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Enhancing Writing Skills of Indonesian EFL Pre-Service Teachers: A Mixed-Method Study of the Visual-based C-KPO Model

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Abstract. Writing in English is considered one of the most challenging skills to acquire, requiring a range of adaptable approaches to overcome common obstacles such as generating ideas, constructing sentences, and developing coherent paragraphs. While numerous studies have only investigated methods to overcome these challenges, many have focused on partial learning dimensions, leaving specific issues unaddressed. This paper presented a novel model integrating three writing dimensions (Course Knowledge, Process, and Output) with a visual literacy approach, termed the visual-based C-KPO writing model. This model was specifically designed to improve various writing skills, including idea generation, word classification, sentence structure, and the composition of coherent paragraphs. The study employed a mixed-method research design with 50 EFL pre-service teachers enrolled in a *Basic Writing* course at the English Education Program, Universitas Indraprasta PGRI. Stratified random sampling was used to select the sample and data collected using questionnaires and written assessments and analyzed through correlational and thematic analyses. The findings demonstrated a significant positive correlation of 0.477 (r value) between the use of the model and improved writing performance. Furthermore, thematic analysis of student feedback showed that the model provided a more engaging learning experience in enhancing these specific writing skills. These results suggest that a visual-based, integrated approach can be a successful pedagogical tool for addressing fundamental writing challenges in EFL contexts.

Keywords: C-KPO writing model; EFL pre-service teachers; visual literacy; writing skills

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1. Introduction

Writing is widely acknowledged as the most challenging of the four primary English skills for Indonesian EFL learners to master due to the inherent complexity of generating ideas, constructing varied sentence types, and organizing them into coherent paragraphs (Fajrina et al., 2022). This complexity necessitates the adoption of diverse, adaptable instructional approaches that align with learners' specific needs and goals, with educators playing a crucial role in guiding these strategies (Falardeau et al., 2024; Mujtaba et al., 2023; Yahia & Egbert, 2023).

The challenge is further amplified for EFL pre-service teachers, who must not only develop their own writing proficiency but also prepare to teach writing effectively to their future students. While EFL learners can learn English to elevate their knowledge and skills, it is important that the EFL pre-service teachers learn English for both them and their future students. This dual responsibility demands a comprehensive instructional framework that integrates knowledge of language structure with pedagogical practice.

One line of inquiry in response to this need focused on written discourse analysis, examining language use beyond the sentence level, and often emphasizing the roles of grammar, syntax, and context (Fitriati & Lisa, 2019; Lee, 2021). While some studies have explored grammar's role in performance (Fitrawati & Safitri, 2021; Stavans & Ehrlich, 2024) and the use of language tools for error validation (Beltrán & Echitchi, 2022), they often concluded that automated tools had inherent limitations, requiring sustained human pedagogical guidance (Crossley et al., 2019).

Furthermore, other studies have applied a human-centered approach to explore writing quality, such as investigating problem-based learning for critical thinking (Helaluddin et al., 2023) or applying scaffolded genre-based pedagogy in remote contexts (Samad et al., 2024). These efforts revealed persistent student challenges in organizing text, expressing ideas, and maintaining coherence. Critically, however, these studies often concentrate on writing as a process, overlooking or only partially addressing other essential dimensions such as the explicit teaching of course knowledge (writing mechanics and structure) and structured output assessment. Consequently, this study identifies a significant research gap concerning the partial focus of existing instructional models and the need for a holistic, integrated pedagogical approach that systematically addresses the multifaceted nature of writing.

Therefore, this research introduces a new visual-based writing model called Course Knowledge, Process, and Output (C-KPO). As a novelty, the C-KPO writing model leverages visual materials to present complex writing concepts (e.g., writing mechanics, structure, and development) as the course knowledge dimension; explicitly guides learners through sentence and paragraph construction as the process dimension; and utilizes a visual-based rubric evaluation system to assess the final product as the output dimension. This integrated, visual-based C-KPO approach directly addresses the identified gaps

in literature. The following research questions guided this comprehensive study in constructing a thorough understanding of the model's implementation:

RQ1: How do Indonesian EFL pre-service teachers perceive the visual-based C-KPO writing model in the *Basic Writing* course?

RQ2: How does the visual-based C-KPO writing model correlate with EFL pre-service teachers' writing performance in the *Basic Writing* course?

RQ3: What dominant writing components influence the EFL pre-service teachers' writing quality using the visual-based C-KPO writing model in the *Basic Writing* course?

By implementing the visual-based C-KPO writing model in the Basic Writing course, theoretically, it will broaden the concept of the visual literacy approach in the learning practice dimensions in ELT, particularly for EFL pre-service teachers in higher education. Practically, with the support of the visual literacy approach in learning practice dimensions, this study allows students and lecturers to experience a new, exciting learning method and achieve the learning target.

