THE EFFECT OF DIGITAL GAP IN THE PANDEMIC SITUATION (CASE STUDY: HIGHER EDUCATION STUDENTS)

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ABSTRACT

The digital gap is one of the factors that could interrupt the learning process in the higher education institution. Both internal and external factors have large impact on higher education students. Since many students' inability to learn with new learning process, that is not affected by their competence or skills, but by their inability to use the required technology. In accordance with the current pandemic situation, it prompts the organization to transform its business process more technology savvy, including in the higher education institution as an organization that responsible to educate student. The phenomenon of Covid 19 pandemic drives many studies to check the readiness of digital transformation. The most important factor for higher education can adapt with this situation is that they must analyse the current condition to shift into the new digital learning process. Therefore, this study focusses to find out the biggest factor in the scope of digital gaps from student side. This study uses various data description analysis techniques to examine the hypotheses. The result shows that most students encounter problems due to their inability to adapt to certain digital technology tools, and their limited financial capacity seems to affect their learning process. Other data shows that online learning is not as effective as offline learning due to the student's needs to learn both the new digital technology platform and the necessary materials.

Keywords: *Digital, Gaps, Education, Pandemic*

1. INTRODUCTION

The year 2020 is known a year to be full of surprises because in early March 2020, the COVID-19 virus was reported to have started entering the country from Indonesia. Due to the increasing number of COVID-19 cases, the government was forced to act according to prevent the spread of the virus. Apart from Indonesia, this pandemic has also invaded around the world, such as Malaysia, Singapore, Italy, United States of America, etc. This pandemic condition has caused various types of recessions in various sectors of the affected country, such as economy, transportation, entertainment, and even in the education. Since education is one of the sectors most affected by the COVID-19 virus pandemic because all the learning process transform to digital process. In Indonesia, various policies have been implemented for the education sector, that raise many pros and cons among the community.

One of the major policies is that students are no longer allowed to carry out their learning activities in the campus, but rather by Learning from Home. This situation prompt students must use digital technology to accommodate their learning process. Students are forced to adapt using digital technology to carry out their learning activities. With this condition, higher education institution must realize the fact that not all students are able to operate these technologies efficiently. This condition could affect to the student's motivation to learn and hindering them from achieving their maximum academic grade. As students who do not have sufficient knowledge to operate technology, will lag in the implementation of learning. Yet, intellectual ability

is not the only factor that causes this gap, but there are also other factors such as the lack of funds owned by students to obtain digital technology.

The ability to operate the technology can be seen as something that was not mandatory before Indonesia faced a pandemic. However, with the COVID-19 pandemic, the role of technology has become very important and necessary in this current situation. This pandemic seems to force us all to have electronic and digital technologies that can help us carry out our activities. In addition to having, we also need to be able to use these technologies efficiently. This undoubtedly makes people who have never or rarely touched digital technologies distressed, creating a digital divide within society. As not everyone in all regions of Indonesia is digitally literate. The results of calculations by Central Bureau of Statistics show that the scale of technology competence in Indonesia only reaches 4.99 on a scale of 0-10. Due to this occurrence, the this will discuss about the effect of the digital gap towards higher education students in Jakarta, during this pandemic because Jakarta is central of Indonesia, so this area will cover the phenomenon condition that is happened.

2. THEORITICAL BACKGROUND

2.1 Digital Divide

The digital divide is a condition where there is a gap between people who can use and utilize technology for their daily needs, and people who cannot use and take advantage of technology at all. Digital provisions which state that there are people who have and have not used ICT, which is the difference between one individual and another in terms of ownership or access rights to technology, information, and communications [1]. While in different perspective the digital divide initially focused more on gaps in access or ownership of technology, but along with the development of technology, especially the internet, it has changed the terminology of the gap in access or ownership of technology which is the ability to maximize the use of technology, information and communication [2]. Meanwhile, there are four factors that cause the digital divide, which are infrastructure, lack of skills, language content and inefficient use of the internet [3].

Infrastructure is a supporting facility in accessing or utilizing technology. Infrastructure is to be the most crucial factor because individuals who have adequate infrastructure will make the use of this technology easier, compared to those who are not supported by adequate infrastructure. Then, the thing that is also the most influential is the lack of

skills where this factor is related to human resources, because basically only human resources can share technology knowledge with other communities. There are three main aspects which must be considered in the digital divide, include [4].
:
- Infrastructure, which is differences in ability between individuals in obtaining access or Information Communication Technology infrastructures that causes differences in information distribution.
- Skill, which is differences in the ability between individuals in utilizing or using the access and infrastructures that has been obtained.
- Content/Resources, which is the differences between individuals in utilizing the information available after a person can access and use the technology according to their needs.

