

Original Research Article

EFFECTIVENESS LEARNING USING THE GOOGLE CLASSROOM APPLICATION ON UNDERSTANDING OF NURSING STUDENTS ABOUT DISASTER MANAGEMENT

Priyo Mukti Pribadi Winoto ^{1*}, Chilyatiz Zahroh ¹

¹ Faculty of Nursing and Midwifery, Nahdlatul Ulama University, Surabaya

*Correspondence:

Priyo Mukti Pribadi Winoto

Faculty of Nursing and Midwifery,
Nahdlatul Ulama University, Surabaya
SMEA Road 57, Surabaya City, East
Java Province, Indonesia
Email: winoto@unusa.ac.id

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Abstract

Background: Online learning with the help of information and communication technology is very helpful in the current Corona Virus Disease 19 pandemic.

Objectives: This study aimed to determine the effect of learning using google classroom on the understanding of the concept of Disaster Management in undergraduate students of Nursing at Nahdlatul Ulama University, Surabaya.

Methods: Pre-experimental research design with one group pretest posttest design. The population of all undergraduate nursing study program students and a sample of 30 students by simple random sampling was carried out for 3 months, June-August 2020. Data collection was in the form of a questionnaire about knowledge about disaster management. Statistical test using the Wilcoxon Sign Rank Test.

Results: The results of statistical tests obtained a significance value of 0.000 (p value <0.005) which means that there is an effect of using the google classroom method on students' understanding of management.

Conclusion: Students' understanding improves after receiving material on hate through google classroom.

Keywords: *Learning, google classroom, disaster management.*

INTRODUCTION

The application of a model in a learning system is a process of creating learning habits that allow the learning process to occur. Learning in terms of the activities of a person in interacting with the environment that results in changes in behavior that are relatively constant (Darmadi, 2017). Through the Google Classroom application, it is assumed that learning objectives will be easier realized and full of meaning. Therefore, the use of Google Classroom actually makes it easier for lecturers

to manage learning and convey information appropriately and accurately to students. Through learning with blended learning, students feel comfortable and active in constructing his knowledge. Lecturers can take advantage of various features found in Google Classroom such as assignments, grading, communication, time-cost, archive course, mobile application, and privacy. This research is also expected to provide solutions to the methods that have been applied in the classroom are with the conventional method

where the lecturer is more dominate learning activities both with lecture method or assignment method. Implementation of learning with Google Classroom make it easier to evaluate the implementation teaching and learning process both in class and outside classes such as disaster management. Learning can be combined between conventional methods with e-learning or frequent called Blended Learning (Hussaini *et al.*, 2020).

In order to create innovative learning models, audio-visual based learning plays a very important role in improving the quality of education. However, the development of audio-visual based learning in improving the quality of the next generation must be balanced with the character generation education.

The development of information and communication technology is also accompanied by its role in various aspects of human life, including aspects of education. The existence of this information and communication technology provides an opportunity to improve the quality of teaching and learning, namely by opening up access to finding broad learning resources for students. This is one of the factors in the popularity of a new learning orientation called student centered learning (Wang, 2014). Learning that is rigid instruction from educators is transformed into learning that provides opportunities for students to adjust to their abilities and behave directly in accepting their learning experience.

Learning that optimizes or empowers student potential in the learning process which is carried out individually (Utami, 2019). Communication made through digital media is not ordinary communication. Rather, it involves a way of thinking that can objectively see both the information obtained and the information communicated to the public (Sohibun and Ade, 2017). Especially during the Covid 19 pandemic, which emphasizes that digital literacy should be more than just the ability to use various digital sources effectively, however, the term digital literacy is also a certain form of thinking. Thus the learning process will be conveyed well even without

having to meet face to face between lecturers and students through the google classroom application.

METHODS

Study Design

This research method used pre-experimental research design with one group pretest posttest design.

Setting

This study was conducted in Bachelor Nursing Program, Faculty of Nursing and Midwifery, Nahdlatul Ulama University, Surabaya from June until August 2020.

Research Subject

The population of this study was all of students in the Bachelor Degree Program of Nursing, Faculty of Nursing and Midwifery, Nahdlatul Ulama University, Surabaya. The sample in this study was taken by simple random sampling technique. The sample size is 30 students from the Bachelor Degree Program of Nursing, Faculty of Nursing and Midwifery, Nahdlatul Ulama University, Surabaya.

