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Effectiveness Of Hybrid/Blended Learning On Material Understanding In Practical Courses

Mellasanti Ayuwardani[1*]
Politeknik Negeri Semarang, Indonesia
Sri Eka Sadriatwati [2]
[4]Politeknik Negeri Semarang, Indonesia
Rara Ririn Budi Utaminingtyas[3]
[3]Politeknik Negeri Semarang, Indonesia
Rustono
[4]Politeknik Negeri Semarang, Indonesia

[*]*Corresponding Author: mellasantiayuwardani@polines.ac.id*

Abstrak

The development of technology that is entering the industrial era 5.0 plus the covid-19 pandemic which has turned into an ongoing covid-19 endemic, makes the use of technology very much needed. When the endemic announcement began, all face-to-face activities in the world of education gradually began to run, but with restrictions on activities and class capacity, including practicum lectures. The problem of this research is "How the Effect of Hybrid/Blended Learning Effectiveness on Material Understanding in the typing basics practice course of the Business Administration Department of Semarang State Polytechnic". The purpose of this research is the development of a conceptual integration model of Hybrid/Blended Learning Effectiveness, Material Understanding. The sample size of this study was 89 respondents. The data collection method is done by providing a list of questions using Google Form. The t test results show that the Hybrid/Blended Learning Effectiveness variable has a t value of 10.263> t table 1.666 with a significance value of 0.000 <0.05, with an Adjusted R Square value of 0.542 or 54.2%. The conclusion in this study is that there is a positive and significant influence between the Effectiveness of Hybrid/Blended Learning on Material Understanding with an influence of 54.2%.

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INTRODUCTION

The development of technology that has entered the industrial era 5.0 in addition to the covid-19 pandemic which has begun to turn into an ongoing covid-19 endemic, makes the use of technology very much needed. Starting from the development of technology triggered by the covid-19 pandemic, the world community must carry out most of its activities online, including lectures. The covid-19 pandemic, which began to exceed 2 years, so that the government decided to change the pandemic to endemic, made face-to-face activities begin to be carried out gradually including lecture activities. When the endemic announcement began, all face-to-face activities in the world of education gradually began to run, but with restrictions on activities and class capacity, including practicum lectures. Laboratory limitations and running time do not allow all students in one class at each meeting to safely participate in face-to-face practicum. The use of technology is now familiar, both in the world of industry, business and even in the world of education. With the utilization of technology, lectures including practical lectures try to be carried out by hybrid/blended learning. Hybrid/blended learning is a solution so that practical lectures can still be carried out with all students experiencing practicum without lagging behind the material for one semester.

Hybrid/blended learning is a collaboration of several learning approaches including face-to-face learning, online-based learning (internet and or mobile learning) and computer-based learning (Humasah, 2013). During the practical course, 50% of students do face-to-face practicum in the laboratory provided and the other 50% study the material before starting the practicum in the next session.

Understanding material is a behavior that shows the ability of students to capture the understanding of a concept (Wina Sanjaya, 2013). In achieving material understanding, one of them depends on how the learning activity process is carried out, which includes the methods and learning media used and the learning evaluation process. In a study conducted by Handaru Jati in 2015, it was stated that the increase in student learning motivation due to the application of blended learning model learning increased an average of 11.705 and there was an increase in student understanding with an average increase of 30.288 (Handaru Jati, 2015). And according to the results of research by Nelliraharti and Muria Suri, 2021, it states that there is an average

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difference in Pretest and Posttest learning outcomes which can be interpreted that blended learning model learning produces significant effectiveness and is better than face-to-face learning (conventional). However, looking at the average value of the N-gain Score of 29.90. or 29.90% is in the ineffective category (Murnia Suri, 2021).

Based on the description of the background, the problem of this research is "How is the Effectiveness of Hybrid/Blended Learning on material understanding in the typing basics practice course of the Business Administration Department of Semarang State Polytechnic".

Research Problem

Based on the description of the background of the previous problem, the problem of this research is "How does the Effectiveness of Hybrid/Blended Learning on the understanding of material in the typing basics practice course of the Business Administration Department of Semarang State Polytechnic".

This research formulates the following research questions:

1. Is the effectiveness of Hybrid/Blended Learning able to influence students' material understanding?
2. How much influence does the effectiveness of Hybrid/Blended Learning have on student material understanding?

