

The Contribution of Online Assistance for Student Learning Outcome During Distance Learning to The Technical Drawing Subject at Public Vocational High School 6 (PVHS 6) in Bandung

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Abstract – The Minister of Education and Culture of the Republic of Indonesia has issued a Circular Letter Number 4 of 2020 concerning the Implementation of Education Policy in the Emergency Period of Coronavirus Disease (Covid-19) that teaching and learning activities are carried out from home. Learning in distance is a solution from the government to execute learning activities then they can continue to run during the pandemic period, by utilizing the online media. Distance learning also occurs in productive subjects in vocational high schools, such as technical drawing subject. The technical drawing subject during distance learning is limited by time, even though this technical drawing subject requires a very long time because it requires quite high accuracy. Thus online assistance became one of the solutions to guiding students outside the technical drawing hour's lesson during distance learning through online media such as computer, television, radio, telephone, internet, video, etc. Assistance usually with face-to-face, one of its aims is helping the learning process of students who are having difficulty of understanding the material and build students to achieve the learning goals, but during distance learning assistance is carried out online. The obstacles found in the online assistance, they are the students' devices, teachers' communication with students, teachers are difficult to drawing checking, and students are difficult to understand the material. The method used in this research is a quantitative descriptive method with a number of samples is 46 involve the class of first grade students in Modeling and Building Information Design Program (MBID) at PVHS 6 in Bandung. Data collection techniques use two ways, they are questionnaire techniques with a 39 number of questions grains on online assistance variables and documentation techniques on learning outcomes by referring to student's value on the task of the technical drawing subject. Before data analysis, an instrument test was using the validity and reliability test. Then, perform the analysis of the level of respondents to find out the general description of the variables. Furthermore, data analysis was carried out by the normality test, correlation test, regression test, and hypothesis test. The results of the research obtained were known that the achievement level of online assistance with fairly good category. Also the achievement level of students learning outcome with fairly good category. While the acquisition of online assistance contribution to learning outcomes is 9% by determination analysis and the correlation coefficient is equal to 0.300 which means the relationship category is weak. Therefore, the hypothesis (H_a) is accepted, there are positive contributions between online assistance to learning outcomes.

Keywords – Online Assistance, Technical Drawing, Learning Outcome, Distance Learning.

Introduction

Minister of Education and Culture of the Republic of Indonesia has issued a Circular Letter Number 4 of 2020 concerning the Implementation of Education Policy in the Emergency Period of Distribution of Coronavirus Disease (Covid-19) that teaching and learning activities are carried out from home. This is a challenge especially for the education world because many schools are closed and it has an impact on teaching and learning activities. Even though, teaching and learning activities must continue properly to achieve the learning goals. Distance learning is a solution from the government to carry out learning activities in order that can continue during this pandemic period. Distance learning is executed through learning media by an institution or individuals without direct face to face between teachers and students, but the communication still in two ways between students and teachers by media such as computer, radio, television, telephone, video, internet, etc. (Munir, 2009).

Online learning media are one of the media that become an alternative to perform distance learning process (Handarini & Wulandari, 2020). The distance learning that centered on online media, it is expected that the material remains well, because the learning process will greatly affect the quality of learning and student learning outcomes (Saputra, 2015). Thus, educator creativity is an important point to build student participation during the learning process, because with interaction between students and teachers in bilateral will create an interactive learning atmosphere, because one of the factors that influence the achievement of learning goals is the interaction of teachers and students Intensively (Meilani, 2015).

The research by Zhang et al (2004) proved that internet usage and technology can be an alternative to transferring knowledge between teachers and students. With the utilization of online learning media, it can be a solution for teachers to be able to maximize the learning process during distance learning, indeed the technology utilization makes the teacher can reach students in various places only by networking, if the classroom is limited by space and time (Munir, 2009). But, the success of online learning media depends on students learning process. According to Rohmah (2016) this is influenced by the geographical location of internet users and become one of the psychological factors, it is the readiness of online learning by students.

Technical drawing subject is one of the basic skills that must be owned by students in Modeling and Building Information Design Program at Vocational High Schools. Thus, students are encouraged to understand basics of manual drawing procedures in accordance with the rules or the standard (Juhana, 2012). The technical drawing subject requires a very long time, because it requires very high accuracy, therefore, it takes a long time and requires intensive guidance. Thus, intensive guidance programs are needed for students, such as assistance to facilitate students who are facing difficulties while doing tasks or need a guidance related to this subject.

The assistance program can help students during the learning process, especially in technical drawing subject to solve problems or constraints those are encountered when finishing on the tasks provided by the teacher (Irwansyah, 2016). But, with this critical situation, it makes assistance activities cannot execute directly as usual, thus forced to be online process because distance learning.

Based on the field data, these online learning activities are found obstacles such as difficulties in seeing students learning process and sometimes it difficult when explaining the drawing with online, besides that, the teacher also hard to check the manual drawing with photos, and sometimes teachers are slow response while students need guidance. In addition, based on observations in the field, there are students who cannot perform the online learning due to the limitation of online learning facility, such as the internet quota, it makes the time allocation in each subject is very limited, which is only 45 minutes to explain the material for one meeting in every week, besides that, when the learning activities take place, sometimes an unstable signal makes the explanation is not clear and less understood by students, and the difficulty of discussing or asking questions about the lesson in practice. In fact, according to Corcancy & Alkan (Firman & Rahman, 2020) stated that the use of technology such as mobile devices has a major contribution in the world of education include the achievement of learning goals in distance learning.

