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By Zalik Nuryana

Higher Education Response to The COVID-19: Do Students Feel Comfortable Studying With Distance Learning?

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Abstract—**This article aims to describe student responses when implementing SFH and provide an outline of six recommendations for the implementation of online learning during COVID-19, with the expectancy that learning under any conditions will continue to run benevolently. This study had a total of 693 participants with 416 (60%) women and 277 (40%) men, with a vulnerable age 17-24 years. In total, 34 universities across Indonesia participated in this study. This study uses online surveys as a method of collecting qualitative research. In this situation, the state, to respond to instruction on integrating online learning during the epidemic in universities, was given recommendations. In order to make conclusions easily understood by researchers and readers, data is organized into categories and described as units. During COVID-19, the Ministry of Education and Culture prepares educational regulations that are socialized via digital media. Online learning rose by 10.3% between COVID-19 and prior. WhatsApp is utilized 38.2% and Google Classroom 34.92%. This article also discusses some student feedback and complaints. The education office and school have strong communication. However, it is vital to adopt national rules connected to online learning that do not burden schools, students, teachers, or parents. Aside from that, the government should work with local and international online education software developers. Ensuring that education continues to run ideally in Indonesia, despite its limitations and issues, by developing a standard operating process for online learning evaluation.**

Keywords—higher education response, distance learning, online learning, school from home, Indonesia

I. INTRODUCTION

In the past few months, global eyes laid on the COVID-19 case spread all over the world. The first case was reported in Wuhan, China, in December 2019. It was known as a novel coronavirus (2019-nCov) as to date exponentially stretched across the globe; the World Health Organization has officially contended as COVID-19 on 11 February 2020. In the meantime, the three utmost lines of life affected unfathomable, such as health, economy, and education sectors. Professionals and experts across the world under the capital areas are running to break new grounds to deal with the virus [1], [2]. In leaps and bounds, coronavirus impact has brought temporary paralysis so as forcing immediate responses to cease its dispersion.

As COVID-19 rushed upon China officially announced in January 2020, the Chinese government-initiated level one public health response, for instance, delivering face masks regularly to ward off the coronavirus spread. Following the Chinese government response, Taiwan used two methods in detecting COVID-19 infections. First, through the national health database, integrated with immigration and customs data to obtain big data for analytics. The data acquired provide real-time information, such as the history of travels and early clinical symptoms of Taiwanese as to identify COVID-19 infections. Secondly, the use of recent technology by scanning QR code later emerged travel history online report and health symptoms to categorize the risk of traveler transmission-based on-flight origin and travel history in the last 14 days [3].

Other countries in Asia, particularly in East Asian countries, in China, Japan, and South Korea, performed parallel strategies in tackling coronavirus spread. On the other hand, countries with different mechanisms, the governments released decisions, which at the same time supported by citizens, communities, and organizations' behaviors. Nonetheless, COVID-19 was a global pandemic, yet the local responses developed grounded of each governments' capacity in social, economic, and cultural contexts [4].

In Indonesia, the COVID-19 case was firstly reported on 2 March 2020 publicly. In the next week, precisely on 11 March 2020 officially announced that COVID-19 is contended as global pandemic [5], [6]. Later, Djalante has examined how the Indonesia government in responding to COVID-19 spread. The report described the elaboration of immediate response analysis in between January-March 2020 then further provided five recommendations to prevent COVID-19 spread [7]. Afterward, to preserve the validity of the report, the official website https://www.covid19.go.id was created as well as a platform to publish Indonesia government regulations regarding the COVID-19 update.

The current situation of the COVID-19 threat has shaken up to all life aspects [8], [9], affected deeply on individuals

and large communities, including the education sector. As the home of approximately 264 million people of different tribes and culture[10], the Indonesia government has to ensure the teaching-learning process run as regular day. Hence, numerous national regulations have released by the Ministry of Education and Culture during the COVID-19 pandemic [7]. The initial responses issued through two official announcements on March 10, 2020. First, circular letter number 2, 2020 concerning COVID-19 prevention procedure for government employees, mainly in the circles of the Ministry of Education and Culture. While the second letter number 3, 2020 dealing with the similar topic that intended to all educational levels in Indonesia (primary level, secondary level, and higher education). At that moment, students and teachers were encouraged to stay healthy and often wash their hands [11].

