities, making it especially suitable for writing pedagogy in higher education.

**Table 1.** Moon's Reflective Thinking Model

Level	Description	Example
1.Descriptive Writing	Non- reflective. A narrative account of tasks, lacking in self-awareness or interpretation.	"I just chose to write on climate change. I started with an introduction and included three paragraphs and a conclusion."
2.Dialogic Reflection	A reflective conversation with oneself or with others. Questioning various viewpoints, and trying to make sense of the writing.	"After brainstorming, I considered using more evidence. I wasn't confident with the supporting details given by my peers. I felt we needed to strengthen our main points."
3.Critical Reflection	A deeper level of reflection, challenges presumptions, takes into account cause and effect, and links what is learned to upcoming activities or larger contexts.	"I now realize I often write from a personal bias. I feel the need to rethink how I structure arguments for clarity. It's important to make the argument more convincing."

Although considerable research has explored the efficacy of process writing and reflective practice independently, there is a notable lack of studies integrating these two models, particularly when comparing their application in collaborative versus individual writing contexts. Collaborative writing involves social interaction and shared cognition, while individual writing allows for self-paced control and internal reflection. Understanding how these contexts impact writing development when combined with reflective practice can provide valuable insights for writing pedagogy.

Hence, this study seeks to address this research gap by examining the effects of integrating Flower & Hayes' Cognitive Process Writing approach with Moon's Reflective Thinking Model as a pedagogical tool in a writing classroom. The study aims to investigate its impact on students' writing quality and reflective and metacognitive engagement in collaborative and individual writing settings.

### 3 Literature Review

The literature on ESL writing consistently underscores the value of process-oriented approaches, particularly those that conceptualise writing as a recursive, goal-driven, and problem-solving activity. Flower and Hayes' Cognitive Process Writing Model remains foundational in this regard, framing writing as a dynamic interaction among planning, translating, and reviewing processes rather than a linear sequence [7]. Extending this cognitive view, Moon's Reflective Thinking Model positions reflection as both a cognitive and metacognitive act, enabling learners to consciously monitor, evaluate, and regulate their writing strategies across stages [12]. Although reflection has been

widely examined in ESL writing research, it is most often treated as a post-writing activity, typically detached from the core composing process. Consequently, relatively little attention has been given to how structured reflection can be systematically embedded throughout planning, drafting, and reviewing, or how such reflection may function differently in individual versus collaborative writing contexts. This conceptual and pedagogical gap provides the foundation for the present study. A growing body of research affirms the role of reflective practice in enhancing learning across educational contexts, with increasing emphasis on its relevance to academic writing in higher education. Reflective practice supports deeper writing development by prompting students to evaluate their rhetorical decisions and revise their strategies across assignments [17]. Similarly, reflective writing promotes critical thinking and self-regulation; however, it is cautioned that reflection often remains superficial when not supported by explicit scaffolding [18]. This concern is echoed in empirical studies that highlighted the transformative potential of reflective journals in raising EFL learners' awareness of their writing processes, challenges, and strengths [19]. Complementing this, [24] provided evidence that integrating reflective journals within process-based writing instruction fosters deeper reflective engagement and encourages sustained revision practices. Collectively, these studies suggest that while reflection is beneficial, its effectiveness depends heavily on instructional structure and intentional design.

Further studies have linked reflective writing to improved awareness of audience, clarity, and textual organisation, which correspond closely to the planning and reviewing stages outlined in Flower and Hayes' model. Research by [3] and [6] found that reflective activities enhanced learners' sensitivity to rhetorical choices and text coherence. Nevertheless, both studies reported that without structured guidance, many students produced reflections that remained largely descriptive rather than analytical. This finding aligns with Moon's argument that reflective thinking frequently stagnates at lower levels unless it is deliberately embedded at critical points within the learning process [12]. More recently, [23] provided empirical support for this claim by demonstrating that reflection prompts integrated at key writing stages significantly improved learners' critical language awareness and content elaboration. However, their focus was limited to individual writing, leaving unanswered questions regarding how reflective processes might be mediated through peer interaction in collaborative writing settings.

