

Creating a Positive Psychology of teaching in online learning: University Lecturers' Views

Apiah Agustiani, Susilo

Department of Biology Education, Universitas Muhammadiyah Prof. DR. Hamka, Jakarta Timur,
Indonesia

*Correspondent Email: susilo@uhamka.ac.id

Abstract

The Covid-19 pandemic has transformed face-to-face learning methods into online or remote classes at all levels of education almost all over the world. This change led to a variety of responses for teachers and lecturers in Indonesia. This paper explains the perception of lecturers at the university level about the implementation of online lectures during the pandemic. A total of 151 lecturers from various private universities in Indonesia were involved in this study. Closed questionnaires and semi-structured interviews are used to collect data. Hermeneutic techniques with an inquiring narrative approach are used to analyze data. Most lecturers argue positively against the implementation of distance lectures, although there is a small part that they complain about. A total of 140 participants from 151 lecturers were satisfied and comfortable conducting online lectures because of the flexible, highly effective time and place and supporting infrastructure of the teaching institutions. However, as many as 11 other participants experienced dissatisfaction in conducting online lectures due to various factors including internet network constraints, the implementation of practicum that could not be done online, as well as the assessment process of student learning outcomes. Therefore, various experiences of lecturers in the implementation of online lectures need to be considered for educational institutions to be better in the future.

Keywords: Pandemic Covid-19, Perception of lecturers, Online Lectures

INTRODUCTION

The Covid-19 pandemic has had a disrupting impact on education processes around the world. The policy of stopping face-to-face learning activities and switching to an online learning system is applied at the elementary to college level (Amir et al., 2020). The change has an influence on the learning culture for the educational elements of students, teachers, and educational institutions (Agarwal & Kaushik, 2020). This situation has an influence on the learning culture of students, teachers, and educational institutions (Agarwal & Kaushik, 2020). The adoption of technology has disrupted traditional teaching practices because lecturers often have difficulty adapting and connecting existing pedagogy with technology (Sulisworo, 2013). The education crisis caused by Covid-19 resulted

in lecturers being forced to rely on digital technology as the main source of teaching and learning regardless of existing beliefs and technological practices. This condition is the first time in the current pandemic period, it will create a new atmosphere that requires lecturers to deliver materials or give assignments online. Thus, digital resources become a solution that helps in facilitating the activities of the teaching and learning process online. Technology facilitates teaching and E-learning, which ultimately has a positive impact on teaching, learning, and research activities (Adarkwah, 2020). In the use of technology as the main pedagogy tool, lecturers and students are required to be active and innovative in online learning. While this pedagogy tool can help educators and students in many ways, the role and skills of users are very important. Not infrequently many

generation X educators still apply the conventional way. The problem is that pandemic learning forces anyone to use modern technology in learning.

These forced and sudden changes led to a significant shift in teaching culture in the use of technology (Attard & Holmes, 2020). The incorporation of technological resources and innovative educational strategies has transformed the teaching and learning process (Amir et al., 2020). This study identifies key factors that can facilitate the transition from traditional teaching to crisis-driven distance education are: (1) on-site technical support, (2) lecturer pedagogical strategies for distance learning and (3) student introduction to keep teaching and learning modes and related collaboration strategies away (Fox, 2004). During distance education, lecturers may not have much time, insight and preparation to redesign, and fulfill the requirements of effective online learning (Bergdahl & Nouri, 2020). To ensure a high part of the learning time, lecturers need solutions to prevent student bad behavior caused by boredom, overload, disorientation, difficulty in understanding, and negative emotions (Huber & Helm, 2020). Meta-analysis has repeatedly identified classroom management as one of the strongest instructional predictors of student academic achievement (Higgins & Simpson, 2011). However, online lectures also found challenges and obstacles experienced by lecturers and students. Although the experience of applying online learning by lecturers has been reported, but complex lecturer problems in the implementation of online learning for one year are still little reported. Obstacles and challenges encountered certainly vary between lecturers and students. The use of this distance learning platform is not without problems (Hussain et al., 2020), there could be hidden problems because there is no solution.

The Covid-19 pandemic during this year provides a new experience for lecturers who are intact and this is the first time in the history of education. Different challenges and obstacles are encountered in the implementation of online lectures by lecturers in Indonesia. Therefore, this paper aims to

explore lecturers' views on the implementation of online learning for a year and the strategies they offer towards future learning.

METHOD

This study uses narrative studies in accordance with what was suggested by (Clandinin, 2006) that narrative investigation as a way of understanding experience. In practice, In the study, narrative is understood as the way in which life and identity are explored (Singer, 2004). This method is often used by research that aims to explore individuals related to certain physical, social, and cultural experiences so as to establish themselves while maintaining an orientation to the story (Ho et al., 2019; Widodo, 2020). Narrative research is also a research method that focuses on the story of one's life experience to be then compiled according to the specifications and orientation of the research (Clandinin, D., & Connelly, F. (2000). This study reported the experience of lecturers in online lectures during the Covid-19 pandemic. The story of the experience of teaching participants in conducting lectures is personal by expressing feelings, impressions, and challenges and obstacles experienced and strategies carried out during the Covid-19 pandemic in Indonesia. Therefore, qualitative approach is used to investigate lecturers from 13 universities in Indonesia. Participants come from diverse educational backgrounds.

