Flipped Classroom A Synergy of Pedagogy and Technology for Reading Comprehension

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Abstrak

Penelitian ini bertujuan mengkaji efektivitas model pembelajaran Flipped Classroom terhadap pemahaman membaca mahasiswa semester lima Program Studi Pendidikan Bahasa Inggris di IAIN Sultan Amai Gorontalo. Dengan menggunakan desain kuasi-eksperimental, sampel terdiri dari 34 mahasiswa yang dibagi menjadi dua kelompok: kelompok eksperimen yang menggunakan model Flipped Classroom dan kelompok kontrol yang menggunakan metode konvensional. Data dikumpulkan melalui pre-test dan post-test. Hasil menunjukkan bahwa model Flipped Classroom lebih efektif dalam meningkatkan pemahaman membaca dibandingkan metode konvensional. Kesimpulannya, penerapan Flipped Classroom mampu memberikan peningkatan yang lebih baik pada pemahaman mahasiswa.

Kata Kunci : *Pemahaman Membaca, Model Pembelajaran Flipped Classroom*.

Abstract

This study aims to examine the effectiveness of the Flipped Classroom learning model on the reading comprehension of fifth-semester students of the English Education Department at IAIN Sultan Amai Gorontalo. Using a quasi-experimental design, the sample consisted of 34 students divided into two groups: an experimental group using the flipped classroom model and a control group using the conventional method. Data were collected through pre-tests and post-tests. The results showed that the Flipped Classroom model was more effective in improving reading comprehension compared to the conventional method. In conclusion, the implementation of the Flipped Classroom model significantly enhances students' reading comprehension.

Keyword: *Reading Comprehension, Flipped Classroom Learning Model*

INTRODUCTION

Reading comprehension is one of the essential skills in matering English, especially in countries where English is a foreign language, such as Indonesia(Septia, 2022). However, low reading comprehension among students often becomes an obstacle in achieving optimal learning outcomes. Several factors, such as low motivation to learn(Husnayaini, 2019), lack of prior knowledge (Katharina Scheiter, 2009), and inadequate learning facilities, are the main causes of poor reading comprehension. This results in students struggling to identify main ideas, draw conclusion, and understand references in reading texts.

To address this issue, more innovative and interactive learning models are needed. One method increasingly being implemented is the Flipped Classroom model, where students receive learning materials through digital media before face-to-face classroom sessions(Sheergugri, 2023). Class time is then used for discussion and deeper understanding. Previous studies have shown that the Flipped Classroom can enhance active student participation and overall academic performance(Dordan, 2023).

This study aims to examine the effectiveness of the Flipped Classroom learning model in improving the reading comprehension on fifth-semester students in the English Education

Department at IAIN Sultan Amai Gorontalo. The focus of this research is to measure the extent to which video-based learning media can have a positive impact on students' reading comprehension, which has not been widely explored in previous studie.

METHODS

This study employed a quantitative experimental approach with a quasi-experimental design to compare the effectiveness of the flipped classroom learning model with conventional teaching methods on students' reading comprehension. The study was conducted on fifth-semester students of the English Education Department at IAIN Sultan Amai Gorontalo, from october 2023 to Januari 2024.

The research population consisted of all fifth-semester students of the English Education Department. The sample included 17 students from experimental class and 17 students from the control class, selected using purposive sampling techniques.

The variable in this study were reading comprehension as the dependent variable, and the flipped classroom model as the independent variable. Data were collected through tests administered before (pre-test) and after (post-test) the implementation of the teaching model. The test consisted of 30 multiple-choice items, with 20 items deemed valid. The main purpose of the test was to evaluate the students' comprehension and observe improvements in their cognitive abilities.

Tabel 1. Research Design

Group	Pre-Test	Treatment (Independent Variable)	Post-Test
Experimental	O1	X (Flipped Classroom Model with Video Content)	O2
Control	O3	-(No Treatment)	O4

Data analysis was conducted descriptively to calculate mean scores, standard deviation, and data categorization. An independent samples t-test was used to compare the learning outcomes between the experimental and control groups. Normality and Homogeneity tests were also performed to ensure data suitability. All analyses were carried out using SPSS 16.0 for Windows.

