

Strategies and Problems Faced by Indonesian Teachers in Conducting E-Learning System During COVID-19 Outbreak

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ABSTRACT

COVID-19 outbreak had spread rapidly all over the world, impacting on the education system. The students had to study at home. Teachers were to apply the online class in conducting the teaching and learning process. The school stakeholders also had to create new management in supporting the school system. The objective of this research was to find out and describe the applied strategies and also problems faced by teachers in conducting e-learning during this COVID-19 outbreak. The findings showed that there were three teaching strategies applied by teachers; they were: applying only online chat, using video conference, and combining both online chat and video conference in online teaching and learning process. Some of the problems also arose during e-learning, a total of 6 problems. The arisen teaching problems were: the teachers' disability in accessing technology, school facilities in supporting e-learning, the difficulties in explaining the material, students' limitation in accessing the internet, students' economically disadvantaged family background, and parents' support system. Nevertheless, the teachers expressed that the e-learning system relieves their responsibility in conducting the teaching and learning process during this COVID-19 outbreak.

Keywords: **teaching strategies, teaching problems, e-learning**

A. INTRODUCTION

The era of globalization has brought rapid development in information and communication technology, including the field of education. One of the information and communication technology products that are very interesting to be utilized in learning is the internet. The Internet has been used as a platform for accommodating the teaching and learning process. The use of the internet in the education system becoming an essential part.

the COVID-19 outbreak has spread rapidly all over the world, giving effect on human life, including the education system. In the COVID-19 epidemic, the

education system in Indonesia has been changing. The Minister of Education has instructed to apply online classroom in facing this COVID-19 outbreak. Teachers were to apply online classes in conducting the teaching and learning process. The students are forbidden to come to school to join the class activities, but they had to study at home. The students had to open the internet to study and learn the materials and assignments given by their teacher. To solve the problems, the school stakeholders have to create a new management system in supporting the school system. They have to create a new regulation related to the application of school from home and work from home system.

In dealing with the teaching-learning process in this pandemic era, the use of media is an essential part. In the utilization of the media, particularly in the online classroom, it takes creativity and also a mature instructional consideration of the teacher. The use of the internet and supported application contributing teaching and learning process is unavoidable. Unfortunately, many problems and limitations also arise in conducting the e-learning system during the COVID-19 outbreak.

Based on such a situation, the researchers attempt to find out the teaching strategies and problems faced by teachers in conducting e-learning. Thus, the objective of this research is to find out and describe the applied strategies and also problems faced by teachers in conducting e-learning during this COVID-19 outbreak. The result of the research is to give a representation of the implementation of e-learning in this COVID-19 outbreak. Further research and strategic decisions are also needed in designing and implementing the e-learning system.

B. LITERATURE REVIEW

1. Teaching Strategies

Focusing on the principles of online courses should be learner-centered (Chametzky, 2014; Luyt, 2013). Collaboration with peers is another strategy to enhance learning and engagement in online courses (Niess & Gillow-Wiles, 2013). Content should include collaborative activities which have corresponding rubrics detailing criteria for interaction and engagement. The best practices recommended for developing content in an online course

are a combination of collaborative activities, reflective activities, clear assessment criteria, and integration of technology (Niess & Gillow-Wiles, 2013).

Applying course redesign strategies is another effective way for instructors to appropriately transition their face-to-face courses to online courses and successfully integrate technology into the online courses. Furthermore, course redesign reduces cost and raises retention rates (Gilroy, 2006; Spiceland, Spiceland, & Schaeffer, 2015). Aligned with principles of andragogy, course redesign strategies support the use of interactive learning in online settings with the use of multimedia tools (Twiggy, 2003). The incorporation of online tutorials, automated feedback, small discussion groups, and a supportive learning community to assist students in content mastery are the key components of course redesign (Twiggy, 2005). While the environment is different, overarching best practices for instruction are similar for both online and face-to-face courses. Miller (2014) presented six principles for effective instruction: peer-to-peer interaction, active student engagement in learning, emphasis on practice and student effort, personalization to the individual student, variety, and emphasis on higher thought processes. Miller reviewed additional strategies to consider when teaching online courses that are not factors in face-to-face courses. Instructors must consider how to incorporate the use of synchronous activities as online courses usually follow an asynchronous model. Assumptions cannot be made regarding students' ability to use technology in a course.

