

Online Learning in the Time of Covid-19 Crisis: its Implementation and Challenges

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Abstract

This article illustrates the implementation of online learning in the time of Covid-19 outbreak in Indonesian context through teachers' empirical experiences. Drawing from the survey from 128 teachers as respondents of the research across the country the research concludes that most of the teachers who conduct online learning reveal some difficulties and challenges. There are some internal barriers, i.e. teachers' incompetent to implement such technological devices, too many online classes and administrative tasks, un-conducive situation at home. On the other hand, the external barriers i.e. unstable internet connection, student less motivation to learn, and less support from the parents. Looking at the learning processes, many teachers prefer to use the most popular platform to maintain their classes, i.e. Google class, Edmodo, Microsoft Office 365, and Zoom meeting. Furthermore, WhatsApp became the primary choice of social media to support the main LMS. The research also found some teachers' learning media preferences indicator to choose the platform, i.e. its user friendly, simplicity, accessibility, and owned by all students. Accordingly, this research has huge potential contribution to the field of educational technology, especially on how this field of studies cope with the crisis in education in this pandemic time.

Keywords: Covid-19; learning management system; online learning; social factors; teachers' competency

1. Introduction

The global Covid-19 outbreaks encouraged many educational systems throughout the world to close the schools. In Indonesia, in the middle of March 2020 the Ministry of Education and Culture (MEC) also released an official policy that urged the students to learn at home and teachers should conduct their teaching practices remotely from their own home (*Penyesuaian Kebijakan Pembelajaran*, 2020). Teaching from home, learning from home, and work from home become popular terms throughout the years (Hardika et al., 2020). Students' and teachers' health, safety, and wellbeing are the main consideration to conduct the learning practices in this pandemic time. Therefore, distance education and remote learning become the main strategies to handle this crisis. There are several types of these strategies, i.e. full online learning, blended learning, and modular learning through home visit and community learning (Siswati et al., 2020). Covid-19 crisis succeeded in pushing the teachers and students more familiar with digital technology for education purposes.

However, along with the implementation of learning or schooling from home many problems arise. For instances, students are overwhelmed by their learning assignment, parents also complain because it seems that teachers leaved their responsibility to teach their students properly, lack of technology skills, and lack of internet connection especially in remote areas (see Febrianto et al., 2020; Lubis & Lubis, 2020; *Remote Learning*, 2020). Another study by Churiyah et al. (2020) reveals that teachers and schools have uncomprehensive understanding related to the essence of online learning during the Covid-19 crisis. This study also found that most of the students' self-regulated learning skills are low and it led the learning practices ineffective. In order to overcome these problems, the government released several provisional policies, e.g. curriculum simplification, subsidizes students and teachers to get more access to the internet connection (*Students and Teachers*, 2020). According to these previous studies teachers' role in conducting such effective distance education and remote learning is important. Poor teachers' understanding and skills on distance education will endanger students' wellbeing. Therefore, we need more information related to teachers' voices regarding the implementation of distance education in this Covid-19 crisis, including their understanding and skills on it. Several previous studies concerning on teachers voices emphasized on teachers perspective about how to succeed the implementation of online learning in this very tough time (Rasmitadila et al., 2020), on the other sides teachers also in doubt the effectiveness of online learning caused by many factors (Rahayu & Wirza, 2020). Both studies have specific context, the former focused on primary teachers and the second on English Foreign Language teachers. This

paper proposes a broad range of study focusing on teachers' perspectives and experiences on conducting distance education and remote learning. Therefore, this paper will complement the previous research focused on teachers' voices and experiences and give some recommendation for the teachers, schools, and government in order to bring more humanist, contextual, and socially just of distance education in this crisis time. Educational technology as a field of studies and ethical practices (Januszewski & Molenda, 2008; Kanto et al., 2020; Umanilo, 2020) plays an important role in these issues. We believe that educational technology has a huge potential contribution to bring more humanist, contextual, and socially just of distance education, particularly those based on cultural and critical paradigm (see more discussion in Selwyn, 2004, 2011; Subkhan, 2016). These paradigms are important because the implementation of distance education in this Covid-19 crisis has driven most of the learning practices into online based on the internet, and students' access to learning and their right to quality learning issues are central.

2. Method

The research used a survey method to gather the data from the respondents through Google Form apps. In order to reveals several basic information from the teachers as respondent of this research the survey gave to them consist of several questions, i.e. (1) teachers' preference on conducting distance education and remote learning, (2) how they conduct learning practices and assessment processes, (3) how and where they get learning materials, and (4) what the challenges and barriers they face during this Covid-19 crisis related to the learning practices. The questions were given in closed and open form. Open questions aimed at reaching rich answer from the respondents, e.g. the challenges they faced, their hope and recommendation for the government, and closed questions aimed at requiring the respondent to answer correctly according to certain theoretical categories, e.g. varieties of Learning Management System (LMS) they used to facilitate the learning practices, and varieties of supporting social media.