2. Literature Review

2.1 Writing Courses for EFL Pre-service Teachers and Pedagogical Shifts

The success of English Language Teaching (ELT) hinges on the preparation of English as a Foreign Language (EFL) pre-service teachers, a process which requires instruction highly adaptable to contemporary learners (Zhu et al., 2025). As such the global educational landscape, characterized by advanced technology and new millennium learners, necessitates a transformative shift from monocentric instructional models to pluralistic, integrated blended language approaches (Dimova, 2020; Vičič, 2020). This transformation is driven by the recognition that effective teaching must be contextually aligned and constantly evolving.

In response to this, a qualitative review of ELT pedagogy in contexts such as Indonesia has focused on the critical competencies of future educators. Studies, such as that by Defianty and Wilson (2022), have revealed that teachers' critical thinking about comprehensive subject knowledge and practical classroom implementation significantly impacts student learning outcomes. It follows then, that in this era of rapid change, pre-service teachers must be equipped not only with subject-matter expertise but also with the pedagogical critical literacy needed to effectively implement complex strategies in diverse classroom contexts.

Specifically, within writing courses, the shift from behaviorist to constructivist theories has driven two dominant perspectives: a cognitive/motivational perspective focusing on the writer's self-cognition and a social/contextual perspective emphasizing the influence of the social environment (Dewi et al., 2021; Wuntu et al., 2024). These viewpoints gave rise to evidence-based practices that sought clear objectives, distinguished composition from transcription (Cummings et al., 2024), and considered self-esteem (Yulianawati et al., 2022). However, many of these approaches retained a deductive instructional core,

wherein the teacher remained the dominant knowledge provider, presenting text models for passive student reception. This traditional approach often fails to integrate the complex dimensions of writing – knowledge, process, and output – into a cohesive, learner-driven strategy (El-muslimah et al., 2021; Kim, 2020). Addressing these complex obstacles requires not only considering learner perspectives (Plonsky et al., 2022; Ratnawati et al., 2018) but also developing holistic strategies.

2.2 Visual Literacy Approach in EFL Writing Courses

To move beyond text-centric instruction, since the 1980s, scholars have argued for integrating viewing as a fifth skill in language learning (Donaghy & Xerri, 2017). The increasing prominence of visualization in the 21st century has inevitably heightened demand for visual literacy – the ability to find, interpret, evaluate, use, and create images and visual media (Brown, 2022; Gitsaki et al., 2015). This skill is now considered essential across educational contexts for fostering deeper student engagement (Bünzli & Dillard, 2022; Häikiö, 2022; Westlund, 2018).

Previous studies have successfully utilized visual elements in writing instruction, such as producing and responding, demonstrating benefits for reading and writing skills (Kárpáti & Paál, 2022; Lechner, 2021). Other research has explored visual literacy through multimodal redesigns and authentic digital practices in higher education (Iskandar et al., 2022). Crucially, these studies tend to employ visuals as aids or triggers (Fajriah et al., 2021), rather than integrating visual literacy as a foundational pedagogical framework throughout an entire writing curriculum. This study responds to the need to adapt the comprehensive visual literacy framework, such as the standards established by the Association of College and Research Library (ACRL) (Visual Literacy Standards Task Force, 2012), and merge it into the core dimensions of a writing course.

2.3 Integrated Writing Course Dimensions

Effective English writing instruction requires a clear focus on three crucial dimensions, which vary based on the learning target: course knowledge (Abba et al., 2018), course process (Ruiz-Madrid & Valeiras-Jurado, 2020), and course output (Rungwaraphong, 2021). These three dimensions are pivotal for enhancing academic writing achievement in higher education (Astrid et al., 2021; Fisher et al., 2023).

The Course Knowledge, this dimension extends beyond mere ideas, requiring explicit and implicit linguistic knowledge, including syntax, punctuation, and writing conventions (Ferris & Eckstein, 2020; Ramadhanti & Yanda, 2021) while the Course Process, refers to the sequential writing instructions used to improve performance, often involving process-genre approaches (Bin-Hady et al., 2020; Hanusova et al., 2020) or self-regulated strategies (Umamah & Cahyono, 2020). The last dimension, Course Output, refers to the final writing product, with quality assessed based on sentence structure and paragraph development (Li, 2019; Rofiqoh et al., 2022).

However, a persistent gap remains in that previous research typically addresses these dimensions in isolation or focuses only on limited aspects of written

discourse. No comprehensive study has systematically integrated these three essential dimensions—Knowledge, Process, and Output—into a single, unified instructional model anchored in a visual literacy approach. This research directly addresses this scholarly vacuum by examining the effectiveness of the integrated visual-based C-KPO model in the EFL pre-service teacher context.