2. Teaching Problems

The challenge to effectively transfer what is taught in the face-to-face classroom to online continue to be a problem. Anderson, Imdieke, and Standerford, 2011 stated that they saw one of the main challenges as the “disconnect between the way teachers were taught to teach”, and how the course content must be delivered in an effective online classroom. This disconnect, while not new, does present a problem as many of the teacher education programs may not have yet caught up to the evolving online

teaching environments. Another challenge outlined by Anderson et al. (2011) is the almost non-existence of institutional expectations for their online courses. These include the expectations of teachers, students, courses, and staff. Without clear guidelines and expectations for faculty members to follow, there is no way to assess the effectiveness of these online courses. Further Anderson et al. (2011) explained that the feedback they received from students seldom helped them in adjusting their teaching as they would in a face-to-face class.

Additionally, the method of online delivery varies from the traditional face to face education (Anderson et al., 2011; Fein & Logan, 2003; Juan et al., 2011) in that student interactions are between student and faculty, student and peers, and student and technology. Of course, this shift in the instructor's role must be supported by the technology and the curriculum developers as illustrated in Fein and Logan (2003). Similarly, Coppola et al. (2001) described the role change for instructors as an opportunity to facilitate interactions between students and their peers. Although the interactions may vary among LMSs, they must take place to assure the success of the course. Many instructors struggle with the delivery of the content and engagement of their students due to lack of visual and face to face contact with their students (Crawley, Fewell, & Sugar, 2009), thus feeling less control over how to adjust their classes.

3. E-learning

In conducting an e-learning system, it is highly interrelated with the notion of "internet" and "technology" as the support system. In this 4.0 era, the teachers have to master the internet and technology in teaching. Traditional face-to-face meetings are to be integrated with the blended-learning system by using e-learning. Particularly in facing this COVID-19 outbreak, the e-learning system is to be held to accommodate the teaching and learning process from home, because this pandemic forces study from home system.

In conducting the e-learning, some information and technology products can be utilized in supporting the online classroom. The first

supported application to accommodate e-learning is Whatsapp. It is an unpaid mostly used chatting application. Whatsapp is effective in increasing success in learning, developing students' positive opinions toward the use of Whatsapp in courses (Cetinkaya, 2017). Whatsapp is also an applicable tool for improving students' motivation to learn (Amry,2014; Mbukusa, 2018). As a peer assessment, Whatsapp is regarded as a valid tool (Guler, 2016).

The Google Classroom is the second supporting application for e-learning. It is also a free application designed to help students and teachers communicate and conduct online classroom. As Azhar & Iqbal (2018) implied that using Google Classroom, the teachers can manage the classroom activity effectively and efficiently. However, some teachers perceive that Whatsapp is only a facilitation tool in managing document and basic classroom, without having a significant impact on teaching methodologies (Azhar & Iqbal, 2018). Some limitations of using Google Classroom also should be taken into account, related to the need for supporting smartphone and the availability of mobile data in using this application (Alim et. all, 2019)

Another social media network to be utilized in the teaching and learning process is Youtube. The implementation of Youtube video into the classroom displays a great contribution to flexibility in instruction. The use of Youtube in teaching plays a leading role to help students understand the lessons, presenting a substantial influence on students' understanding, and also provide good materials for teaching (Almurashi, 2016).

There are many other applications which could be applied as the utilizing tool to support online classroom, such as: ZOOM, Google Meet, Facebook, and soon. The decision in choosing the appropriate learning tools must be chosen purposely, based on the teachers' ability in accessing technology, students' condition, and other support systems. The application of a supportive tool, then, is to help both teachers and students in managing the e-learning system to conduct the teaching and learning process.

C. RESEARCH METHODOLOGY

The conducted research was held using a descriptive qualitative method approach. It was assumed that there were multiple realities viewing that the world was not an objective thing out there but a function of personal interaction and perception (Meriam, 1988:17). Qualitative research's purpose was to understand and interpret social interaction, studying the whole rather than specific variables, and emphasizing words (Lictman, 2010). Focusing on the actions of teachers that occur in conducting e-learning, this research was to describe the teaching strategies applied and problems faced by the teachers in this COVID-19 outbreak. The object of the study was 55 numbers of Junior and Senior High School teachers randomly selected to fill the online questionnaire. The questionnaire consisted of 20 questions with 4 scale system, they were: strongly agree, agree, disagree, and strongly disagree. Furthermore, an online interview was also elaborated in gaining the information to support the findings of the research. The data were analyzed by describing the data collected on the online questionnaire using google forms and the interview result.