Additional studies across diverse ESL and EFL contexts further reinforce the positive outcomes associated with reflective writing. Research consistently reported improvements in revision behaviour, learner motivation, and writing confidence when students were encouraged to reflect on their composing processes [4, 8, 11, 14, 20]. At the same time, [9] identified persistent challenges among tertiary-level EFL students, noting that many approached writing as a linear task with limited engagement in revision or recursive learning. Importantly, they recommended the integration of process-based instruction coupled with guided reflective activities to promote more effective writing habits and deeper metacognitive engagement, reinforcing the need for structured pedagogical interventions.

Parallel to research on reflection, recent scholarship has increasingly highlighted the pedagogical value of collaborative writing in ESL contexts. Studies converge on the

view that collaborative writing facilitates co-construction of meaning, dialogic engagement, and shared problem-solving [1, 10, 15, 21, 22, 25]. These studies emphasise that collaboration functions not merely as a cooperative task but as a scaffold for cognitive and linguistic development. However, reflection within these collaborative contexts is typically assumed to occur organically through peer interaction rather than being explicitly structured or systematically examined. As a result, the depth and quality of reflective engagement in collaborative writing remain underexplored, particularly in comparison to individual reflective practices.

Taken together, the literature demonstrates strong support for process writing, reflective practice, and collaborative learning as key components of effective writing instruction. Yet, a critical gap persists: few studies have systematically embedded structured reflection within a process-writing framework, and even fewer have examined how reflective depth and writing outcomes may differ between individual and collaborative learning contexts. Most existing research treats these elements in isolation rather than as an integrated pedagogical design.

Against this backdrop, the present study is conceptually positioned at the intersection of process-oriented writing theory and reflective learning, integrating Flower and Hayes' Cognitive Process Writing Model with Moon's Reflective Thinking Framework. Rather than treating reflection as a supplementary or post-task activity, this study conceptualises reflection as a core mediating mechanism that operates across planning, drafting, and reviewing stages. Crucially, it extends existing research by systematically examining how structured reflective scaffolding functions within both individual and collaborative writing contexts, an area that remains underexplored in ESL writing research. By foregrounding reflective depth as both a cognitive and social process, the study aims to generate empirically grounded insights into how instructional design influences writing performance and reflective engagement, thereby contributing to a more integrated and theoretically informed model of ESL writing pedagogy.

To operationalise this conceptual integration, the theoretical gaps identified in the literature were systematically translated into focused research questions. Specifically, limitations in the integration of cognitive writing and reflective thinking models, the lack of comparative examination across individual and collaborative contexts, and the limited attention to learners' reflective perceptions informed the formulation of the study's research questions. Table 2 below summarises this alignment by mapping each identified research gap to a corresponding research question, thereby ensuring coherence between the study's theoretical positioning and its empirical inquiry.

**Table 2.** Research Gaps and Aligned Research Questions

Research Gaps	Research Questions
Limited integration of reflective and cognitive models in writing instruction.	RQ1: How does structured reflective thinking affect ESL learners' writing quality and metacognitive engagement in collaborative versus individual writing contexts?
Lack of comparative insight on reflection in collaborative vs. individual writing contexts.	RQ2: In what ways does the depth of reflection evolve across the cognitive writing stages (planning, translating, reviewing) in both contexts?

---

Need to understand learner perceptions of structured reflection across settings.	RQ3: How do learners in both contexts perceive the use of structured reflection in their writing process?
--	---

---

Table 2 maps the key research gaps identified in the literature review to the specific research questions addressed in this study. These gaps highlight underexplored areas in ESL writing pedagogy, particularly concerning the integration of cognitive and reflective models and the role of instructional context in shaping metacognitive engagement. This alignment ensures that the study not only addresses theoretical deficiencies but also explores practical implications for incorporating structured reflection into diverse ESL writing contexts.