The problem of digital divide in Indonesia is influenced by the unequal development of communication network infrastructure and regulations in various regions. For example, there are differences in lifestyles between urban and rural communities in developed areas. Urban communities in an already developed area have a higher ability and insight into digital technology than urban communities who live in a less developed area.

Likewise, rural communities in developed areas will have a slightly higher knowledge of knowing how to use digital technology than rural communities in less developed areas. Apart from the uneven infrastructure development, there is another factor that is causes the digital divide problem, namely the lack of human-resource skills. The lack of human-resource skills here can be said to be someone's interest to use digital technology. There are still many people who feel nervous and afraid, that distraught them from using digital technologies such as computers or laptops. Where some of them tries to avoid the risk of damage from their digital technology, as if it's damaged, it will cost a large of money. This shows that human-resource skills on using digital technology, can come from economic disparities and lack of socialization or education on the use of digital technology.

2.2 Student Attitudes Toward Life in the Pandemic Period

After the Minister of Education and Culture issued Circular Number 4 of 2020 concerning the

Implementation of Education in the Coronavirus Disease (COVID-19) Emergency, learning activities were carried out through online using digital technology. The main objective of this regulation is to maintain the health of students and prevent exposure of the virus during the pandemic. The other goal is related to new learning experiences, where online learning activities can provide new and meaningful learning experiences.

The attitude of students towards life during a pandemic can be said to be very burdensome when online learning was first applied. One of the main reasons is due to the unsupported accessibility of learning at home, and the limitations of schools on applying digital technology that causes students to experience difficulties in continuing to carry out learning activities. However, with all the shortcomings previously stated, there are some positive impacts where most students could get new experiences and can carry out new activities by adjusting their life during the pandemic, to increase productivity.

2.3 Learning Outcomes

The teaching and learning process is an activity to implement the curriculum of an educational institution, in order to influence students to achieve predetermined educational goals. Basically, the purpose of education is to lead students to change their behavior, both intellectually, morally, and socially so that they can live independently as individuals and social beings. In achieving these goals, students interact with the learning environment that set it up by the teacher through the teaching process. [5].

Online or distance learning activities still have the same learning procedures, where there is an assessment of the students. Learning outcomes are the abilities students have after receiving learning experiences [5]. Therefore, if the student receives high-quality learning from their teachers, they will improve their cognitive abilities. However, if the student does not understand the learning materials being taught; the student will find it difficult to understand the material.

Understanding the learning materials is very important for students. As the level of understanding received when doing online learning, can influence the academic scores that students will achieve. Although online learning with the use of digital technology can provide as an efficient learning method, there are obstacles that can occur in its implementation.

2.4 Research Hypothesis

Hypotheses are the results estimated from preliminary research which are still presumptive as they still need to be further investigated through the research concerned. Based on the problem formulation and theoretical basis above, the researcher formulates the following problem statement:

- The cause of the digital divide is due to the lack of digital technology accessibility and public knowledge on the use of digital technology.
- Understanding the materials provided from learning activities using digital technology will be difficult for college students in Jakarta area to understand.
- The academic value gained by Jakarta college students will decrease with the implementation of digital technology in learning activities.
- The way to overcome the digital divide among students is by implementing education on the use of digital technology.

3. RESEARCH METHODOLOGY

This study uses quantitative approach to analyze digital gap phenomenon. The quantitative method in this case begins with collect data using survey techniques. In accordance with research method, this study focuses to collect data from the higher education institution students in Jakarta. Moreover, this study also defines the correlation between the existing data and the theoretical basis that this study will explored. So, the output from this research can depict real condition and highly accurate to be generalize.

3.1 Population and Sample

In this research, the population involved as research objects are higher education institution students in Jakarta. Based on higher education database on Minister of Education and Culture's website, researcher found that the population of university-level students in Jakarta reach out 724.088.

The distribution of the population studied and considered to be the representative of the entire higher education institution students in Jakarta. The population of college student in DKI Jakarta is 724.088, and this study will involve 100 people who studied in university that located in Jakarta, as a sample. This number decided based on the Slovin formula with the confidence level is 90% for the number of samples which is 100.

3.2 Research Variables

Research variables are parameter that was determined to obtain information about research problem, which can then be used to draw conclusions [5]. In accordance with this study research problem, the variables classified into the independent variable (X) that consist of digital gap and the dependent variable (Y) that consist of student attitude and learning outcome.