Participants

Sample collection is done by non probability sampling method with Convenience Sampling approach to get a number of lecturers who meet the general criteria and dynamic so that the most accessible samples are taken and willing to provide information in accordance with research purposes. This study involved 151 lecturers from 13 universities in Indonesia who have conducted teaching in online lectures during the Covid-19 pandemic. Before it starts, we notify the purpose of the research and let them know that their data or identity is confidential. We ensure the willingness of lecturers to fill out questionnaires is not a criterion for exclusion and participation in research is entirely voluntary. Non probability

sampling technique has a deficiency in representative for the population so determined characteristic indicators and

demographic information of respondents to adjust participants to the theme of research as in table 1.

Table 1. Respondent Demographic Characteristics

Respondent Demographics (N=151)		Frequency	Percentage (%)
Gender	Man	49	32,45
	Woman	102	67,55
Age	21-30	43	28,5
	31-40	78	51,7
	41-50	13	8,6
	51-60	12	7,9
	> 61	5	3,3
Platforms	Edmodo	24	4.77
	E-Mail	64	12.72
	E Class	26	5.16
	Google Classroom	25	4.97
	Google Meet	57	11.33
	Website	2	0.39
	Whatsapp	112	22.26
	Youtube	37	7.35
	Zoom	110	21.86
	Moodle	12	2.38
	Quizizz	3	0.59
	Sli.do	1	0.19
	Cisco Webex	3	0.5
	Schoology	11	2.18
	Telegram	1	0.19
	Kahoot	1	0.19
	Google Scholar	1	0.19
	Go Brunch	1	0.19
	Microsoft Teams	2	0.39
	LMS	6	1.19
FLearn	1	0.19	
Timivy	1	0.19	
Elena	1	0.19	
WizIQ	1	0.19	

Instruments

Data retrieval was conducted for 1 month starting in March - April 2021. In digging narrative data used instruments in the form of semi-structured interviews and online questionnaires through google form. Researchers collect data using E-mail, Google Meeting, and WhatsApp. Semi-structured interviews are used as guidelines for obtaining information and exploring participants' backgrounds and academic experiences. According to (Frankel & Devers, 2000) Several factors affect the degree

of structure or type of instrumentation used in qualitative research. Good qualitative research answers important research questions that are clearly stated. This interview allows us to investigate and gain deep meaning about the feelings, perceptions and attitudes of participants (Gaffas, 2019). Modified interview questions include the lecturer's view of the implementation of online lectures, the obstacles and challenges faced by lecturers, strategies used to deal with various challenges and obstacles in online lectures. Then, the statement given by the

respondent will be recorded and analyzed. To obtain qualitative data through analysis, researchers compiled several open questions in the form of questionnaires covering 4 main indicators, namely: (1) the role of institutions that support online lectures, (2) the role of students as participants of online lectures, (3) The condition of activities in online lectures

during the Covid-19 pandemic and (4) Expectations of post-Covid-19 lecture activity conditions. Then, the Indicator is developed into 10 open question items (Table 2) presented in the form of Google Form that we sent to respondents via E-mail, and WhatsApp Groups.

Table 2. Questionnaire Guidelines

Indicator	Question Items
Lecture conditions during the COVID-19 pandemic	<ol style="list-style-type: none"> 1. What are the advantages of <i>online learning platforms</i> that you use during the learning process? 2. What are the obstacles that you / mom encounters during the online learning process? 3. During online learning, how is the interaction between Father / mother and Student? 4. In the view of father / mother, what are the advantages or disadvantages of online lectures? 5. In the view of father / mother, what are the shortcomings or disadvantages of online lectures?
The role of agencies as supporting online lectures	<ol style="list-style-type: none"> 6. How does the father / mother agency support online lectures?
The role of students as participants in online lectures	<ol style="list-style-type: none"> 7. How is student participation during the online lecture process?
Lecture expectations after the COVID-19 pandemic	<ol style="list-style-type: none"> 8. What is the view of the father / mother about online lectures in the future? 9. If the Covid-19 pandemic in Indonesia ends, will online lectures still be done? 10. According to you/ mother, will online lectures currently affect the curriculum in the future?

PROCEDURE

Before starting this study, ethical permission and permission to conduct research were granted. In semi-structured interviews to extract information from participants, researchers first contacted participants via WhatsApp to ask permission to the father / mother of lecturers to be interviewed in this study. Then, if the lecturer is willing then the researcher wants to ask for 15-25 minutes for each participant to be interviewed in order to get more accurate information. The time to conduct interview activities is morning and afternoon where each participant's time is different according to the amount of time owned by the father / mother of the lecturer. Interview activities are conducted through google meeting or WhatsApp in accordance with the will of the father / mother of lecturers. Interview activities use easy-to-understand and

polite language to facilitate communication. Interviews take place in a comfortable, calm, and relaxed atmosphere and open to each other to get information about the lecturer's experience in teaching and conducting lectures online. During the interview, researchers asked for permission to record the conversation via a private cell phone. Then, the interview transcripts obtained will be analyzed based on themes that often appear according to the instrument. Although the interviewer aims to get the perspective of the participants, they must remember that they need to control themselves so that research objectives can be achieved and research topics explored (Rachmawati, 2007). In an online questionnaire that has been compiled through google form, digital surveys will be distributed to participants who are willing to engage in this research, namely active lecturers

who conducted online lectures during the Covid-19 pandemic through E-mail applications, WhatsApp Group, etc. From the questionnaire as many as 151 lecturers gave responses that were then received in sheet format which will then be analyzed.

