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Flipgrid: Video-based applications to improve English ability for junior high school students

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ABSTRACT

Bahasa Inggris merupakan bahasa yang dibutuhkan dalam mendukung globalisasi. Selain itu, bahasa inggris merupakan bahasa yang dibutuhkan dalam level international. Sehingga, penelitian ini bertujuan untuk menguji pengaruh Flipgrid dengan fitur utama berbasis video terhadap kemampuan bahasa inggris siswa Sekolah Menengah Pertama. Metode eksperimen dengan pendekatan kuantitaif yang digunakan dalam penelitian ini. Desain yang digunakan yaitu pre-experiment dengan satu grup pre-test dan post-test. Instrumen yang digunakan untuk pengumpulan data adalah tes bahasa inggris, yang diberikan pada pre-test dan post-test dengan soal yang sama. Tiga puluh empat siswa di kelas delapan SMP 17 Agustus 1945-1 Muncar berpartisipasi dalam penelitian ini. Data yang di kumpulkan di analisis menggunakan analisis statistik deskriptif dan analisis statistik inferensial. Hasil yang ditemukan yaitu terdapat pengaruh yang signifikan dengan tingkat efektivitas sedang dalam penggunaan Flipgrid terhadap kemampuan bahasa inggris siswa di Sekolah Menengah Pertama. Sehingga, kesimpulan yang didaptkan yaitu Flipgrid dengan basis video dapat meningkatkan kemampuan bahasa Inggris siswa.

English is a solid language to support globalization. In addition, English is a language required at the international level. Thus, this study aims to examine the effect of video-based Flipgrid on the English language skills of junior high school students. The experimental method with a quantitative approach is used in this study. The design used is a pre-experiment with one group pre-test and post-test. The instrument used for data collection was an English test given to the pre-test and post-test with the same questions. Thirty-four students in the eighth grade of SMP 17 Agustus 1945-1 Muncar participated in this study. The data collected were analyzed using descriptive statistical analysis and inferential statistical analysis. The results found a significant effect with moderate effectiveness in using Flipgrid on students' English skills in junior high schools. Thus, the conclusion is that Flipgrid, with a video base, can improve students' English skills.

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INTRODUCTION

The twenty-first century prioritizes technological promotion as a necessity of life. (Nurović& Poturak, 2021) said that technology provides innovation and good quality in education, increasing speed in following world changes. Thus, it helps learners to obtain skills to a global standard. The twenty-first century combines critical knowledge, innovation skills, media, information and communication technology literacy, and real-life experiences relevant to the context of the subject. Learners acquire facilities to develop their skills.

Moreover, technology offers encouragement in learning activities. (ÖNÜR & KOZİKOĞLU, 2020) Stated that technology impacts students' motivation as entertainment, especially for millennials. Technological development gives students more opportunities to participate in an enjoyable learning process (Raja & Nagasubramani, 2018).

Learning English is a requirement because it is the most widely spoken and dominating language globally. Also, every field and profession needs English ability. Thus, the education system needs technology to develop speaking, writing, reading and listening English skills. The application of technology in learning English has a positive impact. Students can gain English skills quickly (Van et al., 2021). Students can explore their English skills using technology.

Moreover, students get flexibility in accessing the material. In addition, the combination of technology and English classes helps the teacher create innovative and interactive classes. Teachers can apply some method variation to engage students in learning activities, which impacts students' participation (Paudel, 2020). Moreover, technology provides flexibility to access material. Included technology in the class, the learner acquires the process of learning anytime and anywhere (Şentürk, 2021). Integration technology and English learning allow practical language learning. Students get complete access and interact with their friends and teachers quickly and interactively (Kanmaz, 2021). Also, they have more time to explore their English skills.