From these problems, the researchers raised the issue to be examined by the title "The Contribution of Online Assistance for Student Learning Outcome during Distance Learning to The Technical Drawing Subject at Public Vocational High School 6 (PVHS 6) in Bandung ". This study aims to determine how much contribute of online assistance to student learning outcomes during distance learning in the technical drawing subject in the class of first grade students at MBID PVHS 6 in Bandung.

Literature Review

A. Learning

Learning is a process where someone experiences the change in behavior as a result of his relation experience to his environment (Daryanto, 2010). According to Abdillah in Aunurrahman (2014: 35) learning is a joint venture takes by humans to adapt and experience behavioral changes that include cognition, involvement and psychological problems. Similar to learning, teaching evenly is a process. The process means here is the process of regulating, organizing students with their environment, growing and encouraging students to undergo the learning process. The next teaching stage is the process of providing guidance/ helping students undergo the learning process (Nana Sudjana, 1995: 29). Suryosubroto (2002) continued, the learning process included activities carried out by the teacher who began with planning, implementation and evaluation.

In preparing or planning of learning well, the readiness of all learning's components is an important point in teaching and learning practice and has an impact on the quality of learning. Hamid Darmadi (2009) revealed that the preparation of teaching is the ability taken as a first step that must be owned by the teacher as well as becoming an estuary of insight and knowledge, basic skills and in-depth understanding of learning objects and learning situations. The principles of learning in learning process are 1). learning readiness; 2) motivation; 3) individual differences; 4) attention; 5) activity of students; 6) self-experience; 7) challenging subject's material; 8) repetition; 9) strengthening.

The readiness of the learning component is not only by the teacher, but the readiness of learning must be owned by student as subject in learning. Soejolanto (1991: 5) states that to achieve the success of learning, student should have mature personal readiness in learning. Prayitno (1997: 13) continue, in lesson participation, lesson preparation is that the things that should be considered by students, student self-preparation maturely will be more comprehensive in learning in order to students learning will be easier to concentrate of receiving lessons. In general, it can be concluded that the success of teaching and learning process is determined from the extent of the preparation in each component of learning.

Students can learn well in the learning process, they have a necessary to be fulfilled in learning. These necessities are: 1) healthy physical condition; 2) learning schedules arranged well regularly; 3) obedient and disciplined in self-learning plans that have been scheduled; 4) a comfortable study room; 5) school equipment; 6) conditions of healthy space and do not interfere with learning concentration; 7) learning concentration and can focus; 8) confident of learning Ability (Abu and Widodo, 2004)(Permana et al., 2019). From the statement of expert above, it can be concluded if the learning process is a series of activities that have a function to facilitate students in learning, not only involving the environment but involve the media, methods, and equipment needed to deliver information.

B. Online Assistance

In the learning process, there are various learning methods used to achieve the goals of learning. The methods that suitable for learning process based on the necessities. One of them is the assistance method. Assistance comes from the word assist which means literally having a helpful meaning. In the big Indonesian dictionary as known as KBBI, assistance means a guidance services of accomplish the assignments. While the guidance word takes from English namely guidance which is literally comes from the word guide which means (1) to direct, (2) to pilot, (3) to manage, (4) to steer (Joseph, 2012). Thus the assistance and guidance have the same definition.

Each process performed during the implementation of learning will have an impact on the learning success, thus learning works depends on the student learning process. Therefore, teachers have an important role during the learning process to guide and help students in overcoming learning difficulties. Until the teacher is expected to be able to provide additional teaching actively and effectively in each learning activity, which is the support and motivation intended to encourage student learning spirit (Juantika, 2011). According to Yusuf and Juantika (2011) continue that guidance contains the meaning of providing assistance to students who are gradually implemented and corresponded with each other. The review based on the two statements above, the assistance is a method that is made to support the learning process by helping students who have learning difficulties during the process, by solving problems together for the fluency learning process, that affect the success of assistance similar means to affect the success of learning process.

As for those who influence the success of the learning process, namely as brown (in Sumarwiyah, 2009) such as learning time settings, learning motivation, time settings with other activities, way to learning the material, efforts to find information that supports learning materials, and the test or exam preparation. Whereas according to Irwansyah (2016), as follows: guiding carefully, encouraging students, digging ideas, individual services, student capabilities, time service, identification of student difficulties, learning difficulties, assistance.

Assistance is a learning process which is certainly inseparable from the based learning theory in general. While online assistance is a method of learning guidance carried out by students and teachers by Internet-based media and Learning Management Systems (LMS). This learning method is assisted by several applications, there are Zoom, Google Meet, WhatsApp, etc. (Amaranggana, 2020). The online assistance is designed to enable in learning remotely, with internet intermediaries of guidance activities can be performed without face to face. In other words, this online assistance can be an alternative tutoring through internet access to obtain effective, efficient, and interactive learning assistance services (Enterprise, 2010).

The requirements of the online learning implementation are (1) availability of network (2) tutor's support and services (3) the existence of organizers/ managers (4) the positive attitude of students and teachers (5) the learning system's design (6) the existence of a system evaluation (Wena, 2009: 212). Thus the implementation of online learning can certainly be implemented if the entire component is ready. Vosloo & Belle (2009) revealed that online learning readiness is a condition where someone has mental, physical and material readiness to access technology and internet networks during the learning process. It is unidirectional with a statement raised by Setiaji & Dinata (2020) which revealed that online learning readiness was determined by a person's ability to use technology and the internet in teaching and learning activities.

