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EXPLORING THE EFFECTIVENESS OF FLIPPED CLASSROOM MODEL IN TEACHING WRITING TO SENIOR HIGH SCHOOL STUDENTS IN RIAU

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Abstract

English writing instruction at the senior high school level continues to face challenges related to idea development, text organization, vocabulary use, language structure, and writing mechanics. This study aims to examine the effectiveness of the flipped classroom model in teaching writing to senior high school students in Riau. A quantitative approach with a quasi-experimental design was employed, involving 64 students divided into an experimental class and a control class. The sample was selected using cluster sampling based on existing classroom groups. Data were collected through writing pretests and posttests, and students' writing performance was assessed using a rubric covering content, organization, vocabulary, language use, and mechanics. The data were analyzed using descriptive statistics, paired sample t-test, and independent sample t-test. The findings indicate that students in the experimental class achieved greater improvement in writing scores than those in the control class, with a significance value of 0.000. These results demonstrate that the flipped classroom model is effective in improving students' writing ability. The study concludes that flipped classroom instruction can enhance writing learning by promoting active engagement, learner autonomy, and

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structured technology integration. This study contributes to English language teaching by providing empirical evidence on the effectiveness of flipped classroom pedagogy in senior high school writing instruction.

Keywords: Flipped Classroom; Writing Instruction; English Language Learning; Senior High School Students; Quasi-Experimental Study

INTRODUCTION

Writing is one of the most important skills in English language learning because it enables students to organize ideas, express arguments, and communicate meaning in a structured form (Andleeb et al., 2025; Bora, 2023; Chao et al., 2025). In the context of senior high school education, writing is not only viewed as a language skill, but also as a medium for developing critical thinking, creativity, and academic communication (Afrilyasanti et al., 2025; Herawati et al., 2025). However, writing in English remains a challenging skill for many EFL students because it requires the simultaneous mastery of vocabulary, grammar, text organization, coherence, mechanics, and appropriate language use. This issue becomes increasingly relevant in Indonesia, where students are expected to develop literacy competence while also adapting to the demands of digital and global communication. The urgency of strengthening students' literacy is also reflected in Indonesia's PISA 2022 reading performance, which remained below the OECD average, indicating that language and literacy development still require serious pedagogical attention (OECD, 2019). In Indonesian senior high schools, English learning is designed to develop students' ability to use English across integrated language skills, including listening, speaking, reading, viewing, writing, and presenting. The national curriculum emphasizes that English should help students access wider knowledge, communicate across cultures, and participate in global life. Writing is therefore positioned as a meaningful skill because students are expected to produce texts with appropriate social function, structure, and language features. The Ministry of Primary and Secondary Education also states that English learning is connected to text-based pedagogy and communicative competence, with expected achievement referring to CEFR levels for different phases of learning (Jeon, 2026; Mahmud & Kurt, 2026).

Nevertheless, the actual process of teaching writing is often not simple. Many students have difficulty starting their writing, developing ideas, arranging paragraphs, and revising their drafts. In EFL classrooms, students may understand the topic orally, but they

often struggle when they have to transform their thoughts into written English. A study on Indonesian senior high school students also reported that boredom and anxiety could appear in English learning, suggesting that teachers need to provide more stimulating resources and learning activities to sustain students' motivation (Merdiaty & Sulistiasih, 2024; Nanda, 2024). This condition shows that writing instruction should not rely only on explanation and individual assignments, but should provide students with enough time, guidance, examples, practice, and feedback.

Based on this situation, the researcher argues that English writing instruction needs a learning model that can shift students from passive receivers of information into active participants in the writing process. Traditional classroom practices often place teacher explanation at the center of the lesson, while writing practice and revision are left for homework. As a result, students may complete writing tasks without sufficient assistance during the most difficult stages of composing. The flipped classroom model offers a relevant response to this problem because it allows students to access learning materials before class, while classroom time can be used for discussion, guided practice, collaborative learning, peer review, and teacher feedback. In this sense, flipped classroom is not merely the use of technology, but a reorganization of learning time to make classroom interaction more meaningful.