Data Analysis Techniques

Before conducting data analysis by researchers, then the researcher first checks the data to ascertain whether the data that has been obtained from the informant can be trusted or not. In this qualitative study, researchers found it sufficient to only use data testing methods with source triangulation (Linarwati et al., 2016). In qualitative studies, researchers used excerpts from conversations to justify their analysis (Puplampu et al., 2020), the essence of qualitative data analysis lies in three related processes: describing phenomena, classifying, and looking at interrelationships between concepts (Barlian, 2016). In this study, data analysis was intended to find out how lecturers perceive online lectures during the Covid-19 pandemic. Hermeneutic analysis techniques are used for data in the form of narrative text obtained from open questionnaire instruments and interviews. According to (Mulyaningsih, 2017) Hermeneutic analysis is an analytical technique used to interpret meanings in text implicitly by associating the language symbols contained in the text with various events, such as: linguistic events, art, culture, and history. Hermeneutics in understanding a text must place it in the context of the author's life, which consists of society, culture, and history (Ashadi, 2017). Activities in the analysis include data reduction (reduction), presentation of data (display) and conclusion drawing and verification. This is supported in the opinions visualized by Miles and Huberman (1992) covering the stages of: (1) data reduction, (2) presentation of data, and (3) withdrawal of conclusions and verification.

RESULTS AND DISCUSSION

The COVID-19 pandemic has led to the unprecedented closure of university facilities, it affects millions of students around the world. This study documents the perspective of

lecturers on active learning delivered through distance learning since March 2020. The study has collected responses from 151 lecturers from 13 universities in Indonesia. The data presented homogeneously from 49 males and 102 females. A total of 78 lecturers have an age range of 31-40 years that fills in the most data compared to other age ranges. The data is received in sheet format which is then analyzed through hermeneutic techniques. Lecturers' perception of learning is described into four themes of findings, namely: 1) the conditions faced by lecturers in conducting online lectures; 2) student participation as participants of online lectures; 3) the role of the institution where lecturers teach as support for online lectures; and 4) the expectations of online lectures after the Covid-19 pandemic.

Online Lecture Conditions Faced by Lecturers During COVID-19

Lecture systems throughout the university have significantly transitioned from face-to-face learning to distance or online learning due to the Covid-19 pandemic. This change certainly has an impact on students and lecturers directly. Readiness in the use of technology in the learning process becomes a must faced by educators to create innovative and creative quality education in the future. Lecturers report positive experiences related to the platform used in conducting lectures online. Based on questionnaire data obtained information that as many as 22.26% of lecturers stated that they use whatsapp application in asynchronous learning, while in synchronous learning as many as 21.86% of lecturers make use of video conferencing from zoom application, 11.33% use google meeting. This experience is described by participants in the following narrative data:

I use learning platforms such as Zoom, WhatsApp, Youtube, Schoology for online lectures. Zoom I use to do face-to-face and see the activeness of students but only occasionally used because it requires a large internet data that many students complain about. Youtube we use to view videos of related material that I convey and whatsapp we used for ease of communication because of the speed of response and data saving internet. Schoology is used to share materials and theoretical class discussions

because discussions at Schoology are more structured. (P17)

In delivering materials and sending assignments, E-mail, WhatsApp, Zoom, and Edmodo we use. So far, E-mail has a good level of security and reduces the risk of data loss. Our WhatsApp is used to make it easier to coordinate with students for schedules, assignments, and discussions. For virtual face-to-face, the popular Zoom app is often used for synchronous lectures because of the many facilities offered. (P31)

When we are in synchronous zoom platform, we often use it because it can be virtually face-to-face like in a physical classroom. We can see all the student activities during the learning and this really helps us manage the learning. (P50)

Important information that can be recorded is that in the virtual learning process requires appropriate media, strategies, methods and learning models because it can affect the interests, motivations and learning outcomes of students in the learning process. All respondents have utilized various digital platforms to support virtual learning. Although many Web Video Conference (WVC) Technologies have been released, the Zoom Meeting Video Conference platform dominates as today's digital pedagogy medium. On the other hand, various media are also used to support the implementation of Asynchronous online learning through instant messaging applications such as WhatsApp, Telegram (So, 2016), and synchronous virtual classes using Google Classroom, Edmodo, and Schoology services (Enriquez, 2014; Iftakhar, 2016; Sicat, 2015). The process of using technology and electronic media in the learning process is also regulated by using the Modular Object-Oriented Dynamic Learning Environment (Moodle), an online learning management system and different platforms such as WebEx for video conferencing (Bolatov et al., 2020).

The use of mobile technology has a real contribution to achieving distance learning goals (Korucu & Alkan, 2011). One of the most significant benefits of technology involves opportunities for teachers to personalize learning through a flexible mixed format. However, those who teach individually and contextually, face very different challenges (Jandric & Zagreb,

2020). Educators must meet four key online education challenges: demonstrating pedagogical skills in online classrooms, addressing their managerial roles, building relationships with students, and providing technical support (Philipsen et al., 2019). (Dyment et al., 2018) expresses doubts about the effectiveness of online learning for three reasons, namely the way materials are delivered, limited student relationships, and assessment. In this case, it brings up the negative experience of lecturers who complain of some obstacles academics and students alike can suffer due to poor connectivity, inappropriate equipment, and other access problems (Jandric & Zagreb, 2020). (Moorhouse, 2020) concluded that there are at least two problems in online learning, namely that learning becomes lecturer-centered and the interaction gap between lecturers and students becomes wider due to various technical constraints and access limitations. Here is the evidence in the research data that shows that:

I had difficulty when carrying out practicum courses because students were difficult in understanding the material and could not do directly. This is certainly different when practiced directly. (P27)

