

# The Influence of Online Learning Media and Learning Motivation on the Results of Class V Integral Private Vocational School of Hidayatullah Depok

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**ABSTRACT.** The research aims to find out (1). Are there differences in science learning outcomes of grade V SD Integral Hidayatullah Depok students who are taught with the Zoom meeting Applicative Media compared to those taught with applied media LMS classroom (2) Is there an interaction between online Applicative Media selection and Learning Motivation on Science learning outcomes of Class V SD Integral students Hidayatullah Depok (3) Are there differences in science learning outcomes of Grade V SD Integral Hidayatullah Depok students who have high motivation who are taught with applied media zoom meeting compared to those taught by LMS classroom applicative media (4) Are there differences in science learning outcomes of grade V SD students Integral Hidayatullah Depok, who has low motivation who is taught using the zoom meeting applicable media compared to the applied media LMS classroom. This research shows: 1. Overall the results of learning science that are taught using the applied media zoom meeting is higher with the difference between the mean score of 5.66 than the students taught by LMS classroom, with a Sig. equal to 0.000 <0.05. 2. There is an interaction between online applicative media and learning motivation towards learning outcomes with science with a Sig. amounting to 0.039 <0.05. 3. Science learning outcomes for students who have high motivation who are taught using applied media zoom meeting is higher with an average difference in value of 7.3 than students using applied media LMS classroom, with a Sig. amounted to 0.019 <0.05. 4. Science learning outcomes for students who have low motivation who are taught using the zoom meeting applied media is higher with the difference in mean scores of 4.1 than students using the applied media LMS classroom, with a Sig. equal to 0.009 <0.05

**Keywords:** Online Learning Media, Motivation, Science Learning Outcomes.

## 1. INTRODUCTION

2020 has been a tough year for all of us, until now Indonesia is still hit by the Covid19 pandemic. COVID-19 is an infectious disease caused by the acute respiratory syndrome coronavirus 2 (severe acute respiratory syndrome coronavirus 2 or SARS-CoV-2). The Covid-19 Case in Indonesia Confirmation of the first Covid-19 case in Indonesia was announced directly by President Joko Widodo accompanied by Health Minister Terawan Agus Putranto. The announcement was made at the Presidential Palace, Jakarta, on March 2, 2020. (Jihad Akbar. 2020). Until now, the transmission of Covid 19 in Indonesia is still not well controlled so that in order to break the chain of transmission of Covid 19, the government has made a social distancing policy which of course has an impact on people's lives both in the social, economic, political and educational fields.

In the aspect of education, the Minister of Education and Culture of the Republic of Indonesia

issued Circular Number 4 of 2020 concerning Implementation of Education Policy in the Emergency Spread of Coronavirus Disease (Covid-19) point 2, namely the learning process from home is carried out with the following conditions a) Learning from Home through online / distance learning is carried out to provide meaningful learning experiences for students, without being burdened with demands to complete all curriculum achievements for grade promotion and graduation; b) Learning from Home can be focused on life skills education, including regarding the Covid-19 pandemic; c) Learning from Home activities and learning tasks can vary between students, according to their interests and conditions, including considering gaps in access / learning facilities at home; d) Evidence or products of Learning from Home activities are given qualitative and useful feedback from the teacher, without being required to give a quantitative score.

With this circular the minister of education provided a policy that the education process was

carried out remotely. This effort was carried out in order to break the chain of transmission of Covid 19 and continue to serve the nation's children to keep learning even during the pandemic. This distance learning is in normal conditions in Indonesian society rarely especially for the basic education level, no wonder the reality in society when distance learning which is felt to be very sudden, new problems arise which cannot be avoided. Both in terms of curricula that require adjustment, human resources that have not been upgraded, media that are not yet available, as well as learning systems that are still being tested, allowing failure or new problems to arise.

SD Integral Hidayatullah Depok is an elementary school located in the city of Depok where at the time of the Covid 19 pandemic, Depok City was included in a special zone where face-to-face learning was prohibited. So with all the available resources SD Integral Hidayatullah Depok continues to innovate and adapt so that the learning process continues to run well with online-based learning. At this time there are 542 students with 67 teachers, with 26 classes. In the current conditions, the distance learning process, teacher creativity plays an important role in presenting material or making the learning process more interesting so that students can participate in learning happily and with more focus. According to Sabri 2010: 59-60) Many factors affect student learning outcomes, both from internal and external factors, internal factors can be from the aspects of motivation, interest in creativity and others, from external factors can be from the family environment, media, material, infrastructure and facilities. etc.

