THE EFFECT OF FLIPPED CLASSROOM ON STUDENTS READING COMPREHENSION AT SMA NEGERI 1 WAWOTOBI

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ABSTRACT

The purpose of study is to investigate the effect of flipped classroom on students reading comprehension at SMA Negeri 1 Wawotobi. This study employed a pre-experimental design with one group pre-test and post-test design without control group for quantitative approach. The population of this research was the entire XI IPS 2 students' of SMAN 1 Wawotobi who enrolled in academic year 2021/2022. The data were obtained from students' pre-test and posttest scores. The pre-test was given before the treatment applied and the posttest is given after the treatment finished. Results of the study found that there was a significant positive effect of flipped classroom on students' reading comprehension, p (.000) < 0.05 with the effect size was 3.57. In light of all these findings, flipped classroom significantly affected students' reading comprehension.
Keywords: Effect, Flipped Classroom, Reading Comprehension.

RATIONALE OF THE STUDY

The temporary closure of all educational institutions as an effort to prevent the spread of an outbreak of Covid-19 worldwide has an impact on millions of students, including in Indonesia. Thus, we had to find new alternatives to academic delivery. Today, blended learning is considered the most effective and most popular mode of instruction adopted by educational institutions due to its perceived effectiveness in providing flexible, timely and continuous learning. Blended learning is a learning approach that combines a number of learning tools such as electronic performance support systems, web-based courses and real-time collaboration software with face-to-face classroom (Singh, 2003 p 51-54). The flipped classroom is a learning design that may sometimes play an important role in blended learning (Baepler, Walker & Driessen, 2014 p. 120-190).

In pandemic covid era, a number of advocates present strong points of flipped teaching/ learning or flipped classroom and promote it highly nowadays. (Bergmann and Sams 2012, 2014 p. 120-190) argue that classroom time can be used best to reverse the traditional classroom pattern through the use of videos recorded by the teacher (or available online) so that teacher spend more time to help students to understand lesson contents better.

In contrast, despite the flipped classroom becoming more ubiquitous over the pandemic covid, the true effectiveness of flipped classroom towards EFL students may still less to investigated. Indeed, flipped classroom has been applied in every course all over the world and majority those research result that flipped classroom is preferred rather than traditional classroom. Nevertheless, the research about the effectiveness of flipped classroom towards EFL students is still not widely and less developed.

Following on this predicament, the review of studies about the effectiveness of flipped classroom in other courses and in English course will explored.

METHODS

The researcher uses pre-experimental design with one group pre-test and post-test

design without control group for quantitative approach. It attempts to seek the evidence whether independent variable affects dependent variable after the treatment is conducted and to identify the significant effect of independent variable to dependent variable. The Population in this study was all students at SMAN 1 Wawotobi in academic year 2021/2022. The selected sample based on purposive sampling technique. Based on the early observation with administering a questionnaire to all students, the researcher sees all students in XI IPS 2 have properness

to be taught flipped classroom. Hence there were 20 students as the sample. The instrument of the study was reading test. The test is in form of multiple choice tests with each question had five distracters (A, B, C, D, and E); only one answer is correct, and one point was given to the correct answer and zero for the false one. Reading test was the same in use on pre-test and post-test. In addition, to analyze the data, this study applied *paired sample t-test.*

FINDINGS

Table 4.1 Descriptive Analysis of Pre Test and Post Test

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pre_Test	20	27	67	50.00	11.819
Post_Test	20	67	98	87.20	7.885
Ngain	20	19	52	36.75	9.391
Valid N (listwise)	20				

Based on the description of students' score above, it can be concluded that the students' score on post test is higher or better than the students' score on pretest, in which the mean score on pretest is 50.00 while the mean score on post test is 87.20. It means that the increasing of students' average score from pretest to post test is 37,2 Hence, the students' Reading comprehension that is taught by flipped classroom has more significant effect.

