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The Effect of Application of Flipped Classroom Model based on Video Learning on Learning Outcomes of Class VIII Students in Indonesian Subjects at SMP Pertiwi 2 Padang

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Abstract
Based on observations of the learning process carried out at SMP Pertiwi 2 Padang, problems were encountered such as learning outcomes that were still low or still below the specified Minimum Completeness Criteria (KKM) which was 77. Also the lack of student activity at the learning stage. An alternative to deal with this conflict, research is carried out using the Flipped Classroom model while studying. This research aims to observe the impact of the Flipped Classroom model on learning outcomes in class VIII Indonesian at SMP Pertiwi 2 Padang. This study uses a quantitative method in the form of a quasi-experimental method using a total sampling technique. The population for this study was class VIII students of SMP Pertiwi 2 Padang. This study sampled class VIII.1 as the control class and class VIII.2 as the experimental class which included 20 students. To collect data using a written test which includes 25 objective questions, then the data obtained is analyzed using a t-test. The results of the study showed that the experimental class range was 77.6 but the control class range was 63.55. Through t-test calculations, it was found that t-count > t-table was 3.521 > 2.086, there was a comparison of learning outcomes at sig α 0.05. So the conclusion is that the use of the Flipped Classroom learning pattern has an impact on the learning outcomes of class VIII Indonesian at SMP Pertiwi 2 Padang. Through t-test calculations, it was found that t-count > t-table was 3.521 > 2.086, there was a comparison of learning outcomes at sig α 0.05. So the conclusion is that the use of the Flipped Classroom learning pattern has an impact on the learning outcomes of class VIII Indonesian at SMP Pertiwi 2 Padang. Through the acquisition of t-test calculations, it was found that t-count> t-table was 3.521> 2.086, there was a comparison of learning outcomes with a sig level of α 0.05. So the conclusion is that the use of the Flipped Classroom learning pattern has an impact on learning outcomes in class VIII Indonesian at SMP Pertiwi 2 Padang.

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Abstrak
Berdasarkan pengamatan proses pembelajaran yang dilakukan di SMP Pertiwi 2 Padang, ditemui permasalahan seperti hasil belajar yang masih rendah atau masih dibawah Kriteria Ketuntasan Minimum (KKM) yang ditentukan ialah 77. Juga minimnya keaktifan murid pada tahap belajar. Suatu alternative guna menangani konflik ini, dilakukan penelitian secara memakai model Flipped Classroom saat belajar. Penelitian ini bertarget guna mengamati dampak model Flipped Classroom pada hasil belajar mata pelajaran Bahasa Indonesia kelas VIII di SMP Pertiwi 2 Padang. Pengkajian ini bermetode kuantitatif berwujud eksperimen semu dengan menggunakan teknik total sampling. Pengkajian ini populasinya murid kelas VIII SMP Pertiwi 2 Padang. Pengkajian ini bersampel kelas VIII.1 menjadi kelas kontrol serta kelas VIII.2 menjadi kelas eksperimen yang mencakup 20 murid. Guna dihimpunya data memakai tes tertulis mencakup soal objektif sejumlah 25, lalu data perolehannya dianalisa memakai uj-t. perolehan pengkajian melihatkan jika kisaran kelas eksperimen ialah 77,6 melainkan kisaran kelas kontrol ialah 63,55. Melalui perolehan pengkalkulasian uji-t didapati thitung> ttabel ialah 3,521 > 2,086 adanya perbandingan hasil belajar bertaraf sig α 0,05. Sehingga simpulannya jika pemakaian pola belajar Flipped Classroom berdampak pada hasil belajar mata pelajaran Bahasa Indonesia kelas VIII di SMP Pertiwi 2 Padang.

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1. INTRODUCTION

Learning takes the form of a communication stage between students and the scope of education. The teaching and learning stage can influence students to adapt to the environment which can cause changes in themselves. The success of learning at school is influenced by several factors including teachers, students, curriculum, social environment, and supporting media. The main task of educators is to manage the teaching and learning process into an active interaction that is able to create a comfortable atmosphere to increase student learning activity. As for learning, according to Komalasari (2013:3), learning is in the form of student learning stages

which are structured, organized and reviewed systematically so that students can achieve optimal learning targets.

