Students' Perceptions of the Twists and Turns of E-learning in the Midst of the Covid 19 Outbreak

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Abstract: The pandemic corona virus 2019 (COVID-19) has become an international concern and poses challenges to psychological resilience in all fields, one of which is education. Therefore an effective learning strategy is needed to deal with this pandemic. The purpose of this study was to survey students spread across various universities in Indonesia and Malaysia regarding e-learning systems conducted during the COVID-19 outbreak in Indonesia and Malaysia in 2020, e-learning systems starting from student knowledge about e-learning, planning e-learning, implementing e-learning until evaluating e-learning activities. Data will be used for future reference. This research is a descriptive study with cross sectional approach. The Likert scale survey method is used with a total of 136 student respondents from tertiary institutions in Indonesia and Malaysia. The results of the analysis show that students know e-learning as a distance learning system in dealing with the current pandemic corona virus, 51% expressed agreement related to e-learning preparation, 38% stated neutral in e-learning planning and 68% stated neutral in evaluating the implementation of e-learning. Student assessment and good perception about e-learning play a big role in the implementation of learning with e-learning. E-learning has a positive impact and has become an alternative learning process for lecturers and students. Good preparation is needed in implementing e-learning so that e-learning activities can be carried out effectively. Interaction can be developed and limited conditions through face-to-face meetings can be answered through e-learning activities.

Keywords: *COVID-19; e-learning; students' perceptions.*

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Introduction

Several universities in Indonesia, Malaysia and other countries have begun mitigating the risk of corona virus (Covid-19), such as Universitas Pendidikan Indonesia (UPI), University College of Islam Melaka (UCIM), and Universiti Teknologi Malaysia (UTM). The three universities in the two countries have implemented a complete shutdown of face-to-face learning activities. Covid-19 has been declared a global pandemic officially by the World Health Organization (WHO) which must have caught the full attention of the entire world (WHO 2020), requiring the general public, including educational institutions to stop activities with large numbers of masses to suppress the number of infections and the spread of the covid-19 virus (Paules, CI; Marston, HD; Fauci, AS, 2020).

Online learning is now at the forefront in helping students face the challenges of learning without face-to-face processes (Geddie, J.S.J; 2020). More than 50 universities around the world have simultaneously used online learning as an alternative learning during the H5N1 outbreak (Meyer and Wilson, 2011; Steffen Mencke, Fritz Zbrog and Reiner Dumke; 2011). At this time, students and instructors are required to socialize online to be able to carry out the learning processes. This Covid-19 phenomenon certainly provides challenges for students and instructors in conducting online learning such as the selection of tools, equipment, apps, and communication preferences that are numerous, widely open, and available (Schaffhauser, D., 2010). Previous research stated that 53.8% of the people in 194 cities in China experienced psychological impacts due to the Covid-19 phenomenon, with female gender and student status being the two categories that were most psychologically affected (Cuiyan Wang, et.al; 2020). Various factors can cause psychological effects; one of which is the cessation of interaction among humans due to lockdown status and social distancing in various regions and countries around the world (Organization, W.H., 2020).

These challenges need to be investigated to see how students' perceptions about the online learning processes or e-learning in the midst of this Covid-19 outbreak. This is important because learning processes must continue, the services of educational institutions must continue to run even with the various conditions and challenges that are affecting various countries amid the outbreak of a pandemic corona virus or covid-19.