Less stable network connections are a major problem in our premises. Some students also have difficulty accessing the internet because of the infrastructure that is not yet supported. Student center learning is difficult to achieve because some students are constrained by the internet. (P66)

About 85% of students can respond well when learning and another 15% are still late collecting assignments, late absences, and less active in learning.. (P93)

The challenges faced by lecturers and students are in line with the results of research conducted by (Amir et al., 2020) challenges during distance learning reveal most of the problems are categorized as external factors such as unstable internet connections and additional financial burdens for internet quotas. Other challenges related to internal factors include students' readiness for new learning methods, time management and difficulty focusing on learning through computers for long periods of time. Therefore, virtually conducted learning is

essential for communicating with students in current situations and technology from software that allows more time, and better opportunities to interact with students (Agarwal & Kaushik, 2020). Good interaction by students and lecturers or vice versa, it will make the lecture process better and learning objectives will be achieved. Lecturer interaction with students is very good and very active in following online lectures this can be seen from the interview data obtained from participants. Some participants stated that:

During home learning, almost all students remain enthusiastic about attending lectures as usual. However, some of them have to try to find a network during lectures. Interaction with students is quite good because it can still come face-to-face with students through the Zoom meeting application. (P90)

In the process of delivering materials, I see students always listen and actively follow the learning process. Students are also very enthusiastic, the discussion column makes it easy for them to ask and exchange materials. (P124)

On the other hand, some lecturers also stated that the interaction of students with lecturers is less responsive, and less enthusiastic and not in accordance with expectations in carrying out lectures. As in the responses expressed by some lecturers as follows:

In conducting online lectures, I have difficulty receiving and providing feedback because many students are not focused on the reasons for many distractions at home. Students tend to be inactive and no one asks questions. I feel that in this online lecture, students are more passive. (P146)

Many students are less active in learning, even though I have tried to use various learning strategies and models so that students do not get bored. However I understand that many factors and constraints affect students. (P126)

I feel that in online lectures, students' interactions in lectures are weakened due to unstable signal constraints in various places of residence, and trying to adapt in these conditions. (P56)

This data provides clarity that online learning makes communication tend to be closed between

lecturers and students. Not a few reports have explained this issue. Another report explains that interactive communication is strongly influenced by the method of delivery and management of classes by lecturers (Hsiao, 2021).

Student Participation as An Online Lecture Participant

In the implementation of online lectures from the findings showed that about 74.83% of students participated actively, enthusiastically and responsively. A total of 19.86% of students are active as usual and enthusiastic in conducting lectures although there are still some who are inactive and constrained, while 5.29% of other students feel less active. The results were proven in the research data, the results were obtained based on interviews of participants who stated that:

In the learning process, the participation of students who follow the learning looks enthusiastic and very good in paying attention and listening to the delivery of the material I delivered, although not as active as when face-to-face in class. (P107)

The majority of students who attended lectures with me were very enthusiastic. This can be seen from there is a significant reciprocity that when I give questions to students related to the material, some of them answer my questions and some even add or ask as well. And when given the task they collect in a timely manner. (P142)

From the various statements made by the participants, it can be known that student participation in online lectures provides a positive experience because most students are very enthusiastic and very good at following online lectures that lead to good interactions between lecturers and students. Student activity participation in online lectures is very important because the success of the learning process occurs when students experience their own satisfaction in online lectures with better learning outcomes. The level of students' skills in the use of technology is also better and lecturers must also be able to master technology to create innovative and creative education in the future. The spirit and motivation of students'

learning in online lectures also needs to be improved by improving or modifying better learning strategies and models.

The Role of Agencies to Support the Implementation of Online Lectures

A number of decisions need to be taken and resources are available that present challenges for the lecture system, educational institutions, and lecturers in online lectures (Wayne et al., 2020). Technological Advances have demanded online learning as a viable means to expand quality higher education (Asunka, 2008). The role of technology in the world of education, especially universities can not be underestimated, but it is beneficial for lecturers and students (Aljaraideh & Al Bataineh, 2019). Distance education has become the basic global mode of course delivery, and the quality of this delivery is essential (Fatani, 2020). The five elements in terms of quality for effective online education are student satisfaction, learning effectiveness, faculty and agency satisfaction, student access, and institutional cost effectiveness (Moore & Moore, 2005). Based on the results of interviews with participants, most agencies are very supportive in the implementation of online lectures. The form of agency support can be in the form of providing free internet data to lecturers and students, some agencies provide a choice of learning platforms that suit the comfort and needs of lecturers, provide online lecture training, and discount tuition fees for students. The support of universities as education providers is obtained from interview data for lecturers as follows:

My campus is very supportive of online learning, even working with internet service providers to provide special packages for lecturers and students so as not to burden students to fill quotas every day. (P105)

The support of institutions in online lectures is very supportive, with the provision of adequate internet facilities that can be used by all academic community. (P115)

Our institution provides free online facilities for all academic community and subsidizes internet quota for all active students to keep the course

running smoothly and well. (P132)

The agency where I work provides support by providing a good wifi network and providing discounts on SPP fees that students can use for the purchase of wifi data/payment packages at home. (P66)

Agency support in online lectures is very important as a form of success in the online learning process. Experience in the online lecture process has been almost a year running so as to shape the perception and view of online learning. Various views and support from various agencies can be used as the basis for evaluation to be better for future implementation. Therefore, this study also delves deeper related to the implementation of online lectures by lecturers after the Covid-19 pandemic.

