

Effects of the Learning-oriented Writing Assessment Model on EFL Undergraduate Students' Writing Ability

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Article information	
Abstract	Learning-oriented assessment (LOA) has proven beneficial across diverse EFL classrooms by actively enhancing learners' language abilities. Various scholars proposed different learning-oriented assessment frameworks to integrate characteristics from formative assessment and summative assessment in order to innovate EFL pedagogy. The current study aims to explore the implementation of a Learning-oriented writing assessment (LOWA) model which was designed for EFL learners to reflect on their writing challenges and proactively seek solutions throughout the writing process. The participants were from an intact group of 30 undergraduate students enrolled in a foundation English course at a public university in Bangkok. The intervention lasted for eight weeks. This study employs a mixed-methods design, incorporating a quasi-experimental (one-group pretest-posttest) framework complemented by a qualitative component. Data collection is conducted concurrently during the intervention to capture the unfolding process of writing development. The quantitative component utilizes objective writing pre-tests and post-tests, along with weekly writing ability questionnaires, to monitor students' self-perceived progress in content, organization, and language throughout the intervention cycles. These numerical data are integrated with a qualitative component consisting of weekly learners' journals. The study revealed that the LOWA model can be adopted in language classes to enhance EFL learners' writing skills. A paired-sample <i>t</i>-test indicated a significant difference between students' pretest and posttest on both narrative paragraph writing performance ($t(29) = -13.29, p < .001$) and opinion paragraph writing performance ($t(29) = -16.05, p < .001$). Through thematic analysis, the learners' journals provided a complementary explanation for the observed statistical improvements, shedding light on the specific reflective practices and problem-solving strategies employed by students to achieve their gains. Despite the absence of a control group, the study offers valuable, context-specific insights for instructional innovation in L2 writing settings, emphasizing a learner-centered assessment approach.

Keywords	Learning-oriented assessment, writing ability, Learning-oriented writing assessment, EFL student learners, paragraph writing
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1. Introduction

Writing is increasingly recognized as a crucial skill for success in the twenty-first century, serving as an essential tool for global communication, business advancement, and academic achievement (Friginal & Udell, 2022). In many English as a Foreign Language (EFL) contexts, the current state of writing instruction is often dominated by the product approach (Weiss, 1992), where the primary focus is on the final written product and the mastery of linguistic components such as vocabulary, sentence structure, and grammatical accuracy. In this concept, instruction is frequently sequential and controlled, emphasizing error-free compositions over the development of complex ideas.

Those who consider writing to be the final product of a writing exercise frequently neglect the processes involved in generating ideas, creating texts, and editing written work. When writing is treated as a linear task aimed at a final grade, students often view assessment as a judgmental event as assessment of learning (AoL) rather than a tool for growth (Deane, 2011). The fact is that learners develop their writing abilities through a recursive writing process (Hayes-Flower, 1980; Weigle, 2010). Learners in the real-life writing situation have to write multiple drafts through a cycle of revisions in order to produce the final version. Therefore, the writing process should also be focused on.

In order to aid the development of writing skills through the learning tasks, the assessment data of learning can be used as assessment for learning (AfL) (Woodworth, 2023). In the writing classroom, assessment occurs within the writing process. EFL learners receive various forms of feedback, including teacher feedback and peer feedback, during the drafting and reviewing stages. This feedback information is virtually generated from the writing process and serves a formative role in shaping the writing product. Consequently, process-oriented feedback aligns with the recursive nature of writing (Hyland & Hyland, 2006).

Learning-oriented assessment (LOA) focuses on the process of learning in order to close the learning gap (Turner & Purpura, 2016) to the target skills. It transcends the traditional dichotomy between formative and summative assessment by integrating AfL and AoL to prioritize productive student learning processes. Forward-looking feedback (Keppell and Carless, 2006), which bridges formative and summative assessment, utilizes assessment information through various sources to push the learners to further develop their learning.

LOA can help improve writing as learners can use the assessment information to check every phase of the learning cycle (Jones & Saville, 2016) through planning, drafting, and reviewing. The feedback information provided can facilitate the writer's ability to address identified learning gaps, whether through guidance from the teacher or peer feedback.

By incorporating LOA into the writing classroom, the writers can benefit from both the process-oriented assessment and the writing genre instruction to ensure the quality of the writing product through the continuous development of writing ability. Thus, the learning-oriented writing assessment (LOWA) is coined to suit the EFL learners' needs by emphasizing

the dual focus of instruction and assessment through the vehicle of learning tasks to move forward the learning of the EFL learners.

This study integrated different LOA models (Keppell and Carless, 2006; Jones & Saville, 2016; Turner & Purpura, 2016) to form a comprehensive model of writing instruction and assessment through learning tasks, writing assessment, and writing instruction. The primary objective of the research was to explore the effects of the implementation of the LOWA model on learners' writing ability. Thus, the research question is: "What are the effects of the LOWA model on EFL undergraduate students' writing ability?"

2. Literature Review

2.1 Learning-oriented assessment

The learning-oriented assessment refers to the tasks that combined functions of learning tasks and assessment tasks, student involvement evaluation, and forward-looking feedback to promote learning to involve the learners in the learning process with the goal of target skill (Jones & Saville, 2016; Keppell and Carless, 2006; Turner & Purpura, 2016).