Table 1: Variable of Research

Variables	Indicator	Definition	Literature	Statement
Digital Gap (X)	Gaps in Understanding the Use of Digital Technology	Perceptions of the digital divide between individuals in understanding the use of digital technology	Yohanis Mallisa, 2009. Studi Pengukuran Digital Divide di Indonesia (Sri Ariyanti).	I can understand the use of new digital technology easily and quickly
	Gaps in Using Digital Technology in Learning Activities	Perceptions of the digital divide between each individual in using digital technology to carry out learning activities	Baszlink, 2011. Studi Pengukuran Digital Divide di Indonesia (Sri Ariyanti).	I can use digital technology to carry out learning activities efficiently
	The Gap to Acquire Digital Technology	Perception of gaps between individuals in acquiring digital technology products	Baszlink, 2011. Studi Pengukuran Digital Divide di Indonesia (Sri Ariyanti).	I have sufficient funds to obtain all the digital tools needed to carry out learning activities
Student Attitude Towards Life in thi Pandemic Period (Y)	Attitudes Toward Learning Activities using Digital Technology	The impression of a student in learning using digital technology	Ali Mustofa, 2020. Online Learning di Tengah Pandemi Covid-19.	I feel more productive in carrying out learning activities using digital technology
	Attitudes Toward the Application of Digital Technology Education	The impression of a student on the implementation of digital technology education	Susilahudin Putrawangsa & Uswatun Hasanah, 2018. Integrasi Teknologi Digital Dalam Pembelajaran Di Era Industri 4.0.	I feel that the application of education in using digital technology is very necessary
Learning Outcomes (Y)	Student Academic Value	The results of academic scores obtained by students through the learning process using digital technology	Siddiqui & Singh, 2016. Pembelajaran Daring Sebagai Upaya Study From Home (SFH) Selama Pandemi Covid 19 (Oktafia Ika Handarini & Siti Sri Wulandari).	I can get good academic scores, through the learning process with digital technology
	Understanding of Learning Materials	The student understanding result of the material from the learning process using digital technology	Siddiqui & Singh, 2016. Pembelajaran Daring Sebagai Upaya Study From Home (SFH) Selama Pandemi Covid 19 (Oktafia Ika Handarini & Siti Sri Wulandari).	I can understand the learning material provided well, through learning process using digital technology

3.3 Data Analysis Technique

The data collection technique in this study uses the questionnaire method. With this method, the interviewer can ask questions to many respondents in an effective way. The sampling method of this research is the Snowball Sampling. We use this method because the respondents are hard to find during pandemic situation. We cannot meet our respondents directly. Therefore, with this method the respondent will recruit other participant to join in this study as respondent. After that, we analyze the data that was acquired by ensuring first that all the data from the theoretical basis required have been obtained properly.

To calculate the proportional sample size of a population, with unknown behavior certainty, this study uses the Slovin formula, which is as follows:

$$n = \frac{N}{1 + Ne^2}$$

Description:

n = sample size
N = population size
e = error tolerance

By using the Slovin formula, researchers can determine the number sample size based on the error rate / margin of error. The number of population students in Jakarta are 724.088. Based on the Slovin formula with the confidence level is 90% we got the number of samples is 100. Therefore, this study will involve 100 students who studied in university that located in Jakarta, as a sample.

3.3.1 Validity Test Formula

To measure whether a questionnaire is valid or invalid, this study uses the validity test formula, which is as follows:

r count > r table

The formula for r count:

$$r_{xy} = \frac{n\sum_{i=1}^{n} x_i y_i - \sum_{i=1}^{n} x_i \sum_{i=1}^{n} y_i}{\sqrt{\left(n\sum_{i=1}^{n} x_i^2 - \left(\sum_{i=1}^{n} x_i\right)^2\right)\left(n\sum_{i=1}^{n} y_i^2 - \left(\sum_{i=1}^{n} y_i\right)^2\right)}}$$

Table 2: R Table to determine significant level for validity test.

