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THE EFFECT OF DIGITAL LEARNING ON HIGH SCHOOL STUDENTS' MOTIVATION AND SATISFACTION IN THE DIGITAL ERA AND THE COVID-19 PANDEMIC

Agus Purwanto[1], Tawar[2]

[1]Aguspati Research Instituta, Indonesia
[2]SD Negeri Karangsumber 01, Winong, Pati

*Corresponding Author: agozpor@gmail.com

Abstract

The purpose of this study was to analyze the effect of digital learning on motivation and the effect of digital learning on student learning satisfaction during the Covid 19 Pandemic in high schools.This research is using a quantitative research approach. In this case, this research is to determine the effect of digital learning during the pandemic period on learning motivation through high school student learning satisfaction. This study aims to describe and explain and analyze the influence of 3 (three) variables, namely the Digital Learning variable (Y), the Learning Motivation variable (X1), and the Learning Satisfaction variable (X2). The three variables above will simultaneously be tested for the relationship and the level of the relationship in this research. The exogenous variable in this study is Digital Learning (Y), while the endogenous variables are Learning Motivation (X1) and Learning Satisfaction (X2). The strength level of the relationship between exogenous variables and endogenous variables was analyzed to determine the predictive ability of exogenous variables to endogenous variables and to determine the construct model of variables that have a significant relationship, the data analysis technique used was structural equation modeling (SEM) with SmartPLS 3.0 software tools. The respondents to this study were 450 high school teachers who were determined using the simple random sampling method. The questionnaire was designed using a Liker scale of 7, the questionnaires were distributed online using social media. The results of the analysis show that digital learning has a significant effect on the learning motivation variable, the use of digital technology as a Learning facilities have a positive effect on the emergence of student learning motivation so that it is expected that student learning achievement can be achieved optimally. Digital learning has a significant effect on learning satisfaction variables. With Digital Learning, some students are not influenced by the environment, students maximally learn by their own will

(for example, independent learning, with varied places and media) even without motivation or reinforcement from people around them, work regularly and focus and like competition. Appropriate use of new technology can assist in delivering material in a way that students can learn successfully and find satisfaction.

Keywords: digital learning, motivation, learning satisfaction, pandemic, senior high school

INTRODUCTION

Since the outbreak of the pandemic caused by the Corona virus in Indonesia, the government has taken many ways to prevent its spread, one of which is the 2020 Circular of the Ministry of Education, Culture, Sports, Science and Technology (Kemendikbud) concerning preventing the spread of diseases caused by the corona virus. (Covid19). Through this circulation, the Ministry of Education, Culture, Sports, Science and Technology, instructed to implement distance learning and encourage students to study at home. The Indonesian government has advised people to stay at home and self-quarantine. The Indonesian government enforces PSBB regulations. This means that large social restrictions have been implemented in the context of handling COVID 19. The Indonesian government has advised people to stay indoors and self-isolate. The Indonesian government implements the PSBB rule which stands for Large-Scale Social Restrictions made in the context of Handling COVID-19. This is done in the hope that the virus will not spread further and that healing efforts can run optimally. In this social distancing effort, the Indonesian government has limited activities outside the home, such as educational activities carried out online through e-learning. According to Díaz-Noguera et al. (2022)said that to prevent the spread of COVID-19, WHO recommends temporarily stopping activities that can stimulate crowds of people. For this reason, it needs to be reconsidered so that it can carry out traditional learning which is of great interest to students in Ruang. Learning should take place in scenarios where physical contact between students and other students, or between students and teachers is minimized. According to Chou et al. (2022)found that the use of the Internet and multimedia technologies can change the way knowledge is transmitted and replace traditional classroom learning. Continuous E-learning requires mobile devices such as smartphones, tablets and laptops that can be used to access information anytime, anywhere.