Besides the advantages of technology, many teachers have not utilized technology optimally. It causes insufficient facilities for students to develop their skills. In carrying out online learning, teachers have drawbacks in operating virtual meetings, low technological competence, and technical implementation (Tue & Hanh, 2021). Most teachers provide monotonous learning activities that only provide the topic in video or documents. Students do assignments and collect them without active learning in which they can participate actively. (Irawan & Surjono, 2018) Stated that the factors influencing unsuccessful online learning English are teaching techniques and English teachers' ability to use technology. The teachers tend to lack knowledge and information about learning platforms and technology references.

Blended technology and English learning at the Junior High School level had problems in the learning process. The activities were unpleasant and not optimal for exploring students' abilities. The writers have found some issues based on the observation at a Junior High School in Banyuwangi, East Java, SMP 17 Agustus 1 1945 Muncar. First, decrease in students' participation in the process of learning English. Second, students felt that learning English was boring, monotonous, and difficult to understand the material. In this case, the student's English achievement is decreased; therefore, they have no motivation to learn English. Also, the teacher uses the same technology media.

To resolve the issues above, the teacher requires technology-based engaging media that increase students' motivation and achievement in English class. Besides many learning platforms, the authors are interested in the Flipgrid application to improve students' English abilities. Flipgrid is a platform that uses video discussion as its main feature. (Budiarta & Santosa, 2020) stated that teachers and students could upload short videos to stimulate discussion. Flipgrid facilitates face-to-face online interactions. It helps make interactions between student members in the class.

Moreover, it is an online video discussion platform that provides an opportunity to share ideas in the presentation in video freely, creatively, and confidently. Also, Flipgrid can create interactive learning which response to each other's topics from the Flipgrid discussion. Moreover, Flipgrid provides a fun and positive learning activities. Students can engage in face-to-face instruction with video recording and commentary (Casañ-Núñez, 2021). Flipgrid makes students

happy; therefore, they can interact and improve learning outcomes (Edwards & Lane, 2021). Students can easily

METHODOLOGY

Design

This current research used an experimental method with a quantitative approach. A quantitative approach evaluates research hypotheses by testing the relationship between variables (Klassen & Creswell, 2012). Mainly, this research design is pre-experimental with one group pre-test and post-test (see formula 1). This experimental method offers more valid data because there is a comparison between before and after treatment.

Pre-test		Treatment		Post-test	(1)
O1	→	X	→	O2	

Setting

This study was conducted at SMP 17 Agustus 1 1945 Muncar. Researchers used this school because the school has little reference to the technology-based media used in learning English. Thus, researchers introduce the Flipgrid application and help students get more experience in learning English activities using Flipgrid.

Variable

In this research, there were two variables, namely the independent variable (x) the and dependent variable (y). The independent variable is Flipgrid as treatment. In contrast, the dependent variable is the student's English ability.

Participant

The population is eighth-grade students at SMP 17 Agustus 1 1945 Muncar in the academic year 2021/2022, and writers used eight-grade because they have experience using technology in learning English. The population is in the following Table 1.

Table 1. Population

Class	Students
8A	34
8B	33
Total	67

A purposive sampling technique was used to assign the sample to the population. Considerations in using a purposive sampling technique, the researchers wanted to know the significant effect of increasing students' English skills. Therefore, the class has low ability and competence in learning English. Based on this reason, class 8A was chosen as the sample because the students in this class had low English achievement compared to other classes. In other words, 8B contributes as a try-out class to examine the English test's validity and reliability.

Instrument

English test was used in this study as an instrument. It was used as a pre-test and post-test. In other words, the questions in the pre-test and post-test are the same. The English test consists of fifteen essay items in which students watch a video on Flipgrid before answering.

Validity and Reliability

To ensure the feasibility of the instrument, several aspects are considered. The feasibility aspect of the instrument received is passing the validity and reliability test. The validity test consists of two steps, namely content validity, and empirical validity.

To ensure the content validity of the English test, it has been adapted to the learning topics and material in the syllabus. Content validity was assessed using expert judgment. Expert judges examine all items that are relevant and worth trying. The content validity analysis is in Table 2 and Gregory's qualification is in Table 3.

