

The Effect of Kahoot! and Screen Recording Videos on Students' Grammar Achievement During Covid-19 Outbreak

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ABSTRACT. Technological innovations have created a lot of digital tools to engage teachers and students in teaching and learning process, especially when the world is suffering from Covid-19 Pandemic. They generally provide the beneficial effects on practitioners and students. The purpose of this study was to find out whether there are any significant effects of students' grammar achievement in the use of ICT (Kahoot! and screen recording), and identify the students' perspectives of Kahoot! and screen recording on grammar' achievement. A quantitative analysis included descriptive statistics (mode, median, range, mean, standard deviation, and the distribution of), and independent T-test analysis were conducted to answer the research question of this study. The respondents of this study were the fourth semester students (regular class) taking the Advanced Grammar at English department of Pamulang University academic year 2019/2020. Out of 186 students of the population, 50 students were chosen as the samples based on the purposive sampling. To collect data, the study used two kinds of instruments: a grammar test, and a questionnaire with ten items in Linkert scale. The results of this study reveal that means the application of Kahoot! and screen recording in teaching and learning grammar gave significant effect on the students' grammar achievement; the beneficial effect can be seen from the result of the p value (sig) was $0.725 > 0.05$. Moreover, the results of questionnaire distribution also reveal the positive effect of Kahoot! and screen recording applications on the students' grammar achievement.

Keywords: Kahoot, screen recording, students' grammar achievement, Covid-19.

1. INTRODUCTION

The whole world is suffering from the Covid-19 pandemic outbreak today. Covid-19 is a kind of virus emerged from Wuhan, China in late December 2019 and resulted in a formidable outbreak in many cities in China and expanded globally. The virus is accelerated dramatically. Person to person transmission may occur through droplet or contact transmission if no proper personal protective equipment available. As a result, the authority in every country affected is taking a dramatic policy to restrict all activities in public area including schools. According to UNESCO, as of April 14, 188 countries around the world have closed schools nationwide, affecting over 1,5 billion learners and representing more than 91 percent of total enrolled learners. It is also the decision taken by Indonesian government to prevent further spread of the virus after President Joko Widodo announce the first case of Covid-19 on March, 2, 2020.

Referring to Mendikbud's circular letter No.3 of 2020 on the prevention of Covid-19 on the education unit, and the number 36962/MPK.A/HK/2020, the teaching and learning activities are conducted online to prevent the spread of Corona Virus Disease (Covid-19) [1]. After the policy is officially announced, almost all of education institution in Indonesia in any levels (kindergarten, elementary schools, junior high schools, and universities) have implemented a long-distance class or online learning. Kurniasih et all [2] state that during online learning, students and lecturers

are asked to conduct learning activities using online application such as video conferencing application, e-mail, and online social media. Effective media used during this process might lead to the success of learning process and result. As the result, schools and universities tried to find the best media to hold education during the pandemic.

Pamulang University, a private university in Tangerang Selatan, Banten, Indonesia, is one of the education institutions which conducts online learning during Covid-19 outbreak. In fact, online learning is not a new experience for students and lecturers in Pamulang University since it implements blended learning. Normally, thirty percent of teaching and learning activities at Pamulang University conducted through e-learning website. However, experiencing 100 % online learning during this pandemic is not easy for both students and lecturers. Many students are struggling to understand the whole material through e-learning website. They said that they want to listen the explanation from the lecturers, not only written explanation. Besides, it is also not easy for the lecturers to make students engaged and motivated to study only through e-learning website provided by the university.

English Grammar is one of the mandatory subjects which has to be taken by students from semester 1 to 4 in English Literature Department of Pamulang University. Since English has different structure from Bahasa in many aspects, many students think that

English Grammar is a difficult subject to learn. The students said when they study English Grammar, it is like they are studying Mathematics where there are so many formulas to understand. The abundance of material to study in one semester also becomes a serious matter to handle for them. Moreover, the situation of pandemic that requires them to stay at home and use e-learning website as a medium to learn adds their struggle. Therefore, teachers do not only have to invent the technique to handle students' difficulty of learning grammar, but also an interesting way to decrease their boredom when they have to study at home.