There are several readiness factors for online learning implementation those are seen in elementary and secondary schools, according to Teddy & Swatman (2006) these factors include student readiness. To be able to observe student readiness in online learning, those are: 1) students know online learning (e-learning); 2) the support from parents to students about online learning (e-learning); 3) students can manage the time well; 4) students can use technology in online learning (e-learning); 5) students are ready to work on online learning (e-learning); 6) the internet accessing is not a problem for students.

C. Learning Outcomes

Sudjana (1995) revealed that learning outcomes are students' changes due to the learning experience process. The learning outcomes are essentially the changes in student behaviour that have undergone the learning process. This change is various knowledge, understanding, attitudes and skills possessed by students. Explained by Bloom that the learning process produced three formation of capabilities classified as a Bloom Taxonomy those are the ability of cognitive (knowledge), affective (attitude) and psychomotor (skill) (Sunarto & Hartono, 2002).

The domain of learning outcomes is an aspect of attitude or behavior that can be changed through the learning process. Three aspects or realms of learning (Purwanto 2016), there are cognitive, affective, and psychomotor. The cognition of the realm is an activity that takes place since receipt of information, storage and processing that occurs in the brain, and the re-summons of information if necessary to solving the problem. Affective learning outcomes are divided into five levels, namely consisting of acceptance, participation, assessment, organization, and interaction. The levels in the affective domain are hierarchically starting from a simple to the most complex level. Psychomotor learning outcomes can be categorized into six levels, namely reflex movements, skills movements, physical abilities, perceptual abilities, basic fundamental movements, and communication without words.

Research Method

The method used in this research is a quantitative method in its research design. The research design used is correlational. This research have two different variables, an independent variables and dependent variables. The relationship pattern between variables used in this research is a simple relationship model. The research was executed in the school year 2020/2021 precisely February until July, 2021. The research location is located in PVHS 6 Bandung, Soekarno Hatta Street (Riung Bandung), Bandung City. The population was taken in the first grade class of MBID in PVHS 6 Bandung with a number of samples is 46 people using the sampling technique of stratified random sampling. This research uses two data collection techniques based on variables, by questionnaire and documentation techniques. For questionnaire techniques used 6 indicators in variables X, there are students' efforts, student readiness, teacher readiness, assistance services,

student motivation, readiness of devices or online learning facilities. As for Y Variable used a list of student assignments scores in technical drawing subject.

Discussion

A. Instrument Test

In this research, the validity test was assisted by SPSS 25 IBM software, this test of instruments was carried out to 20 respondents. Validity test of X variable used product moment correlation by IBM SPSS statistic 25 program. After the r of product moment recognized for each statement in the questionnaire, the r_{count} is tested by using the correlation significance test, so that the value of t_{count} is obtained. T_{count} value are consulted with t value in the product moment table, if the price of $t_{count} > t_{table}$, then the statement is declared valid, but if the value of $t_{count} < t_{table}$, then the statement is declared invalid/ failure. From the r product moment value table, the trust significance is 90% with $n = 20$, it is known that the value of $t_{table} = 0.3783$. From the validity test of the online assistance variable questionnaire with a number of 45 statements, it is known that six statements are declared invalid, there are the numbers of 5, 7, 12, 24, 27, and 43. The six invalid statement items are removed because the value of t_{count} was far from the value of t_{table} and there were several other questions that represented in each indicator. Thus, the instruments used were as follows. Furthermore, the reliability test in this research was assisted by the SPSS 25 IBM software. The result of the reliability test calculation for X variable are obtained $R_{11} = 0.736$. Then $R_{11} = 0.736 > R_{table} = 0.378$. Thus the total numbers of statements in the research questionnaire can be trusted because it has been valid and reliable.

B. Assumption Test

The data normality test that used in this study was assisted by the IBM SPSS Statistic 25 software using One-Sample Kolmogorov-Smirnov Test, with criteria test used a significance level $\alpha = 0.05$. Decision-making criteria are if significance > 0.05 then the distribution is normally distributed and vice versa if the significance < 0.05 then the data distribution is not normal.

Table 1. Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		46
	Mean	5.6899516
	Std. Deviation	27.65181346
	Absolute	.125
	Positive	.093
	Negative	-.125
Test Statistic		.125
Asymp. Sig. (2-tailed)		0.070 ^c
Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

The table above shows that the results of the Kolmogorov-Smirnov test stated that the significance value = 0.070. Based on the decision-making criteria the data above $0.070 > 0.05$, then distribution data on the online assistance variable (X) and the learning outcomes (Y) are normally distributed and the researcher used the calculation of parametric statistics.

C. Tendency Test

1) Online Assistance

This analysis function is to know the general description of the research variable's characteristics. To find out an achieve level of respondents' responses used formulas as follows:

$$Achieve\ Score = \frac{Total\ Score}{5 \times Total\ Responden} \times 100$$

Data collection techniques on the X variable used in this research is questionnaire instruments that refer to online assistance indicators. By using this level of achievement, the description of the condition of online assistance in technical drawing subjects can generally be

visible. The diagram below can represent the results of the general description can be seen from each indicator on online assistance.

