

The use of whatsapp cooperative learning in writing class

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Abstract - English is one of the primary subject that was taught in Electronic Engineering, Politeknik Negeri Bali, which includes speaking, writing and listening. Other than speaking, writing also become one of the most challenging subject in Electronic Engineering. To overcome the low writing skills of students and create pleasant learning atmosphere during the Covid 19 Pandemic, the authors want to try out learning method, namely Cooperative Learning Method with online media in the form of whatsapp. This research is a quantitative research with quasi experimental approach. The groups used in this study consist of two groups namely the experimental group using Whatsapp Cooperative Learning methods and the control groups using the conventional method. The data collection technique in this study was in the form of a questionnaire and given to the students in both classes. From the data, it can be concluded that learning with the Whatsapp Cooperative Learning method is more effective to be used in teaching writing. It can be seen from the value of t of -2,087 with Sig 0,037 < 0,05 means that there is significant difference between the control class and the experimental class. This significant difference can be said as the result of the use of Whatsapp Cooperative Learning in class.

Keywords: whatsapp cooperative learning, improve, writing ability

1. Introduction

With the outbreak of Covid 19 at the end of 2019 and then reaching Indonesia in early 2020, it has made the application of distance education in Indonesia to be implemented. Educational institutions implement online learning (online) which still hopes that students' abilities can still be honed well and maximally within the limitations of face-to-face meetings. English is also a general subject taught online during this pandemic, which includes speaking, writing, and listening which do not stand alone but are taught in an integrated manner according to the topic. However, what will be examined in this study is only focused on writing, considering that the writing ability of students in general is still quite low.

To overcome the low writing skills of students and create a pleasant learning atmosphere during the Covid 19 Pandemic, the authors want to try out a learning method, namely the Cooperative Learning Method with online media in the form of whatsapp. Why does the author want to apply this learning method? Namely Cooperative Learning Method? Because this method is very suitable for this Pandemic period, the teacher only focuses on students who have better abilities than their friends who will then share their knowledge in their own WhatsApp groups so that the final goal of the project for students is to be able to produce a written result in English.

There are two problems that will be studied in this research. These problems include:

- a. How to use Whatsapp Cooperative Learning in learning?
- b. Is the use of WhatsApp Cooperative Learning more effective than the conventional way?

Experts express several opinions regarding the Cooperative Learning Method. Cooperative learning (Cooperative Learning) is a learning strategy through small groups of students who work together in maximizing learning conditions to achieve learning objectives (Lie, 2010). Cooperative Learning or Cooperative Learning is a learning strategy that organizes learning using small study groups where students work together to achieve learning goals (Santoso, 2010). Hobulec in Nurhadi (2003) suggests cooperative learning is a learning approach through small groups of students to work together in maximizing learning conditions in achieving learning goals. Cooperative learning is different from the task structure, goal structure and reward structure in other learning models. In the learning process with cooperative learning, students are encouraged to work together on a task given by the teacher. The purpose of cooperative learning is to increase students' academic learning outcomes and students can accept diversity from their friends, as well as the development of social skills.

According to Johnson and Johnson (1994), the basic principles in the cooperative learning model are as follows:

1. Each group member (student) is responsible for everything that is done in the group.
2. Each group member (student) must know that all group members have the same goal.
3. Each group member (student) must share the same duties and responsibilities among group members.
4. Each group member (student) will be subject to evaluation.
5. Each group member (student) shares leadership and needs skills to learn together during the learning process.
6. Each group member (student) will be asked to individually account for the material handled in a cooperative group.

There are some characteristics of the cooperative learning model are that really suitable with these days need of learning, these characteristics are:

1. Students in groups cooperatively complete learning materials according to the basic competencies to be achieved.
2. Groups are formed from several students who have different abilities, both high, medium and low levels of ability.
3. Rewards place more emphasis on the group than on each individual.

Cooperative Learning as the model of learning has some advantages that can be adopt in the process of teaching and learning. The advantages such as; Helping students learn to think from the point of view of the subject by giving students freedom in the practice of thinking, helping students evaluate logic and evidence for their own or other positions, Provide opportunities for students to formulate the application of a principle. Helping students recognize the existence of a problem and formulate it using information obtained from reading or lectures. Using materials from other members in the group, and develop motivation to learn better.