Online Lecture Expectations After THE COVID-19 Pandemic

Educational institutions can learn from previous events to better maintain the sustainability of education (Bergdahl & Nouri, 2020). How important it is for the education sector to have a preparedness plan to ensure a safe and functional education in times of crisis (Faherty et al., 2019). The education crisis caused by Covid-19 resulted in lecturers being forced to rely on digital technology as the main source of teaching and learning regardless of beliefs and practices related to existing technology. These sudden forced changes can be seen as an opportunity for a significant shift in the way educators use technology in future face-to-face, online, and mixed classroom teaching (Attard & Holmes, 2020). Thus giving rise to a variety of positive and negative expectations in the implementation of online lectures. The responses received from participants were grouped into 3 categories: expressing full support, supporting with notes and not supporting. Here are the results of interviews with supporting participants will continue to conduct online lectures after the pandemic as many as 52.31% stated that:

The implementation of online lectures before Covid-19 has long been done with

blended learning system. We feel that online lectures are not an obstacle to learning. I hope this learning system continues to be supported by improving the internet network infrastructure because it is the key to distance learning. (P148)

I hope online learning continues even though the pandemic is over. This learning system makes it easy for me to manage lectures effectively and efficiently in terms of time and place. (P108)

I will continue to implement a distance learning system even if the Covid-19 pandemic ends or at least I will use blended learning to efficiently time and alternative solutions for future lectures. (P100)

As for participants who disapprove or tend to return to offline learning as a whole (6.62%) in the interview narrative include the following reasons.

I am more supportive of the lecture process directly because the delivery of materials can be delivered comprehensively without any network and internet connection constraints such as online. (P2)

Many students whose homes are in remote areas so that they experience signal interference and unstable internet connection so that the delivery of material is difficult to deliver so that many students do not understand the material I delivered. I am more supportive of lectures conducted face-to-face more directed and better and smoother. (P35)

Online lectures are the first learning process due to the impact of Covid-19, making it a felt experience by lecturers, students, and all educational institutions around the world. The condition of education in this pandemic requires all aspects of education to be able to adapt and technologically literate because to create a better education in the future. Challenges and obstacles are certainly felt by every lecturer, student and educational actor so as to reap a diverse response. The disadvantages and advantages in the implementation of lectures online are also found and felt directly by lecturers. Among the shortcomings of online lectures compiled in the interview narrative expressed by some participants are as follows:

The lack of online lectures that I feel is that internet access is sometimes unstable, the

devices that students use are less supportive. (P151)

The shortcomings in online lectures are in practicum courses. Practicum can not be done online but must be face-to-face so that practicum activities are changed by working on the report of each course. (P146)

Unstable internet networks cause interactions with students to be disrupted. (P144)

Online lectures do not build psychological between students or emotional interactions, especially passive students, making them difficult to measure and reach. (P134)

Lecturers expressed concern about how assessments can be conducted when lecturer-student interactions do not exist or are significantly reduced (König et al., 2020). the most common deficiencies faced by lecturers are in providing cognitive assessment, psychomotor, attitude, difficulty in practicum implementation. Lecturers should have a variety of alternative strategies in conducting more relevant assessments and practical implementations in accordance with the conditions during the pandemic. Apart from the shortcomings in the implementation of online lectures, there are also advantages in online learning. The success of both online and blended learning approaches also relies heavily on lecturers, knowledge of pedagogical content, and practices and interactions that occur during learning time either with technology or without technology (Attard & Holmes, 2020). Some participants were asked to express their views in the advantages of online lectures that they felt in the form of narratives as follows:

The advantages and advantages that I feel when applying this distance learning is better knowledge of technology content and this keeps me motivated to continue learning about pedagogy tools. (P79)

The advantage of online lectures that I feel is the ease of access that can be done anywhere and anytime. This learning system can make it easier for lecturers to manage classes and I am sure we have entered a new civilization in the world of education. (P121)

We are excited to learn about various online learning platforms to improve our learning strategies so that students don't get bored. Indirectly this can increase the knowledge of educators to always adapt to the development of technology in learning. (P132)

The advantages and disadvantages expressed are the interconnected conditions in conducting the learning process online. Online learning can affect curriculum changes in emergency education going forward. Pandemics have changed the context in which the curriculum is implemented. Not only because of the use of the platform and the needs of the curriculum, but also because certain knowledge and competencies are more relevant today. Contextual adjustment and prioritization are necessary to ensure that its content is relevant to the current emergency situation. Curriculum adaptation, flexibility and contextualization should address elements such as goal priorities and better learning content towards crises, understanding social and economic trends, and encouraging empathetic behavior, and tolerance (Wayne et al., 2020). Online lectures conducted during the pandemic year raise various perceptions of educators, and institutions must be prepared for the possibility of extending the emergency online learning period as well as forms of mixed learning. In accordance with the statement, participants expressed their views on how this method would affect the curriculum in the future in the following interview narrative:

This year-long online learning will clearly affect the education curriculum of the future. Now is a great time for curriculum development because the experience during this pandemic means a lot to better future education. (P92)

I think this online learning will affect the curriculum going forward because the use of technology changes the learning methods and strategies of educators and students. (P138)

Online lectures have advantages and disadvantages in their current application. The statement from the respondent provides evidence that evaluation and adaptation become an urgent

need. If left unchecked, lecturers and students will suffer from poor connectivity problems, inappropriate equipment, and other access problems (Jandric &, Zagreb, 2020). The adoption of technological resources and innovative educational strategies should be produced immediately for a useful teaching and learning process (Amir et al., 2020). The general impact felt by lecturers can be used as a consideration for urgent and sustainable mentoring and training (Purwanto et al., 2020). Responding to the increasing importance of the implementation of digital technology in the world of education because it is a level of difference in the international, national and local world. Thus affecting the overall framework of globalization and global change in the world of education (Selwyn, 2012), the knowledge of technology (TPK) lecturers need to be improved massively. In addition, TPACK teachers are significantly associated with their constructivist pedagogical beliefs compared to traditional beliefs. Furthermore, the researchers were interested in understanding the factors that can determine the use of technology among teachers: TPACK vs. self-efficacy (Tseng et al., 2020).