Methods

This research is a descriptive study with cross sectional approach. The survey was conducted on students in Indonesia and Malaysia who were

carrying out learning activities through e-learning. The stages carried out in this research consisted of several stages. First, the preparation of questionnaire instruments to be used for data collection. The information contained in the questionnaire includes: knowledge about e-learning, content, accessibility, usefulness, and satisfaction in using e-learning. The questionnaire was developed using the Likert scale survey method. The Likert scale survey method is used with a total of 136 student respondents from tertiary institutions in Indonesia and Malaysia, descriptive research to obtain data from students about their perceptions of e-learning activities in dealing with a corona pandemic situation, with an agree/disagree, satisfied/dissatisfied approach, and so on about attitudes, opinions, behaviors, or characteristics of the research. The researchers gathered quantitative data. The data were in the form of a questionnaire distributed online using Google form which were then analyzed statistically to show the trend of responses provided by the target population regarding the phenomenon discussed (Creswell, 2012; Boone & Boone, 2012). The data obtained from the questionnaire were presented in the form of tables and diagrams to determine the tendency of students' perceptions of e-learning in dealing with the pandemic corona situation.

Results and Discussion

The survey was collected from 136 students from universities in Indonesia and Malaysia. Figure 1 shows data on the gender and age distribution of respondents. Of the 136 students 108 were women (79%) and the remaining 28 were men (21%). Most of the respondents, 119 (88%) of the students, were 17-22 years old, and a small portion, 10 (7%) aged 23-28 and 4 (1%) aged 35-46 years.

Fig. 1. *Distribution of Gender and Age of the Respondents*

The data obtained through questionnaires in the form of students' perceptual responses to e-learning were divided into percentages based on the observed aspects and qualitative descriptive exposures based on the responses provided.

a. Analysis of Knowledge about e-Learning

Based on the obtained questionnaire data as shown in Figure 2 about students' perceptions of information related to knowledge about e-learning, 62 (46%) students stated that e-learning is distance learning utilizing technology, 31 (23%) students answered that e-learning is one of the learning media using internet network, 27 (20%) students indicated that e-learning is a website that provides many functions, one of which is as a means of learning outside the classroom, 12 (9%) students stated online learning applications, and the remaining 4 (3%) students answered that e-learning is a means of learning outside the classroom.

Fig. 2. *Knowledge Aspects of e-Learning*

Based on students' perceptions in Figure 2, it can be stated that students define e-learning as an online learning process, in the form of access to learning material, task submission and discussion. This perception is in accordance with the definition of e-learning, namely that, in e-learning, learning providers (educators) and students (students) are separated by cyberspace (Buzzetto-hollywood, 2019, Horton & Horton, 2003).

The types of e-learning platforms that exist today are very diverse. The questionnaire that was developed by the researchers included several e-learning platforms that are often used in Indonesia and Malaysia. The results of the analysis of e-learning types that have been used by students (Figure 3) show that Google Classroom was the most widely used (by 118 students), Whatsapp was used by 33 students, and then Edmodo was used by as many as 23 students. SPOT (*Sistem Pembelajaran Online Terpadu*-Integrated Online Learning System) which is an e-learning system used at Universitas Pendidikan Indonesia was used by 16 students. This is because the students did not know the various types of e-learning platforms and that in the questionnaire there was no mention that e-learning managed by Universitas Pendidikan Indonesia was the SPOT.

Fig. 3. *E-Learning applications used by the students*

b. Analysis of Preparation e-Learning

In the aspect of learning preparation using e-learning, the data obtained show that students' perceptions are as follows: of all students surveyed, 51% agreed, 34% students stated neutral, 8% students disagreed, 6% students strongly agreed, and the remaining 1% of students stated strongly disagree with the preparation for conducting learning activities using e-learning as shown in Figure 4.

Fig.4. *Percentage of Respondents' Perceptions Regarding E-Learning Preparation*

This is in line with students' responses to each item of the questionnaire, namely 24% of the students agreed that the preparation to participate in e-learning activities was quite easy, 26% of the students agreed that the learning component (teaching material) of e-learning was sufficient and facilitated the learning process, 21% of the students agreed that the instructional component in e-learning activities was sufficient and facilitated the learning process, and 20% of the students stated that the lesson plan component in e-learning was adequate and facilitated the learning process.