Learning outcomes are the end point of the learning process that has been planned and implemented. According to Efgivia (2019) learning outcomes are something that takes the final value of the implementation of the learning process and is

done repeatedly and can be stored for a long time by students and can also be for a long time with results.

Motivation plays an important role in improving the quality of learning outcomes. According to Mulyasa (2003: 112), the notion of motivation is a driving force or a pull that causes behavior towards a certain goal. Students will mean it because they have high motivation.

The AECT Association for technology education and communication defines media as any form that is used for an information distribution process. Meanwhile, according to (NEA) the National Education Association defines media as objects that can be manipulated, heard, read, or spoken along with instruments that are used properly in teaching and learning activities and can be influenced by the effectiveness of instructional programs. (John M. Echols and Hasan Shadily, 2007: 360

In this study, it focuses on applied media and learning motivation in online learning because the media during the online learning period is a very influencing factor as a substitute for face-to-face classrooms so that learning media can be implemented during a pandemic like today. Then motivation is an internal factor that is very influential for Encouraging students to be actively involved in online learning, where the teacher's control period is very limited. Therefore, in this study the authors consider applicable media and learning motivation to be very important aspects to be studied so that they become evaluation materials in online learning to make it more effective and efficient.

**2. METHOD**

In this study, a Quasi-experimental method was used with a 2x2 factorial design as follows:  
Research Design

**TABLE 1.** Applicative Media Vs Online Learning And Learning Motivation

Applicative Media	Video Confrence Zoom (A <sub>1</sub> )	LMS Google Classroom (A <sub>2</sub> )
Online Learning (A)		
Learning Motivation (B)		
Learning Motivation High (B <sub>1</sub> )	A <sub>1</sub> B <sub>1</sub>	A <sub>2</sub> B <sub>1</sub>
Learning Motivation Low (B <sub>2</sub> )	A <sub>1</sub> B <sub>2</sub>	A <sub>2</sub> B <sub>2</sub>

The population is a number of individuals who at least have the same characteristics and will be investigated (Arikunto, 2006 p.63). In this study the population is divided into target population and affordable population. The target population is all students of SD Integral Hidayatullah Depok, totaling 542 students. For an affordable population, there are 4 classes of science learning students of

SD Integral Hidayatullah Depok, totaling 60 students.

Samples were taken from 4 classes to be given treatment. Randomly, it was determined that 2 classes were given treatment using Zoom media and 2 classes as control classes were given the LMS google classroom applied media.

Determination of the treatment group in this study in the following ways: From a population of

542 a sample of 60 students was taken consisting of 4 classes, of the 4 classes were randomly assigned to determine 2 classes as the experimental class and 2 control classes, the test instrument was tried out in class 6 to obtain a valid and reliable test tool. - Each class, both the control class and the experimental class, is subjected to a learning motivation test to determine which group of subjects has high and low learning motivation.

After a motivation test, the scores obtained are then sorted from the highest to the lowest scores. To determine the high and low groups, according to Popham, 27% of the upper group for the group of students with high motivation and 27% of the lower group for the group of students with low learning motivation. Determination of the sample using purposive sampling.

**TABLE 2.** Composition Of Sample Members

Treatment Learning Motivation	Applicative Media (Zoom Meeting)	Applicative Media (LMS Classroom)	Total
High	9	9	18
Low	9	9	18
Total	18	18	36

Data collection techniques used in this study were tests for learning outcomes and questionnaires for learning motivation. The test is used to obtain student answers. The written test method is carried out to determine student learning outcomes and classify them according to their learning motivation. The test is given to students who have been selected to be subjects in the study.

Meanwhile, this questionnaire is used to identify and classify student data based on their learning motivation. Questionnaire is a data collection technique carried out by giving a set of questions or written statements to respondents to answer (Sugiyono, 2010). Students are given a learning motivation questionnaire for grouping students with high or low motivation. The type of questionnaire used in this study is a closed questionnaire, which is a questionnaire that has been provided with the answer so that the respondent chooses the answer that has been provided.