In the end of the data collection process there are 128 respondents of teachers who come from various regions throughout Indonesia. We include all respondents who used online learning or conventional learning modes in response to this Covid-19 crisis. Most of the respondents were 30-39 years old (39,1%) and 40-49 years old (38,3%), and the rest of the respondents were 50-58 years old (18,8%) and 20-29 years old (3,9%). Most of them hold bachelor's degrees in education (78,9%) and the rest hold master's degrees in education (21,1%). The respondents teach various subjects and levels of education, e.g. math, social sciences, sociology, EFL, Bahasa Indonesia, sport, natural sciences, Islamic teaching, guidance and counselling, computer and network—at vocational school, biology, and craft. Next, the instrument was distributed to the respondents in the mid of October 2020. After the data were collected, we conduct such simple statistical analysis to present the data and analyse it using several theoretical perspectives from educational technology as a field of studies—see the last paragraph in the introduction section of this paper.

3. Result and Discussion

In this section we divide the result of the research into several themes, i.e. (1) the teachers' reason of using such online or conventional learning modes, (2) the varieties of learning approach they used, (3) teachers' learning media preferences, (4) the varieties of learning resources, (5) the assessment method they used, and (6) the teachers' problems and challenges.

First, teachers' reason for using such online and conventional modes of learning. According to the survey, most teachers (83,3%) try to conduct online learning more than the conventional one in response to the Covid-19 crisis. The reason behind their choice to conduct such online learning are the availability of the gadget and internet connection. Of course, the official recommendation from the government to conduct teaching practices using internet-based technology forced the teachers to choose online learning modes, even when they lack understanding and skills to use and manage online learning appropriately. On the other side, several respondents who choose to conduct such conventional modes of learning also have crucial reasons. First, their students do not have available gadgets to access such online learning. In many middle-income families, they only have one smartphone, and it is problematic when they have two or more children who are involved in such online learning forced by their schools. Second, in many areas the internet infrastructure is still poor, especially in remote and rural areas with some geographical difficulties.

Second, varieties of learning approach. According to the finding of the research, there are many learning approaches conducted by the teachers through online learning or conventional learning modes. Teachers who conduct such distance education and remote learning in conventional ways (21 respondents) said that they employ several strategies, i.e. (1) practicing modular learning by giving learning modules for the students so they could learn the materials at home (13 respondents), (2) support the students through home visit activities (11 respondents), (3) delegating the responsibility to accompany and guide the students learning activities to the parents at home, because all learning

practices is doing at home and parents have more time with their children at home (4 respondents), and (4) conducting face-to-face learning activities at schools as if there is no Covid-19 crisis (8 respondents). Several respondents also said that they urged the students to go to the schools to get learning materials every twice in a month.

On the other side, teachers who conduct such online learning practices seem to prefer to use synchronous learning mode than the asynchronous one. The result of the survey shows that most of the teachers used asynchronous mode of learning (50%), for example through Zoom meeting, Google meet, and WhatsApp video call, video recorder, and instant messaging. On the contrary, 25% respondents state that they prefer to use asynchronous learning modes by using several platforms, e.g. official Learning Management System (LMS) proposed by the schools or district authority, or many popular online learning platform such as Edmodo, Schoology, Moodle, and sekolah.mu. This finding is inline with the other finding of the research that more than half of the students (55,1%) involved in such learning activities by listening to the teachers' lecture at the Zoom meeting or Google meeting followed by several discussions within these synchronous platforms. Whereas the rest of the respondents (25%) tried to combine synchronous and asynchronous learning modes equally. Furthermore, teachers who are more familiar and have enough skills to manage online learning courses often focused on LMS as the main platform to conduct their learning activities. They officially put the learning materials within the LMS, for example in the form of learning videos, embedded texts, URL from several important websites as external learning resources, and upload some e-books and others in PDF. However, according to the previous finding most of the students and teachers are more familiar and conduct their learning activities using synchronous learning modes. In many cases LMS is only used as learning materials storage space that can be accessed by the students anytime and anywhere. The fact that most of the teachers and students are not familiar enough with LMS as the main basis of online learning resulted in ineffective use of LMS only as a learning materials storage. Consequently, they are preferring to use the media they are familiar with, such as Zoom, Google meet, and WhatsApp group.