## 4 Methodology

This study employed a mixed-methods design to examine the impact of structured reflection on ESL learners' writing quality and metacognitive engagement. Sixty undergraduate students enrolled in an academic writing course at a Malaysian public university participated in the study. They were randomly assigned to two groups: a collaborative writing group ( $n = 30$ ), comprising 10 triads and 30 students working individually. The instructional intervention was structured around the three recursive stages outlined by Flower and Hayes, namely, planning, translating, and reviewing [7]-with structured reflective prompts aligned to Moon's levels [12] embedded at each stage (see Appendix 1). During the planning stage, students generated ideas, set rhetorical goals, and organised content while responding to prompts that encouraged awareness of audience and purpose. In the translating stage, they drafted essays while reflecting on the clarity of their arguments and coherence. Finally, students are prompted to self-regulate as they undergo the reviewing or editing stage of the writing process.

To establish baseline equivalence between groups, all participants completed a pre-writing task prior to the intervention. The collaborative writing group ( $n = 30$ ), organized into 10 smaller groups of three participants, achieved a mean prewriting score of  $M = 64.06$ ,  $SD = 4.50$ , while the individual writing group ( $n = 30$ ) recorded a mean score of  $M = 64.40$ ,  $SD = 4.66$ . The comparable standard deviations suggest a consistent distribution of writing proficiency across both groups, supporting the validity of between-group comparisons in subsequent stages.

To address the research gaps, three sets of data were collected to assess the impact of the intervention: writing performance scores, depth of reflection, and learner perceptions. Writing quality was rated using CEFR-based rubrics covering content, coherence, range, accuracy, and mechanics. Reflections were evaluated using a three-point rubric adapted from Moon's framework, which assessed progression from descriptive to critical reflection across all three writing stages. Two trained ESL educators independently rated all written outputs, with strong inter-rater reliability (Cohen's  $\kappa = 0.87$ ).

## 5 Results and Discussion

### 5.1 Writing Performance

The data in Table 3 below showed that across all five traits, collaborative learners achieved higher mean scores than individual learners, with particularly strong gains in content, accuracy, and range. These results suggest that collaborative reflection and peer scaffolding not only enhanced idea generation and rhetorical clarity but also contributed to greater grammatical accuracy and lexical diversity. This pattern is consistent with Flower and Hayes' model, which emphasises the recursive nature of planning and reviewing. Collaborative groups, through dialogic reflection and shared problem-solving, appeared to externalise cognitive processes more effectively, enabling them to refine both global concerns (content, coherence) and local concerns (accuracy, mechanics).

By contrast, while individual learners showed competence, their more introspective reflections may have limited opportunities for critical questioning and immediate feedback, resulting in comparatively lower scores.

**Table 3.** Writing Quality Scores by Group

Traits	Coll. Grp Mean	Coll. Grp SD	Ind. Grp Mean	Ind. Grp SD
Content	4.20	0.25	3.70	0.34
Coherence	4.14	0.38	3.87	0.26
Sentence Range	4.26	0.35	3.74	0.30
Accuracy	4.30	0.33	3.69	0.24
Mechanics	4.18	0.32	3.83	0.26

In sum, the findings reinforce the pedagogical value of embedding structured, collaborative reflection into the writing process. By making thinking visible and shared, collaborative learners were able to regulate their writing more effectively and produce higher-quality texts.

### 5.2 Reflection Depth

Next, the progress from descriptive to critical reflection throughout all three writing stages was evaluated using a three-point rubric that was modified from Moon's framework (see Appendix 2) in order to gauge the depth of reflection quantified from the learners' reflective writing. On a scale of 1 (descriptive recall) to 3 (critical reflection), the rubrics assigned scores to responses based on metrics including logic, personal insight, writing strategy awareness, and learning transfer.

