

# The Role of Meeting Applications in Improving Student Productivity and Health Management amid Corona Virus Pandemic

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**Abstract** The purpose of this study is to look at the role of meeting zoom applications in improving productivity and health management of students in the midst of the corona or covid-19 virus pandemic in Bogor City. The study was conducted with a study population of 260 and a sample selection of 160 students spreading across several universities. This research uses a quantitative approach with a path analysis method. The results showed that: (1) The use of meeting applications such as zoom can increase student productivity so that insight and space can be free. (2) The use of meeting applications such as zoom used by students can narrow the spread of the corona virus because students minimize outdoor activities. (3) The role of meeting applications using zoom emphasizes cost, energy and time but does not reduce the essence of science obtained by a student. Even students can conduct a deeper study of the science. The results showed that the use of the meeting zoom application has a positive influence on productivity with the Sobel test results of 0.087 with a p value of 0.072.

**Keywords** Meeting Application, Zoom, Productivity, Covid-19

## 1. Introduction

Lately, the world of education has been in the spotlight and warm conversation among the people, the article is experiencing a vacuum for a while due to the worldwide corona virus outbreak. Several announcements were issued to prevent the spread of the virus that was attacking the Indonesian state, especially the city of Bogor for some time.

Sometimes in daily activities among students encounter many obstacles in communication even for office workers or lecturers who must be demanded by professionals to work, in any case they must continue to carry out their duties. Teaching and learning activities through online or online systems are currently being intensive, implemented by schools and colleges in the days of the corona virus outbreak. In addition to experiencing difficulties in the slow internet network, it also fails to understand students about the material given by lecturers to students. In my opinion about the presence of online lectures many students do not understand the material and if they want to ask questions are not free because the slow network makes communication between students not run smoothly (Kompas, 2020).

Sometimes students have difficulty in communicating because there is no internet quota of course, students miss the information and assignments given by the lecturer and many cannot be pursued according to the targets set by the lecturer. The advantage of online tuition is unlimited learning, although basically a student must continue to study wherever and whenever and students must also be on time.

The corona virus crisis has eased millions of sources of income in the world, but not with Eric Yuan. Eric Yuan (49) is the founder and CEO of Zoom video conference application. Even before the corona virus became a pandemic that forced people to work and socialize online, Zoom's share price had grown exponentially. Zoom is a cloud computing based video conferencing service. This application allows anyone to meet with other people virtually, whether it's with video calls, voice, or both. Interestingly, all conversations via Zoom can be recorded for later viewing (Edutechno, 2020).

Through Circular (Kemdikbud, 2020) the teaching and learning process is transferred independently in each student's home with a remote model through an online / online system. To respond to distance learning / online learning models, lecturers must master application models that enable distance learning / online learning activities. Of course the application chosen by the lecturer has also been mastered by the students. This is needed so that the learning process runs smoothly. In addition, another problem that needs attention is that students will also find it difficult to consult with lecturers, especially for subjects that are considered to require a deeper explanation and understanding.

According (Bogor, 2020) the role of education using the meeting zoom application has a good effect on increasing children's freedom in the world of learning, especially in the area of Bogor. In Bogor itself, education is the main center in advancing life.

To overcome this, the Zoom Cloud Meetings application is to carry out online / online learning activities that allow teachers to interact more communicatively. Zoom is an application that provides remote conferencing services by combining video conferencing, online meetings, chat, to mobile collaboration. This application is widely used as a medium of long distance communication. Some of the advantages of the Zoom application are: it allows to hold meetings for up to 100 participants, users can send texts while the meeting is in progress, users can schedule meetings via the schedule feature (schedule).

