Secondary School Teachers and Learners Perspective for Future of Education Post COVID-19 Pandemic

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Abstract: The COVID-19 pandemic has become a global health disaster since March 2020 and has had a significant impact on education. The education system forced to change from a face-to-face learning model to a virtual one to reduce the spread of COVID-19. These extraordinary conditions that lasted no less than one year give various responses from both teachers and learners perspectives. This study examines secondary school teachers and learners perspectives regarding education in the future post, Covid-19 pandemic. This paper used the descriptive method by qualitative approach. Furthermore, this study was conducted by distributing online questionnaires from 5 provinces in Indonesia, involving 40 teachers and 28 learners. The results of this study indicate that (1) e-learning has not fully accommodated some educational values that can be transmitted through classical learning process only, (2) direct interaction are the most lost value during e-learning, (3) the sustainability of e-learning depends on the readiness of resources and infrastructure, and (4) blended learning is the suitable learning model for future education. From the result of these studies, identifying the suitable blended learning model for future education sustainability in every level of education is essential to be further studies as the stakeholder's reference in implementation learning models.

INTRODUCTION

WHO declared the 2019 coronavirus disease (COVID-19) as an international health disaster at the end of January 2020 and declared it a global pandemic in March 2020 (Lewis et al., 2020). In the first half of 2020, the disease has infected 10 million people worldwide and killed about half a million (Yong, 2020). Globally, a total of half of these cases (48 %) and deaths (55 %) were reported from the United States, Brazil and Argentina Region. Meanwhile, the most active increasing affected region compared worldwide as accounting for 25 % of new cases and 20 % of deaths are from Southeast Asia (WHO, 2020).

In real terms, a pandemic does not only cause illness or death but also has consequences for changes in psychological, social, economic and educational aspects (Niemi & Kousa, 2020). The impact of the COVID-19 virus, which is so astonishing, has forced governments worldwide to quickly evaluate, analyze and adjust policies in all sectors related to health, economic and social conditions (Nesteruk, 2020). In global conditions, the government policy to hold the spread of this pandemic haves to consider social activities, which have a

domino effect on lack of economic conditions and the decrease of human development index (Zaremba et al., 2021).

On the broader side, all government policies, including economic, social, and political levels, are oriented towards ending the pandemic's spread (Vallejo & Ong, 2020). Policies for maintaining social distance, self-isolation and travel restrictions are the central policies implemented worldwide. However, they have implications for disrupting economic stability, increasing the need for medical personnel and health services significantly, and changing face-to-face educational practices to become virtual (Nicola et al., 2020).

Social distancing policies have caused most educational institutions in the different side of the world to change the paradigm of direct learning into virtual learning and teaching since March 2020 to contain the spread of COVID-19 (Di Pietro et al., 2020; Junaidah et al., 2020). Absolute learning innovation is carried out amid these conditions, including the conversion of all face-to-face learning to online, both through synchronous and asynchronous learning, to maintain the education process's sustainability during a pandemic (Ionescu et al., 2020; Scull et al., 2020). Generally, the success of the education process's sustainability is determined by several factors: local and global collaboration, maximizing digital technology, organizing national cultural differences, and using resources as useful as possible (Caniglia et al., 2017). The key to learning sustainability is adjusting the teaching methods, leadership models, and interaction techniques applied, using digital as the basis technology (Antyukhova & Kasatkin, 2021; Sá & Serpa, 2020). Sustainability of learning should lead learners to have critical thinking in driving social change and instil a new vision and paradigm to make this world a better place for all its inhabitants (Wolff, 2020).

Distance learning using online media is one of the practical steps and forced the availability of reliable communication tools, digitization of high-quality learning resources, academic experiences, and the promotion of learning in technology-supported networks are the main implications that must be adjusted to face social restriction policies (Basilaia & Kvavadze, 2020; Hebebci et al., 2020; Mishra et al., 2020). Another step taken is the implementation of experiential learning (DeFilippis et al., 2020).

One of the most straightforward steps in implementing virtual learning is carried out by the Zambian government by utilizing television as an Education Channel (Mulenga & Marbán, 2020). In India, educators' fundamental changes in the learning process were carried out by utilizing the EdTech Start-up (Dhawan, 2020). Meanwhile, some African countries choose to apply blended learning in current education's extraordinary conditions (Okebukola et al., 2020). On the other hand, current technological advances have shown that most learners prefer virtual learning or virtual classes and are proven to support conventional learning in class (Sohibun & Ade, 2017).