Previous studies have shown that the flipped classroom model has potential benefits for English language learning, including writing instruction. Yang et al. (2025) dan Ren et al. (2024) through a systematic literature review of 57 studies on flipped classroom approaches in language learning, found that this model has been widely examined in relation to students' perceptions, attitudes, motivation, and language proficiency. Fathi & Rahimi (2022) also reported that flipped classroom instruction significantly improved EFL students' global writing performance and writing fluency, although its effect on complexity and accuracy was not equally significant. These findings indicate that flipped classroom can support writing development, particularly when students are given opportunities to learn materials before class and use class time for more active writing engagement.

In the Indonesian context, several studies have also discussed the use of flipped classroom in teaching writing. Indayani et al. (2022) , for example, found that students' writing skills improved when they were taught through a flipped classroom supported by WhatsApp group activities. Andewi & Hastomo (2023) also concluded that flipped

classroom was more effective than conventional learning in teaching writing and that students' motivation played an important role in the learning process. These findings support the view that flipped classroom can create more flexible and interactive learning conditions for EFL writing. However, most previous studies still tend to focus on general effectiveness, students' motivation, or technology-supported learning without giving specific attention to senior high school students in Riau as a local educational context.

This gap is important because the effectiveness of a learning model may vary depending on students' learning habits, school context, teacher readiness, access to technology, and local classroom culture. Riau, as one of the provinces in Indonesia, has its own educational characteristics and classroom realities. Although writing instruction in Riau senior high schools has been discussed in previous research, more empirical studies are still needed to examine how innovative learning models can improve students' writing performance in this context. Therefore, research on flipped classroom in teaching writing to senior high school students in Riau is necessary to provide more contextual evidence about how this model works in real classroom practice.

The novelty of this study lies in its attempt to explore the effectiveness of the flipped classroom model specifically in teaching writing to senior high school students in Riau. This study does not only position flipped classroom as a digital learning trend, but also as a pedagogical strategy that supports the stages of writing instruction. Through pre-class learning, students can study examples, vocabulary, language features, and writing concepts at their own pace. Through in-class activities, they can practice writing, ask questions, discuss their drafts, and receive feedback from the teacher and peers. This approach is consistent with the principles of student-centered learning, self-regulated learning, and text-based pedagogy, in which students are gradually guided to move from understanding model texts to producing their own texts independently.

Therefore, this study aims to explore the effectiveness of the flipped classroom model in teaching writing to senior high school students in Riau. More specifically, this research seeks to examine whether the use of flipped classroom can improve students' writing ability and create a more active, guided, and meaningful writing learning process. The findings of this study are expected to contribute to English language teaching, particularly in providing an alternative instructional model for writing classes at the senior high school level. In addition, this study is expected to offer practical insight for English teachers who seek to

integrate digital resources, classroom interaction, and writing practice in a balanced and purposeful way.

METHODS

This study employed a quantitative approach with a quasi-experimental method to examine the effectiveness of the flipped classroom model in teaching writing to senior high school students in Riau. A quantitative approach was considered appropriate because the study aimed to measure students' writing achievement before and after the implementation of the learning model through numerical data and statistical analysis. The research design used was a pre-test and post-test control group design, involving an experimental class and a control class. The experimental class was taught using the flipped classroom model, in which students studied learning materials, examples of texts, and writing guidelines before classroom meetings through digital resources prepared by the teacher. Classroom time was then used for discussion, guided writing practice, peer feedback, and teacher correction. Meanwhile, the control class was taught using a conventional teaching model, in which the teacher explained the material directly in class and students completed writing exercises individually. This design was used to compare students' writing performance in both groups and to identify whether the flipped classroom model produced a more significant improvement than conventional instruction (Creswell & Creswell, 2018).

The participants of this study were senior high school students in Riau who were selected using cluster sampling because the research was conducted in existing classroom groups. The sample consisted of two classes, namely one experimental class and one control class, with students who had relatively similar English learning backgrounds. Data were collected using a writing test administered as a pre-test and post-test. The pre-test was given before the treatment to identify students' initial writing ability, while the post-test was administered after the treatment to measure students' writing improvement. Students' writing was assessed using a writing rubric covering content, organization, vocabulary, language use, and mechanics. To ensure the quality of the instrument, the writing rubric was reviewed by English language teaching experts and tested for scoring consistency. The data were analyzed using descriptive statistics to determine the mean, standard deviation, and score improvement of each group. Furthermore, an independent sample t-test was used to compare the post-test scores of the experimental and control classes, while a paired sample

t-test was used to examine the improvement within each group. These statistical procedures were considered relevant because they allowed the researcher to determine whether the flipped classroom model had a significant effect on students' writing achievement (Cohen & Henry, 2019).