Since its inception, three key LOA models have been proposed. Keppell and Carless (2006) develop an LOA model in the domain of general education assessment in higher education, featuring three interlocking components, namely the dual role of tasks in learning and assessment, student involvement in assessment processes, and forward-looking feedback. Turner and Purpura (2016) applied the LOA to the field of second language assessment by developing the Working Framework of LOA with seven different and interrelated dimensions that can be involved in the language classroom. The components include learning dimension, instructional dimension, contextual dimension, elicitation dimension, proficiency dimension, affective dimension, and interactional dimension (Turner and Purpura, 2016, p. 261). This working framework of LOA provided instructors with an understanding of how to apply the theory into action in the classroom setting. Sharing the similarities, Jones and Saville (2016) sought to bridge the gap between the macro level in terms of setting and monitoring targets and the micro-level in the classroom (p. 13) by creating the Learning-oriented Assessment Model with an in-depth look into how tasks, LOA activities, and the record collaborated with each other to achieve the syllabus goal expected from the learning objectives. Below is a summary of the three LOA models.

Table 1

The Synthesis of Learning-oriented Assessment Frameworks

Key LOA	Keppell and Carless, 2006	Turner and Purpura, 2016	Jones & Saville, 2016
Context of Application	General Education	Second and foreign language classrooms	Language learning and assessment
Primary Focus and Purpose	Assessment with primary focus on the potential to develop productive student learning processes	How learners use assessment information to - close learning gaps - improve performance	Brings complementary evidence from classroom activity and from large-scale assessment to achieve the aligned goal

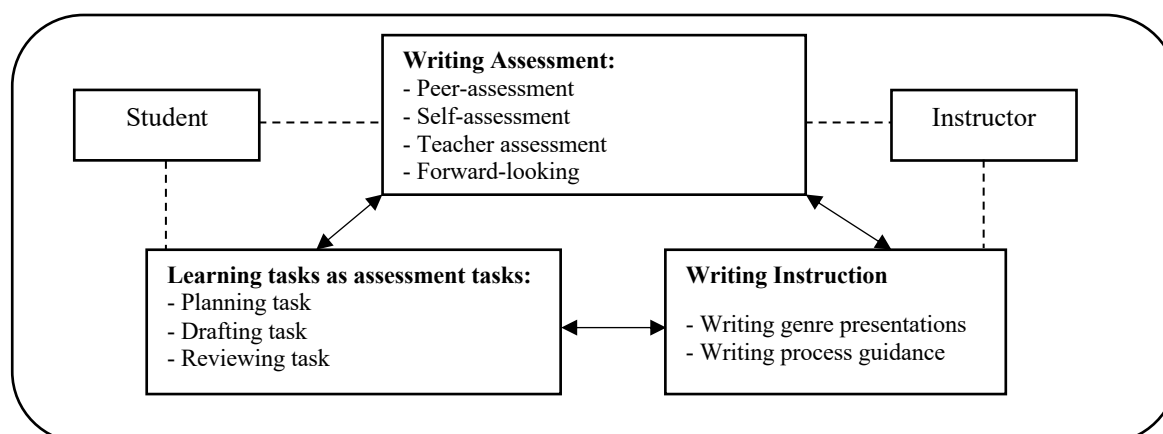
Task Role	Assessment tasks as learning tasks - embody the desired learning outcomes - promote learning dispositions - mirror real-world tasks	Tasks related to the contextual, elicitation, instructional, learning, interactional, proficiency, and affective dimensions	Micro-level task - based on LOA syllabus aligned with learning objectives of frame of reference (CEFR) - providing language activity opportunities in the classroom
Learners' Evaluative Expertise	Student involvement as evaluators: develop an understanding of learning goal and engage more actively with criteria and standards	Evaluative expertise related - the L2 proficiency dimension - the interactional dimension - the learning dimension	Learning interactions Evaluation from students
Feedback Role	Feedback as feedforward - students receive feedback to promote learning	Learning promotion related - the learning dimension - the affective dimension	Feedback - students manage their own learning

Utilizing the aforementioned LOA models, scholars in the education field tried to implement them across various sub-disciplines of study, including online assessment (Ma et al., 2021), computer-mediated learning (ER & Farhady, 2023), teaching-learning interface (Leung, 2020), and language assessment policy (Gebriel, 2021). Nevertheless, these LOA-related research endeavors drew their foundation from the aforementioned three pivotal LOA frameworks, each with its own distinct research focus.

In the present study, the learning-oriented assessment was adapted to suit the EFL field with a focus on writing ability development. Thus, adopting a single LOA framework cannot fulfil the needs in the current study. Therefore, the research developed a LOWA model based on the three components of learning task, students' evaluative expertise, and forward-looking feedback (Keppell and Carless, 2006), the central role of learning task in the classroom learning (Jones & Saville, 2016), and the characteristics of EFL instruction in LOA from Turner and Purpura (2016). The three core LOA components, as depicted in Figure 1, were selected as the conceptual framework for this study due to their interlocking nature, which emphasizes the interaction between learning tasks and writing assessment tasks, and the integration of writing instruction to make assessment more meaningful.

Figure 1

The learning-oriented writing assessment framework adapted from Keppell and Carless' model



The first component is “learning tasks as assessment tasks. They are provided to the learners to inspire their writing process from planning based on the topic, developing the writing components, and the revision process to improve their drafts. The writing instruction component means the content the instructor provided to the EFL learners during the class, such as writing genre presentation and writing process guidance. The last component is writing assessment, where learners can assess their writing production, peers can provide suggestions, the instructor offers assessment advice, and all the feedback aims to push the learners further in their writing ability.