Table 2. Content Validity Analysis

Judge 1		Judge 2	
Relevant	Irrelevant	Relevant	Irrelevant
15	0	15	0

Each item has been evaluated by expert judges with results that show all 15 items are genuinely relevant. The results were further tested using Gregory's formula afterward (see formula 2).

$$\text{Content Validity} = \frac{D}{A+B+C+D} \quad (2)$$

Explanation:
A : Disagreement between the expert judges
B : Different agreement between the expert judges
C : Different agreement between the expert judges
D : Agreement between the expert judges

Table 3. Gregory's Qualification

Range	**Qualification**
0.8 – 1.0	Very High
0.6 – 0. 79	High
0.4 – 0.59	Sufficient
0.2 – 0.39	Low
0.0 – 0.19	Very Low

$$\text{Content Validity} = \frac{15}{0+0+0+15} = 1.0 \quad (3)$$

After being tested using the Gregory formula, it was found that the content validity was 1.0 (see formula 3). It means that the content validity of the English test is very high. All items in the test are worth to be tried-out.

After content validity, the trial was conducted on 8B with 33 students participating. The SPSS statistic program analyzes the try-out results. The Point-Biserial formula (R-pb) is used to determine the correlation of each item. The number of respondents (N) is 33 so the r_{table} = 0.344 (α=0.05). Each item can be categorized as valid if the correlation r_{xy} is greater than r_{table} as in Table 4.

There were 15 items with df (degree of freedom) in the English test, and the significance level was 0.05. The results of empirical validity were that all items were valid since each item or r_{xy} was higher than the r_{table}. Alpha-Cronbach is used to quantify the reliability level of the English test. Alpha-Cronbach's qualification of the reliability level on Table 5.

The results of the try-out test are inserted into the SPSS statistics program to be analyzed using Alpha-Cronbach. The results indicate that the reliability of the English test is 0.763. It means

the reliability of the English test is sufficient. In other words, it reveals that the items in the English test are reliable.

Table 4. Empirical Validity Analysis

Question	R-observed	Classification
1	0.446	Valid
2	0.460	Valid
3	0.432	Valid
4	0.460	Valid
5	0.460	Valid
6	0.472	Valid
7	0.526	Valid
8	0.357	Valid
9	0.315	Valid
10	0.671	Valid
11	0.504	Valid
12	0.463	Valid
13	0.463	Valid
14	0.551	Valid
15	0.618	Valid

Table 5. Alpha Cronbach's Qualification

Range	Qualification
> 0.90	Very High
0.80 - 0.89	High
0.70 - 0.79	Sufficient
0.60 - 0.69	Low
< 0.60	Very Low

Data Collection

Collecting data using three stages, namely pre-test, treatment, and post-test. Before distributing the treatment, a pre-test was given to the students to measure their previous English ability. Furthermore, treatment is given to students by applying Flipgrid in the learning process. Flipgrid is used to teach English in five meetings. The post-test was distributed to measure the students' English achievement after getting treatment.

Data Analysis

To discover the effect of Flipgrid on students' English abilities, the data obtained were analyzed in two ways: descriptive statistics analysis and inferential statistical analysis.

FINDINGS AND DISCUSSION

Findings

Pre-test and post-test were conducted by researchers to analyze the effect of implementing Flipgrid in teaching English for eighth grade at SMP 17 Agustus 1 1945 Muncar. The pre-test was given by the researcher on October 13, 2021. The researcher shared the pre-test in form of Flipgrid link and Google form. She gave the link on YouTube about Descriptive Text, Invitation Card, and Notice which were put on Flipgrid. Look at Figure 1- Figure 4.