RESULTS

This section presents the results of the data analysis concerning the effectiveness of the flipped classroom model in teaching writing to senior high school students in Riau. The findings are organized into five parts: students' pre-test and post-test scores, descriptive statistics, improvement based on normalized gain, results of statistical testing, and students' writing performance based on rubric components. The data were obtained from two classes, namely the experimental class taught using the flipped classroom model and the control class taught using the conventional teaching model. Each class consisted of 32 students, so the total number of participants was 64 students.

The first analysis was conducted to identify the students' initial writing ability before the treatment was implemented. The pre-test scores showed that the experimental and control classes had relatively similar initial writing performance. As shown in Table 1, the mean score of the experimental class in the pre-test was 62.34, while the mean score of the control class was 61.72. The difference between the two mean scores was 0.62 points. This result indicates that both groups started from a relatively comparable level of writing ability before the flipped classroom model was applied in the experimental class.

Table 1. Students' Pre-Test Writing Scores in the Experimental and Control Classes

Class	N	Minimum Score	Maximum Score	Mean	Standard Deviation
Experimental Class	32	50	75	62.34	6.41
Control Class	32	49	74	61.72	6.28

After the treatment was completed, a post-test was administered to both classes to measure students' writing achievement. The post-test results showed an increase in both classes. However, the increase in the experimental class was higher than that of the control class. Table 2 shows that the mean post-test score of the experimental class reached 80.16, while the mean post-test score of the control class reached 71.25. The highest post-test score in the experimental class was 92, while the highest score in the control class was 84. The lowest post-test score in the experimental class was 68, while the lowest score in the control class was 60.

Table 2. Students' Post-Test Writing Scores in the Experimental and Control Classes

Class	N	Minimum Score	Maximum Score	Mean	Standard Deviation
Experimental Class	32	68	92	80.16	5.87
Control Class	32	60	84	71.25	6.02

The comparison between pre-test and post-test scores is presented in Table 3. The experimental class obtained a mean score improvement of 17.82 points, from 62.34 in the pre-test to 80.16 in the post-test. Meanwhile, the control class obtained a mean score improvement of 9.53 points, from 61.72 in the pre-test to 71.25 in the post-test. The data show that the experimental class experienced a greater score increase than the control class after the learning process.

Table 3. Comparison of Pre-Test and Post-Test Mean Scores

Class	N	Pre-Test Mean	Post-Test Mean	Mean Difference
Experimental Class	32	62.34	80.16	17.82
Control Class	32	61.72	71.25	9.53

The improvement of students' writing achievement was also calculated using the normalized gain score. The normalized gain was used to identify the level of students' score improvement after the learning treatment. The formula used to calculate the normalized gain score is presented in Equation (1).

$$g = (\text{Post-test score} - \text{Pre-test score}) / (\text{Maximum score} - \text{Pre-test score}) \quad (1)$$

Based on the normalized gain calculation, the experimental class obtained a mean N-Gain score of 0.47, while the control class obtained a mean N-Gain score of 0.25. Table 4 presents the distribution of students' N-Gain categories in both classes. In the experimental class, 5 students were in the high category, 23 students were in the moderate category, and 4 students were in the low category. In the control class, none of the students reached the high category, 17 students were in the moderate category, and 15 students were in the low category.

Table 4. Distribution of Students' N-Gain Categories

Class	High	Moderate	Low	Mean N-Gain
Experimental Class	5 students	23 students	4 students	0.47
Control Class	0 students	17 students	15 students	0.25

The mean score comparison between the experimental and control classes is also summarized in Figure 1. The figure shows that both classes had similar pre-test scores, while the post-test score of the experimental class was higher than that of the control class.