RESULTS AND DISCUSSION

Result

This study examines the effectiveness of the flipped classroom learning model on the reading comprehension of fifth-semester students majoring in English Language Education at IAIN Sultan Amai Gorontalo. The study involves two classes: PBI-5A as the control group, which uses conventional teaching methods, and PBI-5B as the experimental group, which implements the flipped classroom model.

Data were collected through pre-tests and post-tests to measure reading comprehension skills before and after the intervention. The experimental group was provided with instructional videos to be watched at home through a WhatsApp group.

Descriptive analysis revealed substantial changes in reading comprehension abilities from the pre-test to the post-test, with the experimental group showing a greater improvement compared to the control group, as illustrated in Figure 1.

Average reading comprehension scores

■ Pre –Test   ■ Post –Test

41,875   53,125   36,667   65,333
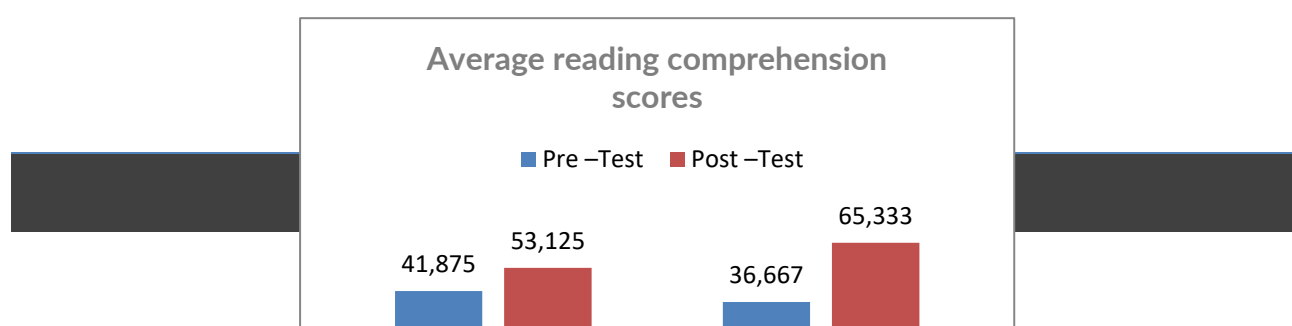
Gambar 1 . Average pre-test and post-test reading comprehension scores

The data presented in Figure 1 reflects the difference between pre-test and post-test scores in two different groups: the control group and the experimental group. Before the treatment, the average pre-test score for the control group was 41,875, while for the experimental group, it was 36,667, indicating a slight difference in the initial level of reading comprehension among students. After the treatment was implemented, there was an increase in the average post-test score to 53,125 for the control group and 65,333 for the experimental group. The difference between pre-test and post-test scores, or the increase, was greater in the experimental group (28,666 points) compared to the control group (11,25 points). Analysis indicates that the treatment had a more significant impact on the experimental group, affirming the success of using the flipped classroom model in enhancing students' reading comprehension.

The improvement in students' reading comprehension using the flipped classroom learning model in this study was observed through an analysis of independent samples t-test with two groups: the experimental group using the flipped classroom learning model and the control group using the conventional learning model.

Table 3. Uji-t (Independent sample t-test)

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Result	Experiment Group	15	65.33	16.526	4.267
	Control Group	16	53.12	12.500	3.125

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Hasil	Equal variances assumed	.710	.406	2.329	29	.027	12.208	5.241	1.489	22.927
	Equal variances not assumed			2.308	26.051	.029	12.208	5.289	1.338	23.079

The analysis results from Table 3 indicate that the t-test value is 2,329 with p = 0,027 at a significance level of 5%. This means that the t-value is significant (p < 0.05). Thus, there is a significant difference in reading comprehension between the two groups. Therefore, it can be concluded that there is a difference in reading ability between students using the flipped classroom learning model and those who do not use this learning model.

