Learning Management System using Google Classroom for Economics Learning in Higher Education

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Learning Management System using Google Classroom for Economics Learning in Higher Education

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Abstract

Online learning gains popularity in Indonesia amid the spread of COVID-19 which requires people to perform physical distancing. This study aims to describe student's comprehension of the Learning Management System using Google Classroom for Economics Learning in Higher Education. The population of this study is 177 students of the Sharia Banking Program (Perbankan Syariah - PS) Faculty of Islamic Economics and Business (Fakultas Ekonomi dan Bisnis Islam - FEBI), State Islamic Institute (Institut Agama Islam Negeri - IAIN) Tulungagung. The respondent of this study is students of even semester of 2019/2020 academic year who took micro and macro economy course. The data is collected using Google Form and respondents provide their responses, in total 132 students provide a response or equal to 75% which makes it feasible to be used as a research respondent. With a survey method, the result of this study shows that millennial students are fond of technology-based learning or online learning. Respondents, who mostly female, consider that online learning has several excellences, such as flexible, effective, efficient, reducing risk, add knowledge and insight, learning independence, and help students to understand technology.

Keywords: *Learning Management System, Google Classroom, Economics Learning, Higher Education*

1. Introduction

Coronavirus outbreak in Wuhan, China brings adverse impacts to the various sectors of community life, including Indonesia. The economy as the heart of a country (Sujianto, 2020) is disrupted, and in the education sector, the spread of the virus leads to the issuance of Government Decree in the form of Director General of Islamic Education Ministry of Religious Affairs Circular Number 285.1 of 2020 concerning The Efforts to Prevent the Spread of COVID-19 (Anonymous, 2020a). At the level of the unit, the head of higher education issued a prohibition of academic and students' activities to prevent the spread of Corona Virus Disease 2019 (COVID-19) and replace the classroom learning with online learning system or other methods of learning aside of class meeting (Anonymous, 2020b).

To support the serious effort from the government and to provide education service for the community, the higher education will keep conducting education and teaching through different methods and places. The method is chosen to solve the current situation is a method that can facilitate the teaching and learning process conducted from home. The selected method is online/web-based learning. Bilfaqih & Qomarudin (2015) stated that online learning is a learning process conducted through the web, in which materials are provided in digital form and tasks are assigned independently and structured, that must be done in the specified deadline and assessed online.

According to Isman (2016), the online learning system at higher education can replace the old learning system conducted through class meetings and require a permanent classroom. The old learning system needs to be adjusted with the new era as argued in Tulasi & Suchithra (2020) study that millennials like technology so that the teaching and learning process is more oriented toward technological aspects. With internet-based information technology, the learning process can be conducted efficiently, effectively, and flexibly. Therefore, this system will bring benefits for students, especially those who have a side job. As for teachers, they get more time to perform other Higher Education Tridharma (three basic objectives of higher education in Indonesia: teaching, researcher, and community service) such as research, scientific publication, and community services. The online learning system also brings benefits to the institution in the form of solving the problems caused by the limited number of classrooms and reducing building investment costs and other facilities and infrastructure.

The online system is also known as e-learning. According to Arkorful & Abaidoo (2015), e-learning is crucial to be implemented in the higher education learning process that utilizes information technology, flexible in terms of place and time, and reducing travel and is more efficient in terms of transport. A similar study is conducted by Sun and Chen (2016) which finds that e-learning can improve higher education performance. To increase the student's ability in making a decision concerning information technology, the learning program needs to be designed well and receive support from technology. According to Nguyen (2015), online learning in higher education can improve student's outcomes and minimize the negative impact of the shortage in facilities and infrastructure.

Online or e-learning is an integrated learning system because it integrates and collaborates the education resources: students, teachers, and information technology (Alenezi, 2018; Tampubolon et al., 2012; Muhammad, 2017). The benefits of e-learning implementation, according to Rusman (2012) are the ease of communication at any time, the ease of using learning materials online, the availability of learning materials to be saved into computer digitally, broadening knowledge and insight, and increase student’s independence. Currently, the e-learning method is widely adopted by schools and higher education. E-learning method has various options, among others (Rusman, 2012; Kasim and Khalid, 2016; Caminero et al., 2013): LRN, Sakai, Moodle, SEVIMA EdLink, Edmodo, Schoology, and Google Classroom.

In this study, the researcher selected Google Classroom application to implement online learning. The app is selected because of the ease in running the app and the ability of this app to record data because it is run using google.com. Subandoro & Sulindra (2019) explain that Google Classroom implementation is the implementation of collaborative learning which combines aspects like curriculum and information technology. Through Google Classroom, Learning Management System (LMS) will support the learning process and speed up the learning process. According to Kasim and Khalid (2016); Caminero et al. (2013) and Turnbull et al. (2019) LMS is vital to be implemented on the learning process at the higher education to response the advancement of information technology in education. Meanwhile, Kara (2019) stated that Google Classroom is also known as Google Education, which has similarities in contents and operation.