Nowadays, many education practitioners use various media to support both teaching and learning process. In the sector of education, technology plays a very crucial role and provides classrooms with a variety of digital tools. Many experts say that technology can increase the engagement and motivation of students to learn and accelerate the learning process. Rogers [3] states that technology is a design for instrumental action that can reduce uncertainty occurred in cause-effect relationship in achieving an intended goal. What nowadays used by people to communicate and gain information worldwide is a development of technology which is called as information and communication technology or ICT. During the covid-19 pandemic, teachers, lecturers, instructors and even educators consider some effective ways of teaching grammar using technology. The use of technology in education is very useful for both teachers and English learners [4]. Some crucial benefits of technology are expected during and after the teaching and learning process. Therefore, teachers should find effective media to obtain the goal of this process.

Audio-visual media such as video are increasingly taking a prominent role in education worldwide, especially in online education environment, Thomson, Bridgstock, & Willes [5]. Both teachers and students are familiar with videos. Teachers often search videos from online platforms such as YouTube to support their teaching. They also often make their own video containing the explanation of material to be delivered to their students. Scagnoli, Choo, & Tian [6] said that video lectures (VL), considered as an effective means for delivering course content and filling teaching presence in the virtual environment have become very famous in education. Their study on the students' insight on the use of video lectures in online classes confirms that students' satisfaction with VL has a strong bond with positive overall learning experience and perception of effect of video on learning. It is also said that VL can boost the feeling of engagement with content because of learners' control of the media and tutor's presence. Additionally, Kokoc, Ilgac, & Altun [7] state that video lectures led higher learning

performance scores. Therefore, it can be concluded that video implementation in the classroom leads to positive effect to the learning achievement.

Creating video for learning material could be considered as a complex process. Limited knowledge of teachers in creating a video lecture could be a problem. However, the development of multimedia technology helps teachers a lot. The latest technology which can help teachers in making video lecture is screen recording application which is able to facilitate them to deliver their explanation of the subjects to the students. The teachers only need to download the application to be installed to their smartphones through Google Play Store. There are various screen recording applications available, one of them is Screen Recorder. This application provides some interesting features to be used. The primary function of this application that it can capture what it is shown by the smartphone screen and record the audio. It is beneficial for teachers to use this application. For example, when teachers want to share the material prepared on power point slides, they can add more explanation with audio and make it as a video. What the teachers have to do is just open the power point slides, activate the application, press the recording button, then say what they want to explain. The teachers are even able to show their faces on the screen. Therefore, it can be concluded that screen recording video application is a simple technology that can be used by the teachers to deliver material for students and can help students to understand the material from teachers simply.

In addition, online game is also assumed as one of the interesting ways to be implemented to make the students more interested in learning, especially in this pandemic situation. Games can be beneficial for academic achievement, motivation, and classroom dynamics [8]. In addition, Crow [9] stated that interest may be used to motivate and force someone to give attention to other people, thing or an activity. Therefore, it can be said that the learning activities carried out in high attention and motivation will be done well. Furthermore, students are enthusiastic to experiment with different technologies to support their learning, mainly because they are able in the use of mobile technology and like to use applications and games designed for such devices [10]. One of gamification platforms which is very popular today is Kahoot!. It is used as a tool to deliver the multiple questions created by the teachers. Students can answer the questions and play Kahoot! individually or in group with their personal devices like smartphone, computer, laptop, or tablet. When using Kahoot, students are also free to use their own unique usernames. Kahoot has colourful background and unique sound which can be changed in particular time. The changing background and sound will make the

students focus on the questions on the screen. So that, the students are able to answer the questions correctly. After all the questions are answered, they will automatically see their scores on the scoreboard and they are also able to see some complement words, like good job, nice answer, or lightning smart. Papastergiou [11] also found that students regarded games as more attractive and more treasured as an educational tool compared to other performance-tracking educational websites that contained the same content. Moreover, Plump and LaRosa [12] found that Kahoot! was easy for teachers to use in their classroom and required no prior training to implement. These become the reasons why many teachers promoted Kahoot! in their classrooms.