D. FINDING AND DISCUSSION

After collecting the data and analyzing them, some findings were obtained. The finding indicated that 96,4% of the respondents using the e-learning system in conducting the teaching and learning process during this COVID-19 outbreak, meanwhile only 3.4% of the objects avoided using the system. Dealing with emerged problems, 12.5% strongly agreed and 64,3% agreed, meaning that they faced some problems in conducting the e-learning system. On the contrary, 23.2% revealed that there was no problem they face using the e-learning system.

Regarding strategies in conducting e-learning, the questionnaires result implied that 44.7% of the teachers only gave assignments for students to do the task on the book, while 55.3% also gave explanations and conducted an online discussion with the students. In managing the class, 83.9% manage the class by themselves, and 16.1% did not. It was found that 58.9% of the respondents expressed that class management was under the supervision of the homeroom teachers, and 41.1% was not. Related to the lesson schedule, it was found that 76.8% of the respondents stated that the school manager modified the new online class schedule; meanwhile, 23.2% of them were similar as usual.

In conducting the online class, the teachers applied several applications in supporting the online teaching and learning process. The following discussions were to elaborate on teachers' strategy in overtaking the e-learning during the COVID-19 outbreak. The table below was to summarize the types of teaching strategies applied:

No	Teaching Strategies	Percentage (%)			
		Strongly agree	Agree	Disagree	Strongly Disagree
1.	Applying video conference	3.6	23.2	64.3	8.9
2.	Using only online chat (WA group, Google Classroom)	17.9	58.9	19.6	3.6
3.	Combining both online chat and video conference	4.5	20.5	69.6	5.4
	Average	8.6	34.2	51.2	6

According to the table, 26.8% of the teachers applied video conferences in having interaction and also explaining the material. The interview implied that the application used was ZOOM and google meet. On the contrary, 73.2% stated that it was impossible to have a video conference due to the lack of facilities the teachers and students had. Most of the teachers expressed their difficulty in conducting video conferences as the impact of internet access and also the less supporting devices. Using online chat was one of the most applicable strategies. It was found that 76.8% of the teachers using only online chat, such as the WA group and Google Classroom. Surprisingly, Whatsapp was the most used application to support e-learning. The reason was very classic, as it was a free application that needs less internet quota. The above table showed that 4.5% of the teachers strongly agreed and 20.5% of them agreed in combining both online chat and video conference. It meant that only 25% of the respondents who applied online chat and video conference in combination to support the e-learning. Based on the interview, in explaining the materials and having discussions, the video conference assisted them in conducting the online class. The online chat, then, was applied to give assignments and further discussion. And not to mention, some of the teachers also revealed that they also applied youtube channel in encouraging the students

to actively engage in e-learning. Indeed, most of the Indonesian students loved watching youtube and some of them also create their channels.

The following table summarized the problems faced by teachers in conducting e-learning:

No.	Problems	Percentage (%)			
		Strongly agree	Agree	Disagree	Strongly Disagree
1.	Teachers' disability in accessing technology	1.7	28.6	53.6	16.1
2.	School facilities in supporting e-learning	17.9	57.1	21.4	3.6
3.	The difficulties in explaining the material	19.6	66.1	14.3	0
4.	Students' limitation in accessing the internet	41.1	48.2	10.7	0
5.	Students' economically disadvantaged family background	39.3	55.4	5.4	0
6.	Parents' support system	16.1	60.7	19.6	3.6
	Average	21.4	58	18.2	3.8

Focussing on the problems faced by teachers, the above table only showed detailed appeared problems. The other aspects of the findings were elaborated on the following discussions. They were based on the questionnaire responses and also online interviews.

The first problem faced by teachers was related to the teachers' disability in accessing technology. The findings implied that 1.7% and 28.6% strongly agreed and agree, meaning that 30.3% of the teachers had less ability to deal with technology. However, 53.6% and 16.% of them, a total of 69.7% indicated that they had no problem related to the ability in accessing technology, showing that they had a good capability dealing with e-learning technology. According to the online interview, some of the teachers were categorized as an old teacher, impacting on their less ability in struggling

with e-learning technology. Those old teachers, then, chose to turn over the assignment to the homeroom teacher.