CONCLUSION

The research was conducted to find out and describe the various experiences felt by lecturers throughout Indonesia in carrying out the online lecture process during the Covid-19 pandemic. Research shows that in general lecturers have a positive and negative experience in the implementation of online lectures. Various challenges, obstacles, benefits, and solutions in carrying out online lectures are strongly felt by all lecturers and students in order to provide a better experience for the future. This requires support for the role of educational institutions to provide various facilities and infrastructure in creating successful online lectures. The response of all lecturers in Indonesia that online lectures are the right solution in emergency education situations during the pandemic and facilitate the learning process because it has a flexible time and place, very effective, easily accessible using various learning platforms, and important to help lecturers in improving innovation and creativity in the development of technology in the industrial world 4.0. In addition, the finding of

shortcomings in online lectures, namely internet connection, difficulty in practicum activities, difficulty in conducting assessments, and others. Therefore, various experiences of lecturers in teaching online lectures need to be evaluated for educational institutions to be better in the future. The key to success in the implementation of online lectures is the cooperation of various educational institutions to support education, cooperation between lecturers and students to achieve common goals and expectations.

References

- Adarkwah, M. A. (2020). "I'm not against online teaching, but what about us?": ICT in Ghana post Covid-19. *Education and Information Technologies*, 2. <https://doi.org/10.1007/s10639-020-10331-z>
- Agarwal, S., & Kaushik, J. S. (2020). Student's Perception of Online Learning during COVID Pandemic. *Indian Journal of Pediatrics*, 87(7), 554. <https://doi.org/10.1007/s12098-020-03327-7>
- Amir, L. R., Tanti, I., Maharani, D. A., Wimardhani, Y. S., Julia, V., Sulijaya, B., & Puspitawati, R. (2020). Student perspective of classroom and distance learning during COVID-19 pandemic in the undergraduate dental study program Universitas Indonesia. *BMC Medical Education*, 20(1), 1–8. <https://doi.org/10.1186/s12909-020-02312-0>
- Attard, C., & Holmes, K. (2020). An exploration of teacher and student perceptions of blended learning in four secondary mathematics classrooms. *Mathematics Education Research Journal*. <https://doi.org/10.1007/s13394-020-00359-2>
- Barlian, E. (2016). *Metodologi Penelitian Kualitatif & Kuantitatif*. Sukabina Press.
- Bergdahl, N., & Nouri, J. (2020). Covid-19 and Crisis-Prompted Distance Education in Sweden. *Technology, Knowledge and Learning*, 0123456789. <https://doi.org/10.1007/s10758-020-09470-6>
- Bolatov, A. K., Seisembekov, T. Z., Askarova, A. Z., Baikanova, R. K., Smailova, D. S., & Fabbro, E. (2020). Online-Learning due to COVID-19 Improved Mental Health Among Medical Students. *Medical Science Educator*. <https://doi.org/10.1007/s40670-020-01165-y>
- Enriquez, M. A. S. (2014). Students' Perceptions on the Effectiveness of the Use of Edmodo as a Supplementary Tool for Learning. *DLSU Research Congress*, 6–11. <https://doi.org/10.1017/CBO9781107415324.004>
- Fatani, T. H. (2020). Student satisfaction with videoconferencing teaching quality during the COVID-19 pandemic. *BMC Medical Education*, 20(1), 1–8. <https://doi.org/10.1186/s12909-020-02310-2>
- Ho, K. H. M., Chow, S. K. Y., Chiang, V. C. L., Wong, J. S. W., & Chow, M. C. M. (2019). The technology implications of master's level education in the professionalization of nursing: A narrative inquiry. *Journal of Advanced Nursing*, 75(9), 1966–1975. <https://doi.org/10.1111/jan.14044>
- Huber, S. G., & Helm, C. (2020). COVID-19 and schooling: evaluation, assessment and accountability in times of crises—reacting quickly to explore key issues for policy, practice and research with the school barometer. *Educational Assessment, Evaluation and Accountability*, 32(2), 237–270. <https://doi.org/10.1007/s11092-020-09322-y>
- Hussain, F. N., Al-Mannai, R., & Agouni, A. (2020). An Emergency Switch to Distance Learning in Response to the COVID-19 Pandemic: Experience from an Internationally Accredited Undergraduate Pharmacy Program at Qatar University. *Medical Science Educator*, 30(4), 1393–