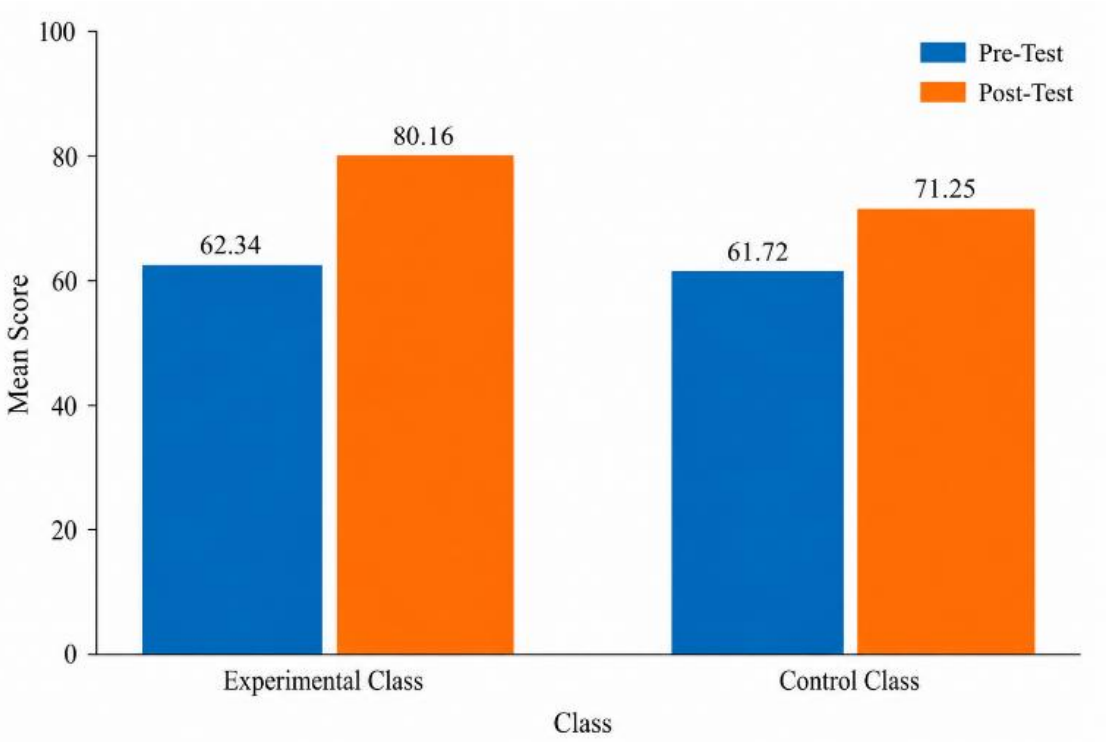

Figure 1. Comparison of pre-test and post-test mean scores between the experimental and control classes

Before conducting the hypothesis test, normality and homogeneity tests were carried out. The normality test was conducted using the Shapiro-Wilk test because the number of students in each class was less than 50. The results are presented in Table 5. The significance values of the pre-test and post-test scores in both classes were higher than 0.05. The significance value of the experimental class pre-test was 0.126, and the post-test was 0.091. Meanwhile, the significance value of the control class pre-test was 0.148, and the post-test was 0.104.

Table 5. Results of Normality Test

Class	Test	Shapiro-Wilk Sig.	Description
Experimental Class	Pre-Test	0.126	Normal
Experimental Class	Post-Test	0.091	Normal
Control Class	Pre-Test	0.148	Normal
Control Class	Post-Test	0.104	Normal

The homogeneity test was conducted using Levene's test. The result of the homogeneity test is presented in Table 6. The significance value of the pre-test data was 0.783, while the significance value of the post-test data was 0.647. Both values were higher than 0.05. These results show that the data from the experimental and control classes had homogeneous variance.

Table 6. Results of Homogeneity Test

Data	Levene Statistic	Sig.	Description
Pre-Test Scores	0.077	0.783	Homogeneous
Post-Test Scores	0.214	0.647	Homogeneous

The paired sample t-test was used to examine the difference between the pre-test and post-test scores within each class. Table 7 shows that the experimental class obtained a t-value of 14.826 with a significance value of 0.000. The control class obtained a t-value of 8.394 with a significance value of 0.000. These results show that both classes experienced a statistically significant difference between pre-test and post-test scores.