Fourteen days later, as the virus spread was getting severe, on March 20, 2020, the Ministry of Education and Culture, Nadiem Anwar Makarim, interpolated study from home (SFH) and work from home (WFH) regulations. The brief overview was regarding SFH, and WFH summarized in official statements on March 24 and 26, 2020 [12], [13]. To support SFH and WFH, online teaching learning process served as the best option under COVID-19 pandemic [14]. At the moment of writing this article, the process of online learning and teaching have been running for a month. Challenges emerged in terms of implementation in all educational levels. Therefore, this paper falls under the quick response aimed at commencing and providing brief report of current regulations of SFH and WFH released by the Ministry of Education and Culture. In particular, we presented from the higher education level perspectives. The main objectives are responding and recommendation for further online learning processes under COVID-19 pandemic.

II. METHOD

This research applies a qualitative approach. The focus of this study was to understand students' responses in higher education in responding to online learning during COVID-19. The approach used is internet and Web-Based Surveys/Online surveys. Researchers use Internet-based surveys to gather data efficiently. Questionnaires can be sent to desired respondents by online questionnaire using google form. This helps researchers to collect a lot of data in emergencies like COVID-19. The number of respondents in this study was 693, with 416 (60%) women and 277 (40%) men, with a vulnerable age 17-24 years. This research involved 34 universities in Indonesia. The data obtained were then described and analyzed in a descriptive analysis. The spotlight's initial data is on the use and availability of the internet for students, as described in Fig. 1.
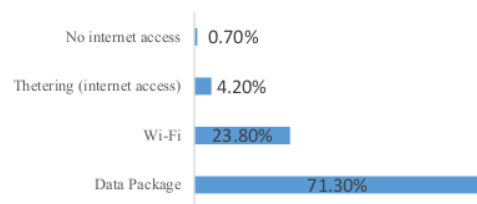

Fig. 1. Internet access for students during COVID-19

The online survey used the concept developed by Martin [15] while library research, speeches, media contents from websites and digital platforms supported the literature review. This paper is a collaborative work of authors under various disciplines. Three Indonesian authors serve as lecturers in universities with expertise on education and technical information. The significant aim to have a relevant analysis in extracting meaning based on the participants' responses. Besides, providing recommendation and latest references consider essential action as a reference for the government to take policy in the future.

A. Data collection

Data about student responses were obtained through a questionnaire distributed with the help of google form. Data was collected using an online questionnaire, which took approximately 10 min to complete, then analyzed in-depth, and conclusions are generated in the form of recommendation for policymakers, in this case, the state in responding to education on implementing online learning during the pandemic in universities. The instruments in this study are non-tested. Non-test instruments are carried out without testing the research object but are carried out in a certain way, especially to obtain information related to the condition of the research object. In this study, what was used was a questionnaire. Interview instruments and questionnaires in this study use Content validity that has been validation by expert judgement.

B. Data analysis

This research data analysis technique is qualitative descriptive, which describes data obtained from various sources completely and accurately to achieve research objectives. This data analysis is done by organizing data into categories, describing it into units, synthesizing, arranging into patterns to choose which ones are important and what to learn, and making conclusions so that they are easily understood by researchers and readers. Qualitative data is obtained from data reduction, data display, and conclusion or verification. Data reduction is the process of selecting, focusing, simplifying, abstracting, and transforming raw data that arises from written records in the field. For data analysis purposes, researchers apply descriptive-analytical research to understand phenomena experienced by research subjects such as behavior, perception, motivation, and action.

III. RESULTS AND DISCUSSION

A. The Ministry of Education and Culture newfangled regulations in education for COVID-19

As the COVID-19 spread exponentially, countries across the globe conferred immediate responses. The Ministry of Education and Culture responded as quickly as lightning as a form of accountability for the sustainability of education in Indonesia. The regulation is related to the National Examination (UN) adjournment. Previously, the National Examination was scheduled simultaneously, nonetheless due to COVID-19 pandemic, it was shifted. The third policy is about the cooperation between government and private sectors for online learning. Several online learning content providers have been working together with the education ministry to support learning from home. Approximately more than 5 online learning content providers-built partnership with the Ministry of Education and Culture are as follow table 1.