Various studies have described Teachers responses in the face of learning in the current pandemic era. For example, teachers experienced in the Netherlands, online learning reduces interaction intensity. It increases workload and pressure to improve learning quality (van der Spoel et al., 2020). For expatriate teachers in Southeast Asia, social restriction policies during the pandemic have disrupted financial conditions that can cause them to leave the country (Hoang, 2020). In America, the teaching process at this uncertain time experiences makes the high disparity between "real practice" and "ideal practice" (Quezada et al., 2020).

Whereas in Italy, digital learning habits have provided comfort and will be maintained even though the pandemic has passed (Giovannella et al., 2020). In line with this, teachers in Germany feel that digital learning is an intrapersonal responsibility to familiarise their learners to maximize digital technology as a provision for future work (Delcker & Ifenthaler, 2020). The majority of Malaysia educators improve competence by studying various digital learning platforms and compiling a good implementation e-learning plan (Marek et al., 2020).

The WhatsApp platform is a favourite media for learners to carry out online learning because it is more comfortable, more straightforward, and does not require extensive data quotas than another learning platform such as Zoom (Wargadinata et al., 2020). According to learners in America, distance learning using Twitter improves their learning quality (Duong et al., 2020). Next, the Google Classroom platform can be used for educational purposes and to maintain bonds between teachers and learners (Al-Maroof et al., 2020).

On the other hand, learners' creativity in finding solutions and innovations in adapting learning styles to audio-visuals and establishing good communication with teachers is a determinant of distance learning success (Octaberlina & Muslimin, 2020). In Indonesia itself, most learners prefer blended learning with the use of appropriate technology and supported by good Teachers performance (Amir et al., 2020). It cannot be denied that the success of e-learning depends on the strength of the interaction between teachers and learners (Arghode et al., 2018). In line with this, learners' willingness and activeness in carrying out online learning is directly proportional to the willingness and innovation of teachers in providing variety in e-learning (Dwivedi et al., 2019). The enthusiasm for learners'

learning is determined by the ease of supporting software and the Teachers competence in mastering the teaching platform (Riley et al., 2017). On the other hand, learners' characteristics and needs in the learning process remain the main things that must be considered to create a good atmosphere of interaction during the teaching and learning process (Rahmawati et al., 2020). There are two ways to create a good atmosphere both physically and psychologically in learning; collaborative communication and good classroom condition (Aminah, 2018).

During this pandemic, distance learning in Indonesia has been implemented through various methods and approaches, namely; (i) implementation of school closure policies during emergencies and alerts; (ii) blended learning can be implemented in areas categorized as green or yellow zones according to local government policies; (iii) implementation of the Distance Learning program supported by national television stations and several free learning platforms; and (iv) providing quota assistance to learners and teachers to support e-learning. According to this various implementation of policies, it is essential to conduct a study of teachers and learners perspective in implementing an online learning policy that has been running for almost a year to prepare steps for future education.

Studies about the students and teachers responses after undergoing virtual learning during this pandemic have done by several countries. From England learners perspective, they feel increasing academic achievement significantly when taught by blended learning models than traditional teaching methods (Ehrlich et al., 2020). In the United States, learners' fatigue and boredom are common problems during virtual learning that need innovative teachers to maximize virtual learning media and methods (Almarzooq et al., 2020).

That is different from the Indonesian condition because of different social condition and policy. Here, virtual learning policies are different from other various countries policies. The Indonesian government supports virtual learning by providing free access to learning platforms, programs on television, and quota assistance for both teachers and students. Various studies that have been carried out have not emphasized student and teacher perspectives regarding virtual learning during Indonesian government policy about virtual learning program. It is essential to examine student and teacher perspectives on learning in a pandemic period as a primary consideration in developing future education.

METHOD

This study analyzed the secondary school Teachers and Learners perspective in Indonesia that have implemented online learning for almost a year during the Covid-19 pandemic and meet sustainable future education. This study conducted by purposive sampling that design based on the researcher's judgment as to who will provide useful information to succeed for the objectives study (Etikan, 2017). The descriptive survey was used based on the online questionnaire analyzed from two perspectives: learners and teachers. The demographic of respondents in this paper as the Table 1.

Table 1. Demographic of Teacher Respondents.

No.	Variable	Category	f	%
1	Educational stage	Bachelor	31	77.5
		Master	9	22.5
2	Educator Certificate	Have	10	25
		Do not have	30	75
3	Educational institutions	Country	6	15
		Private	34	85
4	Province	East Java	33	82.5
		Central Java	3	7.5
		Yogyakarta	1	2.5
		DKI Jakarta	2	5
		Banten	1	2.5
	Total		40	100

Table 1 shows that the teacher's respondents are 40 persons. Commonly came from Bachelor than Master degree. Here, an educator certificate is the most critical recognition as a good teacher. Most of the teacher of these respondents do not have that certificate.