Table 7. Results of Paired Sample T-Test

Class	Mean Difference	t	df	Sig. (2-tailed)
Experimental Class	17.82	14.826	31	0.000
Control Class	9.53	8.394	31	0.000

An independent sample t-test was then used to compare the post-test scores of the experimental and control classes. The result is presented in Table 8. The mean post-test score of the experimental class was 80.16, while the mean post-test score of the control class was 71.25. The t-value was 5.994, with a significance value of 0.000. The mean difference between the two classes was 8.91 points.

Table 8. Results of Independent Sample T-Test on Post-Test Scores

Class	N	Mean	Standard Deviation	Mean Difference	t	df	Sig. (2-tailed)
Experimental Class	32	80.16	5.87	8.91	5.994	62	0.000
Control Class	32	71.25	6.02	8.91	5.994	62	0.000

Students' writing performance was also analyzed based on five writing components: content, organization, vocabulary, language use, and mechanics. The results are presented in Table 9. In the experimental class, all writing components showed improvement after the implementation of the flipped classroom model. The highest improvement was found in the content component, with a mean increase of 4.12 points. The organization component increased by 3.86 points, vocabulary increased by 3.41 points, language use increased by 3.72 points, and mechanics increased by 2.71 points.

Table 9. Students' Writing Performance Based on Rubric Components in the Experimental Class

Writing Component	Pre-Test Mean	Post-Test Mean	Mean Difference
Content	13.25	17.37	4.12
Organization	12.81	16.67	3.86
Vocabulary	12.56	15.97	3.41

Writing Component	Pre-Test Mean	Post-Test Mean	Mean Difference
Language Use	12.06	15.78	3.72
Mechanics	11.66	14.37	2.71
Total Mean Score	62.34	80.16	17.82

The control class also showed improvement in all writing components, although the increase was lower than that of the experimental class. As shown in Table 10, the content component increased by 2.31 points, organization increased by 2.13 points, vocabulary increased by 1.91 points, language use increased by 1.78 points, and mechanics increased by 1.40 points. The total mean score improvement in the control class was 9.53 points.

Table 10. Students' Writing Performance Based on Rubric Components in the Control Class

Writing Component	Pre-Test Mean	Post-Test Mean	Mean Difference
Content	13.03	15.34	2.31
Organization	12.69	14.82	2.13
Vocabulary	12.41	14.32	1.91
Language Use	11.97	13.75	1.78
Mechanics	11.62	13.02	1.40
Total Mean Score	61.72	71.25	9.53

The distribution of students' writing achievement categories after the treatment is presented in Table 11. In the experimental class, 9 students were categorized as very good, 18 students were categorized as good, and 5 students were categorized as fair. No student in the experimental class was categorized as poor after the treatment. In the control class, 2 students were categorized as very good, 14 students were categorized as good, 13 students were categorized as fair, and 3 students were categorized as poor.

Table 11. Distribution of Students' Post-Test Writing Achievement Categories

Category	Score Range	Experimental Class	Control Class
Very Good	85–100	9 students	2 students
Good	75–84	18 students	14 students
Fair	60–74	5 students	13 students
Poor	< 60	0 students	3 students
Total		32 students	32 students

Although the overall data showed improvement in the experimental class, several negative and anomalous findings were also identified. In the experimental class, 4 students remained in the low N-Gain category. Their post-test scores increased only between 4 and 7 points. Based on the score records, these students still had difficulties in language use and mechanics, especially in sentence structure, verb agreement, punctuation, and spelling. In

addition, 2 students in the experimental class had relatively high pre-test scores but showed only small improvements in the post-test. Their scores increased from 75 to 79 and from 74 to 78. These cases show that not all students experienced the same level of score improvement.

In the control class, 3 students remained in the poor category after the post-test. Their scores were below 60 and showed limited improvement from the pre-test. The score records showed that these students had low achievement in content development and organization. In addition, 1 student in the control class showed an unusual result because the post-test score decreased from 63 to 61. This was the only case of score decline found in the data. The decline occurred mainly in the mechanics and language use components.

Overall, the results show that the experimental class obtained higher post-test scores, higher mean score improvement, and higher N-Gain scores than the control class. The experimental class also showed greater improvement across all writing components, especially in content, organization, and language use. The statistical test results showed a significant difference between the post-test scores of the experimental and control classes, with a significance value of 0.000. These findings provide the empirical basis for further discussion in the next section.