Related to how teachers deliver their courses, many respondents state that they often give the students learning materials through WhatsApp group (85 respondents). It means WhatsApp has become the most popular social media and plays an important role at supporting online learning practices. Through WhatsApp groups teachers could easily share many links, files, text, and recorded voices to give some instruction for their students. The second choice by the teachers is delivering their courses through the Learning Management System (LMS) (51 respondent), for instance through Edmodo, Google classroom, etc. The third preference teachers choose a synchronous platform (36 respondents) to deliver their courses, e.g. Zoom meeting, and Google meeting. Other teachers' preferences are quite varied, e.g. some teachers trying to create learning videos and send them to the students through WhatsApp group or other platforms, giving students' assignments using Quipper or Quiziz, Padlet, Kaizala, Wordwall, etc. The respondents also admit that only a few of them ask their students to open the school textbook and do some exercise.

Third, learning media preferences. According to the result of the survey, for teachers who conduct online learning as a mode of distance education, 79,4% of them used smartphones to manage their teaching practices, slightly different, 78,5% of them prefer to use laptop or netbook. Only a few teachers used personal computers (PC) (13,1%) and tablets (6,5%). However, it does not mean that the teachers who do not conduct online learning in response to the Covid-19 crisis did not use gadgets, laptops, netbooks, and other digital technology at all. Because it is common that in this current time teachers are searching some learning materials on the internet to enrich their learning practices, but in this case, they do not use it as the main tools to conduct the teaching and learning practices officially. Another finding also shows that several schools facilitated the teachers to remotely conduct their online learning from the office, but on the other sides many schools do not have enough infrastructure to support their teachers.

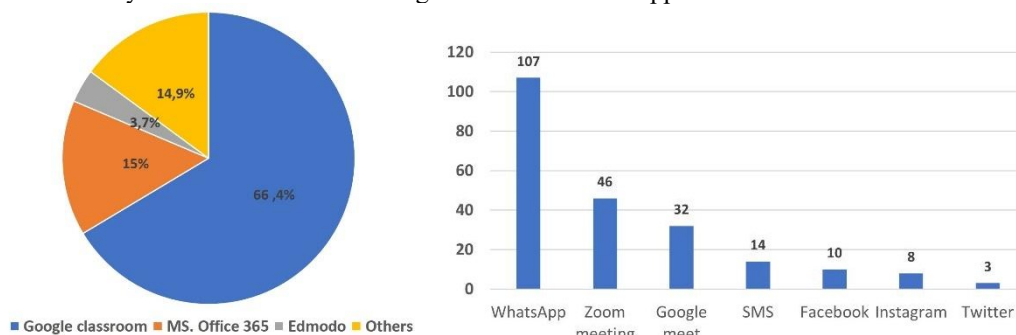


Figure 1. The numbers of learning media preferences

Moreover, based on the products of educational technology they used, there are several clusters here as shown in figure 1 previously. Google classrooms become the most preferable Learning Management System (LMS) chosen by most of the teachers followed by Ms. Office 365 and Edmodo. Additionally, only 14,9% of the respondents used other LMS, e.g. Kelas Pintar, Ruangguru, Zenius, Quipper, e-school, sekolah.mu, and etc. The survey also shows that WhatsApp is the primary choice among the teachers as well as the students, not only to communicate but also to support online learning activities followed by Zoom meeting, Google meet, short message services (SMS), Facebook, Instagram, and Twitter. Several respondents said that they used WhatsApp to conduct learning practices, because many of their students cannot access LMS. According to these preferences, there are several reasons why teachers decide to choose such learning media, i.e. user friendly, simple, cheap in price, available at school or at home, interesting, accessible, support the learning materials learnable, and has been used by most of the students (popularity). *Fourth*, varieties of learning resources. The survey found an interesting fact that many teachers admit that they are trying to create their own learning materials for the students (41,3%). This finding is quite surprising since they are amid the Covid-19 crisis, but they have huge motivation to create their own learning media. The second highest number teachers choose to use YouTube as the main learning resources (30%). The third choice of learning resources is websites (22%). The fourth preferable learning choice is school textbook officially published by the Ministry of Education and Culture (MEC) (1%). Unfortunately, the respondents state that the official learning resources established by the government is less popular, for example learning media released by Rumah Belajar (under 1%). According to the finding of the survey, there is a shift among the teachers from mainly based their teaching practices on school textbooks officially published by the government toward broader internet-based learning resources, e.g. YouTube channel and useful websites. Additionally, the survey also found that 49,5% of the students—according to teachers' admission—were involved in such learning activities through watching materials in several YouTube channels proposed by their teachers.