The directional arrows within the framework illustrate the collaboration among the broader instructional and assessment domains and learning tasks. The collaboration represents the continuous, interlocking feedback loops of LOA, wherein assessment outcomes consistently feed forward to inform ongoing instruction and subsequent learning tasks.

2.2 Learning-oriented assessment in writing skill development

Previous research explored individual LOA components in writing skill development, such as the role of teacher and peer assessment (Singh et al., 2017), lexical development (Yang, 2020), feedback literacy (Ma et al., 2021), writing strategies (Estaji & Safari, 2023), computer-mediated learning (ER & Farhady, 2023), and argumentative writing skills (Imsa-Ard, 2025). Its application to the productive skill of writing in terms of different genres in paragraph production remains an area for innovation.

In order to ensure the compatibility between LOA and writing ability development in terms of paragraph writing genre (Hogue, 2017), the researcher adapted the communicative language competence model (Bachman, 1990; Canale & Swain, 1980; Celce-Murcia, 2008; Grabe & Kaplan, 1996) with consideration to universal recursive characteristics of writing process (Hayes & Flower, 1980) to develop the learning-oriented writing assessment model to suit the classroom instruction context.

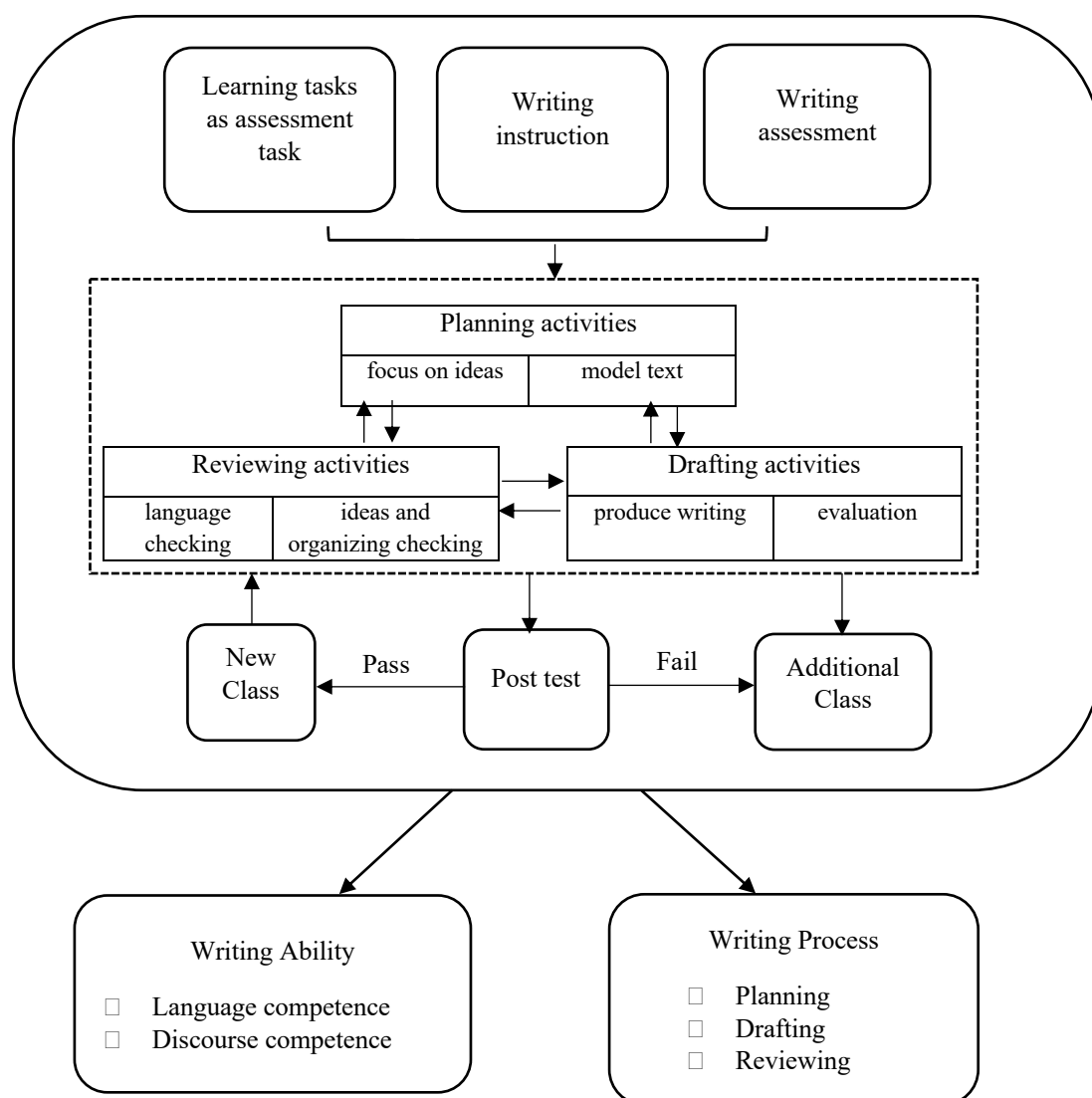
In this research, writing tasks in terms of topic planning, drafting, and peer and self-reviewing, along with summative assessment tasks, are integrated into the writing classroom, where the researcher creates opportunities to observe and understand how learners act during the writing processes. Meanwhile, the learners were provided with the opportunity to identify their weaknesses in the context of paragraph writing to work out solutions for further improvement. The LOWA model is shown in Figure 2.