Table 2. Demographics of Students Respondents.

No.	Variable	Category	f	%
1	Educational institutions	Country	18	64.3
		Private	10	35.7
2	Province	East Java	18	73
		Central Java	4	15
		Yogyakarta	2	4
		DKI Jakarta	2	4
		Banten	2	4
	Total		28	100

Distribution and data collection was carried out between January to February 2021. This paper used the descriptive method by a qualitative approach that is usually used to provide descriptive knowledge and understandings of the phenomenon under study (Assarroudi et al., 2018). The data from respondents analyzed in Google Sheet. The responses are evaluated in detail as the basis to make codes based on respondents answer.

RESULT AND DISCUSSION

The teachers and learners perspectives regarding learning conditions during the pandemic and the challenges of education in the future are grouped into the following 6 (six) themes.

E-Learning before Pandemic

Table 3. E-Learning before Pandemic Teachers Perspective.

No.	Category	f	%
1	Yes	13	32.5
2	Not	27	67.5
	Total	40	100

We can see that teachers' experience in implementing e-learning before the pandemic was classified as low (n = 13; 32.5 %). The findings show that maximizing e-learning in the learning process is not teacher habitual, even

though this pandemic forced a teacher to maximize technology during e-learning.

Table 4. E-Learning before Pandemic Students Perspective.

No.	Category	f	%
1	Yes	24	85.7
2	Not	4	14.3
	Total	28	100

Teacher condition is in contrast to learners accustomed to implementing e-learning (n = 24; 85 %) before the pandemic. We can observe this from accessing the internet to gain new knowledge and taking online tutoring classes to support his knowledge. These results are in line with research showing that not all teachers are ready to adopt e-learning, especially in public schools in developing countries (Shraim & Khlaif, 2010). In this case, the big challenge is the teachers have to improve their competence in maximizing e-learning to fill the learner's needs who are more capable of using e-learning.

Improved E-learning Maximization Skills

Table 5. Improved E-Learning Maximization Skills Teachers Perspective.

No.	Category	f	%
1	Yes	32	80
2	Not	8	20
	Total	40	100

In meeting the challenges and learning conditions during the pandemic, research findings show that most teachers (n = 32; 80 %) have improved their proficiency in implementing e-learning. That is useful findings that teacher is doing actualization to maximize competence in e-learning.

Table 6. Improved E-Learning Maximization Skills Students Perspective.

No.	Category	f	%
1	Yes	26	92.9
2	Not	2	7,1
	Total	28	100

They also improved their e-learning to maximization skills (n = 26; 92 %). The increased activity of e-learning can also be in line with studies showing that e-learning is exceptional cases for most teachers and learners; thus, they began to improve their e-learning proficiency to close previous limitations (Mailizar et al., 2020). E-learning maximization skills are necessary for both teachers and learners to follow the development and learning conditions currently referred to online learning.

E-learning as a Classical Learning Substitute

Table 7. E-learning as a Substitute for Classical Teachers Perspective.

No.	Category	f	%
1	Yes	20	50
2	Not	12	30
3	As a distraction	8	20
	Total	40	100

It cannot be denied that the current conditions of the Covid-19 pandemic require each region to limit direct interaction, so learning practices become virtual, not classical. The exciting thing from this study shows that half of the teachers agree about e-learning as a substitute for classical learning (n = 20; 50 %).

Table 8. E-learning as a Substitute for Classical Students Perspective.

No.	Category	f	%
1	Yes	14	50
2	Not	10	35.7
3	As a distraction	4	14.3
	Total	28	100

Half of them also agree (n = 14; 50 %) towards e-learning statements as a substitute for classical learning from the learner perspective. Learning in an e-learning environment occurs differently from traditional classrooms. It can present new challenges for teachers and learners participating in these online learning environments.

Not much different from these findings, not all educational values such as peace education, consumer education, equality education, road awareness education, health education, moral and civic education and sex education conveyed in virtual learning can be appropriately implemented (Pérez-Jorge et al., 2017). Several sections can be implemented collaboratively both by teacher-learners classically. However, some sections allow it to be carried out online, and learners still feel learning satisfaction and higher cognitive understanding (Tîrziu & Vrabie, 2015). These findings explain that e-learning has not fully accommodated some educational values that can only be transmitted in the classical learning process.

Challenges of E-learning

Table 9. E-learning as a Substitute for Classical Teachers Perspective.