The use of LMS in the form of Google Classroom has been implemented in universities in southeast Europe. However, according to Bexheti et al. (2017) study, there is a negative relationship between LMS users and age. It means that LMS is mostly used by young respondents compared to the older ones. Dash (2019) in a study stated that as a form of LMS, Google Classroom is very easy to use. Students have better access to the discussed materials, ease to provide immediate feedback, facilitate out of class learning, and can be run on both phones and laptops. Therefore, Google Classroom learning is very

useful and effective, and is recommended for teaching and learning activities at higher education (Subandoro and Sulindra, 2019; Bhat et al., 2018; Mafa, 2018; Alim et al., 2019 and Muslimah, 2018). Based on the existing theories and researches, a research question is formulated: How do students comprehend the Learning Management System (LMS) using Google Classroom for Economic Learning in Higher Education?.

2. Methodology

This study uses a quantitative approach and survey method. According to Gürbüz (2017) survey study is famous and has significant contributions when implemented on research in the education field, using various techniques such as the internet, email, telephone, and direct or face to face interviews. The Survey technique selected in this study is an internet survey using google form application. The respondent of this study is students of PS-FEBI Program IAIN Tulungagung who took the micro and macro-economic course the event semester of 2019/2020 academic year. Based on the data from the Academic and Student Administration Bureau (BAAK), there are four classes of PS-FEBI IAIN students who took the courses in their second semester.

All students were included in the study which results in 177 respondents or a population-survey. The research instrument was developed based on the relevant theory and previous studies, and in general classified into three aspects: demography (6 items), proses (9 items), and the result (5 items). The demography aspect asked the information concerning gender, age, place of origin, residency, education background before entering university, and field of concentration. The process aspect includes the use of learning facilities and infrastructures; classroom, table and chairs; flexibility in learning because students can have a side job, conducted out of class, and the choice of using laptop or phone; it also reduces the transportation cost and the risk of traveling, and teacher's readiness. The output aspect consists of increasing knowledge, insight, independence, learning outcomes, and mastery of information technology.

In total there were 20 items of multiple-choice questions included in the instrument. The data is analyzed using descriptive statistics on the instrument items as recommended by Sujianto (2009).

3. Result

The statistical results of the survey based on each instrument item are presented in the following tables.

Table 1. Respondent Gender

	Frequency	Percent
Male	20	15.2
Female	112	84.8
Total	132	100.0

Table 2. Respondent Age

	Frequency	Percent
18	30	23
19	87	66
20	13	10
21	2	2
Total	132	100.0

Table 3. Respondent Origin

	Frequency	Percent
Tulungagung	60	45.5
Outside Tulungagung	72	54.5
Total	132	100.0

Table 4. Respondent Type of Accommodation

	Frequency	Percent
Rent House	44	33.3
Parent's House	80	60.6
Islamic Boarding School	4	3.0
Relative's House	4	3.0
Total	132	100.0

Table 5. Respondent Education Level

	Frequency	Percent

Table 6. Respondent Field of Concentration

	Frequency	Percent

Senior High School	67	50.8
Islamic Senior High School	35	26.5
Vocational High School	30	22.7
Total	132	100.0

Natural Science	52	39.4
Social Science	49	37.1
Informatics	1	0.8
Accounting	13	9.8
Office Administration	5	3.8
Catering/Fashion	12	9.1
Total	132	100.0