A summary of the t-test for post-tests shows that the average reading comprehension ability of students using the flipped classroom learning model is 65,33 with a standard deviation of 16,526, while the average ability of students who do not use this learning model is 53,12 with a standard deviation of 12,500. Thus, it can be concluded that the average reading comprehension ability of students using the flipped classroom learning model is higher by 12,21 compared to students who do not use the flipped classroom learning model.

Discussion

The research discusses the effectiveness of the flipped classroom model in improving reading comprehension skills among fifth-semester students of the English Education Department at IAIN Sultan Amai Gorontalo. Based on the t-test results, it was found that the t-calculated value of 2.329 is higher than the t-table value (2.000) at a 5% significance level. This result shows that there is a significant difference between the reading comprehension ability of students taught using the flipped classroom model and those taught using conventional methods.

However, to better understand why the flipped classroom model can enhance reading comprehension, a deeper review is needed by linking these results with relevant theories and research. The flipped classroom model incorporates self-directed learning theory and self-determination theory, which emphasize students' autonomy and intrinsic motivation in learning. Deci and Ryan (2000), in their self-determination theory, underline that autonomy and competence are key factors in increasing students' intrinsic motivation. This is relevant to the flipped classroom model, where students are responsible for preparing before class through videos or materials provided, allowing them to be better prepared and motivated when engaging in class discussions. Such active engagement has been proven to enhance reading comprehension, especially in identifying main ideas, making inferences, and understanding vocabulary.

Additionally, the flipped classroom is also related to schema theory, introduced by Bartlett (1932), where pre-existing knowledge or schema influences how new information is processed and understood. In a flipped classroom, students have the opportunity to build their knowledge schema before participating in class discussions through pre-class activities. This enables students to link their prior knowledge to new information, which in turn enhances their comprehension of the text being read. In other words, the flipped classroom model provides greater room for students to develop

better conceptual understanding through active interaction in class after processing material independently.

Research conducted by Bergmann and Sams (2012) on the flipped classroom model shows that this model increases student engagement and provides more time for them to practice critical thinking skills during class sessions. This finding aligns with the results of this study, where students who followed the flipped classroom model showed improvement not only in reading comprehension but also in critical thinking and problem-solving skills. Collaborative activities such as group discussions and problem-solving during flipped classroom sessions support this result, as students are able to gain a deeper understanding of the material because they already have a foundational understanding from pre-class preparation.

The use of interactive multimedia also contributes to the improvement of learning outcomes. As highlighted in the research by Mardiana, Aswadi, and Theriana (2021), the use of interactive videos such as YouTube has proven effective in improving students' reading comprehension. This study aligns with the findings of this research, where interactive videos used as pre-class materials in the flipped classroom model significantly increased students' motivation and engagement. Purwanti, Tri, and Suryawati (2022) also found that the use of videos in online flipped classroom learning during the COVID-19 pandemic greatly helped in maintaining students' active participation and improving learning outcomes.

Moreover, the flipped classroom model also supports project-based learning, which encourages students to engage actively in tasks that require critical thinking and collaboration. This research shows that students in the experimental group were able to achieve better understanding in aspects of reading comprehension such as inference and text coherence because they had more opportunities to practice these skills in a collaborative environment facilitated by the flipped classroom.

CONCLUSION

Based on the research findings, there is a significant difference in reading comprehension abilities between students taught using the flipped classroom model and those who are not. Students in the experimental group demonstrated a greater improvement in reading skills after the treatment compared to the control group. The implementation of the flipped classroom model has proven to be more effective in enhancing reading comprehension, as it allows students to be better prepared for understanding texts through self-directed learning, activating their knowledge schemas, and actively participating in discussions and problem-solving during class. These findings support the hypothesis stating that there is a difference in reading comprehension abilities between the two groups, which means that the null hypothesis can be rejected.

In conclusion, the flipped classroom model has a significant positive impact on students' reading comprehension abilities. This model not only improves reading comprehension but also enhances students' critical thinking and collaboration skills, ultimately contributing to an overall increase in learning outcomes. Therefore, it can be concluded that the flipped classroom model is an effective alternative for improving learning outcomes, particularly in reading comprehension, compared to conventional methods.

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