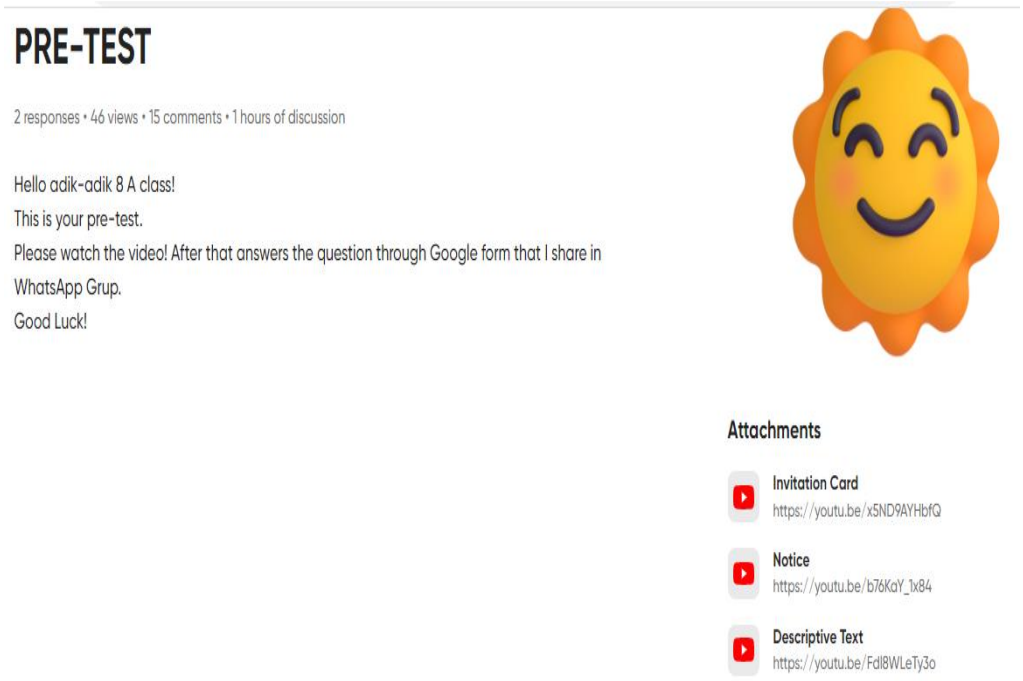

Figure 1. Flipgrid Pre-test

Figure 2. Google Form Pre-test

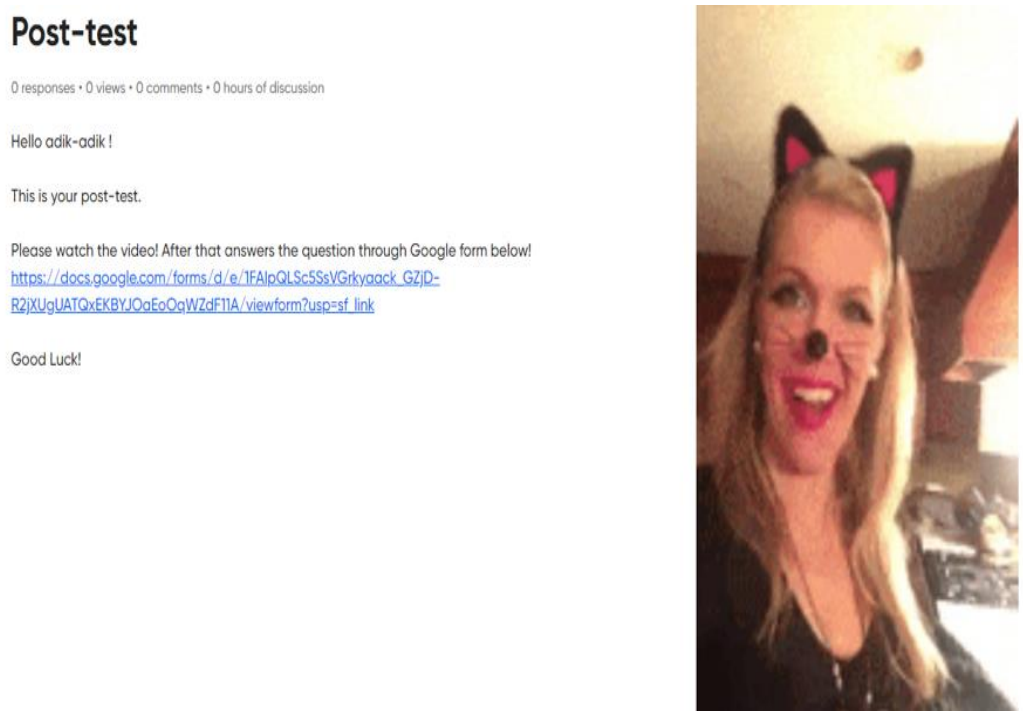

Figure 3. Flipgrid Post-test

Gambar 4. Google Form Post-test

The students were asked to watch the videos in the Flipgrid. After that, they answered the questions in the Google form. After conducting the Pre-test, researchers distributed ted the Post-Test on November 10, 2021 in the class. The students were asked to watch the video in the Flipgrid. After that, they asked to answer the questions through Google form that had been shared in the WhatsApp group.

This research data is fully supported by the English test, which includes pre-test and post-test. The students' pre-test and post-test scores are served below;

Table 6. Students' English Scores

Students	Pre-test	Post-test
Student 1	58	85
Student 2	40	72
Student 3	35	70
Student 4	50	78
Student 5	32	56
Student 6	55	80
Student 7	45	75
Student 8	45	80
Student 9	48	78
Student 10	45	65
Student 11	32	78
Student 12	35	62
Student 13	40	75
Student 14	41	65
Student 15	52	77
Student 16	48	70
Student 17	40	68
Student 18	42	60
Student 19	40	55
Student 10	32	60
Student 21	45	76
Student 22	33	62
Student 23	45	78
Student 24	35	60
Student 25	31	68
Student 26	32	70
Student 27	46	80
Student 28	38	70
Student 29	42	76
Student 30	50	82
Student 31	45	70
Student 32	52	80
Student 33	42	75
Student 34	45	70

Descriptive Statistic Analysis

Descriptive statistics analysis describes the results of the pre-test and post-test in detail. It is to compare the difference in scores between the pre-test and post-test. SPSS Statistics program is used to determine descriptive statistics. The result of the analysis is presented on Table 7.

Table 7. Descriptive Statistics Analysis

		Pre-test	Post-test
N	Valid	34	34
	Missing	0	0
Mean		42.23	71.35