3. Methodology

This study employed a convergent parallel mixed-methods research design (Ozer, 2021) integrating quantitative correlational analysis with thematic analysis to provide a holistic assessment of the novel visual-based C-KPO writing model. The model, designed to improve the writing skills of EFL pre-service teachers, addresses three integrated dimensions—Course Knowledge (CK), Course Process (CP), and Course Output (CO)—to answer the research questions. Figure 1 displays the holistic structure of this model based on the visual literacy approach, covering the research participants, materials and instruments, procedure, and data analysis.

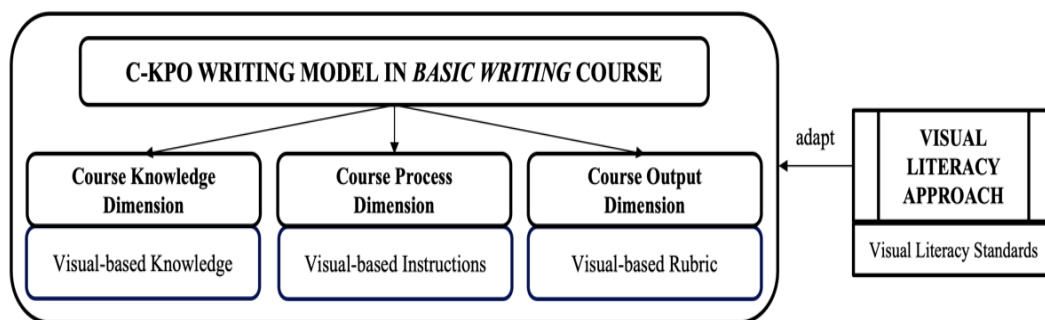


Figure 1: C-KPO writing model

The C-KPO writing model was designed for a specific course of *Basic Writing* by adapting the Visual Literacy Approach (VLA), an instructional framework that emphasizes the interpretation and creation of meaning from visual information, as a new approach. The VLA adapted Visual Literacy standards from the Association of College and Research Libraries (ACRL) for higher education (Free, 2022). The adaptation covered three main learning dimensions of the *Basic Writing* course: knowledge, process, and output dimensions.

3.1 Participants

The participants were EFL pre-service teachers enrolled in the foundational *Basic Writing* course during the third semester at the English Education Department of a private university in Jakarta, Indonesia. Four lecturers who teach this course and are familiar with its curriculum were involved in the implementation and discussion stages. A stratified random sampling technique (Anna, 2020) was employed to ensure the analytical sample was proportionally representative of the overall student population's baseline writing ability.

The total population was 202 students, and seven of the 14 available classes were selected for the intervention. The stratification was based on students' prior scores on a brainstorming assessment, which categorized them into 10 score levels. From

this population, 50 participants were randomly selected, comprising 25% of the students from each score level to maintain proportional representation.

Participants who did not complete all learning activities and assessments related to the Basic Writing course were excluded from the final analytical sample. This study included 50 complete participants. To verify statistical assumptions, the Kolmogorov-Smirnov test confirmed the sample distribution met the assumption of normality ($D=0.0939 < K=0.0950$, with $\alpha=0.05$). Table 1 details the stratified random sampling process.

Table 1: Stratified random sampling

Score Base	Population	Percentage	Sample	Descriptions
60	10	25	2	Complete
65	16	25	4	Complete
70	25	25	6	Complete
75	33	25	8	Complete
78	2	0	0	Incomplete
80	32	25	8	Complete
85	34	25	9	Complete
90	35	25	9	Complete
95	11	25	3	Complete
98	4	25	1	Complete

3.2 Materials and Instruments

This study designated the visual-based C-KPO writing model as the core instructional material to address research questions.

3.2.1 Course Knowledge (CK)

The CK dimension prepared chronological writing content and materials anchored in the real-world context of Indonesian Sustainable Development Goals (SDGs) themes (e.g., digital technology in ELT, no poverty, gender equality). The material covered core writing fundamentals, mechanics, sentence types, and paragraph genres. Crucially, these materials integrated visual literacy by using digital pictures or short silent films aligned with the SDG themes.

3.2.2 Course Process (CP)

The CP dimension provided sequential, concise writing instruction that allowed learners to develop structured sentences and coherent paragraphs. This instruction consistently integrated silent movies with the corresponding SDGs' themes, thereby translating real-life circumstances into classroom practice. Figure 2 provides an example of the CK and CP implementation.



Figure 2: Example of Course Knowledge and Course Process implementation

3.2.3 Course Output (CO)

The CO dimension determined the final writing product goals and was manifested through comprehensive, proportional rubric designed to measure the eight key writing components explicitly taught and practiced in the CK and CP dimensions, namely: vocabulary, word classes, synonyms, structured sentences, mechanics, paragraph organization, idea development, and paragraph coherence. This structure ensured a fair and balanced evaluation process that directly assessed the skills targeted by the visual-based C-KPO model (Table 2).