As one of the tools for teaching English using technology, the online game Kahoot is good to use because it provides playing activity that can encourage students to be more active during the lesson. Masruroh [13] stated that learning process becomes very enjoyable by playing Kahoot, and Kahoot makes students not bored after studying hard materials. She also mentioned that Kahoot helps teachers monitor the progress of each student towards learning goals, recognize strengths and weaknesses and identify areas where students' benefit. Further, Medina [14] mentioned that Kahoot has some benefits to increase students' learning motivation and students' grammar comprehension. In her study, it is seen that students enjoy using Kahoot in the classroom learning process and this media is easy to use by students. In addition to this, the study conducted by Maesaroh, Faridi and Bharati

[15] found that Kahoot was effective to teach grammar for both students with high and low interests. Research result of Licorish, Owen, Daniel, & George [16] revealed that Kahoot! improved the quality of student learning in classrooms. Moreover, it developed classroom dynamics, engagement, motivation, and learning experience. Besides, the creation and integration of appropriate content in Kahoot! provides students with appropriate feedback, and game-play (gamification) strategies. Therefore, based on the related studies mentioned, it can be seen that by using Kahoot, students are able to understand the materials better because of the increased motivation in learning.

However, there are some differences between this study and some other related studies. In the studies conducted by Masruroh [13] and Medina [15], the writers focused on the use of Kahoot in teaching grammar without combining other teaching methods. While the study by Maesaroh, Faridi and Bharati [16] focused on combining some methods of teaching grammar; Socratic and Kahoot. In that study, the writers explained different effectiveness of both methods to the students with different interests; low and high interests. After all, in this study, the writers focus on the effect of combining Kahoot! and screen recorder video to the students' grammar comprehension

2. RESEARCH METHOD

2.1 Approach

The study used quantitative analysis; it deals with data in the form of number and uses mathematical operations to gain the result. It also describes the mean score, standard deviation, significant score, and others. The quantitative analysis has some major purposes like comparing, finding relationship, exploring, and testing hypothesis, Walliman, [17]. This study applied quantitative research since the primary purpose of this study is to investigate the significant effect of Kahoot and screen recording on the students' grammar achievement. Then, the numerical data was calculated through SPSS program to obtain the result. The score or the significant score determines the interpretation whether Kahoot and screen recording share the significant effect on the students' grammar achievement.

2.2 Population and Sample

The research was conducted in Universitas Pamulang located in South Tangerang, Banten. The university has English department which the courses are mastering some grammar courses. In this study, the writers applied the Kahoot and screen recording on the fourth semester students learning the advance grammar. The populations of the research were the 4th semester students of English Faculty consisting 186 students from seven classes; however, the writers used purposive sampling to have 50 students as the samples.

TABLE 1. Population and Sample of the study

No	Class	Total	Samples
1	04SIGP001	25	7
2	04SIGP002	29	7
3	04SIGP003	24	7
4	04SIGP004	22	7
5	04SIGP005	25	7
6	04SIGP006	29	8
7	04SIGP007	32	7
	TOTAL	186	50

2.3 Instruments

To conduct the research, the writer used two kinds of instrument: the grammar test and the questionnaire. The grammar test (25 students did the test through Kahoot, and 25 students did the test after learning through screen recording) was conducted to the 50 students to obtain the data. The test was done after the students mastered several important topics and treated through Kahoot and screen recording. Moreover, the writer distributed the questionnaire adopted from Rosenberg (1965) to all participants; the questionnaire consists of fifteen items, and it has four scales (strongly agree, agree, neutral, disagree, and strongly disagree). It was distributed after they had grammar test.