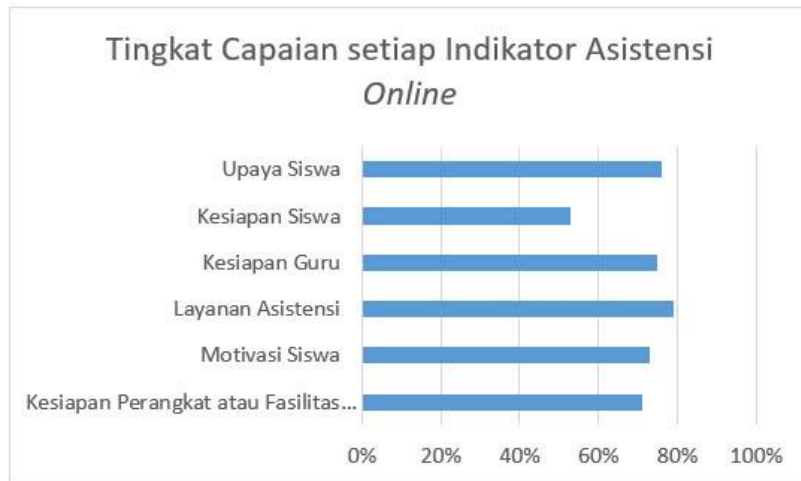


Figure 1: Adila, Online Assistance Indicators Achieve Level Diagram, 2021, Bar Chart. Source: Personal Document.

The diagram shows that almost online assistance indicators are at sufficient levels. Although the average shows a sufficient level of 73%, but there is an indicator that shows a very lacking level, namely the indicator of student readiness which shows an average score of 53%. Conversely, in the indicators of assistance services actually at a level that almost touches a good level, which is a score of an average of 79%. Next, to see the general description based on the category can be seen from the following table.

Table 2. General Description of Assistance Indicators Based on Category

NO	RANGE	CATEGORY	FREQUENCY	%
1	90% - < 100%	VERY GOOD	0	0
2	80% - < 90%	GOOD	0	0
3	65% - < 80%	FAIRLY GOOD	5	83
4	55% - < 65%	BAD	1	17
5	0% - < 55%	VERY BAD	0	0

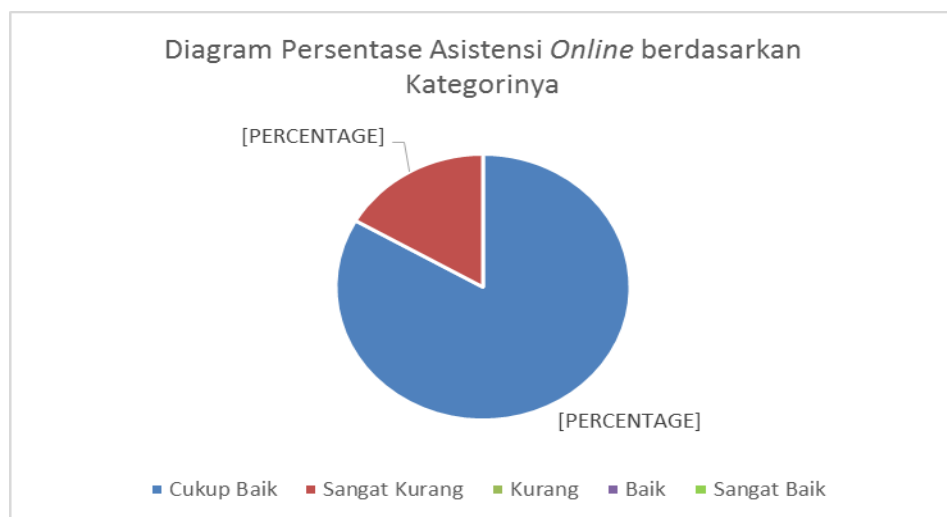


Figure 2: Adila, Online Assistance Percentage Based on Category Diagram, 2021, Pie Chart. Source: Personal Document.

From the table and the diagram above it shown that the position of online assistance is seen based on an indicator is 83% at sufficient level, which means that almost all indicators have a fairly good level. Except for student readiness indicators at a very low level. Next, to see a general description of each sub-indicator can be seen from the diagram below.