The school facilities also gave a contribution to arising the second problem in conducting e-learning. The obtained data showed that 17.9% of the respondents strongly agreed and 57.1% agreed. It revealed that 75% of the schools gave support and only 25% of them did not provide appropriate facilities. The interview indicated that most of the teachers and the students were provided by facilities of free internet quota from the school. Even though, some of them had to independently manage the internet quota.

The online system impacted on the difficulty in explaining the materials, which was found as the third arisen problems in e-learning. There were a total of 85.7% of the teachers complaining the way they had to explain online. Some of the lessons had to be explained very clearly during the normal meeting. The teachers got frustrated in explaining them online for it was not easy to make sure that the students understood the explained materials. We could take the examples of chemistry, physics, and other numerical lessons which were not easy to be explained and understood by the students. As a result, in conducting e-learning, some of them only gave assignments to students to do the task on books or other research. It was found that 44.7% of the teachers only gave the assignment, whereas 55.3% also explaining the materials online.

The fourth problem found in the e-learning system was affected by the students' limitation in accessing the internet. It was found that 10.7% of the respondents showed that the students had less internet access. The interview revealed that some of the students lived in a suburban area, impacting less internet access. The internet signal had not been spread evenly so that some of the borderline areas faced problems in internet connection. Another problem causing internet access was caused by the limitation of internet quota. As mentioned before, some of the schools did not give support by providing free internet quota.

The fifth, the students' economically disadvantaged family background, also contributed to the problems in the e-learning system. At every turn, economic always becoming a problem in every single aspect. Related to the online system, the students' economically disadvantaged family background conducted the problems dealing with facilities in holding e-learning. A total of 94.9% of the respondents implied that students' economically disadvantaged family background as the problems faced by teachers which

effect on the e-learning system. The students who were not well-off family found difficulty in having appropriate facilities, they were: the smartphone and the internet quota. Based on the interview, the teachers felt regret for the smart students from the deprived family which did not have an appropriate smartphone. It impacted on the students' performance. Some of the students had to borrow their parents' or their relatives' smartphones. They could not able to join the online class appropriately according to the schedule since they had to wait for the borrowed smartphone. The teachers found that some of the students tried their best to join the online class during their limitations; however, some undisciplined students avoided joining the online class.

The last problem in conducting e-learning was caused by parents' support system. The data showed that 16.1% strongly agreed and 60.7% agreed. It meant that related to the parents' support, only 23.2% of the parents who gave less support to their children to join the online class. The parents as the controller for students in studying at home played an important role in supporting the e-learning system. Some of the teachers recognized that they got less support from the students' parents. The parents did not give enough attention to the students so that the students arbitrarily in joining the class or doing the assignment. Some of the parents were busy, or they had a lack of education, impacting on the avoidance of their children's learning. Fortunately, most of the parents worked cooperatively with the teachers to support e-learning.

The above-summarized data were obtained from the questionnaire and also online interviews related to the strategies and problems faced in conducting e-learning during the COVID-19 outbreak. In overtaking the e-learning, 42.8% of the teachers felt appreciated. The rest of the teachers, 51.8% of them, felt it was not as easy as conducting the teaching and learning process in the usual class. Beyond the existing limitations, all of the respondent teachers declared that e-learning help in conducting class in this COVID-19 outbreak.

E. CONCLUSION

The COVID-19 outbreak impacted all of the aspects of human life, including education. Teaching and learning processes in the classroom had to be avoided, resulting in the use of an online classroom system. The study aimed to reveal the teaching strategies and problems faced by teachers in conducting e-learning. Based on the

questionnaires and interview results, there were some conclusions to be taken into account. There were three types of teaching strategies used by teachers in conducting e-learning. The most applied strategies used by teachers were using online chat, in which Whatsapp was the most taken application. The other strategies applied were using video conference and combining both online chat and also video conference. On the contrary, some problems also emerged during the e-learning process. Teachers' disabilities in accessing technology were found as the first arisen problem, although most of them had a good ability in taking control of the technology. The next problem was the inadequate school facilities in supporting e-learning. The difficulties of teachers in explaining the material also appeared as the impact of e-learning. Furthermore, students' limitations in accessing the internet and students' economically disadvantaged family's backgrounds also affected the teaching and learning process online. Those two problems influenced e-learning, abstracting in the teaching and learning process for the use of proper smartphones and the availability of the internet was an essential part of e-learning. The last arisen problem was the parents' support system, as the least problem. Overall, the teachers had tried their best in applying strategies and facing the problems in conducting e-learning during this COVID-19 outbreak.

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