Some Journals on education platform also pointed out some advantages of Whatsapp Cooperative Learning as Resnani (2019) on Journal PGSD stated that the implementation of Cooperative Learning

models with technology based visual audio media can increase the learning activity. She also stated that the application of Cooperative learning can enhance the ability to listen of students who are infused with the ability to listen to the students each cycled increase. This statements also in line with Pratama (2017) opinions on International Journal of Science and Applied Science Conference series. He found out that on the investigation research that there are differences between the experimental group and the control group. Its mean that the method found effective. It's not only effective to increase the students score these methods cause the positive communication between students and lecturer. While Barhouni (2015) stated that Whatsapp Mobile Learning could make the process of teaching and learning effective. Gon and Ramekar (2017) on Journal of Medical Sciences highlighting that Constant availability of facilitator and learning anytime anywhere has made whatsapp a new convenient tool for teaching learning activity. Amry (2014, cf. .) said that Whatsapp Mobile Social Learning giving impact on the students' achievement and also positive impact on their attitudes.

2. Method

This research is a type of quantitative research with a quasi-experimental approach. The groups used in this study amounted to 2 groups, namely the experimental group using the Whatsapp Cooperative Learning method and the control group using the conventional method. In this study, to determine the experimental class and control class, random assignment was carried out, namely the selection was carried out randomly to choose the class.

This research involves two variables, namely the experimental variable and the dependent variable. As for the experimental variable is the treatment for the experimental class and the treatment variable for the control class is used as a comparison, namely conventional learning. While the dependent variable is the use of Whatsapp cooperative learning.

The data collection technique in this study was in the form of a questionnaire (questionnaire) and given to students in both classes. The questionnaire consisted of 21 questions which were given to 27 students in both the control and experimental classes. Then the results of the questionnaires from these two classes were compared. So that the results are obtained. In addition, the writing results were also checked at the end of the study to see the effectiveness of the learning methods being tested.

Research Stages

Research is a scientific activity based on analysis and construction that is carried out systematically, methodically and consistently and aims to reveal the truth as a manifestation of human desire to know what they are facing (Soerjono, 2013). In general, there are two steps of activities that will be carried out in this research. The two steps include:

- (1) In the first stage, determine the sampling of two classes, namely students who carry out English learning with the Online model and the learning model using Whatsapp Cooperative learning. After 16 meetings, a questionnaire will be given to find out the opinions of the two classes about the learning method used.
- (2) In the second stage, statistical analysis was carried out using a t-test, then recording/Tran scripting the results of the student questionnaire. All data obtained from the results of the questionnaire will be transcribed so that it can be tabulated and processed.
- (3) The third stage is to analyze and conclude the research results descriptively. At this stage, all data that has been obtained, transcribed and tabulated will be analyzed so as to obtain a general conclusion regarding the impact of using the Whatsapp Cooperative Learning Method in learning English. Quantitative descriptive research designs are also considered more accurate in presenting data because they are considered capable of presenting data in more detail

3. Results and Discussion

After the questionnaire about the learning methods applied in each class, either the experimental class or the control class, it will produce data as presented below. This questionnaire consists of 21 statement items distributed to 27 respondents in each control and experimental class. The results of the total score for the two classes can be seen in Table 1.

Table 1 Recapitulation of the control and experimental class questionnaire scores

Respondent	Control class	Mean	Std. deviation	Experiment class	Mean	Std. deviation
1	68			70		
2	64			64		
3	65			68		
4	64			64		
5	65			65		
6	64			64		
7	61			65		
8	61			65		
9	60			64		
10	60			65		
11	60			64		
12	61			61		
13	60			63		
14	62	61,26	2,877	67	63,07	2,960
15	65			65		
16	58			60		
17	64			64		
18	59			61		
19	64			64		
20	61			64		
21	57			61		
22	58			59		
23	59			60		
24	59			59		
25	57			59		
26	59			59		
27	59			59		

Descriptively, the average score of the experimental class questionnaire showed a greater value, namely 63.07 with a standard deviation of 2.960. While the control class has an average of 61.26 with a standard deviation of 2.877. To see if there is a significant difference between the two, a statistical test must be carried out, namely parametric statistics through an independent 2-sample t-test, if it meets the prerequisites for normality and homogeneity tests. If these prerequisites are not met, then non-parametric statistical tests will be taken.