Median		42.00	71.00
Mode		45.00	70.00
Std. Deviation		7.14	7.91
Variance		51.03	62.72
Range		27.00	30.00
Minimum		31.00	55.00
Maximum		58.00	85.00
Sum		1436.00	2426.00

(a) Mean, the mean is the average score. Based on the table above, the average Pre-test score was lower than the Post-test score. It identified that students' scores before being given treatment were low. However, their average score could rise after they were given treatment with the Flipgrid application in learning English. (b) Median The median is the middle score between the lowest and the highest. The table above shows that the median score of the Post-test was higher than the Pre-test. Thus, Flipgrid positively affected learning English in Junior High School. (c) Mode, the mode is the score often raised in a sequence of numbers. Based on the table above, the mode in the Pre-test tended to be lower than in the Post-test. It had twice the increase of the Pre-test score. It identified that students' scores were higher after being given treatment; therefore, the frequency of their scores was much higher than before receiving treatment. (d) Range, the range is the space between the highest and lowest scores. It is the difference between the highest and lowest scores. Based on the table above, the minimum and maximum scores on the Pre-test and Post-test can be seen. Thus, it showed the score range. The pre-test and Post-test had different ranges where the range score on the Pre-test was lower than the Post-test. It identified gaps. (e)Variance, Variance measures how far a set of numbers is spread from the mean score. The Variance is the difference in the expected deviation from the actual score. Based on the table above, the variance score of the Post-test was higher than that of the Pre-test. Thus, the score Post-test was more varied.