Instruments

The data collection technique in this study was a test in the form of questions. The data collection method uses primary data, by providing online learning through google classroom, then observing student learning outcomes. The intervention with takes advantage of various features found in Google Classroom such as assignments, grading, communication, time-cost, archive course, and mobile application. Data were collected using a questionnaire that was tested for validity and reliability. Statistical reliability of Cronbach's Alpha (0.432) > table R value (0.3610) which means the instrument is reliable. Validity test using Pearson correlation, with item value for each question < 0.05 which means all items are valid.

Data Analysis

Data analysis used the Wilcoxon Test with significance value 0.05.

Ethical clearance has been issued by the University of Nahdlatul Ulama Surabaya No.188 in August 2020.

*Ethical Consideration***RESULTS**

Analysis of the Effectiveness Learning Using the Google Classroom Application on Understanding of Nursing Students about Disaster Management using Wilcoxon Test

Table 1. The Result of the Analysis of the Effectiveness Learning Using the Google Classroom Application on Understanding of Nursing Students about Disaster Management using Wilcoxon Test (n = 30).

Knowledge	Before being given Google Classroom		After being given Google Classroom		Z-Value	p-value
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)		
Good	3	10.0	25	83.3	-4.985	.000
Enough	23	76.7	3	10.0		
Less	4	13.3	2	6.7		

Sources: Primary Data of Questionnaire, 2020.

Based on the data above (table 1), it found that almost of respondents had enough knowledge about disaster management before getting teaching through google classroom, as many as 23 respondents (76.7%). After receiving teaching through the Google Classroom application, the majority of respondents have good knowledge related to disaster management, as many as 25 respondents (83.3%). The test results using the Wilcoxon test obtained a Z-value of -4.985 and a significance level of 0.000 (p-value < 0.05), meaning that there was an effect of using the google classroom method on students' understanding of disaster management.

DISCUSSION

Learning at this time is more directed at modernization activities with the help of advanced technology with the hope of helping students digest lecture material in an interactive, productive, effective, inspirational, constructive, and fun way. In addition, students are also expected to have life skills from the application of this technology. With this growing technological era, the learning

program is directed to be able to make better use of technology. One of the uses of technology today is e-Learning using the web to access it. It does not deny that because many students now have smart phones, it is easier to access them from wherever they are and anytime. The use of e-learning that is commonly developed today is to use the LMS (Learning Management System) (Santiago *et al.*, 2020).

Based on the results of observations of student responses to the use of google classroom, data is obtained that the Google Classroom is very useful in the learning process of Mathematics. This is evidenced by the percentage value of better student responses, one of which is that students can view and open materials and assignments that have been uploaded to the google classroom (Al-Marouf and Al-Emran, 2018). In addition, students are also facilitated to obtain announcements given by lecturers quickly (real time) so that they become effective and efficient in terms of time. In addition, students can also see the value directly after being corrected.

Lack of exploration and student response and the use of media in learning so that there are still some students who have insufficient and insufficient knowledge. Learning activities more oriented towards a culture of knowledge, memory, and analysis, which is finding the one most appropriate answer to the problem given based on the information available in learning.

This is what makes students motivated in learning because the assignment given can be changed at any time if there is something missing, moreover they can find out when the deadline for the assignment is (Mehta *et al.*, 2019). In addition, they do not need to use paper to collect assignments. This is in line with research conducted by (Damanik, 2019) that there is an effect of student learning outcomes with high learning motivation more than student learning outcomes with low learning motivation using the blended learning model.

According to (Tiwari, 2020) performance expectancy is the degree to which individuals (users) expect that using the system can help gain benefits or ease of work. In this case, it is found that the performance of Google Classroom is better. This means that students in carrying out the learning process carried out online further improve learning performance. Performance itself is related to appearance, how it works and the facilities provided by Google Classroom for its users, such as providing materials and assessments. Therefore, using google classroom can motivate students to learn.

CONCLUSION

Google classroom is an effective choice in an effort to increase student knowledge in understanding material online. For skills, there are suggestions for further research to determine the effectiveness of using the google classroom method on skills.

SUGGESTIONS

The limitation of this study is that there are other variables that also affect the effectiveness of using Google Classroom in understanding disaster management.

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DECLARATION OF CONFLICTING INTEREST

There is no conflict of interest.

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AUTHOR CONTRIBUTION

Priyo Mukti Pribadi Winoto: Compile and device review measuring tools, coordination and management of permits, coordination of the data collection, analysis data, and writing manuscript.

Chilyatiz Zahroh: Coordinate all activities, data collection and analysis, compiling reports, writing manuscript.

ORCID

Priyo Mukti Pribadi Winoto

<https://orcid.org/0000-0001-9658-9507>

Chilyatiz Zahroh

<https://orcid.org/0000-0002-7466-0963>

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