Table 2: Writing evaluation rubric

Course Goals	Writing Components	Portion
Students can understand and implement: <ul style="list-style-type: none"> • Grammatical rules • Syntactic constructions • Contextual use 	Vocabulary	5
	Word classes	5
	Synonyms	10
	Structured sentences	25
	Mechanics	5
	Paragraph organization	10
	Idea development	25
	Paragraph coherence	15
Total Portion		100

3.2.4 Questionnaire

To address RQ1 (perceptions), a set of structured questionnaires was developed comprising 20 Likert-scale items (1-5) across the three course dimensions (CK, CP, CO). Both the CO rubric and the questionnaire were validated via expert judgment from statistics and English writing specialists. Table 3 details the structure and content of the questionnaire items.

Table 3: Structured questionnaire

Course Dimensions	Questionnaire's Statement
Course Knowledge	<ol style="list-style-type: none"> 1. Learning objectives are clear. 2. The course content is well organized. 3. The course themes are appropriate. 4. Writing models are sufficiently provided. 5. The course exercises/ practices are sufficiently administered. 6. The course knowledge is practical to enhance students' writing.
Course Process	<ol style="list-style-type: none"> 1. The course approach is appropriate for the course. 2. The course approach provides clear and concise instructions. 3. Digital images/ movies are relevant to course themes. 4. Digital images/ movies are clearly provided. 5. Digital images/ videos help students elicit ideas and vocabulary. 6. Digital images/ movies help students develop sentences. 7. Digital images/ movies help students develop a coherent paragraph.
Course Output	<ol style="list-style-type: none"> 1. I understand and use the writing mechanics in my writing. 2. I understand and use the different sentence types in my writing. 3. I understand and use cohesive devices in my writing. 4. I understand and use appropriate themes in my writing. 5. I can develop a paragraph with unity. 6. I can organize a paragraph with adequate development. 7. I can manage a coherent paragraph.

3.3 Procedure and Data Analysis

3.3.1 Preparation Stage

This initial phase involved observing the seven selected classes in their natural learning circumstances over the course of one to two meetings, documenting experiences via notes and recordings using a structured observation checklist. This step ensured the researcher documented the baseline instructional setting before the intervention.

3.3.2 Implementation Stage

This stage introduced the visual-based C-KPO writing model. Before implementation, the four participating lecturers were trained and mentored by the researchers on the visual literacy approach guidelines and the C-KPO instructional sequence to ensure high fidelity and consistency across the seven classes. In this phase, the students became the center of learning, and the lecturers acted as facilitators. This intervention, administered by the lecturers, ran from the third meeting through the 12th meeting, delivering course lessons, visual materials, sequential instructions, and group discussion guidelines.

3.3.3 Evaluation Stage

At the 13th meeting, two primary data sources were collected:

- **Quantitative Data:** Students completed a paragraph writing assignment, scored proportionally using the CO rubric (Table 2). Table 4 lists the eight writing instructions, which directly correspond to the visual literacy goals.
- **Qualitative Data:** Both students and lecturers completed the structured questionnaire (Table 3).

Table 4: Writing instructions

Writing Instruction	Course Goals
<ol style="list-style-type: none"> 1. Generating words based on the provided digital images/ videos/ movies. 2. Classifying the words into word classes. 3. Finding the meanings of each word by using the dictionary. 4. Understanding the words' context and finding the words' synonyms. 5. Generating the words into sentences. 6. Analyzing the sentences based on the sentence types and structures. 7. Re-arranging the sentence structures when necessary. 8. Arranging the sentences into a coherent paragraph. 	<ol style="list-style-type: none"> 1. Inducing and enriching students' vocabulary and critical thinking. 2. Encouraging students to structure and elaborate sentences based on sentence types. 3. Motivating students to develop and elaborate sentences into a coherent paragraph based on different genres.

The data analysis proceeded as follows:

- *Correlational Analysis (RQ2)*: Statistical analysis was conducted using Pearson's product-moment correlation (in an Ms. excel functions) to determine the relationship between quantitative student writing scores and quantitative student questionnaire responses (perceptions). The hypotheses are as follows:

Null Hypothesis: There is no statistically significant correlation between Indonesian EFL pre-service teachers' perception of the visual-based C-KPO writing model and their writing performance.

Alternative Hypothesis: There is a statistically significant positive correlation between Indonesian EFL pre-service teachers' perception of the visual-based C-KPO writing model and their writing performance.

- *Thematic and Component Analysis (RQ1 and RQ3)*: The questionnaire responses (RQ1) were analyzed descriptively, and the writing assignment results were examined using thematic analysis. This thematic examination focused on identifying dominant writing components that influenced the overall writing quality (RQ3), thus enabling the study to better understand both students' barriers and the practical effectiveness of the visual-based C-KPO model.