To establish reflective depth, independent samples t-tests comparing collaborative and individual groups at each stage, alongside a repeated measures ANOVA that examined differences across stages and between groups were conducted. Results shown in Table 4 below suggest that the collaborative group effect was highly significant ( $F = 61.34$ ,  $p < .001$ ), indicating that collaborative learners consistently achieved higher

reflection depth scores than individual learners across all the three stages of the writing process.

**Table 4.** Reflection Depth Between Groups

Writing Stage	t-value	p-value	ANOVA Effect	F-value	p-value
Planning	4.53	< .001	Group	61.34	< .001
Translating	5.78	< .001	Stage	0.22	.800
Reviewing	3.50	.001	Group $\times$ Stage	0.51	.603

From the independent-samples t-tests, the collaborative group outperformed the individual group at all stages of reflection: planning ( $t(58) = 4.53, p < .001$ ), translating ( $t(58) = 5.78, p < .001$ ), and reviewing ( $t(58) = 3.50, p = .001$ ). A repeated measures ANOVA analysis presented similar results throughout the writing phases. Based on the study's significant main effect of Group ( $F(1,174) = 61.34, p < .001$ ), collaborative writing consistently promoted deeper reflective thinking when compared to individual writing. On the other hand, no significant Group  $\times$  Stage interaction ( $F(2,174) = 0.51, p = .603$ ) or Stage main effect ( $F(2,174) = 0.22, p = .800$ ) was discovered. This suggests that the benefit of group reflection remained consistent throughout the whole writing process. As postulated by [3] and [6], reflective writing can increase learners' awareness of audience, clarity, and text structure which are key elements connected to the stages in Flower and Hayes' model. Evidently, [24] supports the combination of process writing with reflective journals to foster deeper reflective thinking and encourage ongoing revision practices. In short, structured reflection embedded within the key stages of the writing process can benefit students writing performance. This is particularly significant within a collaborative writing context, as peer interaction provides the stimuli needed to move students' thinking skills beyond the descriptive to higher critical levels. As highlighted by [18] in their systematic review of reflective writing, collaborative learning acts as a powerful scaffold in promoting critical thinking and self-regulation.

### 5.3 Learner Perceptions

Survey results from the 18-item Likert-scale questionnaire (see Appendix 3) provided detailed insights into how structured reflection shaped learners' engagement with the writing process across planning, composing, and reviewing stages. To ensure the reliability and validity of the survey, several psychometric procedures were employed. Internal consistency was assessed using Cronbach's alpha, with all subscales (Planning, Writing, Reviewing, and Overall Usefulness) exceeding the acceptable threshold of 0.70. Content validity was established through expert review by ESL writing instructors, who evaluated the relevance and clarity of each item. Additionally, exploratory factor analysis (EFA) was conducted to verify the underlying construct structure, confirming the alignment of items with the three key stages of the writing process. Where possible, criterion-related validity was supported by correlating survey responses with student writing performance, demonstrating that the instrument effectively captures reflective awareness tied to writing outcomes.

Results from the analysis showed that learners in the collaborative writing group consistently reported higher levels of agreement across nearly all dimensions. Notably, they rated structured reflection as especially helpful in idea generation ( $M = 4.70$ ), clarifying thesis and purpose ( $M = 4.65$ ), and revising based on peer feedback ( $M = 4.75$ ). These results suggest that collaborative reflection promotes active monitoring and regulation of rhetorical and structural decisions, consistent with Flower and Hayes' recursive model of writing. In contrast, the individual group demonstrated slightly lower mean scores, though they reported comparable or slightly higher agreement on language editing ( $M = 4.40$ ) and ownership of the writing process ( $M = 4.45$ ). This indicates that individual reflection may foster personal control and attention to surface-level accuracy. The individual learners' perceptions align with research observations where many individual learners tend to stay engaged at the surface level of thinking, producing reflections that lacked depth due to a lack of peer dialogue or interaction [6].