According to Chou et al. (2022) The use of mobile technology has made a significant contribution to the world of education, especially in achieving distance learning goals. Various media can also be used to support the implementation of e-learning. For example, virtual classrooms use instant messaging applications such as Google Classroom, Edmodo, Schoology

services , and messaging applications. short such as WhatsApp E-learning can also be done through social networks such as Facebook and Instagram Online learning has been carried out using technology, especially the internet. Online learning takes place using a distance learning system and learning and teaching activities (KBM) may not be face-to-face. Learning is carried out using the media, both paper (form) and non-paper (audio/video), computer/internet, radio and television programs. Online distance learning can bring many changes, both in terms of learning methods and assessments. Of course there are many obstacles faced by teachers and students. During remote training, many trainees encounter problems while studying online. These include inadequate internet access, inadequate understanding of the material, and the struggle against increasing laziness. Internet access is one of the obstacles that quite a lot is experienced by students when doing online learning. According to;Capone et al. (2022);Chiu et al. (2022) teaching and learning activities are no longer carried out face-to-face at schools, but through Distance Learning (PJJ). students learn from home with guidance from teachers and parents. At the start of the pandemic, the media (application) used for online learning was WhatsApp. This application has the advantage of being relatively cheap in using internet quota and almost all parents of students already use it. The drawback of this application is that WhatsApp group videos can only be joined by four people, so they cannot be used for maximum direct learning. In addition, this application is not effective for collecting student assignments, so it is necessary to look for other alternatives. Online learning media (applications) that can be used include Zoom (video conference platform), Google meet (video conference platform) and WhatsApp.

Based on the results of observations and interviews with teachers and students, the application used by high schools is E-learning. The obstacles faced are limited human resources, limited infrastructure such as laptops or cellphones owned by parents of students, difficulty accessing the internet, unstable electricity conditions, and limited internet quota that can be provided by parents. In addition, the teacher has difficulty communicating with parents as a guide for students at home. Not all parents are willing and able to accompany their children to study at home because there are other responsibilities such as work affairs, household affairs, and so on. Parents experience difficulties in understanding lessons and motivating children when accompanying them to study at home. High school students have difficulty concentrating on studying from home and complain about the large number of assignments from teachers. The increased feeling of stress and boredom due to continuous isolation can potentially cause anxiety and depression for children, access to good learning resources is due to outreach problems. electricity or the internet, as well as funds for access. Based on the results of observations and interviews with teachers and students, it is known that one of the factors is the availability of a signal that is not good. In addition, for high school students who on average already have a device, quota is the

next source of problems, where if they don't use wifi at home, students have to spend more money to buy internet quota. Some high school students said that buying internet quota has problems when the parents of these students are having trouble, so that students also have difficulty buying internet quota. The process of participating in online learning is also constrained and students cannot focus on learning if the signal is disrupted due to bad weather and so on. As a result of disrupted internet access, the learning process is also disrupted, so that students' understanding of the material experiences difficulties. high school students. If students learn face-to-face they still don't understand, especially if learning is done using an online system, of course this will have an impact on the level of student satisfaction in learning. Student satisfaction is important in the learning process to determine the emotional state of students towards the material studied in learning. In addition, the mastery of mathematics is very useful in everyday life and can support the mastery of other sciences. According to Capone et al. (2022);Chiu et al. (2022) In online learning, students can become less active in conveying their aspirations and thoughts, which can result in boring learning. A student who experiences boredom in learning will get a lack of progress in learning outcomes. Therefore, a stimulus is needed to motivate students to be enthusiastic about learning so that they can have learning achievements

Based on observations, learning in senior high schools still emphasizes the process of transferring teacher information to students using blackboard media, printed books, and LKS. The role of the teacher is still very dominant. The teacher arranges the learning program, the students just have to accept the learning design and the information provided by the teacher. The teacher conveys the subject matter using conventional media, namely printed books, worksheets, and blackboards. Learning in high school is not yet supported by learning media that is easy to see and attracts students' attention. This makes students bored, lacks motivation, class becomes passive, and student learning satisfaction decreases, which in turn results in low learning achievement. The biggest challenge is that students' learning motivation during the Covid-19 pandemic is maintained properly, so the role of teachers and students greatly influences this motivation. According to Chiu et al. (2022); Díaz-Noguera et al. (2022) Motivation comes from the word motive which means impetus, desire, need and will. Motivation comes from the word motivation which means motivation, desire, need and motivation. Motivation is the encouragement that a person must have to start, direct and organize actions . Motivation is part of a person's psychological process in explaining the interaction between attitudes, perceptions, needs and decisions. Motivation has three characteristics, namely effort, will, direction or purpose . Strong learning motivation is characterized by hard work, persistence, never giving up, having goals for the future, enthusiasm in completing tasks of medium difficulty, and solving problems early and understanding what can be done. One of the factors of student dissatisfaction