LITERATURE REVIEW

Hybrid/Blended Learning

Hybrid learning is combining various approaches in learning, namely face-to-face learning, computer-based learning, and online-based learning (internet and mobile learning). Blended learning is a combination of face-to-face and virtual learning or a combination of direct teaching and online teaching (Oktora Melansari, 2021). The benefits of hybrid/blended learning (Salma, 2021) are:

a. More Effective and Efficient

   Learning or teaching and learning process with hybrid learning method is considered more effective and efficient. Learners can organize and choose their own learning time anywhere and anytime. Of course, besides being effective, this will cut costs even up to 50% lower when compared to conventional learning methods. With these different

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methods, hybrid learning is considered more effective and efficient because it adjusts the characteristics of each student.

b. Future Learning Trends
The trend of blended learning in its development is quite much in demand by all circles, not only for the world of education, but also institutions and companies. This is because the blended learning method is supported by a variety of conveniences in finding certain information. This will happen because of the hybrid method of both hybrid working and hybrid learning.

c. Supporting Learner and Teacher Digital Skills Development
With the implementation of hybrid learning method, it is expected to be able to improve the digital and technological skills of both students or learners and teachers in the teaching and learning process.

Learning Effectiveness

Effectiveness is activeness, usability, suitability in an activity or a situation that shows the extent to which the plan can be achieved. The more plans that can be achieved, the more effective the activity is, so the word effectiveness can also be interpreted as the level of success that can be achieved from a certain method or effort in accordance with the objectives to be achieved. According to Yusuf hadi and Miarso (2004: 516, 536), learning effectiveness is that which produces useful and purposeful learning for students, through appropriate learning procedures.

Indicators of learning effectiveness can be measured using four indicators as follows:

a. Quality of learning or quality of teaching
The quality of learning is how much information is presented so that students can easily learn it or the error rate is getting smaller.

b. Appropriate Level of Instruction
Appropriate level of instruction is the extent to which the teacher ascertains the level of readiness of students to receive new material, in the sense of the ability and knowledge required to learn it but not yet acquired.

c. Incentives
Incentives are how much effort the teacher makes to motivate students to complete or do tasks and learn the material provided.

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d. Time

Time is the extent to which students are given enough time to learn the material being taught or the amount of time needed to complete learning activities.

Material Comprehension

Understanding is a behavior that shows the ability of learners to grasp the meaning of a concept. Understanding includes the behavior of translating, interpreting, inferring, or extrapolating (taking into account) concepts using words or other symbols of their own choosing.(Nana Sudjana, 2010) Factors that affect understanding include:

a. Purpose

Objectives are guidelines as well as targets to be achieved in teaching and learning activities.

b. Teaching

A teacher is a person who is experienced in their professional field.

c. Teaching Participants

Learners (students) are people who intentionally come to school.

d. Learning Activities

Teaching activities are the process of interaction between teachers and students in teaching and learning activities.

e. Evaluation Materials and Tools

Evaluation material is material contained in the curriculum that has been studied by students for the purpose of testing.

f. Evaluation Atmosphere

A calm, orderly and disciplined atmosphere during the evaluation (test) can achieve teaching success.

Indicators of understanding indicate that understanding is one level higher than knowledge. Indicators of understanding that can be used to determine the measure of students' success in understanding a concept are:(Nana Sudjana, 2010)

a. Translate

Translation here is not only the translation of one language into another, but it can also be from an abstract conception into a symbolic model to make it easier for people to learn.

b. Interpret

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Interpreting is broader than translation. Interpreting is the ability to recognize or understand the main ideas of a communication.

c. Extrapolate

Slightly different from translating and interpreting, it demands higher intellectual abilities, namely with extrapolation it is expected that a person is able to see behind what is written can make predictions about concentration or can expand the problem.

RESEARCH METHODS

This research is "Explanatory Research" which is explanatory in nature, is research that emphasizes the relationship between research variables by testing hypotheses.(Sambas Ali Muhidin and Maman Abdurrahman, 2007) The method of collecting data by asking a list of questions to respondents via Google form.

Population and Sample

The population of this study is Class 1 Students of the Business Administration Study Program, Department of Business Administration totaling 116 people. The sampling technique used purposive sampling method. The requirements for the sample are first, students have carried out the teaching and learning process with the Hybrid / Blended Learning system in the Basics of Typing course; Second, respondents are willing to fill out a questionnaire. The number of research samples was 89 respondents.