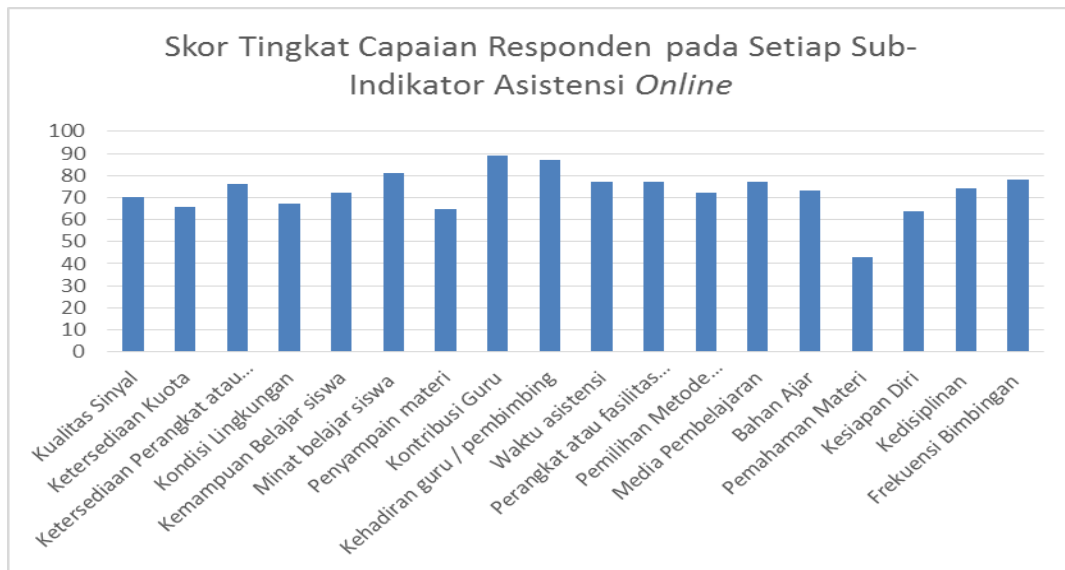


Figure 3: Adila, Online Assistance Sub Indicators Achieve Level Diagram, 2021, Bar Chart. Source: Personal Document.

From the above diagram it is known that the average sub-indicator is at a fairly good level of 73%. Sub-indicators that have the lowest score on student understanding of technical drawing subject, the score is 79% with the level of achieve is 43%, it means the student's readiness at a very lacking level. The sub-indicators have the highest score on the contribution of teachers in serving and assisting students during online assistance, the score is 163 with the level of achieve is 89%, that is almost at a good level.

2) Learning Outcomes

Data collection techniques in the Y variable used in this research is documentation techniques that refer to task values in technical drawing subject. Before calculating an achieve level of student learning outcomes, a diagram is needed to show students' learning outcomes in technical drawing subjects as follows.

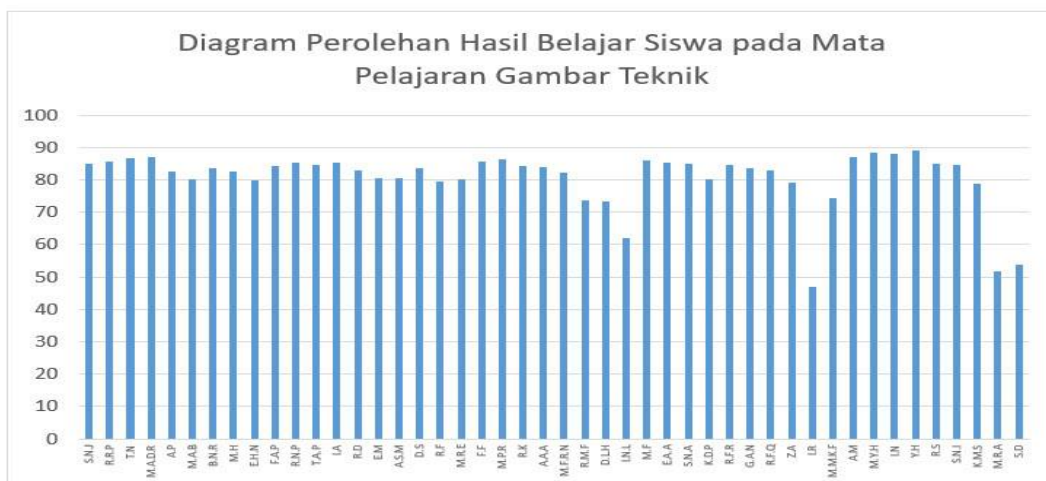


Figure 4: Adila, Students Learning Outcomes Diagram, 2021, Bar Chart. Source: Personal Document.

The diagram above shows the acquisition of the average value of students on the technical drawing subject tasks in 46 Respondents, from this average value will appear the learning outcomes. It shown from the diagram above that students' value in technical drawing subject has an average of 81 with the lowest score is 47 and the highest score is 89. To view the categories or predicate student learning outcomes, it based on the category or the predicate. The determination range of the learning outcomes in the following below:

Table 3. Learning Outcomes Category

NO	RANGE	CATEGORY
1	$X \geq 94$	VERY GOOD
2	$84 < X \leq 94$	GOOD
3	$75 < X \leq 84$	FAIRLY GOOD
4	$65 < X \leq 75$	BAD
5	$X < 65$	VERY BAD

After the tendency test to indicate the general condition regarding students learning outcomes, it is found that the learning outcomes of students of first grade class in MBID PVHS 6 Bandung of technical drawing subject is at a fairly good level with an average value of 81. The following is a general description of students learning outcomes based on their categories that can be seen in the table and diagram below.

Table 4. General Description of Learning Outcomes Indicators Based on Category

NO	RANGE	CATEGORY	FREQUENCY	%
1	$X \geq 94$	VERY GOOD	0	0
2	$84 < X \leq 94$	GOOD	18	0
3	$75 < X \leq 84$	FAIRLY GOOD	22	83
4	$65 < X \leq 75$	BAD	2	17
5	$X < 65$	VERY BAD	4	0

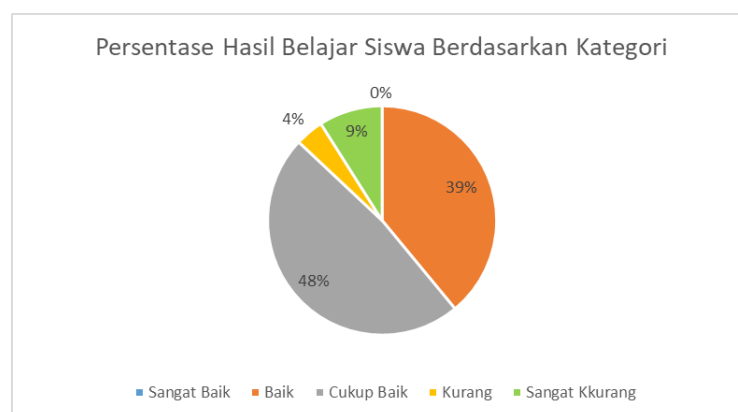


Figure 5: Adila, Percentage of Students Learning Outcomes Based on Category Diagram, 2021, Pie Chart.