N	5%	1%	N	5%	1%	N	5%	1%
3	0,997	0,999	27	0,381	0,487	55	0,266	0,345
4	0,950	0,990	28	0,374	0,478	60	0,254	0,330
5	0,878	0,959	29	0,367	0,470	65	0,244	0,317
6	0,811	0,917	30	0,361	0,463	70	0,235	0,306
7	0,754	0,874	31	0,355	0,456	75	0,227	0,296
8	0,707	0,834	32	0,349	0,449	80	0,220	0,286
9	0,666	0,798	33	0,344	0,442	85	0,213	0,278
10	0,632	0,765	34	0,339	0,436	90	0,207	0,270
11	0,602	0,735	35	0,334	0,430	95	0,202	0,263
12	0,576	0,708	36	0,329	0,424	100	0,195	0,256
13	0,553	0,684	37	0,325	0,418	125	0,176	0,230
14	0,532	0,661	38	0,320	0,413	150	0,159	0,210
15	0,514	0,641	39	0,316	0,408	175	0,148	0,194
16	0,497	0,623	40	0,312	0,403	200	0,138	0,181
17	0,482	0,606	41	0,308	0,398	300	0,113	0,148
18	0,468	0,590	42	0,304	0,393	400	0,098	0,128
19	0,456	0,575	43	0,301	0,389	500	0,088	0,115
20	0444	0,561	44	0,297	0,384	600	0,080	0,105
21	0,433	0,549	45	0,294	0,380	700	0,074	0,097
22	0,423	0,537	46	0,291	0,376	800	0,070	0,091
23	0,413	0,526	47	0,288	0,372	900	0,065	0,086
24	0,404	0,515	48	0,284	0,368	1000	0,062	0,081
25	0,396	0,505	49	0,281	0,364			
26	0,388	0,496	50	0,279	0,361			

N = 100
Significant rate = 5%

The result shows that all variables are valid to be involved in this research.

3.3.2 Cronbach Alpha Reliability Test Formula

To find out how much the degree of the test consistently measures the target, this study uses the Cronbach Alpha reliability test formula, which is as follows:

$$r_{11} = \left[\frac{n}{n-1}\right]\left[1 - \frac{\sum S_i^2}{S_t^2}\right]$$

This study set the criteria of the reliability, in which the instrument will have a high level of reliability if the coefficient value obtained is > 0,60 [7].

After performing calculations using the Cronbach Alpha reliability test formula, this study found that the questionnaire has a highly reliable level of reliability. The criteria for an instrument that has a high level of reliability, if the coefficient value obtained is > 0,60. The result shows that all variables are reliable to be involved in this research.

4. RESEARCH DISCUSSION

The first step to check the instrument that this study use is suitable to analyze the phenomenon, we ask some sample to involve in the readability test. The objective of this test is to determine the effectiveness of the sentences used on each questionnaire item, which would minimize errors that may occur and different perspective from respondents. In this study, we conducted a readability test of our online questionnaire, which will be distributed to higher education institution students in Jakarta. [8]. The result of readability test shown on Fig 1.
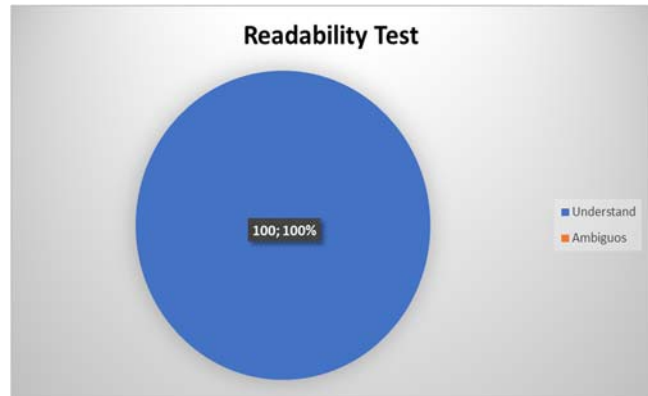

Figure 1: Readability Test

The readability test of this research questionnaire was carried out by distributing questionnaires to 8 students aged between 17 and 21. Based on the results of the readability test, all respondents who were distributed to the questionnaire understood every sentence contained in it, and no ambiguous questions were observed by the respondents.

4.1 Respondents Demographics

From the results of our research questionnaire distributions, there were 108 respondents who answered the questionnaire. Here is the descriptive demography from our respondents.