#### 5.4 Learners' Open-Ended Responses

Qualitative analysis of students' open-ended responses in the questionnaire further clarified the above trends. Collaborative learners frequently emphasized the benefits of dialogic reflection, particularly during the planning and revision stages. As one student noted:

“Talking about the questions with my partner made me realize that I hadn't fully developed my argument. The prompts pushed us to map out the structure before writing.” (Student C1)

Another student described how collaboration enhanced clarity during drafting:

“Sharing our reflections made me more careful with my word choices. I didn't want to sound confusing to my partner.” (Student C2)

Collaborative learners also highlighted the revision process as enhanced by reflection and peer feedback:

“My partner noticed things I didn't. We worked through problems together, not just grammar.” (Student C3)

In contrast, individual learners valued the reflective prompts for structuring thought processes and fostering self-directed improvement. One individual writer shared:

“The questions helped me think step-by-step. I usually just start writing, but this time I planned the main ideas and how to organize them.” (Student I1)

Others described using reflection to self-monitor during drafting and revision:

“I used the reflection notes as a checklist while writing.” (Student I2) “I read my answers again during revision—it reminded me what my main point was and made me change some parts to match that.” (Student I3)

While both groups affirmed the overall usefulness of reflection, collaborative learners were more likely to describe increased confidence, clarity, and conceptual development, whereas individual learners emphasized deliberate pacing and increased self-regulation. As one individual participant concluded:

“I don’t usually stop to think that much when I write, but this time I noticed how my ideas were evolving and improving. I felt I was taking more control of what I am writing.” (Student I5)

## 6 Conclusion, Pedagogical Implications and Future Directions

Together, these findings suggest that structured reflection is beneficial in both contexts but operates differently: dialogically in collaborative writing and introspectively in individual writing. Based on the above three-pronged data analysis approach, the trends clearly support the hypothesis that structured reflection embedded within a collaborative writing environment fosters higher levels of reflection, enabling learners to pause and reflect beyond descriptive to dialogic and higher levels of critical thinking as they progress through the three stages of writing. These findings are in line with previous studies which highlight the pivotal role that peer dialogue and collaboration play in fostering a conducive environment that enhances metacognitive engagement and reflective thinking [1, 15, 21, 25].

On the other hand, individual reflection, while promoting autonomy and self-monitoring, remained passively at the descriptive level leading to a more introspective approach to writing development. Previous studies also reported that without any reflective structure, they concur that individual students tend to approach writing as a linear process, neglecting the importance of revision and recursive learning [11, 14, 23]. Thus, it is recommended that guided reflective activities be incorporated into process-based writing instruction to support learners in developing more effective writing habits and deeper metacognitive engagement.

In conclusion, the findings highlight that structured reflection is not simply an add-on to writing instruction but a central pedagogical strategy that reshapes the process of writing in ESL classrooms. Collaborative reflection enhanced global writing processes, such as idea generation, organization, and feedback integration. By fostering dialogue and shared meaning-making, learners’ metacognitive and reflective thinking skills are greatly enhanced which has a positive impact on their writing performance. Taken together, these results reconceptualize process writing as a dynamic and social activity where structured reflection and peer dialogue play a pivotal role in increasing learners’ metacognitive and thinking skills to a critical and meaningful level. This has important implications for ESL pedagogy: teachers should intentionally embed structured reflection prompts at all stages of writing, balancing collaborative and individual formats to

cultivate both higher-order thinking and personal responsibility in writing. By combining the two theoretical models as a pedagogical framework, writing instructors can help students progress from descriptive writing to more critical analysis, increasing their ability to become better writers.

## 6.1 Pedagogical Implications

Several key implications emerge for ESL pedagogy. First, reflection should be embedded throughout the writing cycle rather than treated as a post-task activity. Reflection prompts aligned with planning, drafting, and reviewing can guide learners to critically evaluate their rhetorical goals, organization, and revisions, supporting more deliberate and recursive engagement with writing tasks. The application of reflective practice into writing pedagogy greatly enhances writing quality and metacognitive engagement, especially in content and organization development[5]. Thus, reflection is important for developing the cognitive and affective aspects of learning in line with recent research as it motivates students to take charge of their academic progress and enhances learner autonomy[2, 3].