in the online learning process is evidenced by the student scores obtained during the pandemic which were felt to be unsatisfactory, this had an impact on learning performance that was not optimal. According to Capone et al. (2022);Chiu et al. (2022);Chen et al. (2022);Chou et al. (2022);Díaz-Noguera et al. (2022)state that satisfaction is a feeling of pleasure or disappointment resulting from comparing the perceived performance of a product (or result) with expectations. According to;Díaz-Noguera et al. (2022) also said the same thing: "Satisfaction is the level that is felt after comparing the performance and results that are felt with expectations."

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Method

This research is using a quantitative research approach. In this case, this research is to determine the effect of digital learning during the pandemic period on learning motivation through high school student learning satisfaction. This study aims to describe and explain and analyze the influence of 3 (three) variables, namely the Digital Learning variable, the Learning Motivation variable, and the Learning Satisfaction variable. The three variables above will simultaneously be tested for the relationship and the level of the relationship in this research. The exogenous variable in this study is Digital Learning, while the endogenous variables are the Learning Motivation variable, and the Learning Satisfaction variable. The strength level of the relationship between exogenous variables and endogenous variables was analyzed to determine the predictive ability of exogenous variables to endogenous variables and to determine the construct model of variables that have a significant relationship, the data analysis technique used was structural equation modeling (SEM) with SmartPLS 3.0 software tools. The respondents of this study were 450 high school teachers who were determined by the simple random sampling method. The questionnaire was designed using a Liker scale of 7, the questionnaire was distributed online using social media.

The research hypothesis is
H1: Digital learning has a positive and significant relationship to motivation
H1: Digital learning has a positive and significant relationship to learning satisfaction

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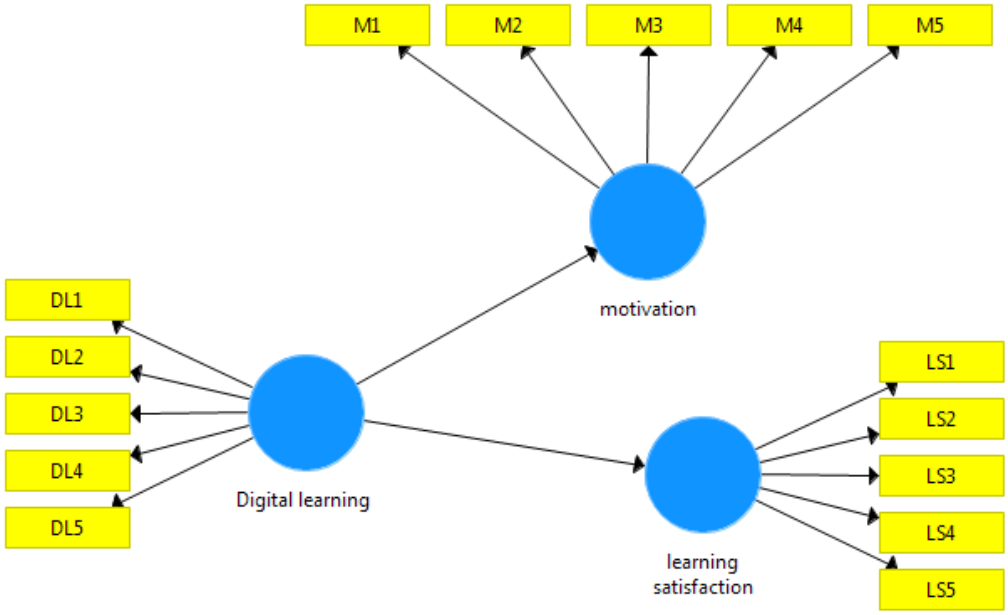

