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Analysis of the use of edu-learning in basic programming competencies at SMK Ketintang Surabaya in the Covid-19 Pandemic era

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A B S T R A C T

Learning Management System (LMS) technology is a web-based technology developed to improve the learning process through proper planning, application and evaluation in educational institutions. The use of LMS in the learning process helps facilitate e-learning because it provides educational material without time or place constraints. SMK Ketintang is a vocational high school under the auspices of the Widya Dharma Surabaya Foundation. SMK Ketintang seeks to implement edu-learning, a Learning Management Systemplatform (LMS)equipped with chat andfeatures teleconference which are used as online learning media in the era of the Covid-19 pandemic. Edu-learning was developed with the aim of being a bridge between teachers and students in organizing and implementing learning. The analysis of the use of edu-learning as anlearning medium online in the Covid-19 pandemic era has 4 (four) indicators, including: (1) ease of use; (2) delivery of information; (3) media attractiveness; (4) media features. The results of this study indicate that the level of effectiveness in using edu-learning reaches 79.5%. So, it can be concluded that edu-learning is effectively used as an online learning medium in the era of the Covid-19 pandemic.

INTRODUCTION

The Covid-19 pandemic has had a tremendous impact on the survival of the world's citizens. This pandemic was caused by a corona virus which originated in Wuhan City, China at the end of December 2019 (Wu, 2020). The disease is highly contagious and has a relatively high mortality rate (Ahorsu, 2020) and has led to increased public fear (Lin, 2008). Not only has an impact on the health sector, the Covid-19 pandemic also has a direct impact on the world of education. In accordance with government regulations through the Ministry of Education and Culture (Kemendikbud) and the Ministry of Religion (Kemenag), the government has limited educational activities at all levels, both elementary, junior high and high school/ equivalent, as well as universities. This epidemic has transformed face-to-face learning into online learning (Tesar, 2020). This was done in order to prevent the emergence of a new Covid-19 cluster.

The Covid-19 pandemic has forced the government to issue public policies covering social distancing, isolation and self-quarantine (Anderson, 2020). Technology always helps improve the simplest of tasks, such as advances in traditional learning processes. During the occurrence of self-quarantine and isolation, e-learning technology is needed so that learning can still take place (Zwain, 2019) in the pandemic era. The very rapid development of technology today requires improvement and development both in terms of software, hardware, and brainware for all school components. Starting from educators, students, and all school members. The government and education units are reconsidering the role of information and communication technology (ICT) in reviewing the effectiveness of online learning in schools. Technology Learning Management System (LMS) is a web-based technology that was developed to enhance the learning process through the planning, application and proper evaluation in educational institutions (Ain, 2016). The use of LMS in the learning process helps facilitate e-learning because it provided educational material without time or -

time or place constraints.

Learning is carried out online by applying technology in accordance with the development of generation z. Currently, SMK Ketintang already has edu-learning, an platformonline learningthat was developed with the aim of being a bridge between teachers and students. Not only is it a connecting bridge, but a platform that contains all the activities of the SMK Ketintang school, starting from the attendance of students and teachers, the learning process, giving assignments/quizzes, assessments, to the final exam. All components in SMK Ketintang are expected to maximize the use of edu-learning. Edu-learning is equipped with chat andfeatures teleconference, so that teachers and students can interact interactively and communicatively. With the edu-learning is expected to improve the quality of learning and work productivity of teachers in SMK Ketintang Surabaya.

LITERATURE REVIEW

Online Learning

Online learning is learning to use a computer and connected to a network that makes it possible to learn from anywhere, anytime, and any way (Cojocariu, 2014). Inlearning online, students are independent to learn and interact with teachers and other students (Singh, 2019). Online learning has advantages over face-to-face learning. Online learning is a medium that can make the teaching and learning process more student-centered, more innovative, and more flexible. Online learning uses a platform that can be used for: (1) video conferencing of 40-50 students; (2) discussions with students can be carried out to keep the class organic; (3) good internet connection; (4) Instant feedback from students can be achieved and assignments can be taken.

Online Learning based on Edu-learning

The flow of online learning using edu-learning is as shown in Figure 1 below.

Based on Figure 1, online learning flow using edu-learning begins with the teacher logging into theweb edu-learning using a username and password which has been distributed by the school. Teachers access their respective classes according to the lesson schedule on that day. Classes will be open for 1 (one) week after learning. Classes that have been in progress and have been activated by the admin can be accessed through the respective teacher's homepage.