Sixth, assessment method. Related to the assessment method, most of the teachers prefer to assess their student achievement through giving students' writing assignment on the Learning Management System (LMS) (92 respondents). This might be the easiest way to assess students' achievement because teachers only need to put the tasks on LMS, then students are asked to upload the assignment, and finally teachers grade the students' assignment online. The second assessment method used by most of the respondents (31 respondents) is observing students' performance through such online presentation and discussion within such synchronous platforms, e.g. Zoom or Google meeting. The next second assessment method used by the respondent is asking the student to create Vlog and then assessing it (31 respondents). The fourth assessment method is based on LMS by observing the students' involvement in some discussion forum (20 respondents) and asking the students to create an infographic (20 respondents). The rest, many respondents said that they are using Google form and WhatsApp group to assess their students' tasks. The respondent also said that in several cases, assessing students' performance only through online media is not optimal, but in this crisis time it is the best way that they can do.

Seventh, problems and challenges. One of the most interesting issues related to the learning practices in the Covid-19 crisis is the shifting of the learning places. Previously, schools are the main basis of learning practices, now home has become the main place to learn anything safely. The survey found that most of the teachers (72,9%) conducted their teaching practices at home, followed by 64,5% teachers who manage their teaching practices from the office (school), and the rest (2,8%) depend on their teaching practices on public internet facilities (Warung Internet). In this crisis time, the shifting of learning places and the use of distance education in the form of online learning based on the internet resulted in a different process of learning. In some cases, the learning activities are effective enough, but in another case, there are ineffective learning practices because of many noises and disruption at home.

Moreover, regarding the problems and challenges they face the respondents state that lack of internet connection is the main barrier of conducting such online learning as well as the expensive price of the pulse to access the internet (43%). Teachers also feel that their workload is overloaded and results in ineffective learning activities (20%). Other teachers feel that their inability to use and manage such learning media based on digital technology also prohibits them to conduct such effective and meaningful learning activities (15%). Unconducive situations at home for several respondents also affect their inability to maintain online learning appropriately (15%). The rest of the respondents raise several barriers, for instance students who have less motivation to get involved in online learning practices, students who get bored with online learning and their abundance tasks. According to these problems and challenges, the respondents also propose several recommendations, e.g. the government should increase the internet subsidy for teachers and students, expanding and improving internet infrastructures throughout the countries, more parents' responsibility and involvement on supporting their children's learning activities at home, need more technological

assistance from the government in the form of good spec of laptop to maintain online learning, and more support from educational technologist to develop such good learning media and manage online learning appropriately.

All these problems and challenges show that there are problems of digital divide in term of (1) students' inability to access the learning practices and resources and (2) teachers and students' lack of knowledge and skills related to such abilities to analyse, develop, maintain, and evaluate the product and implementation of educational technology in this Covid-19 crisis. The development and implementation of educational technology in the form of distance education and remote learning should consider the fast and massive use of digital technology into education does not merely have a positive impact on education. On the other side, the domination of digital technology also reveals the domination of such corporations that will benefit from this Covid-19 crisis. Not only the internet provider, but also many educational industries such as Zenius, Ruangguru, will benefit. In this disruptive era amid the massive intervention of Industrial Revolution 4.0 and Society 5.0 the old and conventional schooling system will lose interest and be less powerful to change society. The current schooling system will be replaced by the "new" form of schooling system in the form of Massive Open Online Courses (MOOCs), Zenius, Ruangguru, Schoology, Edmodo, and the like.

In order to prevent the teachers and students from being the colony of the new imperialism or under corporate domination, there are several important things to consider. *First*, teachers should understand and have the courage to improve their knowledge and skills to develop and implement such products of educational technology that empower the students as well as the teachers, and it is always related to the curriculum design (see Barret & Rata, 2014; Selwyn, 2004). *Second*, to succeed in the orientation to empower the students and teachers the school community needs to focus on knowledge and skills equally. Only emphasizing on skills such as 21st century skills proposed by the Partnership for 21st Century Skills is not enough (see Priestly & Biesta, 2013). It means such teachers' training emphasized on skills only is not enough, teachers also need critical perspectives on educational technology which are important as tools of analysis to understand the current issues, e.g. students' wellbeing, teachers burnout, learning accessibility, digital divide, and corporate colonization.

4. Conclusion

In conclusion, teachers' voices based on their daily experiences reveal many priorities, patterns, preferences, and challenges toward the implementation of online learning as one of the most preferred distance educations. According to the finding of this research there are technical and non-technical barriers of online learning, ranging from poor internet infrastructure to teachers misunderstanding about how to conduct online learning. The popularity of such digital technology products (e.g. WhatsApp, Zoom, Google classroom) determine the preference of teachers and students to use such learning media. The availability of the technological tools also play an important role on how to determine the strategy of teaching-learning delivery. It seems that teachers are always trying to overcome the learning problems according to the contextual problems they face. Furthermore, the importance of empowering the students and teachers in this Covid-19 crisis needs to be considered appropriately, because the massive use of technological advancement is always related to several sociological issues.

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Biography

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