Preliminary tests including normality and homogeneity tests were performed using the Kolmogorov-Smirnov method and Levene test using SPSS v.27 respectively. The test results of the two classes can be seen in tables 2 and 3.

Table 2 Test the normality of the data

Tests of Normality							
Questionnaire_Score	Class	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	Df	Sig.
	Control	.166	27	.056	.932	27	.079
	Experiment	.215	27	.002	.912	27	.025

a. Lilliefors Significance Correction

Table 3 Homogeneity test

Tests of Homogeneity of Variances						
Questionnaire_Score			Levene Statistic	df1	df2	Sig.
	Based on Mean		.005	1	52	.944
	Based on Median		.021	1	52	.885
Based on Median and with adjusted df		.021	1	49.262	.885	

Based on trimmed mean	.038	1	52	.847
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Based on the significance value in table 2, the normality test of the data using the Kolmogorov-Smirnov test shows that the control class questionnaire score data is normally distributed data. However, the experimental class questionnaire score data is data that is not normally distributed because the value of Sig. $0.002 < 0.05$. Furthermore, according to table 3, the variance of the questionnaire score data for the two classes is homogeneous. The consideration taken for statistical tests is to use non-parametric statistics, considering that one of the data is found that is not normally distributed.

The data analysis technique used in this study was the Mann-Whitney test for free samples. According to Santoso (2010), the two-sample independent test on non-parametric statistics has the same purpose as the t-test on parametric statistics, which is to find out whether two independent samples come from the same population. The test results can be seen in table 4.

Hypothesis

- H_0 : there is no difference in the score of the questionnaire to the type of class
- H_a : there is a difference in the score of the questionnaire to the type of class

Decision Making Basis

By looking at the probability numbers, with the rule:

- Probability of Sig. > 0.05 , then H_0 is accepted.
- Probability of Sig. < 0.05 , then H_0 is rejected.

Table 4 Mann-Whitney test

Ranks				
	Kelas	N	Mean Rank	Sum of Ranks
Questionnaire_Score	Control	27	23.09	623.50
	Experiment	27	31.91	861.50
	Total	54		

Test Statistics^a

Questionnaire_Score	
Mann-Whitney U	245.500
Wilcoxon W	623.500
Z	-2.087
Asymp. Sig. (2-tailed)	.037

a. Grouping Variable: clas

Based on the analysis results, the mean rank of the experimental class is greater than the control class, which is 31.91 while the control class is 23.09. It can be said that the use of the Whatsapp Cooperative Learning method in the experimental class is better than the class that does not use Whatsapp Cooperative Learning. Meanwhile, through hypothesis testing, further obtained the value of Z of -2.087 with Sig. $0.037 < 0.05$ then the hypothesis H_0 is rejected. That is, there is a significant difference between the control class and the experimental class. This significant difference can be said as a result of the use of whatsapp cooperative learning in lectures, especially in learning writing.

From the data above, it can be concluded that learning with the Whatsapp Cooperative Learning method is more effectively used in learning writing. It can be seen from the results of the questionnaire that has been distributed to students that they are much more able to maximize themselves in writing when using the Whatsapp Cooperative Learning method.

4. Conclusion

From the data above, it can be concluded that learning with the Whatsapp Cooperative Learning method is more effectively used in learning writing. It can be seen from the results of the questionnaire that has been distributed to students that they are much more able to maximize themselves in writing when using the Whatsapp Cooperative Learning method. It can be concluded that whatsapp cooperative learning has an effect on writing ability in the Department of Electrical Engineering, Electrical Engineering Study Program. So this method can be applied in the classroom, especially in learning writing.

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