Besides being on the homepage, for classes that have ended, you can also access them in the class history. Teachers do online learning using edu-learning. In edu-learning, teachers can interact directly with students through chat forums and teleconferences. Teleconferences can be via Zoom Meetings or Webex. Interactions Teleconference at the forum can be started according to the predetermined learning hours. Assignment can be done starting from the class being activated until a maximum of 23.59 WIB counting 2 (two) weeks later. If it is too long, the teacher can limit the collection of assignments for each subject. If the assignment/quiz has been graded by the teacher, students cannot delete or re-upload the assignment/quiz. Quiz collection can be done starting from the activated class until the class ends.questions Online can be done starting from the open class to the closed class. Online question processing can only be done once. The teacher assesses the assignment of each student in edu-learning. The grade will appear on the class statistics report. The teacher logs out of edu-learning when learning is complete.

With the address http://smkketintang.edulearning.me/, all components in SMK Ketintang are expected to maximize the use of edu-learning. Edu-learning is equipped with chat and teleconference features, so that teachers and students can interact interactively and communicatively. With the existence of edu-learning is expected to improve the quality of learning and work productivity of teachers at SMK Ketintang Surabaya.

Figure 1. Online Learning Flow using Edu-learning

Figure 2. Display of Edu-learning SMK Ketintang

METHOD

This research method uses descriptive statistical research methods. Descriptive statistics is a research method related to the collection and presentation of data so that it provides useful and complete information (Sudjana, 1996). Descriptive statistics serve to provide an overview of the object under study through sample or population data (Sugiyono, 2007). Analysis of the use of edu-learning as anlearning medium online in the Covid-19 pandemic era has 4 (four) indicators, including: (1) ease of use; (2) delivery of information; (3) media attractiveness; (4) media features.

 Sub-indicators for media convenience consist of the ease of using edu-learning, the ease with which students can send assignment files to edu-learning media, and the role of other people in helping students access edu-learning. Sub-indicators for media appeal consists of interest edu-appearance learning attractive and suitability to the needs of learning, edu-learning media use which does not require internet quota is too large. Sub-indicators of information delivery consist of the ease with which students accept online learning and the increase in student motivation in learning. The sub-indicators of media features consist of the availability of guides for teachers and students, the presence of chat and video conference features to connect with teachers and other students.

Learning management is a complete and comprehensive learning process starting from planning, implementing, to evaluating learning, all of which must be done well in order to be able to achieve the expected goals (Daryanto, 2010). Learning management has implications for the learning outcomes of students. This is in accordance with the results of research obtained by Pradnyantika (2018), that the management of learning that is not optimal has implications for the achievement of less than optimal learning objectives. In addition, Eliyanti's (2016) research results explain that the learning management to be planned needs to be supported by four variables that are managed optimally, namely student management, teacher management, learning procedures and classroom environment management. These results indicate that learning management is a strategic aspect that greatly determines the quality of learning which educators and students must collaborate in making it happen. Educators as the spearhead of the implementation of the learning process during the COVID-19 pandemic are expected to be able to adapt quickly so that the learning process continues.

This vocational high school has 5 (five) skill competencies namely Institutional Accounting (AKL), Online Business and Marketing (BDP), Multimedia (MM), Computer and Network Engineering (TKJ), Office Management Automation (OTKP). The indicators used will be implemented into a questionnaire using ascale Likert.

The instrument was distributed using a sample of class X students in the Department of Multimedia and Computer and Network Engineering with a total of 144 respondents who were spread into 6 classes.

RESULTS AND DISCUSSIONS

Based on the results of the questionnaire in table 1.1, the results of the analysis of the use of edu-learning media at SMK Ketintang Surabaya showed that the percentage level of the ease of use of edu-learning reached 82% with a good category. The percentage of information delivery reached 85% in the very good category. For the indicator of the attractiveness of the edu-learning media the percentage reached 76% reaching the good category and while for the media feature indicator the percentage reached 74% with the good category.
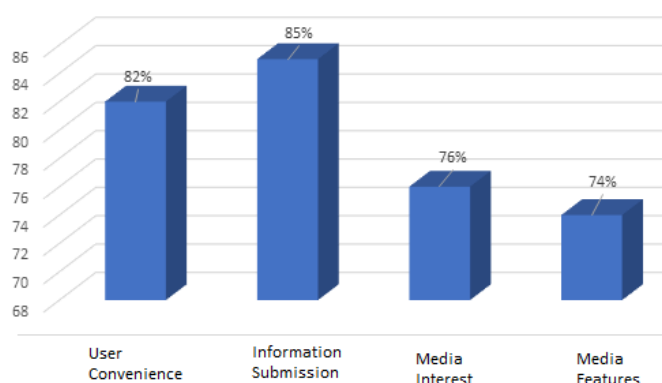

Figure 3. Results of Analysis of the Use of Edu-learning

CONCLUSION

Based on the results and discussion of the analysis of the use of edu-learning, it can be seen that the effectiveness level of using edu-learning reaches 79.5%. So, it can be concluded that edu-learning is effectively used as an online learning medium in the era of the Covid-19 pandemic.

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Author's Contributions

All authors discussed the results and contributed to from the start to final manuscript.

Conflict of Interest

The authors declare that they have no competing interests.

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