During the planning activities, students were asked to share ideas with each other by completing the writing planning exercise. For the drafting activities, students were asked to draft a paragraph based on the information they obtained from the planning stage. Regarding the revising activities, students were to discuss with each other by conducting a writing evaluation and polishing their draft.

The evaluation of students’ writing abilities was conducted through the lenses of language and discourse competence, which were selected to meet the demands of paragraph-level writing. Language competence was assessed to measure the micro-level mastery of vocabulary, syntactic accuracy, and grammar rules among EFL learners. However, since effective paragraph writing necessitates more than the production of accurate sentences, discourse competence was also employed as a measure of the learners’ macro-level ability to construct cohesive and coherent texts employing appropriate paragraph conventions and logical transitions.

Ultimately, the theoretical and pedagogical significance of this study lies in extending LOA principles to the productive skill of writing. This demonstrates that assessments can be embedded within EFL classrooms to actively enhance students' learning outcomes. It bridges the traditional divide between language instruction and language assessment, offering a pedagogical perspective for instructors and learners.

Figure 2
LOWA Model



3. Methodology

This study employs a mixed-methods design, incorporating a quasi-experimental (one-group pretest-posttest) framework complemented by a qualitative component. Data collection is conducted concurrently during the intervention to capture the unfolding process of writing development. The study uses objective writing pre- and post-tests, weekly writing ability questionnaires, and qualitative learners' journals over an 8-week period. The interaction between these strands is complementary, with thematic analysis of the journal content providing an explanation for the observed writing development in objective writing scores.

This comprehensive approach offers a thorough understanding of the LOWA model's impact on writing ability.

3.1 Participants

The participants in the present study were drawn from an intact group of 33 Thai undergraduate students from a public university in Thailand. They were enrolled in a required 3-credit foundation English course designed to develop four primary language skills: listening, speaking, reading, and writing. The course spanned one academic semester and involved three hours of instruction per week. The initial cohort included both male and female students, all of whom were over 18 years of age. To ensure the integrity of the data, students who could not attend the assessment of intervention were excluded from the analysis. Consequently, the final sample consisted of 30 participants who successfully completed all the required tests. The teaching material that the faculty is appointed to use is *Voices*, which is of B2 level of CEFR (Hart & Sayer, 2022).

3.2 Research instrument

Four instruments were involved in the research question, namely the lesson plans under the LOWA model as an intervention, the pretest and posttest to obtain the writing performance of the participants, writing ability questionnaires, and the learners' journals.

3.2.1 The treatment

The lesson plans, which were implemented for eight weeks, was designed under the LOWA model to develop learners' writing ability. Three experts from the field of language assessment and instruction validated the lesson plan. After the revision from experts' feedback, the lesson plans were implemented. The lesson plans follow the nature of the writing process, namely, planning, drafting, and revising. During the planning activities, students were asked to share ideas with each other by completing the writing planning exercise. For the drafting activities, students were asked to draft a paragraph based on the information they obtained from the planning stage. Regarding the revising activities, students were to discuss with each other by conducting a writing evaluation and polishing their draft.

3.2.1.1 Instructional procedures

In the first teaching session (N1 Week 3), the instructor provided an presentation of the narrative paragraph writing genre to the students, ensuring their comprehension of the characteristics of this writing style. Subsequently, students were tasked with completing a genre analysis by reading a sample narrative paragraph. These initial steps equipped students with essential information about narrative paragraphs.

Following this, the planning task was distributed to the students, who collaborated in pairs to gather information through brainstorming and discussion. This collaborative effort resulted in the completion of the planning task, which provided the necessary guidance for students to conduct the drafting task, their initial draft of the narrative paragraph.

During the drafting process, students had the opportunity to consult with the instructor for writing process guidance. Upon completing the first draft, the instructor distributed an evaluation form outlining the holistic rubrics.

The instructor introduced writing descriptors and provided a sample writing paragraph for students to review. Subsequently, they engaged in pair grading sessions, fostering peer-assessment and self-assessment.

After the evaluation, students utilized the information from the evaluation form to guide their second draft before the conclusion of the first teaching session. The instructor reviewed all second drafts submitted before the next teaching session to adjust the teaching pace and content accordingly.

In the second teaching session (N1 Week 4), the instructor introduced specific analytic writing rubrics and demonstrated their application to grade the paragraph writing. Subsequently, students scored their second drafts in pairs using the score and analytic writing rubrics, which guided them in completing the third draft.

The review session in the second teaching session served as an opportunity for students to reflect on their third draft, fostering their future improvement through forward-looking feedback.

The third and fourth sessions of narrative paragraph writing were a repetitive cycle of instructional patterns that the instructor employed for the first two teaching sessions, which covered different writing topics.

3.2.2 The pretest and posttest

There were two writing pretests and two writing posttests for different genres of paragraph writing: a narrative paragraph and an opinion paragraph. As for the posttests, the writing quizzes from the university course were used after the implementation of the LOWA model. The pretests, in this case, were developed by the researcher based on the posttest writing tasks. The pretests and posttests are parallel forms following the same test specifications and rubrics. Three experts from the field of language assessment and evaluation were invited to validate the writing test. The researchers revised the writing prompts based on the advice that was provided by the experts.