Students can also send screenshots when the meeting takes place to Google Drive, Dropbox or File Box. In addition, Zoom Cloud Meeting can work on Android, iOS, Windows and Mac devices. While the drawback of Zoom is that online activities can only last for 40 minutes. If it takes more than that, the user needs to repeat the process to continue. Carrying out teaching and learning activities with the Zoom Cloud Meeting application turned out to be very

fun. Lecturers become creative, students feel very happy and can be productive in several activities using the zoom application. The most important thing is lecturers and students carry out teaching and learning activities effectively such as teaching activities face to face in class. Parents or guardians of students must also participate in monitoring their children when studying at home. Thus the learning objectives for student productivity can be maintained and achieved so that all are spared from the widespread distribution of the corona virus.

## 2. Theoretical Review

According to (Dewa, 2020) The term "video conference" may already be familiar in your ears. Yes, at present, various agencies that are forced to carry out their activities from home often use video conferencing to stay connected with colleagues or other members. There are various media used to conduct meetings or video conferences, one of which is Zoom Meeting. According to (Zoom, 2020) is an application made by billionaire Eric Yuan, which was released in January 2013. In addition to the application, Zoom can also be accessed via the website, both for Mac OS, Windows, Linux, iOS, and Android. We have begun to feel that Work from Home alias WFH is no longer a habit but has become a culture for those who are fortunate enough to get this opportunity. Although not everyone can feel WFH due to the impact of COVID-19, but at least since April 12, 2020, more than 3.7 thousand companies in the Capital have participated in implementing WFH.

According to (Roblyer, 2011) states that an important issue that is very fundamental is the media zoom can help teachers and students to increase creativity, motivation and provide opportunities for changes in the learning process for the better. Furthermore (Daryanto, 2010) argues that there are several reasons that Prezi zoom media needs to be integrated in learning (1) with the presence of the Prezi zoom media there is a paradigm shift in learning that was initially centered on educators into learning centered on students.

According to (Daryanto, 2012) Productivity is a concept that describes the relationship between the results (the number of goods and or services produced) with the source (the amount of labor, capital, land, energy, etc.) to produce these results.

Understanding productivity is the relationship between inputs and outputs of a productive system. In theory, it is often easy to measure this relationship as the ratio of output divided by input. When more output is produced with the same number of inputs, productivity rises. Likewise, if less input is used for the same number of outputs, productivity also rises (Handoko, 2015).

Understanding productivity according to (Smith, 1995) productivity is the production or output produced in one unit of time for input. Understanding productivity is a concept that shows the relationship between work results

and the unit of time needed to produce the product of a workforce (Revianto, 2005). Understanding productivity as a relationship between tangible and physical results (goods or services) with actual input (Sinungan, 2014).

According to (Alodok, 2020) Coronavirus or corona virus is a large family of viruses that cause mild to moderate upper respiratory infections, such as flu. Many people are infected with this virus, at least once in their lives. Terms relating to COVID-19, 'Social distancing' is just one of many terms related to the Corona virus that emerged in the COVID-19 pandemic. To better understand the terms related to COVID-19, namely Social distancing, Isolation and quarantine, Lockdown, Flattening the curve, Patients under surveillance (PDP) and people in monitoring (ODP), People without symptoms (OTG), Herd immunity, Large-scale Social Restrictions (PSBB).

### 3. Methods

Geographically, Bogor City is located between 106°48' East and 6°26' South East. The geographical position of Bogor in the middle of Bogor Regency and its location very close to the National Capital, is a strategic potential for economic development and growth and services, national activity center for industry, commerce, transportation, communication and tourism. Bogor City has an average height of at least 190 m and a maximum of 330 m above sea level.

Bogor City's area is 11,850 Ha, consisting of 6 districts and 68 villages. Then administratively, the city of Bogor consists of 6 sub-districts, 31 sub-districts and 37 villages (five of which include underdeveloped villages namely Pamoyanan, Genteng, Balungbangjaya, Mekarwangi and Sindangrasa) villages, 210 hamlets, 623 RW, 2,712 RT and surrounded by Bogor Regency. From the wide area of Bogor, there are several classy campuses inside, namely the Bogor Agricultural Institute, Ibn Khaldun University, Pakuan University and others.