1397. <https://doi.org/10.1007/s40670-020-01079-9>
- Iftakhar, S. (2016). *Google classroom: what works ana how?* 3, 12–18.
- Jandric, P., & , Zagreb, C. (2020). Teaching in the age of insecurity. *The Atlantic*. <http://www.theatlantic.com/education/archive/2015/02/teaching-in-the-age-of-minecraft/385231/>
- König, J., Jäger-Biela, D. J., & Glutsch, N. (2020). Adapting to online teaching during COVID-19 school closure: teacher education and teacher competence effects among early career teachers in Germany. *European Journal of Teacher Education*, 43(4), 608–622. <https://doi.org/10.1080/02619768.2020.1809650>
- Korucu, A. T., & Alkan, A. (2011). Differences between m-learning (mobile learning) and e-learning, basic terminology and usage of m-learning in education. *Procedia - Social and Behavioral Sciences*, 15, 1925–1930. <https://doi.org/10.1016/j.sbspro.2011.04.029>
- Linarwati, M., Fathoni, A., & Minarsih, M. M. (2016). Studi Deskriptif Pelatihan Dan Pengembangan Sumberdaya Manusia Serta Penggunaan Metode Behavioral Event Interview Dalam Merekrut Karyawan Baru Di Bank Mega Cabang Kudus. *Journal of Management*, 2(2), 1. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwj4_7GRpNvsAhVz4XMBHX5-CQ8QFjAAegQIBRAC&url=https%3A%2F%2Fjurnal.unpand.ac.id%2Findex.php%2FMS%2Farticle%2Fdownload%2F604%2F588&usg=AOvVaw3HEhSZBma8Ovkv_4Ngor3b%0A%0A
- Megaloiconomos, P. D., Thaler, M., Igoumenou, V. G., Bonanzinga, T., Ostojic, M., Couto, A. F., Diallo, J., & Khosravi, I. (2020). Impact of the COVID-19 pandemic on orthopaedic and trauma surgery training in Europe. *International Orthopaedics*, 44(9), 1611–1619. <https://doi.org/10.1007/s00264-020-04742-3>
- Pujiasih, E. (2020). Membangun Generasi Emas Dengan Variasi Pembelajaran Online Di Masa Pandemi Covid-19. *Ideguru: Jurnal Karya Ilmiah Guru*, 5(1), 42–48. <https://doi.org/10.51169/ideguru.v5i1.136>
- Puljak, L., Čivljak, M., Haramina, A., Mališa, S., Čavić, D., Klinec, D., Aranza, D., Mesarić, J., Skitarelić, N., Zoranić, S., Majstorović, D., Neuberg, M., Mikšić, Š., & Ivanišević, K. (2020). Attitudes and concerns of undergraduate university health sciences students in Croatia regarding complete switch to e-learning during COVID-19 pandemic: a survey. *BMC Medical Education*, 20(1), 1–11. <https://doi.org/10.1186/s12909-020-02343-7>
- Purwanto, A., Pramono, R., Asbari, M., Santoso, P. B., Wijayanti, L. M., Choi, C. H., & Putri, R. S. (2020). Studi Eksploratif Dampak Pandemi COVID-19 Terhadap Proses Pembelajaran Online di Sekolah Dasar. *EduPsyCouns: Journal of Education, Psychology and Counseling*, 2(1), 1–12. <https://ummaspul.ejournal.id/Edupsyscouns/article/view/397>
- Rachmawati, I. N. (2007). Pengumpulan Data Dalam Penelitian Kualitatif: Wawancara. *Jurnal Keperawatan Indonesia*, 11(1), 35–40. <https://doi.org/10.7454/jki.v11i1.184>
- Sicat, A. S. (2015). Enhancing College Students' Proficiency in Business Writing Via Schoology. *International Journal of Education and Research*, Vol. 3 No.(1 January 2015), 159–178.
- So, S. (2016). Mobile instant messaging support for teaching and learning in higher education. *Internet and Higher Education*, 31, 32–42. <https://doi.org/10.1016/j.iheduc.2016.06.001>

- Tannehill, D. (2016). My journey to become a teacher educator. *Physical Education and Sport Pedagogy*, 21(1), 105–120. <https://doi.org/10.1080/17408989.2014.898745>
- Yogesh Hole et al 2019 J. Phys.: Conf. Ser. 1362 012121
- Wayne, D. B., Green, M., & Neilson, E. G. (2020). Medical education in the time of COVID-19. *Science Advances*, 6(31). <https://doi.org/10.1126/sciadv.abc7110>
- Widodo, H. P. (2020). *Writing a Narrative Inquiry Manuscript for International Journal Publication in Social and Health Sciences*.
- Zou, P., Luo, Y., Krolak, K., Hu, J., Liu, L. W., Lin, Y., & Sun, W. (2019). Student's Experiences on Learning Therapeutic Relationship: A Narrative Inquiry. *Canadian Journal of Nursing Research*, 084456211987376. <https://doi.org/10.1177/0844562119873760>
- Clandinin, D. J., & Connelly, F. M. (2000). *Narrative Inquiry: Experience and Story in Qualitative Research*. San Francisco: Jossey-Bass Publisher.
- Kebritchi M, Lipschuetz A, Santiago L. *Issues and challenges for teaching successful online courses in higher education*. J Educ Technol Syst. 2017; 46(1):4–29.
- Philipsen B, Tondeur J, Pareja Roblin N, Vanslambrouck S, Zhu C. *Improving teacher professional development for online and blended learning: a systematic meta-aggregative review*. Educ Technol Res Dev. 2019;67(5): 1145–74.
- Al-Samarraie H. *A scoping review of videoconferencing systems in higher education*. Int Rev Res Open Dist Learn. 2019;20(3):121–40.
- Iftakhar, S. (2016). *Google classroom: what works ana how?* 3, 12–18.
- Enriquez, M. A. S. (2014). *Students' Perceptions on the Effectiveness of the Use of Edmodo as a Supplementary Tool for Learning*. *DLSU Research Congress*, 6–11. <https://doi.org/10.1017/CBO9781107415324.004>
- Calder, N., Larkin, K., & Sinclair, N. (2018). Mobile technologies: How might using mobile technologies reshape the learning and teaching of mathematics? In N. Calder, K. Larkin, & N. Sinclair (Eds.), *Using Mobile Technologies in the Teaching and Learning of Mathematics* (pp. 1–7). https://doi.org/10.1007/978-3-319-90179-4_1.
- Jones, GR (1997). *Cyberschools*. Englewood: Jones Digital Century.
- Khan, B. (1997). Web-based instruction: What is it and why is it? In BH Khan (Ed.), *Web-based instruction* (pp. 5–18). Englewood Cliffs: Educational Technology Publications.
- Asunka, S. (2008). Online learning in higher education in sub-Saharan Africa: Ghanaian University students' experiences and perceptions. *International Review of Research in Open and Distance Learning*, 9(3), 1–23. <https://doi.org/10.19173/irrodl.v9i3.586>.
- Singh, V., & Thurman, A. (2019). How many ways can we define online learning? A systematic literature review of definitions of online learning (1988-2018). *American Journal of Distance Education*, 33(4), 289–306.
- Aljaraideh, Y., & Bataineh, KA (2019). Jordanian students' barriers of utilizing online learning: A survey study. *International Education Studies*, 12(5), 99–108.
- Creswell, JW (2018). *Research design: qualitative, quantitative, and mixed methods approaches* (5th ed.). Los Angeles: SAGE.