The data analysis used in this study consisted of two parts, namely descriptive analysis of inferential analysis. Descriptive analysis was carried out by presenting data through tables, means, maximum values, minimum values and standard deviations. Meanwhile, inferential analysis is used in statistical

hypothesis testing. Before testing the hypothesis, the data groups were tested for normality, for the needs of this normality test the Kolmogorov analysis technique was used, while the analysis of the homogeneity test used the levene test analysis technique. The statistical hypothesis testing used ANAVA (analysis of variance) technique, namely by comparing the numbers on the calculated F coefficient value with the F table on each factor of online media Google Class Bromm (A) and Student learning motivation (B)) and analyzing the interaction between these factors (A x B ) 2. If the test shows an interaction between A x B, then the analysis is continued by using the independent simple T test.

**3. RESULT**

The data used in this study came from the results of tests carried out on 36 research subjects who were divided into 2 (two) classes including the experimental class and the control class, each of which consisted of 18 students. The experimental class was treated with online learning with the Zoom Meeting Applicative Media, while the control class was taught using online learning with the LMS google classroom applied media.

**TABLE 3.** Based On The Students' Learning Motivation Category  
Standard Deviation 7.3 3.0 3.5 1.6

Skor	Student's motivation to study			
	High		Low	
	Eksperiment	Control	Eksperiment	Control
Average value	83,6	76,3	66,6	62,5
Minimum value	76,3	71,0	63,1	60,5
Maximum value	97,3	81,5	73,6	65,7
Standard Deviation	7,3	3,0	3,5	1,6

Based on the table above, it can be seen that the average value of Science Learning Outcomes in the experimental and control classes in students with high student motivation has higher learning

outcomes than students with low learning motivation. In addition, it is also known that the value of student learning outcomes in the experimental class with the category of high and

low student learning motivation has higher learning outcomes than the control class. This shows that there is an increase in the learning outcomes score of students who learn with the Video Convention Zoom Applicative Media for both students with low and high learning motivation.

Before the data is analyzed, first the analysis prerequisite test is carried out, namely the normality and homogeneity test with the results

A. Prerequisite Test

1. Normality test with Kolmogorov analysis

Based on the results of statistical calculations with the help of SPSS software, it can be seen that the standardized residual value data has a sig value. 0.929 is greater than the real level ( $\alpha$ ) 0.05, then  $H_0$  is accepted, meaning that the research sample data is normally distributed.

2. Homogeneity test with levene test analysis

Based on the results of the homogeneity test with the help of SPSS software, it shows the Sig.

0.659 is greater than the real level ( $\alpha$ ) 0.05, so  $H_0$  is accepted, thus the data fulfills the homogeneity assumption so that the results of the difference test used are ANOVA for the homogeneity assumption is met

B. The statistical hypothesis testing technique is used

1. Different Test (Two Ways ANOVA 2x2)

The learning outcomes of students taught with the applicable zoom meeting media are higher than the learning outcomes of the LMS google classroom applicative media in science lessons for fifth grade students of SD Integral Hidayatullah Depok?

The test criterion is that if the significance value (Sig.) Is less than 0.05 then  $H_0$  is rejected and vice versa. Based on calculations using SPSS with Two-Ways Anova in the Tests of Between-Subjects Effects table, the following results are obtained.

TABLE 4. Tests Of Between-Subjects Effects

Dependent Variable: Learning Outcomes of Natural Sciences

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	538,306 <sup>a</sup>	3	179,435	13,479	,000
Intercept	23664,694	1	23664,694	1777,630	,000
Media	294,694	1	294,694	22,137	,000
Motivation	182,250	1	182,250	13,690	,001
Media * Motivasi	61,361	1	61,361	4,609	,039
Error	426,000	32	13,312		
Total	24629,000	36			
Corrected Total	964,306	35			

a. R Squared = ,558 (Adjusted R Squared = ,517)

Based on the table above, the Sig value is obtained. amounting to 0,000 then  $H_0$  is rejected. Based on the testing criteria previously mentioned, the conclusion is that  $H_0$  is rejected, which means that the Science Learning Outcomes of Students who Learn using the Zoom Meeting Applicative Media are higher than those taught with the LMS Google classroom applied media. This shows that there is an effect of the use of Zoom Meeting Applicative Media in online learning on science learning outcomes in Class V SD Integral Hidayatullah Depok.

Is there an influence of the interaction between applied media and learning motivation on science

learning outcomes for class V SD Integral Hidayatullah Depok?