4. Results and Findings

4.1 EFL Pre-service Teachers' Perceptions on the C-KPO Visual-based Writing Model

4.1.1 EFL Pre-service Teachers' Perceptions on Course Knowledge

Implementing the visual-based course knowledge in the *Basic Writing* course provided a chronological sequence of lessons from the first meeting through the last. The lessons comprised 12 course discussions and practice meetings, and ended with the 13th, the course evaluation. The lessons contained the *Basic Writing* overview, the visual literacy approach overview, and the course dimensions overview for the first meeting. The second meeting covered the writing process and the writing mechanics while the third included the visual literacy approach and the course dimensions, and meeting four provided writing with digital

support and digital tools practices, such as utilizing *Mendeley Reference Manager* and *Grammarly.com*.

Continuing to the fifth meeting, the lessons comprised an overview of sentence matters and paragraph genres. In addition, the sixth and seventh meetings compiled lessons on coherence and cohesion, and on grammatical and lexical cohesion—the lessons comprised sentence types and paragraph genres from meetings eight to twelve. The sentence types covered were simple, compound, complex, and compound complex. Meanwhile, the paragraph genres comprise descriptive, narrative, expository, and argumentative paragraphs. All the lessons were provided in a visualized module with colorful and understandable content.

Detailed results of the learners' respondents are presented in Figure 3 illustrating the course knowledge expression. This study collected data from six questionnaire items to determine students' viewpoints on visual-based course knowledge with the results revealing that most learners responded 'agree' or 'strongly agree' to all statements. Among the 50 respondents, statement one showed that 31 (62%) declared 'agree' and 19 (38%) 'strongly agree'. The other five statements also reported results similar to those in statement one.

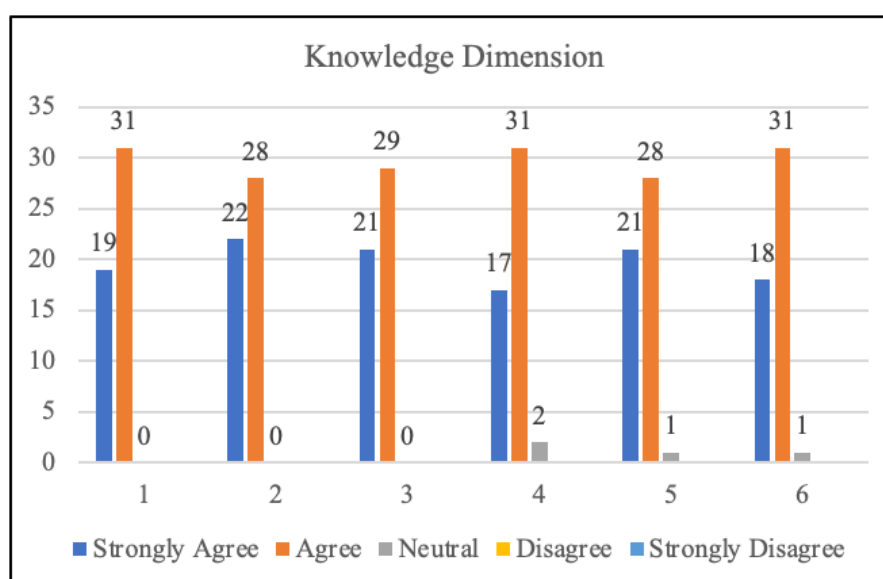


Figure 3: Expressions on the visual-based Course Knowledge

4.1.2 EFL Pre-service Teachers' Perceptions on Course Process

During the 12 meetings, the course process dimension applied several learning forms and methods, including brainstorming, presentations with explanations, discussions, step-by-step writing for implementation, a visual literacy approach, and digital tools. All the lecturers conducted an online focus group discussion (FGD) before, during, and after completing the course to ensure a well-organized course process and achieve the course targets. Since the visual literacy approach was a new practice in the *Basic Writing* course, the course process in each class led to distinctive classroom interactions. These experiences enriched the FGD discussion and inspired the lecturers to improve the course process model.

The process dimension was student-centered learning, in which the lecturers encouraged students to achieve the learning target. The course goals included developing coherent paragraphs across different genres, with each paragraph featuring a range of sentence types, from the simplest to the most complex. The course set three systematic targets that prompted students to enrich their vocabulary and critical thinking, to structure and elaborate sentences according to sentence types, and to develop and elaborate sentences into coherent paragraphs across different genres. Meanwhile, the process dimension applied a visual literacy approach through step-by-step writing instruction to achieve the course goals (Table 4).

This study collected respondents' views on the visual-based course process using seven statements in a questionnaire with findings disclosing that most respondents 'agree' and 'strongly agree' with all the statements. Thirty-three respondents (66%) expressed 'agree' with statement one, 16 respondents (32%) 'strongly agree', and one respondent (2%) 'disagree'. The expression in statement one was in line with the other six statements. All the expressions are shown in Figure 4.