2.4 Data Analysis Procedures

After conducting the test and distributing the questionnaire, the writers used SPSS to analyse the data obtained. To analyse the data, the writers used

independent T-test analysis to find out the significant effect of each variable. The findings were classified into the descriptive data, the normality and homogeneity test, the independent sample test. After obtaining all calculation through SPSS, the writers interpreted the analysis by comparing the significant score to find out the correlation between each variable. Then, the writers distributed the questionnaire to find out the students' perception on applying Kahoot and screen recording in mastering advance grammar. In the experiment section, all materials and methods that have been used in the research should be stated clearly.

3. RESULT AND DISCUSSION

After having obtained the data and calculating by SPSS, the writers gained the result stated below:

TABLE 2. Summary of participants

	GROUPS	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
GRAMM AR SCORE	KAHOOT!	25	100.0%	0	0.0%	25	100.0%
	SCREEN RECORDING	25	100.0%	0	0.0%	25	100.0%

The table above reveals that the total of participants in the study; 25 students were treated through one innovative tool, Kahoot! and 25 students

were treated through screen recording in teaching and learning grammar

TABLE 3. Data Description of Grammar Test

GROUPS			Statistic	Std. Error
GRAMMAR SCORE	KAHOOT!	Mean	48.80	2.728
		95% Confidence Interval for Mean	Lower Bound	43.17
			Upper Bound	54.43

		5% Trimmed Mean		48.39	
		Median		45.00	
		Variance		186.000	
		Std. Deviation		13.638	
		Minimum		30	
		Maximum		75	
		Range		45	
		Interquartile Range		28	
		Skewness		.475	.464
		Kurtosis		-.817	.902
	SCREEN	Mean		68.52	3.219
	RECORDIN G	95% Confidence Interval for Mean	Lower Bound	61.88	
			Upper Bound	75.16	
		5% Trimmed Mean		69.42	
		Median		69.00	
		Variance		259.010	
		Std. Deviation		16.094	
		Minimum		30	
		Maximum		91	
		Range		61	
		Interquartile Range		20	
		Skewness		-.950	.464
		Kurtosis		.978	.902

From the above table, it can be assumed that the mean score of the students applying Kahoot! was 48.80 consisting the maximum score was 75, and the minimum score was 30. Moreover, the mean score of the students applying Kahoot! was 68.52 consisting

the maximum score was 91, and the minimum score was 30. In brief, the application of screen recording in teaching and learning grammar provides the better result.

TABLE 3. Tests of Normality

	GROUP S	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
GRAMMAR SCORE	KAHOO T!	.145	25	.18	.925	25	.068
	SCREEN RECORDING	.137	25	.200*	.919	25	.049

The table above shows the results of Shapiro Wilk and Lilliefors test. The writers used Kologorov-Smirnov (Lilliefors test) to analyse the normality test. The value of p value (Sig) was 0,200 in Kahoot groups

in which $0.200 > 0.05$; it means Kahoot! group is normally distributed. Furthermore, P value of screen recording group was $0.884 > 0.05$; therefore, this groups is also normally distributed

TABLE 4. Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
GRAMMAR SCORE	Based on Mean	.125	1	48	.725
	Based on Median	.136	1	48	.714
	Based on Median and with adjusted df	.136	1	46.397	.714
	Based on trimmed mean	.117	1	48	.734

The table above reveals the results of the homogeneity test using the Levene's Test method. The Levene value is shown in the Value based on Mean

row, which is 0.125 with a p value (sig) of 0.725 where $0.725 > 0.05$; it means there is a similarity of variance between groups or homogeneous groups.