Fig 1. Research Model

Result and Discussion

Convergent Validity

Convergent Validity is done by looking at item reliability (validity indicator) which is indicated by the loading factor value. Loading factor is a number that shows the correlation between the score of an item in question and the score of the construct indicators that measure the construct. The loading factor value greater than 0.7 is said to be valid. However, according to Hair et al. (1998) for a preliminary examination of a loading factor matrix of approximately 0.3 is considered to have met the minimum level, and for a loading factor of approximately 0.4 it is considered better, and for a loading factor greater than 0.5 it is generally considered significant. In this study the loading factor limit used was 0.7. After processing the data by using SmartPLS 3.0 the results of the loading factor can be shown as in Table 2

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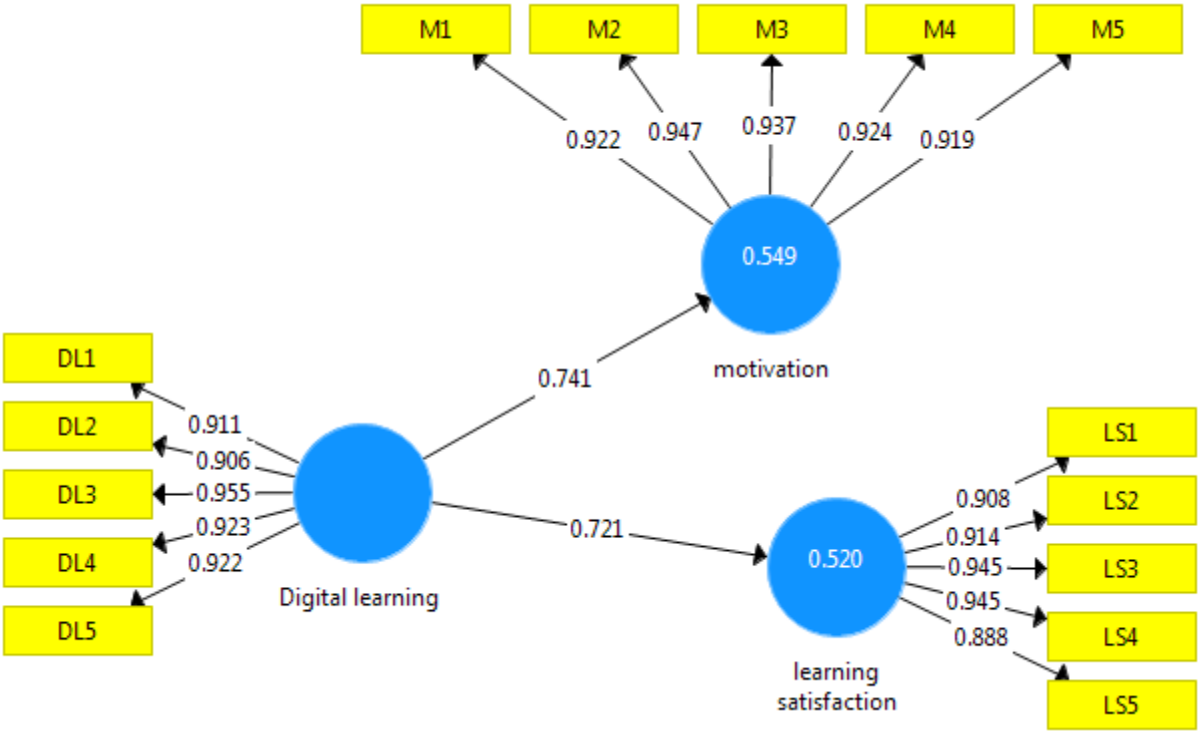

Fig2 . Validity Testing

From the results of data processing with SmartPLS shown in Table 2, the majority of indicators for each variable in this study have a loading factor value greater than 0.70 and are said to be valid.