4.1.1 University

According to the data collection that was distributed using online questionnaire shows that the results of the respondent profile that can be seen on Table 3:

Table 3: Distribution of University Table

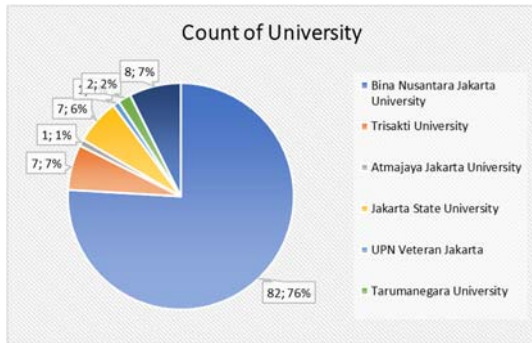| University	Count
Bina Nusantara Jakarta University	82
Trisakti University	7
Atmajaya Jakarta University	1
Jakarta State University	7
UPN Veteran Jakarta	1
Tarumanegara University	2
Others	8
Total	**108**

Figure 2: Demography based on university.

Based on the results of the research questionnaire distributions, most respondents came from six universities in Jakarta. Meanwhile, there were also other respondents who were students from universities outside Jakarta valued at 7% (8 respondents) because this study only focuses the respondents from Jakarta areas, so the respondents that are not suitable with the criteria cannot answer the next questionnaire question, and the respondent's data will be took out from the calculation.

According to the data collected, most respondents who answered the questionnaire came from Bina Nusantara University, with a value of 76% (82 respondents). While respondents from

Age	Count of Age
<17 years	2
17-21 years	103
22-30 years	3
Total	**108**

Universitas Negeri Jakarta with a number of 6% (7 respondents), and Trisakti University with a number of 7% (7 respondents) rank as the second highest respondent score.

Meanwhile, respondents from Atmajaya Jakarta University, which amounted value of 1% (1 respondent) and UPN Veteran Jakarta, which amounted value of 1% (1 respondent), had the lowest respondent scores on the research questionnaire.

4.1.2   Gender

According to the result distributed research from questionnaire, this study gets the results of the respondent gender profile on Table 4.:

Table 4: Gender Profile

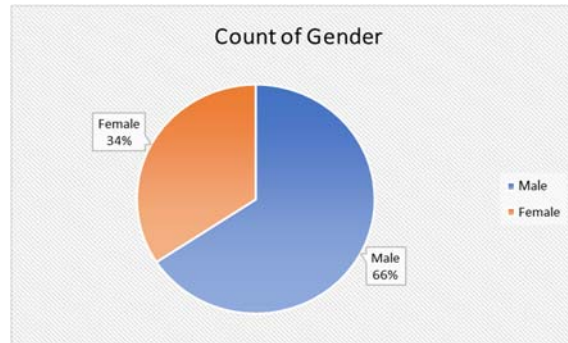| Gender	Count of Gender
Male	71
Female	37
Total	**108**

Figure 3: Gender Profile

According to the results from questionnaire distributions, the most of respondents who answered our research questionnaire were male with the number of 66% (71 respondents), then female respondents only accounted with the number of 34% (37 respondents).

4.1.3   Age

According to the distributed result of questionnaire based on age can be seen on Table 5.
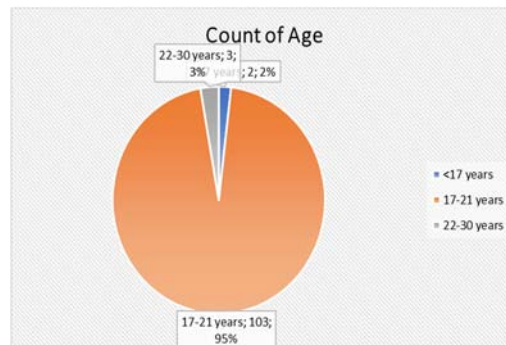
Table 5: Age Profile

Figure 4: Age Profile

Based on the results of the research questionnaire distributions, the majority of respondents who answered the research questionnaire had an age between 17 and 21 years, with the value of 95% (103 respondents). Meanwhile, respondents under 17 years of age had the lowest respondent score with the value of 2% (2 respondents).

4.2 Survey Results

According to the results of the questionnaire distribution, there are 100 respondents of higher education institution students from

universities located in Jakarta, who answered each question of the research questionnaire validly.

Based on the results of the distributed questionnaire, the result shows that the following respondent opinions:

4.3.1 Indicator A1

Table 6: Descriptive of Indicator A1

| I can understand the use of new digital technology easily and quickly	
Mean	3,5
Median	4
Mode	4
Standard Deviation	0,594588
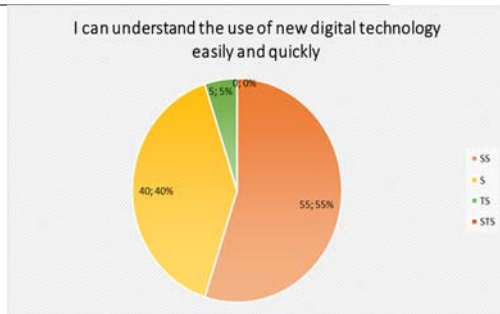
Figure 5: Descriptive of Indicator A1

Based on the data obtained from 100 respondents answers to the A1 question, it was found that 55 respondents (55%) answered strongly agree, and as many as 40 respondents (40%) answered agreed. Meanwhile, only five respondents (5%) answered that they do not agree if they could understand the use of new digital technology easily.