Second, the study highlights the unique benefits of collaborative writing and reflection. Peer dialogue encouraged learners to articulate ideas aloud, interrogate assumptions, and co-construct meaning, pushing them toward higher-order reflection. However, individual reflection also served learners who valued independence and self-regulation. This suggests that ESL instructors should adopt flexible approaches that balance collaborative and individual writing activities. This will provide conducive writing environments that support learners' reflective thinking and metacognitive awareness as they progress through the stages of the writing process. In the final analysis, effective implementation of reflective practice requires skilled teacher facilitation. Instructors play a crucial role in modelling reflective thinking, scaffolding prompts, and encouraging learners to progress from descriptive to critical reflection. Teacher training and professional development should therefore prioritize reflective pedagogy, ensuring it is meaningfully aligned with both cognitive models of writing and curriculum goals.

## 6.2 Future Directions

Future research could extend this work by examining how sustained engagement with structured reflection influences writing development across multiple genres, proficiency levels, and cultural contexts. The role of digital platforms such as collaborative online tools or AI-supported feedback also deserves exploration, as these may expand opportunities for reflective learning in blended or remote ESL classrooms. Such inquiries would help refine how reflective and cognitive-process models can be adapted to enhance students' writing development.

## References

1. Aldossary, K.S.: The impact of collaborative writing on EFL learners' writing development: A longitudinal classroom-based study in Saudi Arabia. *Arab World English Journal* **12**(3), 174–185 (2021). <https://doi.org/10.24093/awej/vol12no3.12>
2. Brown, L., Davis, K.: Reflective writing and learner autonomy in higher education. *Journal of Educational Psychology* **114**(2), 345–360 (2022). <https://doi.org/10.1037/edu0000523>
3. Chan, C.K.Y., Lee, K.K.W.: Reflection literacy: A multilevel perspective on the challenges of using reflections in higher education through a comprehensive literature review. *Educational Research Review* **34**, 100411 (2021). <https://doi.org/10.1016/j.edurev.2021.100411>
4. Chang, B.: Reflection in learning. *Online Learning* **23**(1), 95–110 (2019). <https://doi.org/10.24059/olj.v23i1.1447>
5. Chen, Y., Wang, J., Liu, S.: Integrating reflection in process writing: Effects on metacognition and writing outcomes. *Language Teaching Research* **28**(1), 87–106 (2024). <https://doi.org/10.1177/13621688221087654>
6. Fatawi, I., Abidin, A.: Self-reflection and peer feedback practices: An exploratory study on the Sekolah Pengerak Program. *Journal of Education and Religious Studies* **4**(3) (2024). <https://doi.org/10.57060/jers-gddgac81>
7. Flower, L., Hayes, J.R.: A cognitive process theory of writing. *College Composition and Communication* **32**(4), 365–387 (1981). <https://doi.org/10.2307/356600>
8. Garcia, M., Smith, A., Lee, J.: Collaborative writing and reflective practices: Enhancing student engagement. *Journal of Writing Research* **15**(1), 56–74 (2023). <https://doi.org/10.17239/jowr-2023.15.01.04>
9. Harshalatha, M., Sreenivasulu, B.: Academic writing challenges of EFL learners at the tertiary level: A pedagogical perspective. *Journal of Language and Linguistic Studies* **20**(1), 245–260 (2024)
10. Kim, H., Lee, S.: The effectiveness of process writing instruction on academic writing skills. *English Teaching & Learning* **47**(3), 223–239 (2023). <https://doi.org/10.1007/s42321-023-00129-7>
11. Mazihtusima, I., Oderinde, I., Ahmad, S.: Empowering learners' reflective thinking through collaborative reflective learning. *International Journal of Academic Research in Business and Social Sciences* **15**(4) (2025)
12. Moon, J.: *A handbook of reflective and experiential learning: Theory and practice*. Routledge, London (2004)
13. Murray, D.M.: *Writing as process: How writing finds its own meaning*. In: Donovan, T.R., McClelland, B.W. (eds.) *Eight approaches to teaching composition*, pp. 3–20. National Council of Teachers of English, Urbana (1980)
14. Pfennig, A., Siegler, J.: Impact of reflection on individual and team performance in student team projects. In: *10th International Conference on Higher Education Advances (HEAd'24)*. Valencia (2024). <https://doi.org/10.4995/HEAd24.2024.17066>
15. Pham, V.P.H.: The impacts of collaborative writing on individual writing skills. *Journal of Psycholinguistic Research* **52**, 1–16 (2023). <https://doi.org/10.1007/s10936-023-09948-9>
16. Silveira, R.: The relationship between writing instruction and EFL students' revision processes. *Linguagem & Ensino* **2**(2), 109–127 (1999)
17. Smith, J., Nguyen, T.: The role of reflective practice in academic writing development. *Studies in Higher Education* **47**(8), 1653–1667 (2022). <https://doi.org/10.1080/03075079.2021.1905243>