TABLE I. ONLINE LEARNING CONTENT PROVIDERS (GOVERNMENT AND PRIVATE SECTORS)

No	Agency	Name	Website address
1.	The Ministry of Education and Culture	Rumah Belajar	https://belajar.kemdikbud.go.id
2.	Google	Google Suite for Education	https://blog.google/outreach-initiatives/education/offline-access covid19 /
3.	Private content provider	Smart Class Access (Kelas Kelas Pintar)	https://kelaspintar.id
4.	Microsoft	Microsoft Office 365	https://microsoft.com/id-id/education/products/office
5.	Private content provider	Quipper School	https://www.quipper.com/en/sch
6.	Rangguru	Ranggur u Online School Access	https://sekolahonline.rangguru.com
7.	Muhammadiyah	Sekolahm u	https://www.sekolah.mu/tanpabatas
8.	Private content provider	Akses Zenius	https://zenius.net/belajar-mandiri

Another vulnerable point in education deals with teaching learning process. During COVID-19 threat, work from home (WFH) and study (SFH) are commonly performed as regular classes' substitution.

B. Comparison of online learning before and during the COVID-19 pandemic

In a broad sense, online learning denotes activities to obtain knowledge from diverse places that are to say, space and time are not barriers [16]. Scholars assure that online learning refers to as eLearning, digital learning, or virtual learning; terms used interchangeably. To date, online learning has been receiving attention for more than two decades. In the United States, over six million students taking several online courses in each semester [17] while the rest of the courses offered offline. Types of online learning models are vary depending on the capability of universities. Standard online learning models are blended learning, hybrid and flipped classes within two online modalities, synchronous, and asynchronous. Meanwhile, in Indonesia the online learning models has dramatically increased its use since COVID-19 spread all over the regions. Almost all educational institutions use online learning to carry out the learning process under COVID-19 pandemic.
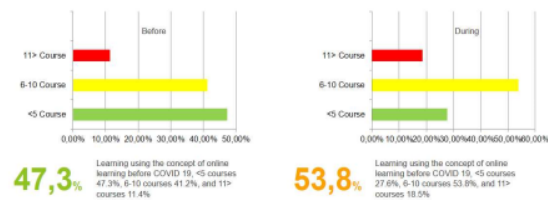

Fig. 2. Comparison of the online learning usage before and during COVID-19

An escalation in online learning activities was spotted during the COVID-19 pandemic. This happens as education is a central sector in life, and the government has released regulations related to online teaching and learning practice in Indonesia to maintain education on track during the COVID-19 strike. Afterward, alterations were in terms of the form of activities. Previously, face to face in class became online learning. Precisely at the higher education level, online learning activities also experienced a significant uplift, see Fig. 2. Before the COVID-19 pandemic, 47.3 percentage of respondents replied that online learning was carried out in less than five subjects, whereas at present, the use of online learning increased by 12, 6%.

C. Online learning application used by students during COVID-19

Several applications explicated in this paper are applications have used both specifically designed for online learning and applications that are not explicitly designed for online learning but mostly used by teachers and students to study see fig 3. Some of these applications were chosen because students are familiar with the app and user friendly.
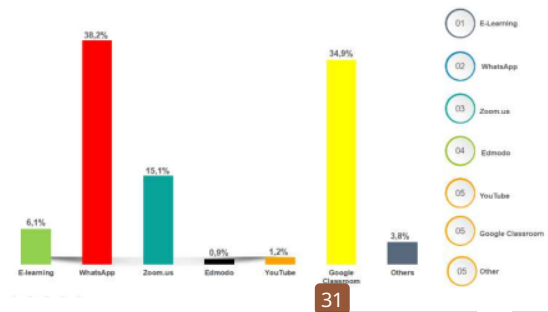

Fig. 3. Applications are mostly used by teachers and students for online learning

Online learning is indeed effective under COVID-19 pandemic, both ways in providing education about COVID 19, as to do risk prevention of its spread [19-21]. Amid the COVID-19 pandemic and the necessity for social distancing, virtual learning platforms have significantly shaped innovation in how the learning process continues during pandemic [21]. The results show that blended learning can positively influence an impact on student achievement, primarily when used to manage and support distance education [22].