3.2.3 Writing ability questionnaire

A writing ability questionnaire conducted after each learning session was designed for learners to rate their writing ability development. The writing ability questionnaire consists of six items arranged in a five-point Likert scale (1 = strongly disagree, 5 = strongly agree) to describe the data in terms of content, organization, and language in writing ability, which was summarized by the models of communicative language ability applied to writing proposed by Canale & Swain (1980); Grabe & Kaplan (1996); Bachman (1990), and Celce-Murcia (2008).

3.2.4 Learners' journal

A learners' journal was designed for learners to self-reflect and self-review on what they had learned in the class, the difficulties they had encountered during the writing process, and how they had overcome the difficulties. This part consists of four open-ended questions.

3.3 Data collection and data analysis

In this study, quantitative data were collected from two types of instruments:

Pretests and posttests: Prior to the implementation of the LOWA model, the participants took the pretest on narrative paragraph writing and reported the scores to the researcher. After

four sessions on teaching narrative paragraph writing with the model, participants took the posttest, which provides the researcher with the scores. The participants then received another four writing sessions to write an opinion paragraph, and another pretest was given to the students before the intervention, followed by the posttest after the four sessions. The scores generated from the posttest were used to examine the effects of the LOWA model on writing skills.

The writing prompts were validated by IOC from three experts from the language assessment and evaluation field. As for the narrative paragraph writing prompt for the pretest, it was “Write about the most memorable experience that you had when you traveled with your family.”, and the posttest prompt was “Write about a time that you felt disappointed”. The opinion paragraph writing prompt for the pretest was “In your opinion, what are the three most important changes social media brought to life?”, and the posttest was “Give three reasons why people should plan before travelling to another place”. The full points of the paragraph writing were 15. The rubrics were provided by the faculty of the university.

Questionnaire: After each lesson, the participants completed a questionnaire. The questionnaire was validated by IOC from three experts in language assessment and evaluation field. This data collection occurred at each of the four teaching sessions from each cycle. Collecting data at each session allowed the researcher to track changes in the participants’ perceptions on their writing ability as they engaged with the LOWA model. This provides insight into the effectiveness of the LOWA model at different points of implementation.

Qualitative data were gathered by learners’ journals. A learners’ journal, which was validated by three experts from language assessment and evaluation field, was provided to the participants after each lesson. The qualitative data elicited from the learners’ journals were analyzed by means of thematic analysis. To ensure a rigorous and organized analytical process, the textual data were first transcribed and then imported into NVivo for data management and coding.

4. Findings

4.1 Quantitative results

This part includes the quantitative results of this study, including the pre-test and post-test, the inter-rater reliability, and writing ability questionnaire data.

4.1.1 The pretest and posttest

In response to the research question, “What are the effects of the LOWA model on EFL undergraduate students’ writing ability?”, the mean scores of the pretest and posttest showed that after the implementation of the LOWA model, the participants’ writing ability increased with statistical significance.

To start with, as displayed in Table 2, the participants’ writing test scores of the pretest and posttest were reported. The findings showed that the narrative paragraph posttest mean score ($M = 11.93$; $SD = 1.34$) was higher than the narrative pre-writing test mean score ($M = 9$; $SD = 1.25$) with statistical significance at $p: <.001$. Meanwhile, the opinion paragraph posttest mean score ($M = 12.73$; $SD = 0.95$) was higher than the opinion pre-writing test mean score ($M = 8.7$; $SD = 1.27$) with statistical significance at $p: <.001$.

Table 2*The Pre- and Post-test Scores*

Writing Genre	Writing Test	n	<i>M</i>	<i>SD</i>
Narrative paragraph	Pre-test	30	9.00	1.25
	Post-test		11.93	1.34
Opinion paragraph	Pre-test	30	8.70	1.27
	Post-test		12.73	0.95

A paired-samples *t*-test was conducted to compare the mean scores of the pre- and post-test scores, as presented in Table 3. It shows that there was a significant difference between the narrative post-test mean score ($M = 11.93$; $SD = 1.34$) and its pre-test score ($M = 9$; $SD = 1.25$, $t(29) = -13.29$, $p < .001$). Cohen's *d* was interpreted using these general benchmarks: Median effect: 1.06, Large effect: 1.42 or higher (Plonsky & Oswald, 2014). Cohen's *d* test revealed that the effect size was large (Cohen's $d = 2.43$). Meanwhile, the table shows there was a significant difference between the opinion post-test mean score ($M = 12.73$; $SD = 0.95$) and its pre-test score ($M = 8.7$; $SD = 1.27$, $t(29) = -16.05$, $p < .001$). Cohen's *d* test revealed that the effect size was large (Cohen's $d = 2.93$).

Table 3*Paired Samples t-test of Pre-Post-test Mean Scores*

Paired Sample Test								
Paired Differences								
	Mean	SD	SE	95% Confidence Interval of the Difference		<i>t</i>	df	<i>p</i> -value
				Lower	Upper			
Narrative Writing	-2.93	1.21	.22	-3.38466	-2.48200	-13.293	29	<.001
Opinion Writing	-4.03	1.38	.25	-4.54742	-3.51925	-16.046	29	<.001

4.1.2 Inter-rater reliability

Rater-training was provided before the intervention. The inter-rater reliability of the intervention was calculated as in Table 4. The results suggested above coefficients of 0.8 level. This means rater consistency in the test of lower stakes can be accepted. Thus, there was a high level of inter-rater reliability of two raters for tests.