According to the results of this data, the researchers concluded that most higher education institution students in Jakarta have a high ability to understand the use of new digital technology easily.

4.3.2 Indicator 2

According to the results of the distributed research questionnaire, this study analyzes the indicator A2. The following results from indicator question A2, that can be seen on Table 7.

Table 7: Descriptive of Indicator A2

I can use digital technology to carry out learning activities efficiently	

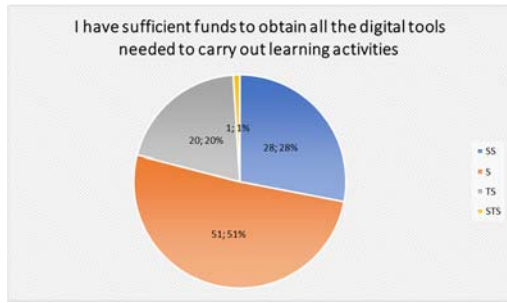| Mean	3,41
Median	4
Mode	4
Standard Deviation	0,697687
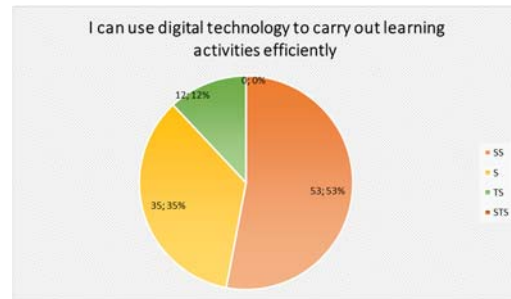
Figure 6: Descriptive of Indicator A2

Based on the data obtained from 100 respondents answers to the A2 question, it was found that 53 respondents (53%) answered strongly agree, and as many as 35 respondents (35%) answered agree. Meanwhile, only 12 respondents (12%) answered that they disagreed if they could use digital technology on carrying out learning activities efficiently.

From the results of this data, the researchers concluded that the majority of college students in DKI Jakarta can use digital technology on carrying out their learning activities, with high efficiency.

4.3.3 Indicator A3

According to the results of the distributed research questionnaire, this study analyzes the indicator A3. The following results from indicator question A3, that can be seen on Table 8.

Table 8: Descriptive of Indicator A3

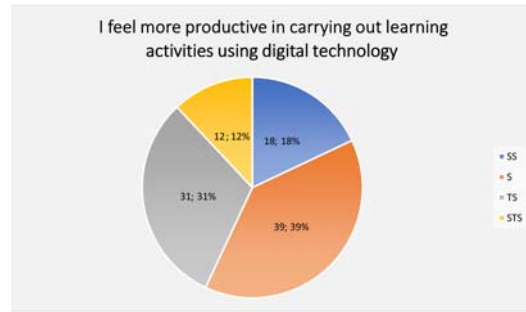| I have sufficient funds to obtain all the digital tools needed to carry out learning activities	
Mean	3,06
Standard Error	0,072223
Median	3
Mode	3
Standard Deviation	0,72223

Figure 7: Descriptive of Indicator A3

Figure 8: Descriptive of Indicator B1

Based on the data obtained from 100 respondents answers to the A3 question, it was found that 28 respondents (28%) answered strongly agree, and as many as 51 respondents (51%) answered agree. Meanwhile, only 20 respondents (20%) answered disagree, and 1 respondent (1%) answered strongly that they disagreed if respondents had sufficient funds to obtain all the digital technology needed to carry out educational activities.

From the results of this data, this study concluded that the majority of higher education institution students in Jakarta have sufficient funds to acquire all the digital technology needed to carry out learning activities. Even though, there are still some students who do not agree with having funds to acquire digital technology.

4.3.4   Indicator B1
According to the results of the distributed research questionnaire, this study analyzes the indicator B1. The following results from indicator question B1, that can be seen on Table 9.