Learning in the 21st century requires implementing a learning orientation that is centered on students and is also called student centered learning. In student centered learning, teachers help students to explore their own potential in order to set targets that need to be achieved, assess learning gains and ensure that students can learn in groups and utilize all learning resources which are achieved with the help of educators and information technology.

Student Centered Learning has the potential to encourage students to learn actively according to their individual learning styles and speeds. The principle of 21st century learning is that there is a change that pivots from the teacher to the axis towards students, through one direction as interactive and through the virtual to the real world context. But in fact this learning principle is not widely used, especially when it comes to Indonesian. The Flipped Classroom model is in line with 21st century education where learning activities are carried out in a way that students read teaching materials, observe the initial video of the discussion and handle conflicts mutually. The Flipped Classroom model enables learning media that can be accessed online for students who can push their teaching materials.

Through the results of the initial observations that the author made at SMP Pertiwi 2 Padang in class VIII, it was found that Indonesian language learning uses the conventional lecture method or teacher-centered learning. In the learning process the teacher tends to lecture when explaining the material, during the learning process weaknesses are found, including the lack of student participation in learning and students are afraid to express their opinions so that learning becomes monotonous.

Flipped Classroom was popularized by Bergman & Sams (2012) who argued that Flipped Classroom was a reverse learning model. This means that in this model students understand the material at home using learning videos or material shared via WAG or online learning applications. The material is given in advance a few days before the lesson takes place in class, so students can study anywhere and repeat the learning video over and over again. Students can write down any material that is not understood and will be asked during the learning process.

According to Mujiono (2021), he explains several advantages of Flipped Classroom, namely: 1) students are more active in understanding the teaching material, 2) students are willing to be in class because they already understand it when studying at home, 3) distribute permanent teaching materials because they have the opportunity to study the material his teachings, 4) motivating students by sharing observations with him, 5) the period used is much more efficient.

2. RESEARCH METHODS

This study is of a quantitative type in the form of an experimental study. This study looks at the impact of a Flipped Classroom learning pattern on student learning outcomes. By comparing the learning outcomes of different classes using the quasy experimental method. Quasy experiment aims to observe the differences between the two variables and beyond them which is the subject of research.

In this study, the population consisted of students in class VIII SMP Pertiwi 2 Padang covering 2 classes of 40 students. According to Zen (2007:35) "the population in research is the entire object that will be researched, observed, interviewed, and so on, where the researcher will draw conclusions about the object. Objects here may be people, things or events or incidents.

In this study the sample used the total sampling technique because the total population was below 100, so all of them were made as a study. Through Sugiyono (2018) "said that total sampling is a sampling technique when all members of the population are used as samples".

Table 1. Research Design

Sample Class	Treatment	Test Results

Experimental Class	X	t_1
Control Class	0	t_2

This study contains secondary and primary data. Primary data is obtained directly from students. The type of data needed is the learning outcomes of experimental class students using the Flipped Classroom model and control classes using the conventional model in Indonesian language subjects. Secondary data in this study is in the form of data obtained from organizational institutions in the form that contains information about the number of students obtained from subject teachers.

In order to collect data, this study uses measurement techniques with the aim of obtaining data objectively. The measurement technique used is a written test including multiple choice to obtain data by obtaining response sheets after learning ends. The data analyst used to determine differences in learning outcomes between the control and experimental classes also observed whether there was a significant comparison between the learning outcomes of the control and experimental classes. In order to observe the comparative results between the two classes, a range test will be carried out to test the hypothesis using the t-test. To carry out a t-test on students, initially testing for homogeneity and normality of the data is carried out.

3. RESEARCH RESULTS AND DISCUSSION

Based on the research that had been conducted in the sample class, data on student learning outcomes were obtained from the final test in class VIII research activities at SMP Pertiwi 2 Padang. The research was conducted in two sample classes, namely the experimental class which applied the Flipped Classroom learning model and the control class which applied the conventional model. Data collection regarding the application of this model was carried out in class VIII.1 as the control class, which consisted of 20 students and class VIII.2 as the experimental class, which consisted of 20 students. Data were obtained from the final test on research activities using 25 multiple choice questions with four alternative answers after learning by applying the Flipped Classroom learning model to the subject matter of news texts.