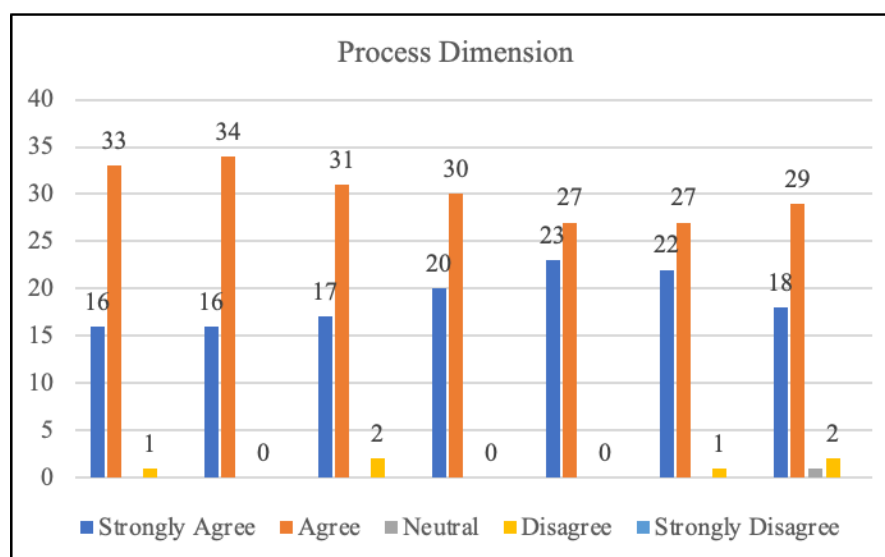


Figure 4: Expressions on the visual-based Course Process

4.1.3 EFL Pre-service Teachers' Perceptions on Course Output

At the end of the writing course, the output dimension comprised the evaluation and results of the integrated course knowledge and process and scored students' writing across several components, including generating words, classifying words, discovering synonyms, structuring sentences, writing mechanics, paragraph organization, idea development, and paragraph coherence.

Moreover, this study also found that students' perceptions of the implemented visual literacy approach were reflected in the course output dimension, as shown in Figure 5. The expression of the questionnaire showed that 11 respondents (22%) declared 'strongly agree' with the first statement, 35 respondents (70%) 'agree',

and four respondents (8%) were of a 'neutral' position. The first statement's results were in line with the other six statements.

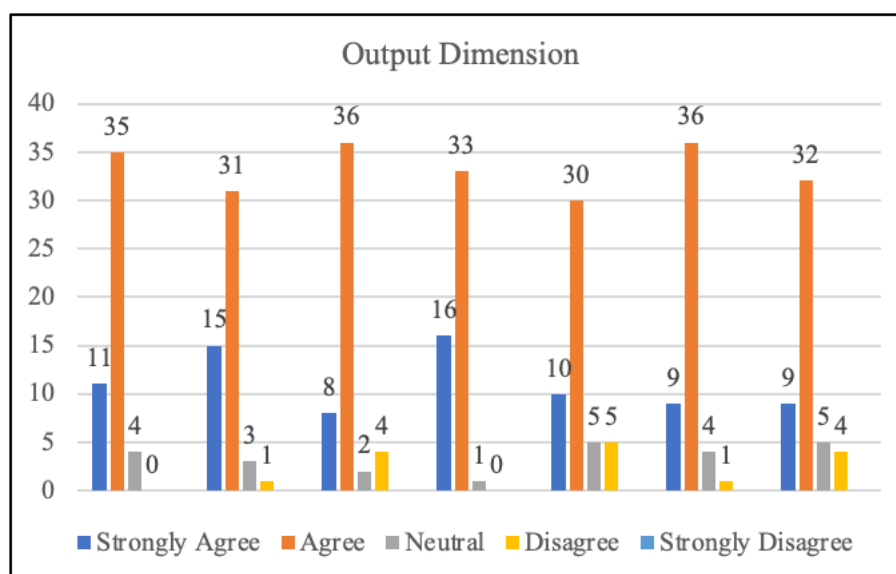


Figure 5: Expressions on the visual-based Course Output

4.1 The Correlation between the Visual-based C-KPO Writing Model and the EFL Pre Service Teachers' Writing Performances

At the end of the course, this study administered a questionnaire and a writing test to students to analyze the relation between the implemented C-KPO model in the *Basic Writing* course dimensions as variable X and the students' writing performance as variable Y. The questionnaire comprised 20 statements on the integrated course dimensions of knowledge, process, and output (Table 3). At the same time, the lecturers assigned a writing test using an integrated silent movie and writing instructions. The writing performance included several scoring components on generating words, classifying words, identifying synonyms, construing sentences, and developing a coherent paragraph (Table 2).