(f) Standard Deviation, Standard deviation as finding the score distribution. Based on the table above, the standard deviation of the Post-test has a more excellent score than the Pre-test. It identified that the standard deviation of the Post-test was higher than the standard deviation of the Pre-test. (g) The minimum scores of the Pre-test are lower than Post-test. Thus, there is a change in the increase of the Pre-test scores. (h) Maximum, Maximum scores are the highest scores in the Post-test. Therefore, there is a significant change in scores between Pre-test and Post-test. (i) Sum, the total score is the total calculation of all scores. Table 7 shows the number of pre-test scores smaller than the total post-test scores. The sum of the post-test scores exceeds the pre-test scores. It identified that the students received higher scores in the post-test than in the pre-test. In short, there was an increase in students' scores after receiving treatment.

The data above showed that Flipgrid impacted 8 A student’s competencies in learning English at SMP 17 Agustus 1 1945 Muncar. There is a change in teaching before and after using Flipgrid. In addition, the score of English competencies before being taught with Flipgrid was insufficient, and after the students were given treatment by applying Flipgrid was a satisfactory score. Thus, Flipgrid positively impacted the student's skills in English class.

Inferential Statistic Analysis

Inferential statistical analysis purposes of quantifying the accuracy of data conclude. It determines the probability. (a) Normality Test, the pre-test and post-test scores were analyzed by normality test to ensure the data were normally distributed. Normality was examined using the SPSS Statistics program with the Kolmogorov-Smirnov formula. The significant value of the Kolmogorov-Smirnov formula indicates a significant level at > 0.05.

Table 8. Normality Test Analysis

N	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Pre-test	0.121	34	0.200*
Post-test	0.148	34	0.57

The table shows the significant level of the pre-test is 0.200 and the post-test is 0.57. It indicates that the pre-test and post-test have a normal distribution of data. Both significant levels are over or higher than 0.05. (b) The homogeneity test, the pre-test, and post-test values were also analyzed using the homogeneity test to determine if the data was homogeneous or not. If the result of the data count is more excellent than = 0.05, it characterizes as homogeneous. SPSS Statistics

Program with Levene statistics was implemented to test the homogeneity of pre-test and post-test scores.

Table 9. Homogeneity Test Analysis

Levene Statistic	df1	df2	Sig.
.644	1	66	.425

Table 9 shows that the significance level of the count of the pre-test and post-test scores is 0.425. Because the significance level of the count is more significant than 0.05, it can be concluded that the population variance from the same population means homogeneous or equivalent.

Table 10. Paired Samples T-test Analysis

	Paired Differences					t	df	Sig. (2-tailed)
Pre-test & Post-test	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
	-29.11765	6.14358	1.05361	-31.26124	-26.97406	-27.63	33	.000

(c) Paired-sample T-test, the hypothesis is accepted or rejected if the t-value is Sig. (2-tailed) <0.05, then H0 is rejected, and Ha is accepted. If the t-value is Sig. (2-tailed)> 0.05, then H0 is accepted, and Ha is rejected.

From the results of the table above, the significance level is 0.000. It means much lower than 0.005. It defines that Ho is rejected, and Ha is accepted, showing a significant influence on students' English.

To confirm a hypothesis, a comparison of t-table and t-count was used. If the value of t count > t table, Ho is rejected, and Ha is accepted. In other words, if the value of t count < t table, Ho is accepted, and Ha is rejected.

Table 10 shows that the df of the paired sample t-test is 33 with a 95% confidence interval, which means t-table is 1.69. Also, table 10 presents a negative t-count, which is -27.63. The t-count value is negative due to the mean value of the pre-test is lower than the post-test. In this term, a negative t-count can be defined as positive therefore t-count becomes 27.63. Therefore, the entire t-count is higher than the t-table, 27.63 > 1.69. It defines that Ho is rejected and Ha is accepted, which significantly affects students' English skills.

(e) Effect Size, effect size analysis to quantify the effectiveness of treatment on students' English ability. Cohen's effect size analyzed the effect size calculation.