Source: Personal Document.

The table above shows that the average of student learning outcomes in technical drawing subject assignments is at a fairly good level. This learning outcome is obtained based on the average of students' value acquisition on technical drawing subject. Although the average of learning outcomes shown a fairly good level, but there are 18 students who get a good level. Unfortunately, none of the students have a very good category even though there is one student

who almost has a very good level by obtained a value of 89. From the table above also found that as many as 2 students get bad levels and 4 students who get very bad level.

D. Data Analysis

1) Correlation Coefficient

The correlational coefficient test was carried out in this research assisted with the IBM SPSS 25 software, this test was used to find out whether there was a correlation between two research variables with the same data type and normally distributed. So, this analysis was carried out to test whether an online assistance (X) correlated with learning outcomes (Y). Therefore, both data obtained are distributed into the table below.

Table 5. *The Result of Simple Correlation Between X and Y*

		X	Y
X	Pearson Correlation	1	.300*
	Sig. (2-tailed)		.043
	N	46	46
Y	Pearson Correlation	.300*	1
	Sig. (2-tailed)	.043	
	N	46	46

Based on the table above shows the results of a simple correlation calculation on the online assistance variable (X) with the learning outcomes (Y) variables. The calculation results indicate that the significance value of 0.043. The significance value is smaller than the probability value of 0.05 > 0.043. If the significance value is smaller than the probability value, then the data has a significant relationship between X variables or online assistance and the Y variable or learning outcomes, it means H₀ is rejected and H_a is accepted. Then it is known the correlation value of the learning outcomes (Y) variable which is equal to 0.300 means it can be concluded that online assistance has a positive relationship to learning outcomes with the degree of relationships in the low or weak category.

2) Determination Coefficient

The determination coefficient test in this research was used to find out how much the percentage contribution of online assistance variables (X) to the learning outcomes (Y) variables. The calculation of the determination coefficient is assisted by the SPSS 25 IBM software, to find the determination coefficient can be seen in the following table:

Table 6. *The Result of Determination Coefficient*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.300 ^a	.090	.069	27.710

a. Predictors: (Constant), Assistance *Online*
 b. Dependent Variable: Learning Outcomes

The table above shown the output of determination coefficient (r square) is a total of 0.090. The coefficient of determination is used for the next stage to determine the percentage of contributions between online assistance variables (x) to learning outcomes (Y). The formula used to calculate the percentage of contribution to the variable is below:

$$DC = 0.090 \times 100\%$$

$$DC = 9\%$$

From the calculation above, it can be concluded that the contribution percentage of online assistance (x) is 9% to the learning outcomes (Y).

3) Hypothesis Test

Hypothesis test was used to find out whether the hypothesis proposed in this study is rejected or accepted where the zero hypothesis is assumed as H_0 and an alternative hypothesis is assumed as H_a . The hypothesis proposed is as follows:

- H_0 : There is no positive and significant contribution between online assistance to learning outcomes.
- H_a : There is a positive and significant contribution between online assistance to learning outcomes.

If the value of $t_{count} > t_{table}$, then H_a is accepted whereas if the value of $t_{count} < t_{table}$, then H_0 was rejected by the provisions of the trust level is 90% with $CD = N-1$. The hypothesis test (T-test) is executed to assist researchers in decision making assisted by SPSS 25 IBM software. From the calculation results, it is obtained:

Table 6. *The Result of Hypothesis Test (T-Test)*

		Coefficients ^a				
		Unstandardized		Standardized		
		Coefficients		Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	766.211	33.358		22.969	.000
	Asistensi <i>Online</i>	.096	.046	.300	2.088	.043

a. Dependent Variabel: Hasil Belajar

Based on the result of the significance value on the table, the result is $0.430 < 0.1$, it can be concluded that online assistance (X) has a substantial contribution with positive skills to learning outcomes (Y) variables. It is similar with the t value, the t_{count} value is 2.088, the t_{table} value with $n = 46$ and 90% trust degree is 1,680. Thus if $t_{count} > t_{table}$ is $2,088 > 1,680$ it can be concluded if there is a positive and substantial contribution of online assistance (X) on the learning outcomes (Y) in technical drawing subject, so H_0 is rejected and H_a is accepted.

E. Result Discussion

The contribution of online assistance to learning outcomes in the technical drawing subject is 9%. The magnitude of the contribution of online assistance is supported by several indicators, there are (1) student efforts, (2) student readiness, (3) teacher readiness, (4) assistance services, (5) student motivation, and (6) readiness of devices or online learning facilities.

Based on the result of the data analysis that after calculating a simple correlation coefficient, it is known that there is a positive relationship with the relationship degree which is a weak category between online assistance (x) to learning outcomes (Y). Because of based on the calculation of correlation coefficients, it is known that the significance value is smaller than the probability value of $0.043 < 0.1$ and the correlation value between online assistance (x) on the learning outcomes (y) is 0.300.