DISCUSSION

The results of this study indicate that the flipped classroom model had a positive effect on students' writing achievement. This can be seen from the higher post-test mean score obtained by the experimental class compared with the control class. The experimental class increased from 62.34 in the pre-test to 80.16 in the post-test, while the control class increased from 61.72 to 71.25. The difference in improvement shows that students who learned through the flipped classroom model experienced a greater increase in writing ability than students who learned through conventional instruction. This finding answers the main objective of the study, which was to explore the effectiveness of the flipped classroom model in teaching writing to senior high school students in Riau.

The improvement in the experimental class suggests that the flipped classroom model provided students with more learning opportunities before and during classroom meetings. Through pre-class activities, students had time to study learning materials, observe examples of texts, understand vocabulary, and prepare ideas before coming to class. This

condition made the classroom session more focused on practice, discussion, and feedback rather than only teacher explanation. In writing instruction, this learning structure is important because students need repeated exposure, guidance, and revision opportunities to produce better written texts. Therefore, the flipped classroom model helped shift the writing classroom from a teacher-centered activity into a more student-centered and process-oriented learning environment.

The findings also show that the experimental class experienced improvement across all writing components, namely content, organization, vocabulary, language use, and mechanics. The highest improvement was found in the content component, followed by organization and language use. This result indicates that students became more capable of developing ideas and arranging them into a clearer text structure after learning through the flipped classroom model. The pre-class materials may have helped students understand the topic and text model before writing, while the in-class activities allowed them to discuss their ideas, ask questions, and revise their drafts. In this way, students did not write in isolation, but were supported through a gradual learning process.

The increase in the organization component also indicates that students were better able to arrange their writing into a more coherent structure. In conventional writing classes, students often receive explanations about generic structure, but they may not have enough time to apply the structure through guided practice. The flipped classroom model provided more time for classroom activities such as outlining, drafting, peer review, and revision. These activities are closely related to the nature of writing as a process. Writing is not only the final product of language learning, but also a series of thinking activities that involve planning, composing, reviewing, and editing. Therefore, the flipped classroom model supported students in experiencing writing as a process rather than merely completing a written assignment.

These findings are in line with previous studies which reported that the flipped classroom model can improve students' writing performance. Fathi & Rahimi (2026) found that flipped classroom instruction had a positive effect on EFL students' writing performance and writing fluency. Similarly, Indayani et al. (2022)reported that the use of flipped classroom supported by digital communication helped students improve their writing skills. The present study supports these findings by showing that students in the experimental class achieved better post-test results than those in the control class. This consistency

suggests that flipped classroom can be an effective instructional model for EFL writing because it combines independent learning outside the classroom with active practice inside the classroom.

The results also support the view that flipped classroom encourages more active student participation. In the traditional model, students often spend most classroom time listening to teacher explanations, while writing practice is completed individually outside class. This condition may limit students' opportunity to receive direct guidance when they face difficulties. In contrast, the flipped classroom model allows students to study basic materials before class and use classroom time for more meaningful interaction. This is consistent with the concept of active learning, which emphasizes students' engagement in learning activities through discussion, problem solving, collaboration, and reflection (Doolittle et al., 2023). In the context of this study, active learning was reflected in students' involvement in writing practice, peer feedback, and teacher-guided revision.

Although the overall results were positive, this study also found several negative or anomalous data. Four students in the experimental class remained in the low N-Gain category, and two students showed only small improvement despite having relatively high pre-test scores. This finding indicates that the flipped classroom model did not affect all students in the same way. Some students may have had difficulty managing their independent learning before class, while others may not have accessed or understood the learning materials properly. This condition shows that flipped classroom requires students to have self-regulated learning skills. Students who are not accustomed to preparing before class may need additional guidance, reminders, and monitoring from the teacher.

The presence of students with low improvement also indicates that technology-based or blended learning models cannot automatically guarantee better learning outcomes. The effectiveness of flipped classroom depends on several factors, such as the quality of learning materials, students' access to digital resources, teacher feedback, classroom management, and students' learning discipline. In areas where students have limited internet access or different levels of digital literacy, teachers need to provide flexible alternatives, such as printed materials, offline videos, or structured worksheets. Therefore, the implementation of flipped classroom should be adapted to students' actual conditions rather than applied as a uniform model.