In this study, inter-rater reliability is not a standalone research question, because it was used as a methodological procedure for ensuring the work is reliable rather than a research objective or outcome.

Table 4
Inter-rater Reliability Statistics

		<i>M</i>	<i>SD</i>	N*	Cronbach's Alpha
Narrative Paragraph	rater1	8.933	1.285	30	0.960
Pre-test	rater2	9.067	1.311	30	
Narrative Paragraph	rater1	8.933	1.285	30	0.960
Post-test	rater2	9.067	1.311	30	
Opinion Paragraph	rater1	8.600	1.453	30	0.882
Pre-test	rater2	8.800	1.270	30	
Opinion Paragraph	rater1	13.067	1.015	30	0.901
Post-test	rater2	12.400	1.003	30	

*N means the number of test takers

4.1.3 Self-assessed writing performance

When analyzing the self-assessed writing performance, which was another data collection instrument, it was found that the participants gained high confidence in their writing skill performance with participating in the LOWA model. After the writing activities, the participants were asked to rate their own writing performance in terms of content, organization, and language aspects. And their responses related to the content ability are illustrated in Table 5.

Table 5
Participants' Self-Assessed Writing Performance in Terms of Content Ability

Item	Narrative paragraph				Opinion paragraph			
	Wk 3	Wk 4	Wk 5	Wk 6	Wk 10	Wk 11	Wk 12	Wk 13
	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>
1. I wrote a clear topic sentence that identified the topic and controlling idea of a paragraph.	3.73	4.17	4.10	4.13	4.33	4.48	4.43	4.28
2. I logically supported and developed my main point when I wrote a paragraph.	3.87	4.13	4.00	4.03	4.43	4.48	4.37	4.28

Note: Wk3 = Week 3, *M* = Means

As shown in Table 5, the mean scores for self-assessed writing performance in content ability indicated positive progress. Specifically, the results for Item 1 suggested that participants perceived a general enhancement in their ability to write clear topic sentences, while the results for Item 2 suggested that they successfully developed main points during the paragraph writing process.

Table 6*Participants' Self-assessed Writing Performance in Terms of Organization Ability*

Item	Narrative paragraph				Opinion paragraph			
	Wk 3	Wk 4	Wk 5	Wk 6	Wk 10	Wk 11	Wk 12	Wk 13
	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>
1. I logically organized my ideas when I wrote a paragraph.	3.57	4.10	3.93	3.93	4.40	4.33	4.30	4.21
2. I used transition devices in writing.	3.50	3.83	3.70	3.70	4.00	4.37	4.07	4.03

As shown in Table 6, the mean scores for self-assessed writing performance in organization ability Item 1 indicated a non-linear positive trend in narrative paragraph ideas organization during the writing, while the opinion paragraph indicated positive development throughout four weeks. The item 2 indicated that students tried to use transition devices in narrative paragraph writing; the fourth session final mean score remained higher than the baseline recorded in Session 1. The opinion paragraph indicated positive development in using transition devices.

Table 7*Participants' Self-assessed Writing Performance in Terms of Language Ability*

Item	Narrative paragraph				Opinion paragraph			
	Wk 3	Wk 4	Wk 5	Wk 6	Wk 10	Wk 11	Wk 12	Wk 13
	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>
1. I used appropriate vocabulary and word forms to effectively communicate with the reader.	3.57	3.60	3.77	3.73	4.23	4.30	4.23	4.21
2. I wrote an accurate paraphrase of information that I had read in English.	3.67	3.70	3.77	3.80	4.17	4.19	4.27	4.03

As shown in Table 7, the mean scores for self-assessed writing performance in language ability Item 1 indicated the continuous growth in using vocabulary to communicate with the reader in narrative writing, and the positive development in opinion writing. Item 2 indicated the participants developed paraphrasing skills during narrative paragraph writing, and the opinion paragraph writing indicated a positive paraphrasing usage.

In addition to the quantitative findings collected with the two aforementioned instruments, qualitative data were elicited by means of learners' journal to see how the participants perceived the effects of the LOWA model on their development of writing skills.

4.2 Qualitative results

Regarding the qualitative data involved in the research, the participants mentioned in their learner's journal after each learning session under the LOWA model about their learning of writing ability, writing evaluation skill, writing difficulties, and the solutions to the writing difficulties.

The students were asked to answer the questions in a journal format, which included the following prompts:

1. What did you learn today?

2. What difficulties did you encounter with grammar, such as tense, sentence structure, or vocabulary?
3. Was it challenging to organize your ideas clearly? Please provide an explanation.
4. How did you overcome the difficulties you mentioned?

Themes were extracted from the weekly learners' journals using thematic analysis. This involved systematic coding and pattern-checking within NVivo, enabling a comparison of student reflections across the intervention. Trustworthiness was ensured through a clear audit trail in NVivo, documenting every step from initial codes to final themes. Credibility was established through detailed descriptions, using direct student excerpts to ground the analysis in the participants' own voices.

There are four themes that emerge from the weekly reflections, namely, writing ability development, writing evaluation skill, writing difficulties, and solutions to the writing problems.