Based on the analysis of determination coefficient (r square) is 0.090, which means that online assistance (X) has a contribution of 9% on learning outcomes (Y). Although this online assistance contribution does not dominate and relatively weak, but this online assistance has a positive contribution to student learning outcomes in technical drawing subjects. The magnitude of the contribution of online assistance is based on the indicators of online assistance that have been previously presented, for online assistance indicators that make the biggest contribution on the assistance services provided by teachers to students indicator and the lowest contributions are contributed by students readiness indicator. In addition to online assistance, there are several other aspects that contribute to student learning outcomes in technical drawing assignments but these aspects are not studied in this research. If referring to the theory put forward by (Susanto, 2016) which reveals that there is a contribution of other factors that can influence the success of learning that can come from internal factors (factors from within students) which include physiological and psychological aspects, external factors (factors from outside students) which include aspects of the social environment and non-social environmental aspects.

Based on the results of the analysis that has been described above, it can be concluded that online assistance has a weak contribution to learning outcomes. However, online assistance has a contribution to a positive direction, in order if this online assistance continues to be improved

well, and then the acquisition of learning outcomes in technical drawing subject will also increase better.

F. Discover Research

1) Online Assistance

Based on the data results executed in this research, it was known that online assistance that took place in first grade class of MBID PVHS 6 Bandung went quite well. The indicators that make the biggest contribution are the assistance services provided by the teacher to students indicator, on the contrary that the contributions are least contributed by students readiness indicator.

In the indicators of students' efforts will appear to extent of students that performed online assistance based on the frequency of assistance and discipline of students. Based on observation of online assistance activities carried out on the technical drawing subject have been done at least once as minimum students during technical drawing subject, even students who performed online assistance for many times on each task given by the teacher. The amount of guidance or online assistance shows the frequency of assistance that carried out by students. The more often students perform the assistance, the potential for students in the assistance perform better. In accordance with the statements raised by Suranto (2015) that the high frequency of learning and good learning achievement, then learning achievement has increased well. But in this case it was found that there were students who had low assistance frequencies but got a good category in online assistance. In addition, from the result of data obtained from the questionnaire found that there are students who have bad level of discipline in participating online assistance, but got a good category in online assistance. Even though the viewed from Sugiarto's statement (2019) regarding the factors that influence the activities of students in the teaching and learning process, one them is the discipline of students, so that discipline is one of the keys to success in learning.

Furthermore, the indicators of student readiness in online assistance are still in the level of very bad. This indicator is based on personal readiness and material understanding. Student's personal readiness will appear if before the student's assistance has prepared the tools and at least the students have read the material first. According to Soejanto (1991: 5) states that to achieve the success of student learning should have well-done personal readiness in learning. Prayitno (1997: 13) Continue that is in lesson's participation and preparation, students should pay attention to, with preparation of well-done, students will be more comprehensive in learning thus students' learning will be easier to concentrate on receiving lessons. But after being reviewed based on the results of the questionnaire, students who were found in the bad level of readiness to perform the assistance actually got a good category in online assistance. Based on the field observation, this occurs due to the students working on their assignments well and thoroughly, but when the student due the assistance is not preparing himself well. Furthermore, in the indicator of understanding the materials in online assistance, which is seen based on the results of the questionnaire, indicate that students' understanding of the material on technical drawing subject is at a very bad level. Based on field observation, most students complained about the material delivered, students understand the basically theory about the teacher explained but when students performed the practice, they have difficulties during their duties independently.

Teacher's readiness in online assistance is good enough, teacher's readiness is based on teaching materials, learning media, and devices or online learning facilities. Based on the proceeds of the questionnaire to students, it is known that teaching materials, learning media, and devices or online learning facilities used by teachers are quite good. But in the students are found that get bad category level in their assistance. Even depend on the theory's study above about the components readiness of learning will affect the learning situation and have an impact on the quality of teaching and learning. Reviewed on the results of the questionnaire, it can be seen that there are several other factors that make the quality or achievement of online assistance students become lack.

Based on the assessment of students tested through questionnaires shown that teacher assistance services to students during online assistance are at a fairly good level. This online assistance service refers to the time of assistance (duration, time selection), the presence of teachers, teacher contributions, and material suggestions. The biggest contribution of this online assistance service is from the teacher's contribution to students. From the results of the student questionnaire, the teacher plays a lot of role in guiding his students by providing assistance to students. In addition, the biggest contribution is then given by the presence of the teacher in guiding students, the intention of the teacher's presence here is the willingness of the teacher to spend time for students who need help on their duties. Whereas at the time of assistance and

equipment or facilities in online assistance, both are good enough. Although online assistance services that are running well, in fact there are students that still unable to do their jobs independently, it viewed from the result of the questionnaire.

Based on the experience felt by students tested through questionnaires. The motivation of students during online assistance is at a fairly good level or category, the motivation of students here refers to student learning interest, student learning abilities, environmental conditions (a comfort zone). The biggest contribution to the motivation of students in online assistance is student learning interest, students feel enthusiastic in learning on technical drawing subject and feels want to be able to do the task of the technical drawing subject. But in the ability of learning and the environmental conditions of students in online assistance are still at a fairly good level. After students take part in assistance activities, students can answer questions also the questions given by the teacher. However, some students find difficulties to answer questions that given by the teacher. Referring to the statement by Sardiman (2006: 21), the success of the learning process will be achieved if students have good learning motivation, in order to the teacher acts as an educator as well as a motivator must be able to encourage students to be more motivated in learning to achieve goals and changes the desired behavior, as long as the online assistance teacher should provoke students' enthusiasm to learn. Thus teacher needs to increase the selection of interesting methods and not monotonous, so that students do not feel saturated, it makes the material delivered by the teacher can be conveyed well, and for students must increase the material understanding by reading the material first before performing the online assistance, so the implementation of online assistance between teachers and students can interact in two directions.