Table 11. Cohen's Effect Size Classification

Effect Size (d)	**Classification**
0.00 - 0.12	Weak
0.21 - 0.50	Modest
0.51 - 1.00	Moderate
> 1.00	Strong

The students' scores on the pre-test and post are analyzed with Cohen's measurement by inserting the mean, the standard deviation, and the correlation. Based on the Table above, the result showed that the effect size is 0.51. It defines the effectiveness level of the treatment as categorized to be moderate or medium.

Table 12. Effect Size Analysis

	Pre-test	Post-test
Mean	42.23	71.35
Std. Deviation	7.14	7.91
Correlation	0.672	
Cohen's Effect	0.51	

Discussion

This research showed that in learning English use of Flipgrid has been effective. It can be seen from the calculation of the pre-test and post-test scores that there were changes. The post-test score was higher than the pre-test results; therefore, Flipgrid positively impacts student learning outcomes. It follows the twenty-first-century theory where technology can help students understand the material, solve problems, and equip students to keep up with the changing skills needed (Kanmaz, 2021). Thus, the data collection results on learning English in junior high school showed that the role of technology is crucial in the learning process, encouraging students to increase their knowledge and abilities.

Some results support this study. First, previous research was conducted (Mahmudah & Ardi, 2020) on the use of Instagram to improve speaking skills which has a positive effect on students' speaking skills. The similarity with this study was using the application in learning English. Nevertheless, the technique to obtain data was different, using speaking tests after being given treatment. This study did not focus on one skill, but as a result, Flipgrid has the strength to improve speaking skills, providing video recording facilities to respond. Thus, Flipgrid is prime in improving students' speaking skills. Second, the previous study by (Agustiani et al., 2021) about students' motivation used Edmodo in learning. It positively impacted the student's motivation, and students were more active in participating. Based on the previous study, it can be known that applications or media can increase students' participation in learning. Last, the previous research conducted by (Zalika et al., 2019) focused on using Quizizz for teaching narrative text. Quizizz increased the students' motivation and reading comprehension in narrative text. It can be known that the application helped the process of learning. However, it was the difference with this study which was not focused on one material in learning English.

Moreover, the level of effectiveness of Flipgrid is classified as moderate or medium. Because the level of effectiveness of Flipgrid is moderate, it can be said that it is not optimal. Therefore, a consequence of time allocation. Students get treatment in five meetings; each session lasts about 45 minutes. If students receive more meetings and time for treatment, the effect may be higher or better. However, the research question has been answered that there is a significant effect of Flipgrid on English language skills.

Based on the explanation above, using technology in the learning process is one of the needs that must be met in the twenty-first-century condition. In addition, it is an effective tool used to support and facilitate students to improve their learning outcomes. Moreover, some studies can prove that applications positively impact learning English. Therefore, teachers were expected to use a learning platform with students' necessities, help students understand the material, improve their skills, and create exciting and varied learning. In particular, it can make students more interested in learning English. Thus, video-based applications of Flipgrid can improve English language skills in junior high school. Therefore, the world of education needs to establish a broader view of the use of all technology. Flipgrid, as a video-based application with the main feature, is identified as an effective learning platform in the twenty-first century that highly recommends improving students' speaking skills.

CONCLUSION

Based on the results that have been obtained, it is concluded that Flipgrid has a significant effect on students' English skills, specifically great improvement in speaking skills. Before the Flipgrid application was applied to learning English, student achievement scores were low. It was

obtained based on pre-test data. However, after five meetings applying the Flipgrid application, the student's English achievement scores improved. Thus, there was a better score change after getting treatment. However, there is limited meeting time in using Flipgrid, so the results obtained are at a medium level. The implications that can be given are that the Flipgrid application has positive benefits and effects on students in learning English. The use of Flipgrid affects learning outcomes in English learning activities provided by researchers. Teachers demand to adapt to new situations and improve learning strategies to suit the times and necessities of students. Teachers are supposed to improve and develop their knowledge and technology literacy related to teaching media, especially Flipgrid as a platform for teaching English and strategies for teaching online and combined offline learning.

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