D. Students' response to online learning during COVID-19

Indonesian students attached diverse responses related to online learning during COVID 19. First in terms of internet connection connections, of 691 respondents only 17.8% had fast internet connections, 51.4% had medium connections, and the rest had faster internet connections but unable to have a network. This fundamental problem becomes an obstacle in the implementation of online learning. the second is still related to internet connection, 42.4% chose to change internet service providers, 17.4% replaced hardware, and 20.8% stated they did not accept online learning. Student responses in finding ways to stay abreast of online learning must be underlined as special notes for the parties providing internet services.

Furthermore, students' perceptions regarding the quality of online learning face-to-face are also varied. 56.4% disagreed if the quality of direct and online learning was equally good. 47.2% of them were not challenged to take part in online learning. This shows the readiness of our higher education towards online learning is not fully ready. They have their own

opinions on online learning, including negative responses; 1. ineffective. 2. boring. 3. spend funds. 4. troublesome, and 5. too many tasks. Many students choose to return to regular classes rather than online learning. They are burdened with enormous tasks, spending funds, and the most important thing is that different network constraints in each region become another challenge.

The Ministry of Education and Culture pointed out that providing meaningful learning experiences for students is significant. In other words, students have to be able to be making sense of online learning without feeling burdened. Moreover, the number of assignments has to be reduced as both teachers and students are in transition period. Typically, classroom activities conducted in a concrete room where teaching learning process occurs yet now; virtual classroom has to be the nest for time being. The online learning expected by the government was focusing on students' understanding and awareness of COVID-19 [23]. The learning activities and tasks may vary among students, following their interests and conditions, including in terms of gaps in accessing digital learning platforms and learning facilities availability at home. Homework or learning activities artefact from students seen small amount, in return constructive feedback delivered by the teacher qualitatively, without being required to give scores. Even though many schools have been implementing SFH, it does not mean that teachers allow giving out homework or assignments only to their students. Regardless, active interaction is necessarily conducted [24]. The results of the data Fig. 2, indicating that the COVID-19 pandemic has distorted the paradigm of the learning process in higher education. This transformation also shows the readiness of human resources in higher education, both the readiness of lecturers and students in implementing online learning apart from all the shortcomings and strengths in the implementation of online learning.

Chick in his research entitled using technology to maintain the education of residents during the COVID-19 pandemic, provides innovative solutions including inverted classroom models, online practice questions, teleconferencing instead of direct lectures, by involving students in telemedicine clinics, procedural simulations, and facilitated use of surgical videos. Although direct learning more effective for students study in treating patients [25], this virtual classroom approach is a design for an online environment that provides real-time interaction between teachers or instructors and nursing students. In fact, teachers are capable to create their lesson plan, teaching preparations and even strengthen hand hygiene as usual under the learning suspensions in campus. Applying this virtual classroom approach to countries where campus classes are suspended will be an alternative method for improving hand hygiene [26].

Working with digital media requires us to keep updated with the latest trends. Often new hardware or software will replace the functionality of prior technologies though not all new technology is decent technology. However, it's essential to mind out of making decision toward technology. Particularly, in case of using promising new learning technologies include computer games, augmented reality, and AI. The foundation that we are in disperse place under different time and technology unites us to fulfill our learning needs which offers profound hope and promise. These days, problems with data privacy and security threat, with many deterrent tales already shared publicly. Therefore, teachers

have to keep in mind that technology must bring learners into contact with learning conditions and resources. The teachers yet again have to reminisce that systematic evaluation of existing digital learning products must be conducted before they adopt or customize them [27].

When online learning is carried out, the lecturers and students should continue developing their creativity like regular learning. Wang explained the necessity to create enjoyable online learning using a variety of learning methods, such as active learning with intensive interaction, short video playback as an apperception. However, teachers must pay attention to the psychological side of such online communication types, and it may affect the overload of working memory because the conveyed information is not fully comprehended [28]. Inversely, face-to-face learning is more convenient; it has had high efficiency in information exchanges because of the convenience of information acquisition [29]. Regarding this study, we conducted an objective survey of mostly used and user-friendly online learning applications. There is no intention of promotion or other purposes.

