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THE SUCCESS FACTORS OF ONLINE LEARNING DURING THE COVID-19 PANDEMIC

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Abstract

This study aims to describe the success factors of online learning during the Covid-19 pandemic for vocational school students in Medan City. The four success factors of online learning used are teacher characteristics, student characteristics, technology, and support. This research is an explanatory survey research with data collection techniques through a questionnaire summarized in 53 questions distributed to 101 students at SMK Laksamana Martadinata Medan City. The data collected was then analyzed using the Guttman Scale. The results of this study indicate that online learning for students of SMK Laksamana Martadinata Medan has been successfully implemented.

Jel Classification:

I2; I21; A2

Keyword: Success Factors, Online Learning

INTRODUCTION

Coronavirus Diseases 2019 (COVID-19) is a new type of disease that has never been previously identified in humans. Common signs and symptoms of COVID-19 infection include symptoms of acute respiratory distress such as fever, cough and shortness of breath. The average incubation period is 5 to 6 days with the longest incubation period of 14 days. Right on January 30, 2020, WHO has designated a public health emergency that is troubling the world because the spread of this virus is very fast and even takes many victims (Dewi, 2020).

Indonesia is one of the countries affected by the plague *Covid-19*, so this virus spreads to several regions in Indonesia which makes all Indonesian people worry because this virus has claimed many victims. The spread of the virus had a big impact in various sectors, so that the government finally took a policy to change the system of activities in each sector both inside and outside to be postponed for some time and began to implement work from home or known as *Work From Home* (WFH). This research is in line with the research (Woods et al. 2020) on Student's Perception Of Online Learning During The Covid-19 Pandemic. The difference between this research and previous research is in the analysis using case studies

The education sector is one of the sectors affected by the spread of the *Covid-19*, so that the Government issued a policy through the Minister of Education and Culture of the Republic of Indonesia by issuing Circular Number 4 of 2020 concerning Implementation of Education Policies in an Emergency for the Spread of COVID, which is in this Circular, it is explained that the learning process is carried out at home through online/long distance learning implemented to provide meaningful learning experiences for students. Home learning can focus on life skills education, among others, regarding the pandemic *COVID-19*. Thus, this policy is expected to reduce the risk of spreading

the *Covid-19* virus.

Robert Gagne has learning theory "Information Processing Learning Theory". This theory describes learning as an activity in the human brain when processing information. so, in learning occurs acceptance process information, to be processed so that produce output in the form of learning outcome (Rehalat 2016). Individual builds his knowledge through the information he gets. Online learning is one of learning in which there is information processing that forms knowledge.

Online learning was first recognized for its influence from the development of electronic-based learning (e-learning) which is introduced by Illinois University through a obased learning system computer. Bonk Curtis J. implied in the survey Online Training in an Online World that the concept of online learning is the same that is, by e-learning (Riyana 2015). So, Online learning requires students and teachers communicate interactively by utilizing information technology and communication.

Online learning is a type of teaching and learning that allows teaching materials to be delivered to students using the Internet, Intranet in the form of audio and audiovisual (Rahmadi and Hayati 2020). So, it can be said that online learning is learning that can be done without face to face or direct interaction between educators and students. Online learning is carried out by utilizing technology and internet networks in the learning process. Online learning in schools in general is using applications such as *google classroom*, *zoom meeting*, *google meeting*, or with *whatsapp group* as a medium for educators and students in carrying out the learning process during the *COVID-19* Pandemic.

Several studies have proven how the effectiveness of online learning and the factors that affect the success of online learning. One of them is a research by (Pangondian R. A., Santosa, and Nugroho 2019). This research showed The success of

online learning is determined by several factors. First, technology. With the exchange of synchronization and asynchronization, students can have easy access in the process of online learning activities. Second, the characteristics of educators/teachers. Teachers play an important role in playing a central role in online learning activities. The application of instructional technology from the teachers that determines the effect on learning; students who are present in class with teachers who have a positive attitude towards the distribution of learning and understand technology will tend to produce a more positive learning. Third, students who do not have basic skills and high self-discipline can do better learning with conventional methods, while students who are intelligent and have high discipline and self-confidence will be able to learn using online methods.

Success factors for learning online are determined by several factors namely

METHODS

The research method used is an explanatory survey with data collection techniques that are distributed to students of SMK Laksamana Martadinata in Medan City where these students do online learning in the Financial Automation System subject. To measure the success factors of online learning, it refers to a research conducted by (Selim 2007) where the results show that the determining factors in the success of online learning are teacher characteristics, student characteristics, technology, and support.

An overview of respondents in this study were students of class XI which consisted of 3 (three) classes totaling 101 students. So, the samples taken in this study

teacher attitudes, student characteristics, technology, and support from educational institutions (Selim 2007). Research on the determining factors for the success of online learning was also carried out by (Cidral et al. 2018) who found that the success of online learning is determined by online learning satisfaction and the success of theoretical information systems. Where the factors of online learning satisfaction and the success of theoretical information systems are the quality of collaboration, quality of service, quality of information, desire to learn computers, attitude to learning infrastructure, diversity assessment, perception of user satisfaction, and impact on individuals. This study aims to describe the success of online learning and to determine the percentage of factors determining the success of online learning that will be carried out on Vocational High School students in Medan during the *Covid-19* Pandemic which is tested based on the perspective of the students.

were carried out in a way *Total Sampling*. That is, the number of samples is the same as the population, which is 101 students. The research instrument that will be distributed is a questionnaire which is an adaptation of *E-Learning CFS Instrument* designed by (Selim, 2007) which amounts to 53 items. The questionnaire was based on students' perceptions of the success of online learning in terms of the characteristics of the teacher as a teacher, student characteristics (themselves), technology, and support. Each factor is measured using a scale *Guttman* by giving a score of 1 and 0 for the answers to each question and showing the large number of percentages of each success factor of online learning

RESULTS AND DISCUSSION

The distributed questionnaire for the

success of online learning has been distributed as follows.