Learning through e-learning requires a well-planned design, including those related to the e-learning component (Muktiarni, Widiaty, Abdullah, & Ana, 2019). E-learning must have three basic components consisting of e-communication (material communication), e-training (LMS system approach) and e-assessment (assessment of learning outcomes indicators) (Donnelly & Mcsweeney, 2008).

Instructional component is a series of learning steps that will be carried out through e-learning so that students can learn independently in a structured manner especially when new students first use e-learning (FAO, 2011). In addition, the instructional component can help the process of achieving the learning objectives planned by the lecturer (FAO, 2011). The same results are seen in the analysis of the components of the lesson plan in the class. This component provides benefits to provide information (overview) of learning activities that will be carried out in the class.

c. Analysis of the Implementation of E-Learning

Data about students' perceptions of the aspects of conducting lectures through e-learning show that of the overall students there were 49% who were neutral, 35% students disagreed, 14% students agreed, and the remaining 1% each said they totally agreed and totally disagreed with the implementation of lectures using e-learning as shown in Figure 5.

Fig.5. *Percentage of Respondents' Perceptions of E-Learning Implementation*

This is also in accordance with the response of students to each statement of the instrument, namely 44% of students agreed with regard to learning access that e-learning provides convenience because it can be done anywhere and anytime (accessibility), 43% of students agreed with learning methods that e-learning can help the teaching and learning process continues while the pandemic corona situation is in progress, 35% of students stated neutral regarding learning activities that e-learning is in accordance with the plan and schedule of learning, 57% of students expressed agreement related to learning activities that e-learning provides a lot of new experiences for them. The data also show that 38% of students stated that they disagreed with regard to the overall goals of implementing e-learning that learning activities were achieved in accordance with the plan, 45% of students agreed that the communication process in implementing e-learning remains intertwined even though there is no direct face-to-face learning directly, and 32% of students stated that they disagreed with regard to the learning environment in e-learning activities while still providing a good atmosphere.

Similar research results state that students prefer to have lectures with full e-learning (Lister, 2014). The role of educational technology is the effect of technological developments that affect academics to change their

learning (Donnelly & Mcsweeney, 2008). This is consistent with the data analysis in Figure 6 which shows the need for e-learning in learning in the digital age. The availability of technology used interactively with discussion and guidance can be a tool for developing higher-order thinking skills (Meirawan & Ana, 2018). This is very much in accordance with the form of learning using e-learning. In e-learning students have many opportunities to seek deeper information through discussions and material guidance provided by lecturers (Saripudin, Sumarto, Juanda, Abdullah, & Ana, 2018).

Three aspects of attendance namely cognitive, teaching, and social presence can be achieved online (Ling, 2007). There are six reasons for the need to use blended learning, which is one form of e-learning: (1) pedagogical wealth, (2) access to knowledge, (3) social interaction, (4) personal comfort, (5) cost effectiveness, and (6) ease of material revision (Osguthorpe & Graham, 2003).

d. Analysis of E-Learning Evaluation

In the aspect of evaluating lectures with e-learning data obtained from 68% of students stated neutral, 21% of students agreed, 9% of students stated less agree, and the remaining 1% of students stated strongly agree and strongly disagree with the implementation of lectures through e-learning as shown in Figure 6.

Fig.6. *Percentage of Respondents' Perceptions regarding the Evaluation of E-Learning Implementation*

This is consistent with the students' response to each statement of the instrument, namely 41% of students expressed disagreement related to the benefits of e-learning in the learning process that it increases the

motivation to learn, 38% of students stated disagreement with regard to the use of e-learning when the current condition of the pandemic corona is satisfactory, 59% of students agreed in relation to learning content that is difficult to understand in the implementation of e-learning activities, and 50% of students agreed that the learning process of e-learning is more passive compared to direct face to face meetings. In the era of the Industrial Revolution 4.0, everyone is required to have the ability to use Information Technology (IT) well (Ana, et al; 2018), the ability of technology literacy can help students in using IT including learning processes such as E-learning.