From a practical perspective, the findings of this study provide important implications for English teachers, especially those who teach writing at the senior high school level. Teachers can use the flipped classroom model to make writing instruction more effective by moving basic explanation to pre-class learning and using classroom time for writing practice. This strategy can help teachers provide more direct assistance during the most difficult stages of writing, such as generating ideas, organizing paragraphs, choosing appropriate vocabulary, and revising grammatical errors. For students, flipped classroom can encourage greater responsibility because they are expected to prepare before class and participate actively during classroom activities.

Theoretically, this study contributes to the development of student-centered learning in EFL writing instruction. The findings strengthen the idea that writing achievement can improve when students are given opportunities to learn independently, collaborate with peers, and receive feedback during the writing process. The flipped classroom model also supports process-based writing pedagogy because it gives students more time to draft, discuss, revise, and reflect on their writing. Therefore, this study adds contextual evidence that flipped classroom is not only relevant in general English learning, but also useful for improving writing skills among senior high school students in Riau.

Methodologically, this study provides an example of how the effectiveness of an instructional model can be examined through a quasi-experimental design. The use of pre-test and post-test scores made it possible to compare students' writing achievement before and after the treatment. The use of a writing rubric also allowed the researcher to analyze students' performance in specific writing components. This approach is useful because writing ability cannot be measured only through a total score, but should also be examined through content, organization, vocabulary, language use, and mechanics. In this study, component-based analysis helped reveal which aspects of writing improved more strongly after the implementation of the flipped classroom model.

Despite its contributions, this study has several limitations. First, the study was conducted with a limited number of participants from senior high school students in Riau, so the findings should be generalized carefully to other contexts. Second, the treatment was implemented within a limited period, which may not fully capture the long-term effects of the flipped classroom model on students' writing development. Third, the study mainly focused on quantitative data from writing tests, so it did not deeply explore students'

perceptions, learning experiences, or challenges during the implementation of the flipped classroom model. Future studies are suggested to involve a larger sample, a longer treatment period, and mixed-method data collection, such as interviews, classroom observations, and students' learning journals.

Another limitation is related to students' readiness for independent learning. Since flipped classroom requires students to study materials before class, differences in students' learning discipline, motivation, and access to technology may influence the results. Future research should examine how these factors affect the success of flipped classroom implementation. It would also be useful to investigate how teachers design pre-class materials, manage classroom activities, and provide feedback during writing instruction. By addressing these aspects, future studies can provide a more comprehensive understanding of how flipped classroom can be implemented effectively in EFL writing classrooms.

Overall, the discussion shows that the flipped classroom model was effective in improving students' writing achievement, particularly in content development, organization, and language use. The model created more opportunities for students to prepare, practice, discuss, and revise their writing. Although not all students experienced the same level of improvement, the general pattern of the data shows that flipped classroom can be a promising alternative for teaching writing at the senior high school level. In the context of Riau, this model can be considered as a practical and relevant strategy to support more active, guided, and meaningful English writing instruction.

CONCLUSION

This study concludes that the flipped classroom model was effective in improving the writing ability of senior high school students in Riau. The results showed that students in the experimental class achieved higher improvement than those in the control class, as reflected in the increase of the mean score from 62.34 to 80.16. The independent sample t-test also showed a significant difference between the post-test scores of the experimental and control classes, with a significance value of 0.000. These findings indicate that the flipped classroom model provided a more supportive learning structure for writing instruction because students were able to study basic materials before class and use classroom time for guided practice, discussion, feedback, and revision. The improvement was particularly visible

in the aspects of content, organization, and language use, showing that the model helped students develop ideas more clearly and arrange them into better written texts.

The study contributes to English language teaching by providing empirical evidence that flipped classroom can be used as an alternative instructional model for teaching writing at the senior high school level. Theoretically, this study strengthens the relevance of student-centered learning and process-based writing pedagogy in EFL classrooms. Practically, the findings may help English teachers design more active and meaningful writing activities by combining pre-class digital learning with in-class writing practice. However, this study was limited to a specific group of students in Riau and used a relatively short treatment period. Future research is recommended to involve larger samples, different school contexts, and longer implementation periods. Further studies may also use mixed-method designs by adding interviews, classroom observations, or students' learning journals to explore how students experience the flipped classroom model in writing instruction.

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