Operational Definition

The operational definitions of the two variables are as follows:

Table 1 Operational Definition

No	Variables	Operational Definition	Indicator	Measurement Scale

1	Effectiveness of Hybrid/Blended Learning	Learning effectiveness is that which produces useful and purposeful learning for students, through appropriate	• Quality of Learning
			• Learning Rate Appropriateness
			• Incentives
			• Time
			  ○ Initial learning preparation
			  ○ Receiving material
			  ○ Practicing one's own skills
				Interval Scale (Agree Disagree Scale 1-10)

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		learning procedures. (Yusuf hadi and Miarso, 2004)	○ Developing the material that has been learned ○ Closing	
2	Material Comprehension	Comprehension is the behavior of translating, interpreting, inferring, or extrapolating (taking into account) concepts using words or other symbols of one's own choosing.(Nana Sudjana, 2010)	• Translate • Interpreting • Extrapolate	Interval Scale (Agree Disagree Scale 1-10)

Data Analysis Method

The analysis technique uses several approaches, namely:(Sambas Ali Muhidin and Maman Abdurrahman, 2007)

a. Instrument testing utilizes the Validity Test and Reliability Test approaches.
b. Analysis using the Three-box Method index analysis technique.
c. Testing data analysis with the Classical Assumption Deviation Test approach which includes the Normality Test.
d. Model and hypothesis testing using the Regression Equation Test:
    1) T Statistical Test (Partial), in the Regression Model Feasibility Test using IBM SPSS Statistic 25 in this case to test how far the influence between variables.
    2) Test the Coefficient of Determination in the Regression Model Feasibility Test to examine how much the relationship between variables is.

Validity Test

The validity test is carried out to measure whether a questionnaire is valid or not.(Sambas Ali Muhidin and Maman Abdurrahman, 2007) In this case, to find out the value of r table with a significance of 5% (0.05), it can be calculated using degree freedom or (df) = n-2, where n is the

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number of samples used in the study, namely 89 samples. The validity calculation obtained (df) = 87, so the value of r table with (df) = 87 with a significance of 5% is 0.2084. Each question item has a value of r count> r table, so it can be interpreted that all question items are valid.

Reliability Test

A questionnaire is reliable if a person's answer to a statement obtains stable results over time (consistent). Reliability testing uses the Cronbach's Alpha (α) statistical test whose data processing uses IBM statistical SPSS 25. A variable is said to be reliable if it obtains a Cronbach's Alpha value> 0.70. The results of the reliability test of the research variables in table 2 below:

Table 2 Reliability Test Results

Variables	Cronbach's Alpha	Alpha Value	Desc.
Effectiveness of Hybrid/Blended Learning	0,881	0,70	RELIABEL
Material Comprehension	0,866	0,70	RELIABEL

Source: Processed Primary Data, 2022

Table 2 shows that the Cronbach's Alpha of each variable is greater than 0.70, which means that all questionnaire questions in the study are declared reliable or trustworthy.

RESULTS AND DISCUSSION

Determination Coefficient Test

The coefficient of determination measures how far the model's ability to explain the variation in the dependent variable.(Sambas Ali Muhidin and Maman Abdurrahman, 2007) The results of the coefficient of determination test in this study can be seen in table 3 below:

Table 3 Determination Coefficient Test Results Material Understanding

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,740[a]	,548	,542	3,63234

a. Predictors: (Constant), Total_ Effectiveness

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b. Dependent Variable: Total_ Understanding_Material

Source: Primary Data Obtained, 2022

Table 3 shows that the Adjusted R Square value is 0.542 or 54.2%, which means that 54.2% of material understanding is influenced by the Hybrid/Blended Learning Effectiveness variable, while the remaining 45.8% is influenced by other variables not examined in this study.

Uji Hipotesis

The t statistical test shows the effect of independent variables individually in explaining the variation in the dependent variable.(Sambas Ali Muhidin and Maman Abdurrahman, 2007) The t table with a significance of 0.05 and degrees of freedom (df) = n-2 = 89-2 = 87 obtained t table 1.666. Based on the acquisition of t table 1.666, the decision-making criteria for the t test are as follows:

1. "If the calculated t value < t table or Sig value. > 0.05 then H0 is accepted or Ha is rejected."
2. "If the t value > t table or Sig value. <0.05 then H0 is rejected or Ha is accepted."

The results of the t test in this study on material understanding can be seen in table 4 as follows:

Table 4 t-test results of material understanding

Variables	t_{count}	t_{table}	Sig Value.
Effectiveness of Hybrid/Blended Learning	10,263	1,666	0,000

Source: Primary Data Obtained, 2022

The t test results show that the Hybrid/Blended Learning Effectiveness variable has a t value of 10.263> t table 1.666 with a significance value of 0.000 <0.05. The decision-making criteria for the t test, then Ha is accepted and H0 is rejected, which is concluded that the Hybrid / Blended Learning Effectiveness variable partially affects the Understanding of Material in the typing basics practice course at the Semarang State Polytechnic Business Administration Department.

CONCLUSION

The conclusion obtained from this study is that there is a positive and significant influence between the Effectiveness of Hybrid/Blended Learning on Material Understanding with an

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influence of 54.2%. This can be interpreted that the use of Hybrid / Blended Learning methods can be applied to practical courses effectively so that students get a good understanding of the material.

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