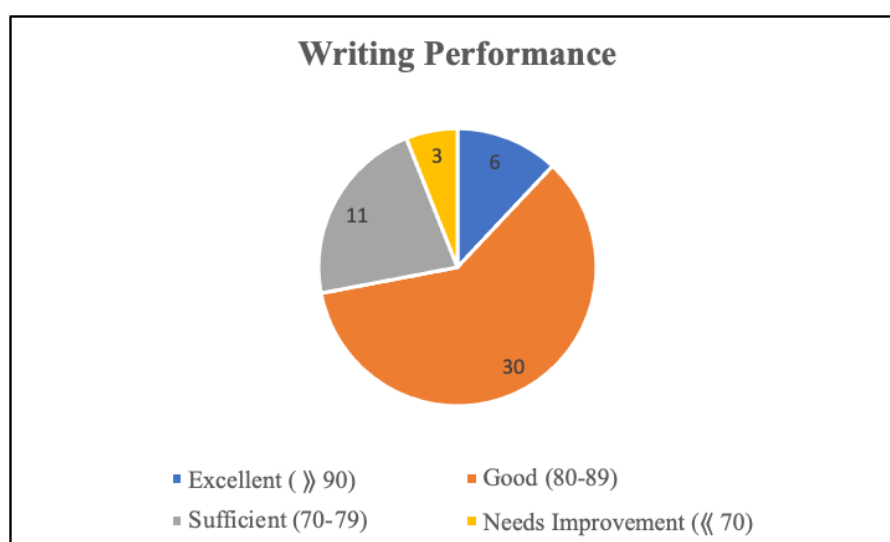


Figure 6: Writing performance

Based on the writing scoring components, this study revealed the students' writing performance in descriptive data showing the mean (average), mode (most frequently occurring), highest score, and lowest score. The results showed a mean score of 82.08, a mode of 85, with the highest score of 98, and the lowest score of 65. Moreover, the students' performance was classified into four categories: excellent (score 90 or above), good (score 80 to 89), sufficient (score 70 to 79), and needs improvement (score under 70). See the details in Figure 6 for the students' writing performance.

Based on correlational data, the study conducted a *Pearson Product-Moment* correlation analysis between variables X and Y. The results showed a correlation coefficient of 0.477 and a coefficient of determination of 0.212. This study revealed a moderate correlation between the C-KPO model and writing performance; moreover, the coefficient determination of 0.212 indicates that the C-KPO model significantly correlates with students' writing performance at a quite high level.

4.3 Writing Components Influenced by the Visual-based C-KPO Writing Model

To provide a comprehensive interpretation, a thematic analysis was also administered and covered eight items: generating words, classifying words, discovering synonyms, structuring sentences, writing mechanics, paragraph organization, ideas development, and paragraph coherence. The themes were categorized into five levels, and each category's meaning is described in the following paragraph. Table 5 details the C-KPO model's influence on the students' writing performances.

Table 5: Writing Themes Influenced by the Visual C-KPO Writing Model

Descriptions	Excellent	Good	Sufficient	Needs Improvement	Poor	N
Generating words	42	4	4	0	0	50
Classifying words	36	9	3	1	1	50
Discovering synonyms	37	7	2	1	3	50
Structuring sentences	26	20	4	0	0	50
Writing mechanics	30	5	7	5	3	50
Paragraph Organization	6	15	24	4	1	50
Ideas development	32	15	3	0	0	50
Paragraph coherence	10	23	13	4	0	50

5. Discussion

Based on the results, the visual-based C-KPO writing model is proven to have a correlation with EFL pre-service teachers' writing performance. Starting with the first dimension, having a solid foundation in writing knowledge is advisable

when the course content covers an overview of the fundamental principles of English writing, best practices in learning English writing, and grammatical rules, such as mechanics and sentence structure. It also includes syntactic constructions of types on sentence structures, and paragraph organization and coherence.

Those contents also contain digital images and short movies with relevant SDGs themes attached to the well-organized texts. It supports prior studies in finding that designing appropriate course materials based on the course target, students' needs, and thematic circumstances could help students better understand the lessons (Fowdur & Radhakeesoon, 2025; Yundayani & Sri Ardiasih, 2021). Aligning with Farrokhi et al. (2025), this study shows that when clear course goals and students' requirements are harmonized, students can manage their writing from preparation to the final draft with less difficulty.

With the constant implementation of the visual-based C-KPO writing model, the course knowledge delivered several writing exercises and practices through digital images or movies related to real-life circumstances. The real-life pictures or thematic silent animated films could foster ideas and a contextual understanding of the student's writing content (Chicho & Zrary, 2022) while the matched thematic images/films and the target could elicit and augment the students' critical thinking. With sufficient writing drills through the lens of real-life pictures and thematic silent animated films, the course motivated the students to improve their writing.