Table 9: Descriptive of Indicator B1

I feel more productive in carrying out learning activities using digital technology	
Mean	2,63
Median	3
Mode	3
Standard Deviation	0,917341

Based on the data obtained from 100 respondents answers to the SP1 question, it was found that 18 respondents (18%) answered strongly agree, and as many as 39 respondents (39%) answered agree. Meanwhile, there were 31 respondents (31%) who answered disagree, and as many as 12 respondents (12%) who answered strongly disagree if they felt more productive in carrying out learning activities using digital technology.

From the results of this data, this study concluded that most college students in DKI Jakarta felt productive in using digital technology, to carry out learning activities. Even so, there are some students who disagree and feel less productive in carrying out learning activities using digital technology.

With the low level of digital gap among college students in DKI Jakarta, the results of this data can be said to be in accordance with our hypothesis, where the higher the level of digital gap, the students will be affected and feel less productive in using digital technology.

4.3.5   Indicator B2
According to the results of the distributed research questionnaire, this study analyzes the indicator B2. The following results from indicator question B2, that can be seen on Table 10.

Table 10: Descriptive of Indicator B2

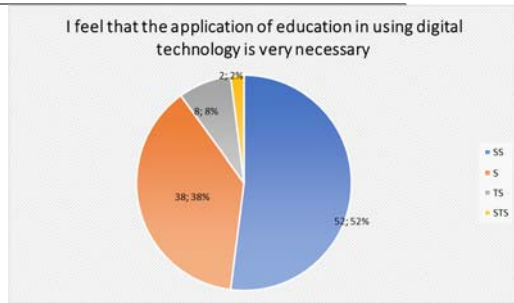| *I feel that the application of education in using digital technology is very necessary*	
Mean	3,4
Median	4
Mode	4
Standard Deviation	0,724743

Figure 9: Descriptive of Indicator B2

Based on the data obtained from 100 respondents answers to the B2 question, it was found that 52 respondents (52%) answered strongly agree, and as many as 38 respondents (38%) answered agree. Whereas there were only 8 respondents (8%) who answered disagree, and as many as 2 respondents (2%) who answered strongly disagree if they felt that the implementation of education in using digital technology is needed.

From the results of this data, the researcher concluded that the majority of college students in Jakarta agreed that the implementation of education in using digital technology is necessary. The results of this data are in accordance with our hypothesis, where one way to overcome the digital divide is by implementing education on the use of digital technology.

4.3.6 Indicator C1

According to the results of the distributed research questionnaire, this study analyzes the indicator B2. The following results from indicator question B2, that can be seen on Table 11.

Table 11: Descriptive of Indicator C1

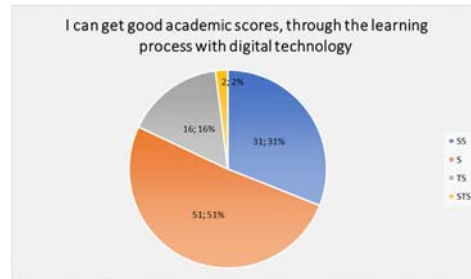| I can get good academic scores, through the learning process with digital technology	
Mean	3,11
Median	3
Mode	3
Standard Deviation	0,737111

Figure 10: Descriptive of Indicator C1

According to the result obtained from 100 respondents answers to the HP1 question, it was found that 31 respondents (31%) answered strongly agree, and as many as 51 respondents (51%) answered agree. Meanwhile, there were 16 respondents (16%) who answered disagree, and as many as 2 respondents (2%) who answered strongly disagreed if they could get good academic scores, through the learning process with digital technology.

From the results of this data, the researcher concluded that the majority of college students in DKI Jakarta can fairly achieve high academic scores in their educational activities.

With the low level of digital gap among college students in DKI Jakarta, the results of this data can be said to be in accordance with our hypothesis, where the higher the level of the digital gap, the college students will be affected and receive poor academic scores when using digital technology in their educational activities.

4.3.7 Indicator C2

According to the results of the distributed research questionnaire, this study analyzes the indicator C2. The following results from indicator question C2, that can be seen on Table 12.

Table 12: Descriptive of Indicator C2

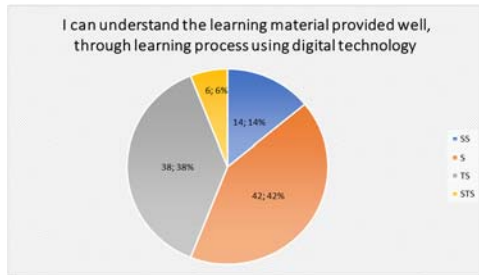| I can understand the learning material provided well, through learning process using digital technology	
Mean	2,64
Median	3
Mode	3
Standard Deviation	0,797977

Figure 11: Descriptive of Indicator C2

Figure 12: Descriptive of Suggestion

Based on the data obtained from 100 respondents answers to the C2 question, it was found that 14 respondents (14%) answered strongly agree, and 42 respondents (42%) answered agree. Meanwhile, there were 38 respondents (38%) who answered disagree, and as many as 6 respondents (6%) who answered strongly disagree if they could understand the learning material provided well, through the learning process with digital technology.