3.1.Data analysis

Before testing the hypothesis about the effect of applying the Flipped Classroom learning model on student learning outcomes, the normality test and homogeneity test were previously carried out, after the data was tested with analytical conditions then do the hypothesis test.

a. Normality test

The normality test aims to determine whether the data obtained comes from normally distributed data or not. In this Normality Test, the Lilifors Test is used.

If L-count > L-table, the data is not normally distributed.

If L-count < L-table then the data is normally distributed.

Table 2.
The final results of the normality test for both classes

No	Group	N	Real Level	l-count	l-table	Distribution
1	Experiment	20	0.05	0.171814	0.19	Normal
2	Control	20	0.05	0.097351	0.19	Normal

Based on tests carried out using the Lilifors technique on the experimental class and control class, it was found that the experimental class had L-count 0.171814 while Ltable with N= 20 was 0.19 for a significance level of α 0.05. So it can be concluded that the experimental class data is normally distributed. Meanwhile, the control class has an L-count of 0.097351, while L-table with N = 20 is 0.19 for a significance level of α 0.05. So it can also be concluded that in the control class the data is normally distributed.

b. Homogeneity Test

Homogeneity testing was carried out using the Barlett test. This test aims to determine the origin of the data from the homogeneous group between the experimental class and the control class group.

If χ_2 count > χ_2 table then the data is not from a homogeneous group
If χ_2 count < χ_2 table then the data comes from a homogeneous group.

Table 3.
Final result of homogeneity test

Class	Real Level	χ^2 count	χ^2 table	Conclusion
Experiment	0.05	0.4950	3,841	Homogeneous
Control				Homogeneous

Chi squared (χ_2) calculated is 0.4950 while chi squared (χ_2) in the table is 3.841 at a significant level of α 0.05, so chi squared calculated < chi squared table is 0.4950 < 3.841. Thus it can be concluded that the data from the experimental class and the control class come from a homogeneous group.

c. Hypothesis testing

The t-test aims to determine whether there is a significant difference in the scores of the two groups. The value is considered significant if t-count > t-table.

The calculation:

$$t = \frac{\bar{X}^1 - \bar{X}^2}{\sqrt{\frac{SD^2X_1 + SD^2X_2}{N^1 - 1 + N^2 - 1}}}$$

$$= \frac{\overline{77,6} \quad -\overline{63},55}{\sqrt{\frac{175,82+127,23}{19+19}}}$$

$$= \frac{14,05}{\sqrt{9,25+6,69}}$$

$$= \frac{14,05}{\sqrt{15,94}}$$

$$= \frac{14,05}{3,99}$$

$$= 3.521$$

$df = (N_1-1) + (N_2-1)$

$df = (20-1) + (20-1)$

$df = 19 + 19 = 38$

Table 4.
T-test test results

No	Group	Average	t-count	t-table	Conclusion

1	Experiment	77.6	3,521	2,086	Significant
2	Control	63.55			

Based on the table with df = 38, then based on the table with df = 38 for a significant level of 0.05, the t-table is 2.086. Thus tcount > t-table, namely 3.521 > 2.086, it can be said that H_1 is accepted. Learning outcomes by applying the Flipped Classroom model are higher and more effective than learning outcomes by applying conventional models, and there is a significant effect of learning outcomes between students in the experimental class and students in the control class.

4. CONCLUSION

Through the results of this study, it can be concluded that the Flipped Classroom learning model has a significant impact on increasing learning gains from students who receive conventional learning. Analyst results show that the initial range of student learning gains in the Flipped Classroom class is 77.6, which is dominant compared to the conventional class, which is 63.55. The application of the Flipped Classroom learning model has a significant impact on student learning outcomes because there are several advantages, including being able to increase students' mastery of the material so that students can complete the solving process. This can be seen in the results of the t-test analysis of the t-test data above than t-table which is 3.521 > 2.086 at a significant level α 0.05, so the results of the hypothesis H_1 are accepted.

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