Based on the table above, the Sig value is obtained. amounting to 0.039 then  $H_0$  is rejected. Based on the testing criteria that have been previously mentioned, it is concluded that  $H_0$  is rejected, which means that there is an influence of interaction between the selection of Online Learning Application Media and Learning Motivation on Science learning outcomes for Grade V SD Integral Hidayatullah Depok students.

2. Independent Sample T Test

The influence of learning media on children with high motivation on student learning outcomes

TABLE 5. Independent Samples 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
HASIL BELAJAR IPA_MT	Equal variances assumed	6,618	,020	2,610	16	,019	7,30994	2,80077	1,37258	13,24730

	Equal variances not assumed			2,610	10,681	,025	7,30994	2,80077	1,12293	13,49695
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Based on the table above, the Sig value is obtained. equal to 0.19 then H0 is rejected. Based on the testing criteria previously mentioned, the conclusion is that H0 is rejected, which means that the results of learning science for groups of students who have high learning motivation and are taught with applied media zoom meetings have a higher result compared to the applied LMS google classroom. This shows that there is an effect of the use of applied media zoom meeting on Science

Learning Outcomes in students with high learning motivation.

The learning outcomes of students with low motivation who are taught using the zoom meeting application media have higher results than the learning outcomes taught with the LMS google classroom applied media in science lessons for fifth grade students of SD Integral Hidayatullah Depok

**3. Independent Samples Test**

**TABLE 6.** Independent Samples 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
HASIL BELAJAR IPA_MR	Equal variances assumed	4,197	,057	2,985	16	,009	4,09357	1,37147	1,18619	7,00095
	Equal variances not assumed			2,985	11,388	,012	4,09357	1,37147	1,08750	7,09964

Based on the table above, the Sig value is obtained. amounting to 0.009 then H0 is rejected. Based on the testing criteria previously mentioned, the conclusion is that H0 is rejected, which means that the results of learning science for groups of students who have low learning motivation and are taught with applied media zoom meetings have a higher result than those taught with the applied LMS google classroom. This shows that there is an effect of the use of zoom meeting Applicative Media on Science Learning Outcomes in students with low learning motivation.

harmoniously so as to improve student understanding and ultimately student learning outcomes will be better. Also with the video conference feature it can control the focus of student learning, in contrast to Google Classroom in the communication aspect, there is only a chat feature so that communication in learning is less effective. Teachers cannot explain directly or students cannot ask questions directly so that online learning is less effective

According to Abuddin Nata (2001: 206) ., The interaction between teachers and students in the scope of learning is the main requirement for the learning process to take place. Educational interactions are interactions that go beyond just the relationship between the giver of knowledge and the prosecutor of knowledge. Educational interactions are interactions full of good values that are built between teachers and students, for example mutual respect between teachers and students in the classroom. According to Sardiman (1986: 8) "the interaction is said to be educational reactions if consciously have a purpose to educate, to lead students toward maturity".

So that with direct interaction / communication using applied media zoom meetings in the learning process will increase student understanding and more controlled learning so that it can improve learning outcomes.

**4. DISCUSSION**

*A. Student learning outcomes taught with the applicable zoom meeting media are higher than the learning outcomes taught with the LMS google classroom applicative media in science lessons for fifth grade students of SD Integral Hidayatullah Depok.*

The results of learning research using applied media zoom meeting on student science learning outcomes were higher than those learned using the LMS Google Classroom Application Media. By looking at the facilities available in the applicable media, zoom meeting, distance learning can be done more interactively, namely by utilizing the features available in the zoom application so that learning can take place more interactive and communicative, students can listen to explanations from the teacher directly so that teacher and student interactions can be carried out optimally and more

4.2. *There is an influence of interaction between applied media and learning motivation on science learning outcomes in grade V SD Integral Hidayatullah Depok*

There is an interaction effect of the selection of Applicative Learning Media and Learning Motivation on Science learning outcomes for Grade V SD Integral Hidayatullah Depok students.

The interaction between the media and learning motivation on learning outcomes can be seen from the zoom feature feature which has facilities to support increased motivation and increased understanding, for example, children with low and high motivation in learning using zoom will receive the same information, namely the share screen of the material and its explanations. , also by zooming in, it will increase students' motivation to learn online in the hope that they can see friends or teachers virtually. As for the features contained in Google Classroom, it is very limited so that children with low motivation will have a very difficult time following the learning because they have to be more independent in carrying out learning and communication with the teacher, which is not necessarily a direct response.