Table 1. The Statistics of Online Learning Questionnaire Results.

Statistics	Questionnaire Results
Sample Size	101
Mean	0.89
Median	0.88
Highest Score	1.00
Lowest Score	0.71

Source: Data Processing Results, 2019.

Based on this table, it shows that the results of the online learning success questionnaire have an average value of 0.89, where the number of participants who have a value ranging from 0.88 to 1.00 is 93 out of 101 students or with a percentage of 92.07%. many as 8 of 101 students or with a percentage of 7.93%. Based on the results :

of the data analysis, online learning has been successfully implemented. To analyze each indicator of the success factors of online learning, the surveyed questionnaires are distributed based on the results of the respondents' answers as follow

Table 2. The Percentage of Indicators of Success Factors for Online Learning

Indicators	Percentage (%)
Teacher Characteristics:	91.78
Attitude of Teachers towards Technology	
Teachers' readiness in online learning	
Teaching style	
Teacher creativity	
Teacher skills	
Teacher motivation	
Student Characteristics	87.80%
Student motivation in online learning	
Attitudes of students in online classrooms	
Student-owned facilities for online learning	
Students' ability in using technology	
Attitudes of students towards technology	
Technology	90.76%
Internet access speed	
Ease of using the website or application	
Support	79.20%
The effectiveness and efficiency of educational institutions/schools support	

Source: Data Processing Results, 2019.

Based on the results of the respondents' answers presented in the table, it can be obtained that each indicator has a value of $>50\%$. In *guttman* scale, it is stated that if the respondents' answer is $> 50\%$, it means that the respondents agree with the proposed instrument. It describes that each factor has a good success in online learning. The processing results show that the indicators of teacher characteristics are the indicators that have the highest percentage first of 91.78% of the respondents' answers. This means that as many as 93 out of 101 students agree that the teacher has characteristics that support the success of online learning. Teacher characteristics that can be measured through how the teacher's attitude towards technology, teacher motivation in online learning activities, teacher teaching style, teacher creativity, and teacher response to students (volery 2010) The results of the respondents' answers indicate that the teacher has a good ability in using technology as an online learning facility, the ability to control the classroom remotely, has creativity in teaching, and is able to provide motivation and encouragement to students during online learning. Furthermore, there are 3 main characteristics that teachers must have in the success of online learning, namely the ability in the field of technology and information, teaching style, and also attitudes and mindset

The factor that has the second highest percentage value is technology. From the results of the data analysis, as many as 90.76% or a number of 89 students indicated that they have fast internet access speeds, have media or gadget used, and understand in operating applications used in online learning. Technology plays an important role in encouraging the success of online learning, with the

available websites and applications that can be used as media in the online learning process that will make it easier for teachers to deliver material and notifications in the form of assignments and others to students and so do students get material and notifications from the teacher easily.

Technology has a big role in online learning activities (Pangondian R. A., Santosa, and Nugroho, 2019). Technology has a network arrangement that allows synchronization which is useful in exchanging information and students have the convenience of accessing the information needed in a network that is determined by time. The third highest number of percentage responses for learning success factors is student characteristics. It is as much as 87.80% or as many as 89 students. The results of these respondents indicate that students who have good motivation, interest, and interest in participating in online learning, have the ability to use technology as an online learning medium, and have online learning facilities such as sufficient internet quota, communication tools or gadget privately owned. So, it can encourage the success of online learning. Student characteristics that can encourage the success of online learning must have high self-confidence and discipline in participating in online learning that is carried out remotely. Support ranks fourth highest based on the results of the respondents' answers, namely 79.20%. The results of the respondents' answers indicated that students felt good support from the school during online learning. The support received by students from school groups such as internet quota assistance in supporting online learning, providing facilities that support online learning, and evaluating the obstacles that students have during online learning.

CONCLUSION

Based on the results of data processing and data analysis, it can be concluded that online learning activities have been successfully implemented. There are four factors used in measuring the success of online learning. The results of data analysis found that the characteristics of teachers had the highest response, this showed that the success of online learning was supported by the presence of teachers who have the skills to use technology, varied teaching styles, creativity in teaching, and teachers who can foster student motivation and interest in participating in online learning. Technology ranks the second highest percentage value. This shows that technology has been able to operate properly as long as online learning activities and technology-based facilities are sufficient to support the success of online learning. Student characteristics is then at the third highest percentage value. High discipline, interest, and seriousness in taking part in online learning are characteristics that students must have to support the success of online learning. Support from schools ranks the fourth highest percentage. This shows that students agree that the support from schools can encourage the success of online learning. Schools can provide online learning facilities as support, one of which is providing quota assistance to students, so that limited quota does not become the reason for obstructing the success of online learning.

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