The method used in this research is quantitative, according to (Sugiyono, 2015) states that data collection techniques are the most important step in research, because the main purpose of research is to obtain data. In this research paper used for data collection techniques which is using a questionnaire used to collect data into information and documentation used to record all research activities in the field.

According to (Sugiyono, 2015) "in quantitative research, data analysis is an activity after data from all respondents has been collected. Where the activities in data analysis are: grouping data based on variables and types of respondents, tabulating data based on variables from all respondents, presenting data for each variable studied, doing calculations to answer the problem formulation, and doing calculations to test hypotheses that have been proposed.

In order to obtain these data, the first thing to do is

determine the study population so that this research gets clarity about the research subject.

According to (Cohen, 2007) the greater the sample from the size of the population is getting better, but there is a minimum limit that must be taken by researchers that is as many as 30 samples. As stated by Baley in (Mahmud, 2011) which states that for studies using statistical data analysis, the minimum sample size is 30.

The respondents involved were 230 people with a sample of 160 people carried out in the city of Bogor, the data collection techniques used in this study were online questionnaires, conducting observations and surveys, and doing documentation, while analyzing the data used for this study is descriptive analysis and inferential analysis. Descriptive analysis is used in terms of data presentation, central size and size of distribution. Descriptive data analysis can be used in the form of distribution tables and histograms. The central size is the mean, median and mode. The size of the spread is the standard variance and deviation.

### 4. Discussion and Analysis

The results of the calculation of productivity data obtained from 160 respondents (n = 160) students in the city of Bogor who use the zoom meeting application obtained a maximum score of 139, a minimum score of 56, a range of 83, with a total score of 16,445 and a class length (p) of 10, while averaging 102.78, median 98, mode 99 and standard deviation 8.063. Based on these data a frequency distribution list is prepared which is presented in the following table:

**Table 1.** Productivity Score Frequency Distribution Table (Y)

Class	Class Interval	F Absolut	F Relatif (%)	F Kumulatif (%)
1	55.5 – 65.5	1	0,63	0.63
2	65.5 – 75.5	1	0,63	1.26
3	75.5 – 85.5	2	1,25	2.51
4	85.5 – 95.5	14	8,75	11.26
5	95.5 – 105.5	88	55,00	66.26
6	105.5 – 115.5	49	30,63	96.88
7	115.5 – 125.5	4	2,50	99.38
8	125.5 – 139.5	1	0,63	100.00
Total		160	100.00	100,00

Through the frequency data above, it can be seen that as many as 55% of respondents are in the average group, 0.63% of respondents are above the average group and 11.26% of respondents are below the average group. Based on the frequency distribution data according to table 1 above, it can be presented in the form of a histogram or bar chart as follows:

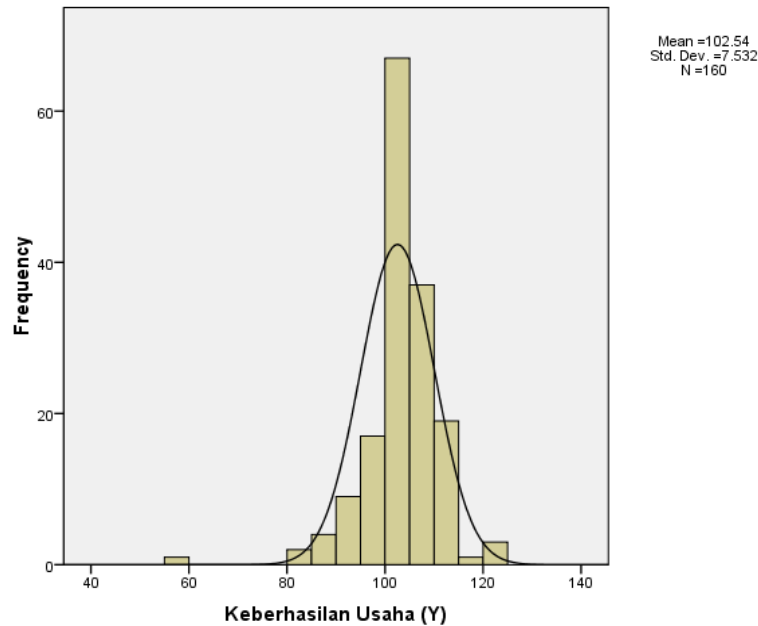


Figure 1. Image Histogram Frequency Student Productivity Data

Productivity is the production or output produced in an activity in units of time in the activities carried out by students. Respondents' perceptions about business success are shown in the following table:

Table 2. Frequency / Percentage Table of Productivity

Indicator	Respondent Answer Score										Mean
	1		2		3		4		5		
	f	%	f	%	f	%	f	%	F	%	
Y11	0	0.0	0	0.0	2	1.2	114	71.2	44	27.5	4.26
Y12	0	0.0	1	0.6	0	0.0	126	78.8	33	20.6	4.19
Y13	0	0.0	1	0.6	9	5.6	138	86.2	12	7.5	4.01
Y14	1	0.6	1	0.6	1	0.6	135	84.4	22	13.8	4.16
Y15	0	0.6	1	0.6	4	2.5	121	75.6	34	21.2	4.18
Mean Productivity											4.16

The table above shows the answers of each respondent generally agree that productivity can be maintained even increased amid corona or covid-19 viruses at this time by using meeting applications such as zoom. This means that productivity will be realized by setting targets and developing capabilities even in the midst of the corona virus.

Based on the results of the analysis of the validity and reliability of research variables using the SPSS program, it shows that the validity and reliability testing of the questionnaire instruments is carried out to ensure that the research instruments used are accurate and reliable, and can be relied upon when used as a tool in data collection.

Testing the validity of a questionnaire instrument can use the SPSS statistical method. The results of data processing, the results are obtained that in general the average questionnaire instrument is very valid. This is indicated by the value of *r* Product Moment *r* table greater than 0.170 (valid). Provisions on the validity of an

instrument have met the minimum requirements of 0.170 as an instrument that is considered valid. For clarity, a summary of the validity test results can be seen in the validity test table.

Table 3. Summary Table of Validity Test Results

Instrumen Penelitian	Pearson Correlation	<i>r</i> Product Moment <i>r</i> tabel	Keterangan
Y11	0.558	0.170	Valid
Y12	0.539	0.170	Valid
Y13	0.721	0.170	Valid
Y14	0.617	0.170	Valid
Y15	0.639	0.170	Valid

To test reliability is done by using the Reliability Coefficient (Cronbach Alpha). The reliability test results of the questionnaire instruments as contained in appendix 6 can be summarized in the following Table:

**Table 4.** Summary Table of Test Results of Reliability

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
y11	66.31	14.581	.259	,820	.859
y12	66.38	14.690	.247	,592	.858
y13	66.57	14.838	.276	,092	.858
y14	66.46	15.256	.235	,144	.863
y15	66.40	14.694	.253	,676	.861

Based on the table above, it shows that the alpha value of the research instrument on each variable is greater than the required value, which is 0.60 or greater than 0.60. Thus, the overall questionnaire instrument in this study is reliable because it has met the minimum requirements.

The results showed that the use of the meeting zoom application has a positive influence on productivity with the Sobel test results of 0.087 with a p value of 0.072. This finding gives a meaning that productivity for students can still be maintained well even increasing in the midst of the corona virus or covid-19 at this time.

## 5. Conclusions

Based on the results of the analysis of the above research it can be concluded as follows:

1. The use of meeting applications such as zoom can improve student productivity management so that insight and space can be free
2. The use of meeting applications such as zoom can improve health and prevent students from contracting the corona virus
3. the use of meeting applications such as zoom used by students can narrow the spread of the corona virus because students do minimize outdoor activities
4. The role of meeting applications using zoom emphasizes cost, energy and time, but does not reduce

the essence of science obtained by a student, even students can conduct a deeper study of the science

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