4.2.1 Writing ability

Regarding the paragraph writing skill learning in terms of content knowledge, organization knowledge, and language knowledge, the participants mentioned that they had opportunities to practice these writing skills while working on the tasks provided by the LOWA model, as exemplified by the following excerpts:

I learned about the writing of topic sentence (beginning), body sentences (middle), concluding sentence (end) from the class. [Student CAR, Session N1, week 3]

I know how to write the paragraph with complete component and learn about the separate components. [Student KAN, Session N4, week 6]

I learned about how to write opinion paragraph. It contains topic sentence, main ideas, support ideas, and then the conclusion. [Student NAK, Session O1, week 10]

I understood how to organize paragraph smoothly by starting from main idea, details and the ending part. [Student NAT, Session N4, week 6]

I learned about the writing skills and how to organize my sentences. I also learned how to use the vocabulary. [Student BOO, Session N4, week 6]

I learned about how to understand the fragments in my sentence, so I know how to write it correctly." [Student NAT, Session O2, week 11]

4.2.2 Writing evaluation skill

The participants also stated in the learner's journal that they practiced writing evaluation skills during the writing activities under the intervention of the LOWA model. The participants were provided with the writing rubrics explanation from the instructor with the

sample evaluation. Afterwards, the designed evaluation form was given to the participants to help them evaluate their writing drafts. The participants mentioned how they developed their writing evaluation skills in the excerpts below:

I learned how to score my writing draft through a writing rubric form that contains three parts, including topic contents, organization, and language. [Student NAT, Session N2, week 4]

I understood how to evaluate my writing from the standard, and I learned how to fix my mistakes. [Student PRI, Session N4, week 6]

I learned how to score my writing by checking writing rubric, and I tried to make my sentences clearly. [Student KAN, Session O4, week 13]

I learned how to review the previous drafts with my pair, and I made corrections. [Student JIR, Session O4, week 13]

With my partner and teacher's help, I understood how to develop my paragraph by rubric evaluation form and then write the final draft. [Student NAS, Session O2, week 11]

4.2.3 Writing difficulties

During the implementation of the LOWA model, the participants were provided with learning tasks to develop their writing skills. These tasks required them to produce writing drafts based on the writing prompts from the ideas planning to organizing content. The participants mentioned that they had encountered several writing difficulties related to the language, as can be seen in the following excerpts:

I'm little bit confused of tense. Actually I studied for a long time about tense but I'm still not sure with myself when I'm using tense grammar in writing. [Student JIN, Session N1, week 3]

I'm struggling with grammar especially sentence structure. It's hard to understand. [Student CHA, Session N2, week 4]

When I'm trying to organize ideas, I have some difficulties with sentence structure and choosing the right vocabulary to express my ideas. [Student THA, Session O3, week 12]

I had some difficulties with sentence structure. And I have problems in choosing the right words to connect sentences. [Student JIR, Session O1, week 10]

4.2.4 Students' solution to writing difficulties

The participants also stated in the learner's journal how they handled the difficulties during the writing activities in order to complete the draft. There are three major ways that participants took as their solutions, namely artificial intelligence (AI) tools and Internet, student feedback and teacher feedback, and self-review.

I used ChatGPT and also the google translate. [Student NAR, Session O1, week 10]

In order to improve my grammar and vocabulary, I tried to consult with my friend and teacher. I asked the teacher whether it's good or not about some of my words. I changed some vocabulary until my words were appropriate. [Student KAD, Session N1, week 3]

I asked the teacher and my partner for help, and my partner and I worked together to finish our work. [Student KAN, Session O1, week 10]

I reviewed the writing examples from the class and searched for vocabulary online. I also rearranged my ideas using an outline before writing. [Student THA, Session O2, week 12]

In conclusion, through the implementation of the LOWA model, the participants' writing ability improved as evidenced by the pre- and post-test scores. Moreover, the LOWA model also provided the opportunities for the participants to self-evaluate their performance in the class, and it could be seen that they had a higher level of practicing writing skills in terms of content, organization, and language. The participants were also asked to identify their learning achievement and writing weaknesses, so that they can find the solution to these writing difficulties. The information provided by the participants was beneficial for the instructor in tailoring the lesson to meet the specific requirements of the participants.

5. Discussion

The implementation of the LOWA model appeared to facilitate developments in the students' writing ability, writing evaluation, and the identification and solution of writing difficulties. Quantitatively, the effectiveness of the model is demonstrated through a marked improvement in writing scores across both narrative and opinion genres, with post-test results being higher than pre-test scores following the intervention. These performance gains are further corroborated by weekly data from the writing ability questionnaires, where students positively reported in their development of content, organization, and language. Qualitatively, evidence from learners' journals reveals that these gains were driven by a shift in student engagement by internalizing writing rubrics and engaging in interactive feedback cycles. Students transitioned from being passive recipients of grades to active assessors capable of proactively identifying and solving writing difficulties.

The implementation of the LOWA model fosters the development of writing ability and evaluative expertise through student involvement in assessment tasks. Under the LOWA model intervention, students actively developed their writing evaluation skills. Students were trained

to learn the rubrics of writing paragraphs during writing activities with their peers. The evaluation tasks from the learning-oriented model helped students understand the assessment components of paragraph writing; therefore, they could use the specific rubric information to evaluate the content, organization, and language part of the writing drafts. Through the assessment processes, students utilized the evaluation expertise, which further enhanced their understanding of target skills (Carless, 2015; Viengsang & Wasanasomsithi, 2022). The scoring activity embedded in the learning tasks also provided students with the perspective of the assessor to see their problems in an effort to improve their skills (Turner & Purpura, 2016). Students took the information from the evaluation activities to reflect on their writing processes and review their writing drafts afterwards.