No.	Category	f	%
1	Less Interaction	21	52.5
2	Decreased Absorption	11	27.5
3	Innovative Demands	8	20
	Total	40	100

The challenge of implementing e-learning is a particular concern in e-learning succession in the pandemic era. From the teacher's point of view, the interaction reduction was a significant highlight (n = 21; 52 %).

Table 10. E-learning as a Substitute for Classical Students Perspective.

No.	Category	f	%
1	Teachers Innovations	14	50
2	Lack of Understanding	10	35.7
3	More Tasks	4	14.3
	Total	28	100

It cannot be denied that the changing habit from face to face by virtual learning even reduces direct interaction between teacher-learners and learners-learners. They still have bond interaction if they frequently communicate. The studies found that e-learning has a significant effect on social capital bond but does not produce quality learning (Diep et al., 2017). Meanwhile, according to learners, Teachers innovation is the central aspect that must be considered (n = 14; 50 %) so that e-learning runs according to plans and goals.

More thoroughly, the taxonomy of e-learning challenges during the pandemic is consistent with this study's findings (Aini et al., 2020). Distance learning as a social restriction policy in educational institutions plays a central role in making social activities and interaction affect the disruption of activity-based social needed forlearners' growth and learnings. In this case, the teachers' innovation as an education facilitator is not only a material provider but also deeper in maintaining the rhythm of education and learning that is contextual or real-life based.

Post-Pandemic and E-Learning Sustainability

Table 11. E-learning Sustainability Teachers Perspective.

No.	Category	f	%
1	Neutral	19	47.5
2	Yes	11	27.5
3	Not	10	25
	Total	40	100

In Reality, E-learning has become a popular learning method in various regions of the world, especially since lockdown due to pandemic COVID-19 shows the impact and good performance to continue the learning process.

Table 12. E-learning Sustainability Students Perspective.

No.	Category	f	%
1	Neutral	20	71.4
2	Yes	2	7,1
3	Not	6	21.4
	Total	28	100

However, both teachers and learners agreed to choose neutral (n = 19; 47 % and n = 20; 71 %) in the aspect of

continuity of post-pandemic e-learning. This response is more than the choice to continue e-learning. From the learner's point of view, the e-learning method's sustainability is in the minority (n = 2; 7.1 %).

On the other hand, the sustainability of e-learning requires several fundamental readiness matters; (1) technology, (2) quality of e-learning systems, (3) cultural aspects, (4) self-efficacy and (5) trust (Almaiah et al., 2020). In line with this, the readiness of resources and infrastructure is essential to note. It is essential to take advantage of technological advances. However, the ideology of education based on human values must be prioritized without eliminating human nature as social beings that require direct interaction.

Post-pandemic Learning Model

Table 13. Post-pandemic E-learning Model Teachers Perspective.

No.	Category	f	%
1	Blended Learning	19	47.5
2	Traditional (face to face)	17	42.5
3	Online	4	10
	Total	40	100

Most teacher's perspective agrees to implement blended learning in post-pandemic (n = 19; 47 %). On another side, several of them say that face to face learning models still exists for post-pandemic learning.

Table 14. Post-pandemic E-learning Model Students Perspective.

No.	Category	f	%
1	Blended Learning	12	42.9
2	Traditional (face to face)	10	35.7
3	Online	6	21.4
	Total	28	100

Studies show that learners' blended learning model is a suitable demand (n = 12; 42 %). Blended learning is an approach that combines the benefits of face-to-face and online learning components (Rasheed et al., 2020). In line

with these results, blended learning is the best solution as an approach in future learning with distance-efficient in terms of learners' learning experiences, feelings that arise as a result of each learner and teacher-learners interaction and as a model of primary education in the future of the e-learning purely (Tayebinik & Puteh, 2013).

Not much different from those findings, from various learning models that exist, blended learning is the suitable learning system that could be practised both days of the pandemic as well as for the sustainability of learning in the future with the support of infrastructure such as the internet, gadget and E-learning platform is adequate (Alqahtani & Rajkhan, 2020). Blended learning is a solution in responding to the challenges amid technological advances and pandemic condition. However, it still provides space for direct interaction to give the real example and education value used as a reference for future education.

CONCLUSION

This study found several results; (1) the majority of teachers are getting lack to implement e-learning suddenly, (2) both learners and teachers agreed to improve their competence to use e-learning, (3) e-learning in pristine conditions has not accommodated some educational values, (4) the loss of direct interaction is a particular concern in e-learning, (5) sustainability of e-learning depends on the readiness of resources and infrastructure, and (6) Blended learning is the preferred learning model to gain sustainability for future education. It is essential to identify a suitable blended learning model for the sustainability of future education.

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