By employing the visual-based C-KPO writing model in the course process dimension, it helped the participants practice new instructions to develop their writing quality. The course formulated the instructions in a step-by-step guideline by which, in following instructions, participants could generate words, classify them, and explore synonyms to enrich their vocabulary. After elaborating on vocabulary acquisition, the participants could then construct sentences with different structure types and appropriate mechanics and organization. Finally, in line with studies by Holsanova (2020) and Dmitrenko and Akhmadullin (2023), the participants were able to organize their ideas into a coherent paragraph with the support of a digital tool that enabled their best performance.

In this process dimension, one of the most fascinating and crucial points in the instructions was the individual learning process, which allowed each student sufficient time in silence to foster critical thinking (Bao, 2023). While most lecturers might think that learning is a speech show, silent learning allows students to enhance their thinking skills through silent movies. The students were initially unfamiliar with the silence period, but after several repetitions, they came to enjoy the process. Through the clearly and systematically guided writing instructions, the students were facilitated to try new ways of learning writing and gain several advantages, such as deepening their understanding of ideas, enriching their English vocabulary and word classes, structuring sentences, and developing coherent paragraphs.

Moreover, the visual-based C-KPO writing model is shown to be crucial for the course output dimension in evaluating participants' writing. In summary, this approach examined the writing output across several aspects considered writing beyond the sentence level and thoroughly covered all three dimensions of the *Basic Writing* course. The results considered participants' writing in terms of vocabulary, synonyms, mechanics, idea development, paragraph organization, and coherence. The results support prior studies by Roscoe et al. (2020) and Sudirman et al. (2021) that included writing quality traits and author characteristics.

Regarding coherent paragraphs, this study found that understanding and applying cohesive devices required more time and practice to support writing performance. Prior studies in Thailand and Indonesia proved that most EFL or ESL students used cohesive devices frequently but in inappropriate contexts (Choemue & Bram, 2021; Raputri et al., 2022). Those studies focused on the discourse markers and covered contrastive, elaborative, inferential, temporal, and spoken markers. Among those, most students used elaborative discourse markers the most frequently. Hence, this study shows that implementing the visual literacy approach in course dimensions can help students reduce errors.

Previous research might emphasize the importance of three interrelated dimensions in writing instruction: course knowledge, process, and output. However, this study shows that the integrated course dimensions enhance students' writing quality through the visual-based C-KPO writing model. It revealed that an integrated digital multimodal approach composing text, visuals, and audio should provide feedback that incorporates linguistic and non-linguistic elements. Therefore, incorporating the visual literacy approach into the knowledge, process, and output course dimensions could help participants learn, experience shifts in learning, and achieve the writing course's target.

6. Conclusion

In summary, this study confirms that the Course Knowledge-Process-Output (CKPO) model, integrated with a visual literacy approach using silent films and sequential scaffolding, significantly enhances the writing performance of Indonesian EFL pre-service teachers. The moderate, positive correlation between the model and writing scores ($r = 0.477$) provides empirical evidence of its effectiveness in the *Basic Writing* course context. The model's strength lies in its systematic design, which successfully addresses lower-order skills by leveraging digital tools to elicit ideas and structure sentences.

Furthermore, integrating silent film viewing encourages critical thinking and allows learners to connect visual input with written output, thereby transforming conventional instruction into a more contemporary, multimodal practice. This approach broadens the application of visual literacy in ELT by providing a comprehensive, step-by-step guideline that encourages learners to produce coherent, high-quality writing grounded in real-world, thematic issues. This research offers a compelling, adaptable framework for higher education writing courses.

In practical educational settings, the CKPO model allows students and lecturers to adapt and modify the content thematically (e.g., using SDGs themes) to achieve comprehensive knowledge. It provides clear, sequential guidelines that lecturers can adjust to align with course objectives and student needs, effectively transforming the traditional writing classroom. By promoting authentic, digitally visualized media, this study empowers pre-service teachers to develop skills in multimodal scaffolding that they can carry forward into their future teaching practice.

7. Limitations and Future Research

Despite the methodological rigor and empirical evidence supporting the effectiveness of the visual-based C-KPO model, two primary limitations must be acknowledged, and which inform the interpretation and generalizability of these findings. First, the study's data were collected exclusively from EFL pre-service teachers at a single private university in Jakarta, Indonesia. While this single-site approach enabled rigorous control and internal validity during the intervention, it inherently limits the external validity of the results. The specific institutional culture, curriculum, and learner profiles suggest that the findings are context-specific and may not be universally generalizable to EFL teacher training programs in public universities or diverse international settings.

Second, while the study employed visual materials to support the C-KPO model, the development of these instructional assets, particularly the silent films linked to SDG themes, faced practical limitations in terms of ecological validity. A continued effort is necessary to develop and integrate highly authentic, contextually localized visual materials that accurately reflect the real-life circumstances of Indonesian EFL classrooms and communities.

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9. Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

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