Furthermore, we provide recommendations for ease or excellent features, both free and unique versions, during the COVID-19 pandemic so that the integration of technology in education runs optimally. Mayer's studies have revealed that multimedia learning was useful. He illustrated various theories and principles of online learning, such as multimedia principles, split attention principles, modality principles, redundancy principle, segmenting principle, pretraining principle, contiguity principle, coherence principle, personalization, voice, and image principles. While in India, the decision to school closure and requiring teachers to present at work has a psychological impact on teachers' morale. They were questioning the policy since it would raise insecurity during the COVID-19 pandemic. The degree of anxiety has gone to such a pinnacle that recently, an online petition was socialized, namely "#KeepTeachersSafe." one-third of the teachers experience moderate to severe effects. The latest updated information and preventive actions have often socialized led to a positive and lower impact to provide a psychological effect on the community.

Technology brings its own charms, however, technology has limitations, among others, the lack of direct contact between humans in the form of affection, emotions that are all impossible to reproduce in any online platforms [30], [31]. In India, not only teachers should engage the students academically online for the benefit of their careers, but also faculty members too. In addition, the faculty members should engage themselves actively in upgrading their knowledge, such as writing research papers, attending webinars, etc. These activities will gain their confidence. Then students will be in phase with the academic calendar. This constant student engagement activity will strengthen the teaching-learning and it is certain that it will break the chain of spreading of COVID-19 [32]. Student perceptions of teacher performance appear to vary. 40.5% of respondents reported the teacher explained the online learning material clearly, while 40.2% said they disagreed, 9.6% strongly agreed, and 9.7% strongly disagreed. Students stated that the role of teachers in excellent service largely determines the quality of learning. 74.5% of students need intensive teacher assistance, in-depth question and answer, and others through social media, because they

consider social media to be the easiest and most effective and efficient application platform [33].

In the final part, they responded related to their likes and dislikes in online learning during COVID-19. 34.7% of students stated that the most preferred thing in online learning was that they did not have to go to campus, 33% explained that online learning was not limited in space and time , and resolved is about face-to-face interaction, spending time in front of a laptop or mobile phone, and can be done by doing other activities. While the things that are most disliked when learning online are; 31.8% of their time was spent in front of the computer, 29.7% online delivery methods, 15.8% agreed with social interactions and the rest were other reasons. Overall 47.6% expressed their dissatisfaction with online learning during COVID-19, 38.9% were satisfied, 10.4% were very dissatisfied, and 3% were very satisfied. Such conditions have an impact on students' motivation to learn online during COVID-19. 66.7% have moderate motivation, 22.4% have high motivation, and 10.9% have low motivation. And the most surprising thing was that 67.1% had no plans to take online learning anymore, and 32.9% said they would take online learning again. Immediate responses, data accuracy, and information validity will provide real strength for the world education community. From the description and data above, we offer several suggestions that can be used to conduct online learning more effectively and efficiently. Firts, national policies on education that directly touch the grassroots and policy makers. The regulations created by the Ministry of Education and Culture deals with on online learning and all matters relating to learning in the COVID-19 pandemic are well structured.

IV. CONCLUSION

Online learning that has been going on as if "left" goes on its own, therefore we provide recommendations for massive socialization and assistance on a national scale by issuing structured guidelines. Working together with various providers across the globe to provide user-friendly digital online platforms for higher education students. The application in cooperation with the ministry turned out to be unfamiliar among students and lecturers. E-learning applications, for example, are too "complicated" in the eyes of lecturers and students. The government needs to collaborate with application providers used for online learning, both from Indonesia and abroad. The application is widely used because it is easy, practical, and gives its own impression to its users. Four, providing the service excellence to schools, teachers, students, and all policy makers in implementing online learning during COVID-19. The service excellence will have an impact on the attitudes, behavior, and circumstances of higher education during the COVID-19 pandemic. Therefore, we urge recommendation that releasing a major decision such as (1). Free credits for customers who access online learning sites with all internet service providers in Indonesia. 2. Creating a standard operating procedure for online learning evaluation that is used as a reference throughout Indonesia in the hope that education will continue to run optimally in Indonesia with all its limitations and problems.

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