As for student learning motivation, of course it also greatly determines the quality of learning, children with high motivation are certainly very enthusiastic in participating in learning so that it will affect the use of media and of course also affect student understanding and learning outcomes.

*B. The learning outcomes of students with high motivation who are taught with the zoom meeting applied media are higher than the learning outcomes taught with the LMS google classroom applied media in the fifth grade students of SD Integral Hidayatullah Depok.*

Science learning outcomes for groups of students who have high learning motivation and are taught using the Zoom Meeting Application Media are higher than the LMS Google classroom application. This shows that the influence of the Zoom Meeting Applicative Media on Science Learning Outcomes in Students with high learning motivation.

Internal factors are factors that come from within students such as physiological conditions, intelligence, talents, interests, motivation and cognitive abilities. External factors are factors that come from outside the student such as environmental factors and instrumental factors. Motivation is a factor that has a significant influence on learning outcomes (Slameto, 2002). According to Nashar (2004) learning motivation is the tendency of students to carry out learning activities that are driven by the desire to achieve the best possible learning outcomes. Motivation to

learn will encourage enthusiasm for learning in students and vice versa lack of motivation to learn will weaken enthusiasm for learning which will also affect student learning outcomes.

A student who learns without motivation will not get maximum results, it can be seen from the learning activities of students in the class while taking lessons. Student learning activities are very important in determining success in learning. In learning activities, students are required to actively participate in the learning process, it can be seen from the seriousness of paying attention to the teacher's explanation, asking questions about things they do not understand or persistence in doing the assignments given by the teacher. Active learning activities will have a positive influence on students.

According to Ainurrahman (2012), student learning activities that are motivated by learning motivation are a sign that students already have an awareness of themselves to study seriously. One of the real things that can be seen is children who have high learning motivation and learning activities. With high motivation students will be more enthusiastic in participating in learning, especially if the media used is very interesting such as zoom, with features of being able to communicate directly, seeing teachers and friends virtually, also seeing and hearing the material presented by the teacher with share screens, greatly increasing motivation and increasing student understanding.

In contrast, children with high motivation who learn in classrooms will make more effort in understanding the material because they have to open the class, look for material / assignments and understand the material according to the file attached by the teacher. So that students with high motivation who are taught with zoom results are higher than those taught in google classroom

*C. The learning outcomes of students with low motivation who were taught using the zoom meeting applied media were higher than the learning outcomes taught with the LMS google classroom applied media in the fifth grade students of SD Integral Hidayatullah Depok.*

Science learning outcomes for groups of students who have low learning motivation and are taught using the Zoom Meeting Application Media are higher than the LMS Google classroom application. This shows that there is an effect of the use of the Zoom Meeting Applicative Media on Science Learning Outcomes in students with low learning motivation.

Motivation to learn will have an influence on student activities in following the learning process. low learning motivation, the learning activity will be low, and collectively affect learning outcomes.

Student learning outcomes with low motivation are also largely determined by the online media used.

For students with low motivation, if it is learned with zoom with facilities that are more supportive of communication in learning, it will be better, with the video conference feature it will require students to stay focused on learning and be controlled, with the share screen feature requires students to see and understand the material, of course with the mic feature which is the most dominant means of communication.

It is different if learned with Google Classrom, students with low motivation will find it very difficult to be able to follow the learning, because they have to be independent, both starting to open classes, looking for material, understanding material, also doing assignments independently without direct control by the teacher. So that the learning outcomes of students with low motivation who are learned with zoom are higher than with google classroom

## 5. CONCLUSION

SD Integral Hidayatullah Depok, which is taught using the Applicative Media zoom meeting, has a higher result than students who are taught with the application LMS Google classroom. There is a significant interaction effect on the selection of learning media and learning motivation on the learning outcomes of Class V SD Integral Hidayatullah Depok.

Science learning outcomes of Class V SD Integral Hidayatullah Depok for highly motivated students who are taught using the Zoom Meeting Application Applicative Media, namely the results are higher than students using the LMS google classroom application media. The learning outcomes of Class V SD Integral Hidayatullah Depok for students who have low motivation who are taught using the Zoom meeting Applicative Media are higher than students who are taught with the LMS Google classroom applied media.

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