Hypothesis test

Indicators used in hypothesis testing in research
this is the t value compared to the t table value. Hypothesis declared accepted if the t value is greater than t table, and the hypothesis is declared rejected if the t value is smaller than t table with the results of the path coefficient test significance.
Hypothesis testing is carried out based on the results of testing the Inner Model (structural model) which includes the output r-square, parameter coefficients and t-statistics. To see whether a hypothesis can be accepted or rejected by considering the significance value between constructs, t-statistics, and p-values. Testing the research hypothesis was carried out with the help of SmartPLS (Partial Least Square) 3.0 software. These values can be seen from the

bootstrapping results. The rules of thumb used in this study are t-statistics >1.96 with a significance level of p-value 0.05 (5%) and the beta coefficient is positive. The value of testing the hypothesis of this study can be shown in Figure 3.

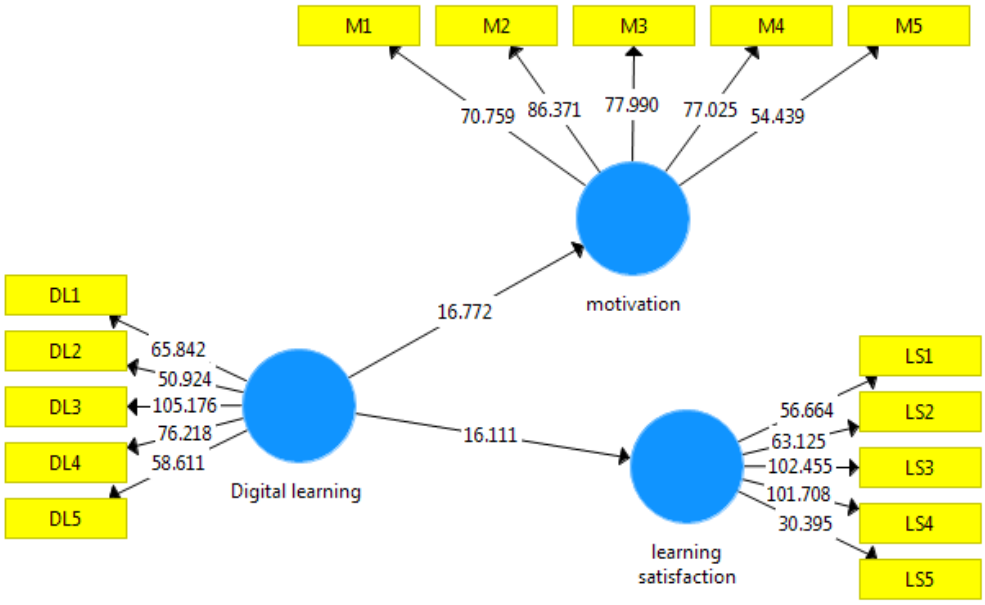

Fig 3. Hypothesis Testing

The Effect of Digital Learning on Learning Motivation During the Covid 19 Pandemic in High Schools

Based on the results of the study it is known that the regression coefficient value of the Digital Learning variable (Y) is 0.741 positive, which means that there is a unidirectional relationship between the independent variable and the dependent variable, the higher the coefficient value (Sig value) in Digital Learning, the relationship to Learning Motivation will also increase of 0.0.741 Then based on the results of the t test listed in the table above it can be seen that: Digital Learning obtained a sig. 0.000 is smaller than 0.05, thus it can be seen that the Digital Learning variable has a significant effect on the Learning Motivation variable. The results of the discussion above convince us that Digital Learning has a significant effect on students' learning motivation. Based on the results of the analysis above, it is more convincing that the use of digital technology as a learning tool has a positive effect on the emergence of student learning motivation so that it is hoped that student learning achievement can be achieved optimally. According to Younas et al. (2022);Yu (2022) The presence of information technology systems

has changed the behavior of educators and students. Currently the process of organizing education is starting to depend on digital technology systems starting from learning in class, or in completing assignments, including final exams starting to implement digital systems. Thus, the benefits and direct impact of this Digital Learning on individual users and which will then increase learning motivation. Technological developments produce various kinds of facilities, qualities and benefits offered by Digital Learning, which aim to facilitate all activities of human life in doing work and accessing various information. During the Covid-19 era, digital learning has become a mandatory tool for every school. According to Yousaf et al. (2022);Younas et al. (2022);Yu (2022) The meaning of Digital Learning is a type of teaching and learning that allows teaching materials to be conveyed to students using technology and also the internet. Quality digital learning media facilities can improve the quality of student learning and increase student motivation in learning activities. This motivation is formed because of self-awareness of understanding how important it is to learn to develop oneself and the provision to live a future life.