The designed evaluative activities enabled students to use the rubrics to assess their writing production as a summative assessment procedure. This assessment provided students with valuable feedback that informed their subsequent writing improvements. Consequently, the LOWA model effectively utilized both formative and summative assessments (Carless, 2007, 2015) to encourage students to enhance their writing skills. Formative assessment took place during each writing session through the forms of evaluation activities. The students were guided to gather information for assessing their writing drafts in an ongoing evaluative approach, which played the role of assessment for learning (Bennett, 2011) that further shaped and built students' competence. Meanwhile, the formative assessment generated the diagnostic information that was able to help both instructor and students to understand the learning process, which further enabled the instructor to adjust the instruction to suit the students' actual needs to achieve successful teaching and learning (Luckritz Marquis, 2021). Regarding the role of summative assessment, it served as an indicator of the overall achievement after the teaching sessions in the LOWA model. It was regarded as assessment of learning to determine the students' writing performance to a certain genre of paragraph writing (Woodworth, 2023). However, the integration of both assessment forms in the learning-oriented assessment blurred the line between the two, since the instructor can use the data generated from the summative assessment to modify the teaching curriculum for future usage.

Several forms of feedback were embedded into the LOWA model to develop students' writing ability, as shown in the learner's journal. This interactive environment provided students with opportunities to seek help in real time. The learner-centered characteristics of learning-oriented assessment provided students with the opportunities to engage in learning and assessment tasks in their educational contexts during the cycles of learning, recording, and feedback (Jones & Saville, 2016; Saville, 2021). Students in the writing class were assigned to generate several writing drafts in pair work. During the process, the discussion was promoted in the writing, which generated feedback among the students to further help the drafting.

Self-reflection

Rather than passively receiving corrections, students engaged in self-monitoring by mapping out their difficulties with vocabulary choice, tenses, and sentence structure, and actively collaborating with their peers and teacher to solve the problems. The assessment tasks in the writing classroom created sufficient space to help students conduct reflection on writing skills. Students worked both individually and in pairs to review their learning tasks and their writing drafts. The reflection process helped students identify their learning progress and learning difficulties. Based on the information students gathered during the reflection process, they were able to dive deeper into writing drafts, which provided them with another chance to

develop writing abilities. The metacognition strategies such as self-monitoring, learning from feedback, and evaluating one's own performance were developed during the writing reflection. This eventually enabled learners to take ownership of their education (Andrade & Evans, 2013).

Finally, the LOWA model cultivated the error awareness in a forward-looking perspective. When students exchanged ideas with peers and teachers, students were encouraged to express their writing difficulties in the learning-oriented classroom. Both pair work and self-review played an important role in identifying learning difficulties that students had encountered during the writing drafts. Students can learn from the difficulties to specify their specific writing problems in order to improve afterwards. Discussion activities provided the opportunities for the students to learn from the writing errors in their writing process to build a better draft afterwards. The error awareness development was formed in this learning context for future writing (Estaji & Safari, 2023; Ma et al., 2021; Yang, 2020).

In conclusion, the findings suggest that the implementation of the LOWA model was associated with positive developments in the students' writing ability in several ways. The data indicated improvements not only in overall writing scores, but also in the students' learning processes, writing evaluation, weakness identification, and reviewing skills. Therefore, to effectively foster learners' writing abilities, it appears beneficial to look beyond final writing scores and examine the learning process itself, particularly how learners actively engage with assessment tasks throughout a collaborative assessment environment with the development of feedback literacy and learner autonomy.

6. Limitations and Recommendations

The current research focused on one intact group of students who were enrolled in the foundation English language course in a single university context. The course design is intensive in a relatively small sample size of participants, which may restrict the generalizability of the results to students with similar characteristics. Meanwhile, the research is conducted within one semester, which limits the possibility of seeing the long-term outcomes of the learning-oriented assessment model. Therefore, it is suggested that the implementation of the LOWA model should be replicated with learners with different levels of proficiency to assess the model's efficacy.

Based on the obstacles encountered during the data collection process, several recommendations can be made for future research. To address the challenge of instructional time constraints, future studies should implement the LOWA model within a dedicated, extended academic writing course rather than a general foundation course. This would allow sufficient time for the rigorous data collection required by iterative peer- and self-assessments without overwhelming the curriculum.

Furthermore, the LOWA model requires a substantial time investment in designing and assessing learning tasks during the writing process. This can pose a challenge for teachers planning to implement this model due to its time-consuming nature and workload. To effectively implement this model without experiencing burnout, two practical strategies are recommended for teachers. Firstly, teachers should collaborate on material development. Forming materials writing teams where two or three colleagues share the responsibility of designing task units can significantly reduce the time, effort, and frustration incurred by any single instructor. Secondly, teachers can alleviate their grading burden by maximizing

structured peer assessment. Training students to evaluate each other using clear rubrics enhances their evaluative skills while reducing the feedback workload for teachers.

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9. Declaration of AI Use

Apple AI is used to do proofreading.

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