The Result of Classical Assumption Test

Before analyzing the statistical result, the researcher conducted normality test to know whether the data were normal or not to be tested. Shapiro Wilk test was used to show that the sample comes from distribution. If the result is not significant (P> 0.05), the data have normal distribution. The result of the normality test is presented briefly in the following table:

Table. 4.2 Tests of Normality

Tests of Normality

	Group	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
Result	PreTest	.195	20	.045	.929	20	.147

PostTest	.140	20	.200*	.937	20	.208

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

The result shows that the Shapiro-Wilk score in Pre test is 0.147 ($P_{value} > 0.05$) , while the result of normality posttest is 0.208 ($P_{value} > 0.05$) which is higher than 0.05. it can be inferred that all the data both pretest and post tests are normally distributed. It meant that it was acceptable to be analyzed through parametric statistic test in form of *Paired Sampel Test* analysis in SPSS 24 for windows.

Table 4.3 Paired Sample T-Test (T-Test Statistics of Pretest and Posttest)

Paired Samples Test

	Paired Differences							
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1 PreTest – PostTest	-37.200	9.012	2.015	-41.418	-32.982	-18.460	19	.000

Since t-test belongs to parametric statistics, however, it is vital that the assumption of t-test (parametric statistic) be examined first. It was found that none of these assumptions has been violated, in turn, it warrants the application of this analysis. In addition, to prove whether the hypothesis H0 and H1 was accepted or not, a statistical analysis of *paired sample t-test* was conducted to compare students' reading comprehension scores before applying flipped classroom and after applying the flipped classroom. Based on the table above, it shows that the probability value (*p_{value}*) is less than the level of significant which p_{value} is 0.000 < 0.05 (alpha value). These results indicated that significant differences mean score on pretest and post test existed in students' pretest and posttest reading comprehension as a result of experiencing student's using flipped classroom.

The Effect Size of Flipped Classroom

The effect size is calculated to investigate how significance of independent variable (Flipped Classroom) in practical terms is. If the treatment works well then will be a large effect size (Cohen: 1988). Additionally, an effect size is typically calculated by taking the difference in means of group and dividing that number by their deviation.

Effect size: $\frac{\text{(Mean of Post Test} - \text{Mean of Pre Test)}}{\text{Standar Deviation}}$

$$(d) = \frac{87.20 - 50.00}{10.04}$$

(d) = 3.57

The effect size of this study is 3.57 that regarded as Large Effect Size on Cohen's

criteria (Cohen: 1988) because it is bigger than the minimum threshold of 0.02. In the other words, flipped classroom has worked well and brought a large effect for achieve students' reading comprehension at SMAN 1 Wawotobi.

DISCUSSION

In this discussion, the researcher will explore and expand the findings in before subsection. The aim of the study is to find out the effect of flipped classroom on students' reading comprehension. Based on the data finding, the result of t-test shows that there is significant effect of flipped classroom on students' reading comprehension. The students' reading comprehension increase after the flipped classroom was conducted. It can be seen from the students' pre-test and post-test score. There are 20 students as the sample of the study. It was conducted at class XI IPA 1. In the pre-test before the conducting flipped classroom, the mean score is 50.00 with the minimum score is 27.00 and maximum score is 67.00. The standard deviation is 11.819 while in the post-test, the students' score increase although the improvement is different for all of students. There are small, medium, and high improvements. The mean score became 87.20 with the minimum score is 67.00 and the maximum score is 98.00. There is an improvement from students' pre-test score to students' post- test score and it can be concluded that the flipped classroom can improve students' reading comprehension and give an effect. Based on the analysis result of the hypothesis using paired sample t-test, it is proved that the flipped classroom has significant effect on students' reading comprehension. The significant effect is 0.000 < 0.05. It means that the null hypothesis is rejected and the alternative hypothesis is

accepted. So, the answer of the research question is yes, there is significant effect of flipped classroom on students' reading comprehension with the effect size is 3.57 and categorized as the large effect.

CONCLUSION

Regarding to the aim of the study and based on the findings, data analysis and discussion, it can be concluded that: There is significant effect of flipped classroom on students' reading comprehension which is indicated through the analysis of paired sample t-test. It shows that the significant test is $0.000 \leq 0.05$. It means that the null hypothesis is rejected and the alternative hypothesis is accepted.

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