Device readiness for online assistance is fairly good. It refers to the availability of devices or online learning media, quota availability, and signal quality on online assistance. All of these aspects are good enough, it means that most students have adequate online learning devices or media, but there are still students who are constrained by the device, which is due to the availability of quota and unstable signal quality so that it can inhibit the submission of the material provided by the teacher. Even though according to Gikas & Grant in the implementation of distance learning requires devices that can support the process of teaching and learning activities, such as smartphone, laptop, and tablet to access them. In addition, Firman & Alku (Firman & Rahman, 2020) stated that the use of technology such as mobile devices has a major contribution in the world of education including the achievement of learning objectives in distance learning.

2) Learning Outcomes

Based on the results of the acquisition of values taken from the list of students' task scores of the technical drawing subject in first grade class at MBID PVHS 6 shows a fairly good category. The students' average got a fairly good value, but some students got a value in the technical drawing subject that is still bad even very bad. Based on a tasks list of students, there are several students who have good learning outcomes after participating the online assistance well. But the other side, there are not a small number of students who actually join their assistance well but the learning outcomes achieved have not been satisfactory.

Most students who get bad values due to the tasks collected are incomplete in accordance with the task term of references given, besides the results of the assignment of students collected do not complete all aspects of the judiciary such as a bad line drawing or nicety and also the accuracy of the drawing techniques.

While students who get an almost very good category, almost fulfill all aspects of assessment, such as on time, the accuracy of the drawing, and the nicety. However, in some tasks found a drawing there were inappropriate or incorrect so that if all of the aspects have been achieved by student, he should get satisfactory learning outcomes and get very good category and vice versa if the aspect is not fulfilled, the results obtained are not optimal.

3) Online Assistance Contribution to Learning

Based on the results of the data analysis that has been carried out related to the contribution of online assistance to students learning outcomes in the subjects of technical drawing at first grade class in MBID PVHS 6 Bandung shows that online assistance contributes 9% on learning outcomes. This online assistance is an effort between teachers and students to be able to communicate with each other to process information and students can consult learning difficulties with the aim that the knowledge formed is internalized in the students and becomes the basis of

learning independently and sustainably. Thus the success criteria for a learning process are the emergence of sustainable learning skills independently.

These online assistance contributions are mostly contributed by the assistance services provided by teachers to students and otherwise of the gained contribution given by student readiness in online assistance. In assistance services there are several sub indicators that are still at sufficient levels, they are the time of assistance and material delivery. But on the contribution and presence of teachers provided by the teacher to students in online assistance shows a very good level. From the questionnaire it appears that the teacher has fostered well, by giving his time and providing direction and assistance to students, but in the submission of material were not all students can digest or receive direction from the teacher. so it needs to be realized that each student has different needs, to serve these differences, teachers can develop and use diverse and varied learning strategies accordance with their students' needs (Mulyono, 2012), thus students and teachers can run a learning process that is more interactive and effective to achieve the expected learning goals so that learning outcomes can be more optimal.

In learning outcomes found students who have bad learning outcomes, but on the other hand it is found also students who have good learning outcomes, but they were bad in online assistance. According to Irwansyah (2010) every individu has good learning potential, but not all individuals have the ability to overcome learning issues. This learning ability can be influenced by several factors, both intrinsic and extrinsic factors. If it is studied based on the observation in the field and analysis of questionnaires and a list of values, students who have good learning outcomes but lack in online assistance has learning components that have been fulfilled, such as readiness of devices and online learning facilities, student discipline, student abilities, and student interest. However, even so in the condition of the learning environment and the frequency of online assistance is still bad. In addition, from the results of the questionnaire, students feel bored to participating online assistance. Even though the statement delivered by Saputra (2015) that one of the factors that influences student learning outcomes is the learning process.

Conclusion

Based on the results of the research and discussion on the contribution of online assistance to learning outcomes in technical drawing subject in PVHS 6 in Bandung, it can be concluded as follows:

- 1) Online assistance in technical drawing subject of the first grade class at MBID PVHS 6 Bandung is at a fairly good level. The online assistance service provided by the teacher is good as well as student motivation. Meanwhile, in the aspects of teacher readiness, student efforts, and online learning devices' readiness are at a fairly good level.
- 2) The acquisition of learning outcomes of the technical drawing subject in the first grade class at MBID PVHS 6 Bandung on the average of a fairly good level. The acquisition of these values is taken based on a list of task values in technical drawing subject. From 46 students averaged the value above the minimum standard score, but there were a small number of students, they are 7 students who obtained a value under the minimum standard score and 39 students obtained the value above minimum standard score.
- 3) Based on the results of data analysis, online assistance shows a positive contribution to student learning outcomes in technical drawing subject. Although this online assistance contribution is relatively weak, if this online assistance improved to be better, the acquisition of student learning outcomes also increase to be better.

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