E-learning provides benefits for students and lecturers. For students, e-learning is an alternative to learning compared to conventional learning with lecturers, where learning can take place outside the classroom, establish independent learning, help make learning as lifelong learning, and encourage students to interact with one another. As for lecturers, e-learning changes teaching styles that have an impact on work professionalism, provides opportunities to assess students and evaluate each student's learning, and explore themselves efficiently (Singh, John, & Harvey, 2005).

The results of the evaluation show that in general the students stated neutral about learning by using e-learning. Learning through e-learning has advantages and disadvantages in its implementation. The advantages of implementing e-learning learning is that the learning process can be done anytime and anywhere, not limited by space or time. While the weaknesses in e-learning are that learning can be very much dependent on the internet, both lecturers and students must have a very good internet network and if it is not good enough it will be difficult to access. Learning by e-learning requires the discipline of students. If the students are not disciplined, it can hamper the learning process, and, more importantly, social interaction will be difficult if the learning process is not well planned.

As a solution in the implementation of e-learning in the midst of the pandemic Covid-19 for the learning process to continue, e-learning is designed to be simple, personal, and fast. A simple system would facilitate learners in using technology and the existing menu. With the ease of the panel provided, it will reduce the introduction of the e-learning system itself so that the learning time participants can be made efficient for the learning process itself and not on learning to use the e-learning. The term personal means teachers can interact with the students just like a face-to-face communication between the teacher and the students in class. With a simple approach and a more personalized interaction, learners note their progress, and assisted all the problems that it faces. This will make the students feel at home for a long time in front of their computer screen. Then the service is

supported with fast, quick response to complaints and needs of other learners. Thus, the improvement of learning can be done as soon as possible by a teacher or an administrator.

There is ease and difficulty in learning e-learning, and therefore there are few alternative paradigms of education through the internet, one of which is the "dot.com educational system" system (OECD, 2005). This paradigm can integrate several such systems, virtual teacher paradigm resources, which can overcome the limited number of qualified teachers, so students don't have to intensively need teacher support, because of the role of the virtual teacher taken over by the learning system. Virtual school systems, which can open up opportunities to implement basic education, secondary and higher that do not require space and time. The advantages of this paradigm of unlimited capacity of students. Students are able to perform learning activities anytime, anywhere, and from anywhere. The paradigm of educational system resources or "dot com learning" system resources is an advocate of both paradigms above, in support of access to electronic journal articles or freely available and free of charge on the Internet. Examples from cyber educational system resources or "dot com learning" system resources namely platform which provides an easy and free learning system for use in a pandemic covid19 learning in the 19th as the Academy of Active Learning Arts and Sciences and the Flipped Learning Global Initiative; Acer has put together a handy comparison table that provides an overview of remote learning tools. The chart specifically compares Google Meet, Microsoft Teams and Zoom, for remote learning; and Facebook and YouTube for video conferencing; Achieve3000 Literacy at Home offers access to non-fiction articles at three reading levels with topics covering science, social studies and current events. Premium licenses for Actively Learn, for grades 6 -12, providing thousands of texts, including contemporary and classic literature; Addigy, a cloud-based Apple device management platform, has announced free 60-day access for schools, etc. (Schaffhauser, 2020).

Conclusions

Amid the Covid-19 phenomenon, both universities in Indonesia and Malaysia have conducted online learning activities. Based on the results of this research, e-learning has a positive impact and becomes an alternative learning process for lecturers and students. Good preparation is needed in implementing e-learning so that e-learning activities can be carried out properly. Interaction can still be maintained and limited conditions for face-

to-face meetings can be answered through e-learning. Optimizing learning by using e-learning in our learning activities is very important. However, to be available to support e-learning, we need to be mindful of the value of planning a strong Internet link. Indonesia and Malaysia have done it in the Covid-19 pandemic phenomenon to implement learning through e-learning and it has shown to be effective.

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