Table 7. Respondent's View on Lecture Hall

	Frequency	Percent
Agree	110	83.3
Disagree	22	16.7
Total	132	100.0

Table 8. Respondent's View on Lecture Chair and Table

	Frequency	Percent
Agree	120	90.9
Disagree	12	9.1
Total	132	100.0

Table 9. Respondent's View on Learning Flexibility

	Frequency	Percent
Agree	91	68.9
Disagree	41	31.1
Total	132	100.0

Table 10. Respondent's View on Out of Class Learning

	Frequency	Percent
Agree	115	87.1
Disagree	17	12.9
Total	132	100.0

Table 11. Respondent's View on E-Learning Using Laptop

	Frequency	Percent
Always	63	47.7
Never	69	52.3
Total	132	100.0

Table 12. Respondent's View on E-Learning Using Handphone

	Frequency	Percent
Agree	120	90.9
Disagree	12	9.1
Total	132	100.0

Table 13. Respondent's View on Reducing Transportation Cost

	Frequency	Percent
Agree	117	88.6
Disagree	15	11.4
Total	132	100.0

Table 14. Respondent's View on Reducing Travel Risk

	Frequency	Percent
Agree	127	96.2
Disagree	5	3.8
Total	132	100.0

Table 15. Respondent's View on Lecturer's Readiness

	Frequency	Percent
Agree	121	91.7
Disagree	11	8.3
Total	132	100.0

Table 16. Respondent's View on Enriching Knowledge

	Frequency	Percent
Agree	109	82.6
Disagree	23	17.4
Total	132	100.0

Table 17. Respondent's View on Adding Insight

	Frequency	Percent
Agree	107	81.1
Disagree	25	18.9
Total	132	100.0

Table 18. Respondent's View on Learning Independence

	Frequency	Percent
Agree	115	87.1
Disagree	17	12.9
Total	132	100.0

Table 19. Respondent's View on Learning Outcomes

	Frequency	Percent
Agree	89	67.4
Disagree	43	32.6
Total	132	100.0

Table 20. Respondent's View on Mastery of Information Technology

	Frequency	Percent
Agree	129	97.7
Disagree	3	2.3
Total	132	100.0

Based on the results of the survey, female respondents show a better attitude compared to male respondents. The majority of respondents were 19 years old, followed by 18 years old. The respondents were mostly come from Tulungagung and stay at their parent's house in Tulungagung. Before entering university, respondents took Senior High School

(SMA) taking Natural Science concentration Ilmu Pengetahuan Alam (IPA). On the aspect of facilities and infrastructure usage, 110 respondents stated that they agreed on 'very adequate lecture halls' statement. A similar response is also provided on lecture chairs and tables.

Respondents agree that online learning is very flexible because it is conducted outside of class. They prefer phones than a laptop to join the online learning. Respondents agree that e-learning reduces their transportation cost (save money) and reduce the risk of travel. Lecturer's readiness plays a major role in determining the success of internet-based learning. On the output aspect, respondents agree that online learning enriches knowledge, adds insight, improves independence, increases learning outcomes, and improve student's mastery of information technology.

4. Discussion

On the demography aspect, the young generations, including university students, have a higher and faster ability to capture and adapt to the advancement of information technology. They are highly interested in digital-based learning through mobile phones. This study is relevant to Bexheti et al. (2017) research that the younger the user, the more interested they are to use LMS, and on the contrary, the older the user, the less interested they are. Therefore, there is a negative relationship between LMS usage and age. Regarding the student's origin; from Tulungagung and outside of Tulungagung, this study supports Pratomo et al. (2012) who find that the implementation of LMS facilitates learning and reduces the gap of skill between urban and suburban communities.

On the aspect of the process, the result of this study is relevant with Muslimah (2018) and Tampubolon et al. (2012) that Google Classroom is easy to be accessed and run on a laptop and handphone. Students in the higher education show similar attitude or opinion on LMS using Google Classroom, in which they feel satisfied with the e-learning. This study also supports Alim et al. (2019) that smartphone the availability of internet connection highly support the implementation of e-learning in higher education. Concerning the lecturer's readiness in providing online learning, this study supports Muhammad (2017) finding that as an actor, the lecturer’s role does not stop at providing assignments and evaluations, but they are asked to motivate and direct students in online learning.

On the output aspect, the result of this study is relevant to the study conducted by Bhat et al. (2018) that currently, the education system is experiencing rapid changes marked with its adaptability to technology. Similarly, in-class learning also experiences shift from the traditional system into online-based learning. This shift affects the learning outcomes in which the lecturer's and student's performance increases. It is effective and efficient because assignments are not collected manually using paper but digitally, for example using Google Classroom. A similar study conducted by Reddy (2018) and Tulasi & Suchithra (2020) find that millennial student's learning style has distinct characteristics, namely liking technology. This is directed to outcome-based learning which puts social media or digital technology in the form of online learning. This type of learning method has a direct relationship with learning outcomes.

According to respondents, online learning can enrich knowledge and insight on economics; practically, theoretically, and empirically. Besides that, online learning also increases learning independence and technological literacy. This result is relevant to the study conducted by Kasim & Khalid (2016) that in Malaysia the use of e-learning is very popular in higher education institutions, considering student's comprehension and experience will increase with the implementation of digital learning. This study also supports Al-Maroof & Al-Emran (2018) on their observation that Google Classroom is not only enhancing student's comprehension but also become an effective method in

increase learning participation and skill which in turn will increase learning independence.

5. Conclusion

The demography, process, and result aspects become the important terms in conducting a deeper survey on student's comprehension of LMS on Economics Learning in Higher Education. The method selected in this study is the Google Classroom. From the result of the survey, it can be concluded that this method is very useful for lecturers and students because it increases knowledge and insights on up to date economic concepts by utilizing digital technology. The era of digital technology in the learning process has become a primary need for millennial communities. Millennial students need technology. Higher education needs to respond to this need. Thus, it is recommended to the higher education to increase the strength of its learning system by adopting information technology such as Google Classroom. The online learning system will help in building higher education in Indonesia into digital-based and world-class higher education.

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