TABLE 5. Independent Sample 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
GRAMMAR SCORE	Equal variances assumed	.125	.725	-4.674	48	.000	-19.720	4.219	-28.203	-11.237
	Equal variances not assumed			-4.674	46.742	.000	-19.720	4.219	-28.209	-11.231

From the above table, it is brief that the p value (sig) of Levene's Test for equality of variances is $0.725 > 0.05$; it can be revealed that there is a similarity of variance between groups (Kahoot! and screen recording) or homogeneous groups. Moreover, the p value (sig 2-tailed) in equal variances assumed is $0.000 < 0.05$; therefore, H_a is accepted that means the application of Kahoot! and screen recording in teaching and learning grammar gave significant effect on the students' grammar achievement.

In addition, the score of mean difference is -19.720. this score reveals that the difference between the means score between groups. The mean score of Kahoot! group is 48.80, and Screen recording group is 68.52 ($48.80 - 68.52 = -19.720$).

3.1 The Students' Perspectives of Kahoot! and screen recording on grammar' achievement

In this section, students' questionnaires have been adopted to collect the data needed for this study. The

goal of this part is to examine the data have been collected and highlight the finding of questionnaires. This is to know whether respondent students have positive or negative attitude toward the use of Kahoot! and screen recording on their grammar achievement.

Table 6 shows the students' overall attitude toward the use of Kahoot! per item in the questionnaires (item 1, 2, 3, 4, and 8). Based on the result on the table, it can be seen that the students respond positively on items one, two, three, four, and eight. Eighty percent (80%) of the surveyed students agree that Kahoot! is a fun way of learning grammar. Seventy point three percent (73,3%) of the students feel positive when they participate Kahoot! games in grammar learning. Also, eighty percent (80%) of students agree that they feel motivated when they can compete with friends to get high score in Kahoot! game. Moreover, majority of students (80.6%) agree if the teacher conducts Kahoot! game twice a week.

TABLE 6. The Students' View toward the Use of Kahoot! in Grammar Class

No	Number of Items	Statements	Agree	Neutral	Disagree
	1	Kahoot! Is a fun way of learning grammar subject	80	13,3	6,7
	2	I feel positive toward my grammar learning when I participate in Kahoot! Games.	73,3	26,7	0
	3	I found that Kahoot! Is an innovative tool designed to engage me with grammar learning.	80	13,3	6,7
	4	I feel motivated when I compete with my friend to get high score in Kahoot! Game.	86,6	0	13,3
	8	I prefer my teacher to conduct Kahoot! Activity at least twice a week.	73,3	20	6,7
Total			393	73,3	33,4
Average			78,6	14,6	6,6

In contrast, item one and three shows the minority of students (6,7%) have negative attitude toward the use of Kahoot! game in grammar class. Additionally,

they also disagree if the teachers conduct Kahoot! game twice a week.

TABLE 7. The Students' View toward the Use of Screen Video Recorder in Grammar Class

No	Number of Items	Statements	Agree	Neutral	Disagree
	1	It is easier for me to understand grammar learning by watching video containing explanation by lecturers better than only reading the material during e learning.	100	0	0
	4	I feel more engaged in the learning and teaching process when the lecturers give explanation through video.	75	25	0
	6	It is more easy, comfortable, and less stressed when I watch and listen explanation by lecturers through video during e-learning process.	75	25	0
Total			250	50	0
Average			83,3	25	0

Table 7 shows that all of the students (100%) believe that it is easier for them to understand the

material of grammar when they listen the explanation from the teachers through screen recording video

during e-learning. Seventy five percent (75%) of students agree that they feel more engaged when teachers give explanation through screen recording video. In addition, seventy five percent (75%) of students believe that watching teachers' explanation

through screen recording video makes them more relaxed and comfortable in grammar learning. However, twenty five percent (25%) of the students responded neutrally.