From the results of this data, the researcher concluded that most college students in Jakarta can understand the learning material provided well, through the learning process with digital technology. Even so, there are some students who disagreed and do not understand the material provided through the learning process using digital technology.

With the low level of digital gap among college students in Jakarta, the results of this data can be said to be in accordance with our hypothesis, where the higher the level of the digital gap, the college students will be affected and will not understand well the material given using digital technology.

Yet, there are still some students that do not understand the learning materials well, even with the low-level digital gap among college students in Jakarta. Which means a solution is still needed to be implemented in the current learning system, to further increase college student understanding of the materials provided, through the use of digital technology.

4.3.8 Respondents Suggestions

According to the results of the distributed research questionnaire, this study analyzes the suggestion. The following results from indicator question that ask suggestion, that can be seen on Fig. 12.
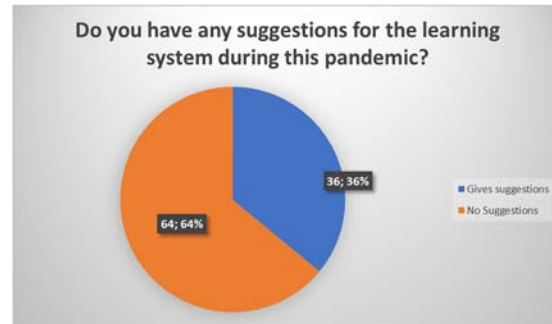
Based on the data obtained from 100 respondents that answer the questionnaire, it was found that 36 respondents (36%) issued their suggestions on the current learning system in the pandemic, while as many as 64 respondents (64%) did not provide any advice or recommendations on the learning system. Some general suggestions and recommendations given by higher education institution student respondents such as:

- Do lectures class partially, because not all topics can be delivered online, so if there is some topics need to be detailed in the class, higher education institution have to prepare for that condition.
- Reducing the number of assignments, as well as avoiding accumulation of online class hours and listen to the student when students have questions and answers with the lecturers.
- Creating an attractive and more structured lecturing system, so that lecturers and students can better understand the learning materials.
- Provide recording lessons to students who are not present in the online meeting.

According to these suggestions given by the respondents, this study recommends implementing these suggestions into the current learning system, so that students can be more efficient and understand the learning materials provided through digital technology.

5.   CONCLUSION

According to the research that was carried out, this study concluded that higher education institution students in Jakarta, have a low level of digital gap. Which affected the college students to still having a positive attitude towards the learning system during the pandemic and they can still achieve high academic scores. Even though, some solutions still need to be applied to the learning system during the pandemic, in order to drives students, become more productive and active in the

learning process that provided well through the use of digital technology.

Moreover, online learning system can be a solid solution in the midst of the pandemic situation, based on data obtained by this research. The government and educational institutions have to improve the quality of learning for the education system that is run at the online learning systems. Observing at some of the suggestions that have been given by respondents when conducting the survey, students expect a more interesting and attractive online learning system using digital technology. Some respondents also suggest that educational institutions can make good use of the online learning situation, by providing videos from the lectures that have been carried out, so that students who were previously unable to attend or they have some trouble to do online, they could still follow the learning process happened, even though the attendance status would still be counted as excluded.

In addition, based on the results of the research survey, the researchers observed that the answers of the respondents to the statement regarding the understanding of the learning materials, do not show a highly good result. The researchers hoped that this can become a consideration for educational institutions, to provide a more effective learning methods when implementing online learning, in this current pandemic condition.

The limitation of this research, due COVID-19 pandemic currently still ongoing, this study face limitations on conducting research surveys. The data only can be collected through the internet / online media. According to this situation, the data collection cannot widen the distribution area, as respondents can only accept and fill out the research questionnaire through the internet, so the result of survey only gain 108 respondents.

This study also faces limitations in carrying out more effective discussions with group members, due to the pandemic condition that cannot allow the researchers to meet in person, but only using digital technology and tools. We hope for the future research can be completed or validated this result according to the same condition.

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