The Effect of Digital Learning on Learning Satisfaction During the Covid 19 Pandemic in High Schools

Based on the results of the study it is known that the regression coefficient value of the Digital Learning variable (Y) is 0.721 is positive, which means that there is a unidirectional relationship between the independent variable and the dependent variable, the higher the coefficient value (Sig value) in Digital Learning, the relationship to Learning Satisfaction will also be increased by 0.721. Based on the results of the t test listed in the table above, it can be seen that: Digital Learning Variables obtained sig. 0.00 is smaller than 0.05, thus it can be seen that the Digital Learning variable has a significant effect on the learning satisfaction variable.

Based on the results of this research analysis it is also known that Digital Learning has a significant positive effect on learning satisfaction. According to de Freitas et al. (2022);Lin (2022);Sousa et al. (2022);Sayaf et al. (2022);Togaibayeva et al. (2022);Yousaf et al. (2022);Younas et al. (2022);Yu (2022) , with Digital Learning, some students are not influenced by the environment, students maximally learn by their own will (for example, self-study, with varied places and media) even without motivation or reinforcement of people around, work regularly and Focus and love competition. Appropriate use of new technology can assist in delivering material in a way that students can learn successfully and find satisfaction. The level of student satisfaction can show how much Digital Learning can be accepted by students. The level of student satisfaction can also be a benchmark for the quality of Digital Learning.

Research Implications

Even though Digital Learning has a significant effect on the Learning Motivation variable, Digital Learning is as effective as face-to-face systems. Especially during an emergency like this. To produce optimal learning, many things need to be prepared, starting from adequate internet network infrastructure in the form of a network and application platform. However, the demands that must be considered more seriously are the readiness of human resources (HR) and students. In order for the Digital Learning process to run well, high discipline is absolutely needed, both from teachers and students, because students who do not have basic skills and high self-discipline can do better learning with conventional methods and vice versa students who are smart and having discipline and high self-confidence will be able to effectively carry out online learning. Considering that distance learning activities are carried out at home, learning planning using the pandemic curriculum is the right reference to use so that the learning process continues to be carried out properly according to the objectives to be achieved from this learning. To increase student learning satisfaction during the pandemic, student activities during the online learning process require full attention and assistance as well as providing motivation and encouragement so that learning satisfaction is maintained properly. As well as limiting the use of gadgets because this can affect development and learning activities. The suggestion for management in senior high schools is to make a scheme and arrange good management in managing digital learning systems. This can be done by making a systematic, structured and simple schedule to make it easier for teachers and parents to control learning at home. For future researchers who want to conduct research on digital learning on student learning motivation and also student satisfaction in the midst of the Covid-19 pandemic situation, to add supporting variables to get better results. In addition, perhaps it would be better if the research subjects were expanded to include all existing levels of education, with the aim of obtaining broad results related to learning motivation and also learning satisfaction in the midst of a situation like this.

Conclusion

Based on the results of data analysis, it can be concluded that the Digital Learning variable has a significant effect on the Learning Motivation variable. Based on the results of the analysis, it is more convincing that the use of digital technology as a learning tool has a positive effect on the emergence of student learning motivation so that it is hoped that student learning achievement can be achieved optimally. The presence of information technology systems has changed the behavior of educators and students. Currently the process of organizing education is starting to depend on digital technology systems starting from learning in class, or in completing assignments, including final exams starting to implement digital systems. Thus, the direct

benefits and impacts of Digital Learning will then increase student learning motivation. Digital learning has a significant effect on learning satisfaction variables. These results are understandable because, with Digital Learning, some students are not influenced by the environment, students maximally learn by their own will (for example, self-study, with varied places and media) even without motivation or reinforcement of people around, work regularly and Focus and love competition. Appropriate use of new technology can assist in delivering material in a way that students can learn successfully and find satisfaction.

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