- Gaffas, ZM (2019). Students' perceptions of the impact of EGP and ESP courses on their English language development: Voices from Saudi Arabia. *Journal of English for Academic Purposes*, 42, 1–13. <https://doi.org/10.1016/j.jeap.2019.100797>.
- Dyment, J., Downing, J., Hill, A., & Smith, H. (2017). „I did think it was a bit strange taking outdoor education online“: Exploration of initial teacher education students' online learning experiences in a tertiary outdoor education unit. *Journal of Adventure Education and Outdoor Learning*, 18(1), 70–85. DOI: 10.1080/14729679.2017.1341327
- Moorhouse, B. L. (2020). Adaptations to a face-to-face initial teacher education course „forced“ online due to the COVID-19 pandemic. *Journal of Education for Teaching*. Terbit pertama online (hlm. 1-3). DOI: 10.1080/02607476.2020.1755205
- Moore JC. The Sloan consortium quality framework and the five pillars. The Sloan Consortium: Needham, MA; 2005.
- Abel R. Implementing best practices in online learning. *Educ Q*. 2005;28(3): 75–7.
- Faherty, LJ, Schwartz, HL, Ahmed, F., Zheteyeva, Y., Uzicanin, A., & Uscher-Pines, L. (2019). School and preparedness of officials' perspectives on social distancing practices to reduce influenza transmission during a pandemic: Considerations to guide future work. *Preventive Medicine Reports*, 14, 100871. <https://doi.org/10.1016/j.pmedr.2019.100871>.
- Livingstone, S. (2012). Critical reflections on the benefits of ICT in education. *Oxford Review of Education*, 38(1), 9–24. <https://doi.org/10.1080/03054985.2011.577938>.
- Freeman, A., Adams Becker, S., Cummins, M., Davis, A., & Hall Giesinger, C. (2017). NMC/CoSN Horizon Report: 2017 K-12 Edition. Retrieved from <https://www.nmc.org/publication/nmccosn-horizon-report-2017-k-12-edition/>
- Rumble, G. (2019). The planning and management of distance education. *The Planning and Management of Distance Education*. <https://doi.org/10.4324/9780429288661>.
- Fox, R. (2003). SARS epidemic: Teachers' experiences using ICTs. *Education*, (July), 319–327. In *Beyond the Comfort Zone: Proceedings 21st ASCILITE Conference*.
- Hattie, J. (2009). Visible learning. Visible learning: A synthesis of over 800 meta-analyses relating to achievement. <https://doi.org/10.4324/9780203887332>.
- Holmberg, B. (2005). Theory and practice of distance education. *Theory and Practice of Distance Education*. <https://doi.org/10.4324/9780203973820>.
- Forgasz, H. (2006). Factors that encourage and inhibit computer use for secondary mathematics teaching. *Journal of Computers in Mathematics and Science Teaching*, 25(1), 77–93.
- Goos, M. (2005). A sociocultural analysis of the development of pre-service and beginning teachers' pedagogical identities as users of technology. *Journal of Mathematics Teacher Education*, 8, 35–59.
- Roschelle, JM, Pea, RD, Hoadley, CM, Gordin, DN, & Means, BM (2000). Mengubah cara dan apa yang dipelajari anak di sekolah dengan teknologi berbasis komputer. *Future of Children*, 10(2), 76–101.
- Thomas, MOJ (2006). Teachers using computers in the mathematics classroom: A longitudinal study. In *Proceedings of the 30th annual conference for the Psychology of Mathematics Education* (Vol. 5, pp. 265–272). Prague, Czech Republic: Charles University.

Shulman, L. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4–14.

Sulisworo, D. (2013). The paradox on IT literacy and science's learning achievement in secondary school. *International journal of evaluation and research in education (IJERE)*, 2(4), 149–152. <https://doi.org/10.11591/ijere.v2i4.2732>.

Singers. *Journal of Research in Music Education*, Vol. 64, (4), 421-434. ... (2004). *Musik: Antara Kritik dan Apresiasi*. Jakarta: Buku. Kompas. Hermeren, G.