18. Sudirman, S., Kuswandono, P., Rochsantiningsih, D.: Reinforcing reflective practice through reflective writing in higher education: A systematic review. *Reflective Practice* **25**(1), 23–41 (2024). <https://doi.org/10.1080/14623943.2023.2251802>
19. Sudirman, A., Gemilang, A.V., Kristanto, T.M.A.: The power of reflective journal writing for university students from the EFL perspective. *Studies in English Language and Education* **8**(3), 1061–1079 (2021). <https://doi.org/10.24815/siele.v8i3.20368>
20. Syaadhah: Reflective journal writing: Writing processes applied by skilful and less skilful EFL graduate students. *English Review: Journal of English Education* **9**(2), 207–218 (2021). <https://doi.org/10.25134/erjee.v9i2.4515>
21. Syamdianita, S., Hati, G.M.: Collaborative online writing: Students' perspectives and their actual writing performance. *Script Journal: Journal of Linguistics and English Teaching* **10**(1), 45–65 (2025)
22. Teng, L.S.: Metacognitive process-based writing instruction: Promoting L2 learners' self-regulated writing and critical thinking. *System* **114**, 102988 (2023). <https://doi.org/10.1016/j.system.2023.102988>
23. Wang, X., Taylor, R.: Reflection and process writing in second language contexts: A comparative study. *Journal of Second Language Writing* **55**, 101120 (2025). <https://doi.org/10.1016/j.jslw.2024.101101>
24. Winarti, D.Y., Cahyono, B.Y.: Fostering EFL students' reflective thinking through process writing and reflective journal writing. *Indonesian Journal of Applied Linguistics* **10**(3), 686–697 (2020). <https://doi.org/10.17509/ijal.v10i3.31797>
25. Zhang, L.: Recursive drafting and revision in process writing pedagogy. *Language Learning Journal* **52**(1), 78–93 (2024). <https://doi.org/10.1080/09571736.2023.2184761>

## Appendices

### Appendix 1. Structured Reflection Toolkit for Process Writing

Writing Stage	Process Writing Focus	Reflection Level	Structured Reflective Prompt
1. Planning	Discovering and generating ideas	<b>Descriptive</b>	“What are your initial thoughts or knowledge about the topic? What points do you plan to include?”
2. Translating	Shaping and composing content	<b>Dialogic</b>	“How did your ideas change while writing? Did discussing or researching lead you to rethink anything?”
3. Revising	Rewriting, refining, reorganising	<b>Critical</b>	“What ideas did you challenge during revision? How did feedback or rethinking affect your writing choices?”

### Appendix 2. Coding Framework Based on Moon’s Levels of Reflection

Level	Reflection Type	Criteria	Score	Descriptors	Example Indicators
-------	-----------------	----------	-------	-------------	--------------------



**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