TABLE 8. Function of Using Kahoot! in Grammar Class

No	Number of Items	Statements	Agree	Neutral	Disagree
	5	The question sets available in the Kahoot! Team mode enables me to discuss and collaborate with my team mate.	73,3	26,7	0
	7	Grammar question sets available in Kahoot! Help me to improve my grammar learning in interesting way.	67,7	26,7	6,7
Total			141	53,4	6,7
Average			70,5	26,7	3,3

Based on the result of the survey, it is found that Kahoot! game and screen recording video have some function in helping students to learn grammar. Table 8 indicates that seventy-three-point three percent (73,3%) of students believe that Kahoot game can facilitate them to discuss and collaborate with their

friends in learning grammar. Additionally, sixty-seven-point seven percent (67,7) of the surveyed students believe that Kahoot! game helps them to improve their grammar learning in interesting way. However, sixty-point seven percent (6,7%) of them disagree with this statement.

TABLE 9. Function of Using Video Screen Recording in Grammar Class

No	Number of Items	Statements	Agree	Neutral	Disagree
1	2	Video containing explanation from lecturers contains more information I need related to the material discussed.	100	0	0
2	3	It helps me to comprehend the difficult concept of grammar lesson.	87,5	0	12,5
3	5	It helps me to understand complex grammar points.	75	25	0
Total			262	25	12,5
Average			87,5	8,3	4,1

In addition, all of the students (100%) believe that screen recording video containing explanation from teachers contain more information they need related to the material discussed. Eighty-seven-point five percent (87,5%) of the students agree that screen video recording help them to comprehend the difficult concept of grammar. Also, seventy five percent (75%) of the students believe that screen recording video helps them to understand complex grammar points.

However, twelve point five percent (12,5%) of students show negative attitude toward item number three and twenty five percent (25%) responded neutrally toward item number five.

From the study that had been conducted, the writers focused on seeking the significant effect of Kahoot! and screen recording application and having known the students' perspective of Kahoot! and screen recording application in teaching and learning process

of grammar. The results reveal the application of Kahoot! and screen recording gave the beneficial effect on the students' grammar achievement. In line, Haryati (2018) found the substantial effect on the use of Interaction and Communication Technology (ICT) on grammar achievement. It assists students to identify their errors and obtain the feedback immediately. Holey (2012) similarly highlighted that the use technological products enhanced not only the students' grammar ability but also the other English skills including listening, reading and writing. The students are able to engage their digital devices with their ability in English. On the other hand, Barr, Leaky, & Ranchoux (2005) shared their opposite finding; they argued that students have better grammar understanding when their learning and teaching processes is not involved the use of technological products.

Moreover, the findings from the result of the survey tells that the students have slightly overall positive attitudes toward the use of Kahoot! game and screen recording video in grammar learning. It is inline with Masruroh [13] statement that that learning process becomes very enjoyable by playing Kahoot, and Kahoot makes students not bored after studying hard materials. Also, it is aligned with Kokoc, Ilgac, & Altun [7] finding regarding the effect of sustained attention and video lecture types on learning performance. They state that video lectures led higher learning performance scores. However, even Kahoot! game and screen video recording are powerful tool in teaching and learning practices, to make them more relevant before using various other methods, planning is one of the key ways teachers should conduct. Therefore, the students can get more benefits and experiences.

4. CONCLUSION

To sum up, the Linkert scale data analysis expose that both the use of Kahoot! and screen recording give significant effect toward students' grammar achievement with the result of the p value (sig) was $0.725 > 0.05$. However the data description of grammar test indicates that the use of screen recording application offers a better result. It is shown from the mean of screen recording is 68.52. Meanwhile the mean of Kahoot! is 48.80. Additionally, the questionnaire distribution resulted on the positive responses from the students' in the use of Kahoot! and screen recording application for their grammar class. 83,3 is the average of students' positive feedback on screen video recorder and 78,6 is the average of students' positive feedback on learning grammar. So, Kahoot! and screen recording, gain not only better grammar achievement, but also students' positive responses. It is likely that the further researchers discussing the same interest can impart

expand results in which the results of the study could be used as a source of information

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