

DOI: <http://dx.doi.org/10.33846/hn41203>
<http://heanoti.com/index.php/hn>



RESEARCH ARTICLE

URL of this article: <http://heanoti.com/index.php/hn/article/view/hn41203>

Analysis of the Learning Process During Covid-19 Pandemic

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ABSTRACT

After Covid-19 was declared as Pandemic by the WHO, all activities are lingered over barriers including teaching and learning activities. Learning methods are transformed into online learning to minimize the spread of Covid-19 virus. But in its implementation there are obstacles and shortcomings so that the learning process is disrupted. This research aimed to analyze the online learning process during the Covid-19 pandemic in Poltekkes Kemenkes Malang. Research method used in this study was qualitative description and used total sampling method in collecting respondent. The results showed that online learning was still not maximal at its implementation. The result analysis used Respondent Achievement Level (RAL). On the topic of learning process and learning atmosphere was at vulnerable 55% - 69% with the category "less good", the topic of learning methods RAL results showed at vulnerable 43.2% - 44.3% which fall into the category "not good". For academic guidance, guidance activities of final exam/thesis and the implementation of final exam got a "pretty good" predicate with vulnerable RAL scores of 70%-79% and in research and community service activities got RAL results of 1%-54% which fall into the category of "not good".

Keywords: the covid-19 pandemic; online learning; higher education

INTRODUCTION

Currently most countries in the world are facing the Coronavirus Disease (Covid-19) outbreak. After the first case was found in Wuhan, China, the World Health Organization (WHO) has declared Covid-19 a pandemic⁽¹⁾. Various countries have implemented isolation, quarantine, and social distancing, which are designed to reduce interactions between people in the wider community, where individuals may be infected⁽²⁾. To prevent the transmission of Covid-19, Indonesia immediately implemented health protocol policies such as washing hands regularly, and wearing masks at a distance, including policies on studying from home, working from home, and worshipping from home⁽³⁾. In this case, higher education is also affected by Government policies. Based on the circular of the Minister of Education and Culture Number 36962 / MPK.A / HK / 2020 dated March 17, 2020 concerning Online Learning and Working from Home in order to prevent the Spread of Corona Virus Disease (COVID-19)⁽⁴⁾. Online learning is learning that uses internet networks with accessibility, connectivity, flexibility, and the ability to generate various types of learning interactions⁽⁵⁾. Online learning has become more demanding in the world of education since recent years⁽⁶⁾. Apart from learning activities, the implementation of the three pillars of college for lecturers was also disrupted. It is not the case that some universities change their learning policies, student guidance, research activities, and community service as well as lecturers' scientific activities. All face-to-face activities are transformed into online activities. One method that can be implemented during this pandemic is video conferencing. According to Ismawati and Prasetyo (2020), the use of video conferencing in distance learning can help students and educators continue to have face-to-face interactions even though they are not close together⁽⁷⁾.

At the implementation level, online learning and activities require the support of mobile devices such as smartphones or Android phones, laptops, computers, tablets, and iPhones which can be used to access information anytime and anywhere⁽⁸⁾. Various platforms can be used to support online learning, for example virtual classes

using Google Classroom, Edmodo, and Schoology services^{(9), (10), (11)} and instant messaging applications such as WhatsApp⁽¹²⁾. From these various platforms, obstacles and shortcomings are always experienced. Online activities using this platform as a full video conference method, where online activities are carried out completely without direct contact with students. Therefore, during the current pandemic, the entire academic community needs to adapt more quickly so that learning can continue. This study aimed to analyze the learning process during the Covid-19 pandemic in the Health Polytechnic of Malang. The learning process must continue and the learning objectives must be achieved even with limited interactions. This was done to break the chain of spreading Covid-19. Therefore, the evaluation of the application of online learning methods is studied scientifically so that follow-up can be done for users and stakeholders so that obstacles can be resolved immediately and subsequently can be improved.

METHODS

The research method was quantitative description method with cross sectional design. The population of this study were all students and lecturers of Poltekkes Kemenkes Malang, from the main campus to campus VI as many as 4804 students and 216 lecturers with a total of 5020 respondents. Sampling used total sampling technique. Data collection was carried out from March to April 2020. The data collection technique in this study used a closed questionnaire on the Google form platform which was distributed through the Whatsapp group and private messages. The questionnaire used a Likert scale and was divided into two, namely a questionnaire for lecturers with a total of 13 questions and a questionnaire for students with a total of 26 questions. After that the data were analyzed using the Respondent Achievement Level (RAL) technique, which was an assessment method by arranging people who were judged based on their ranking on various aspects assessed by showing an assessment scale, namely a scale that shows five levels, this characteristic can be seen in the table below:

Table 1. Respondent achievement level

Number	Criteria	RAL (%)
1	Very good	90-100
2	Good	80-89
3	Good enough	70-79
4	Less good	55-69
5	Not good	1-54

Source: Sugiyono (2010)⁽¹³⁾.

To calculate the respondent's level of achievement and relationship criteria, researches used the following formula:

$$RAL = \frac{\text{Average Score}}{\text{Maximum Score}} \times 100\%$$

RESULTS

Respondents Distribution

From the results of filling out the questionnaire on Google Form which has been distributed to 5020 student and lecturer respondents throughout the Poltekkes Kemenkes Malang, there were 64% of respondents who filled out the questionnaire with the following results.

The total number of student respondents were 3077 with most of them (90.4%) were female. Most of the student respondents were in the nursing department (38.4%), 27.3% were Midwifery majors, 22.4% were Department of Applied Health, and 11.9% were majoring in Nutrition. As many as 63.1% of respondents took the D3, D4 study program as much as 33.7%, and the profession as much as 3.2%. As many as 39% were taking semester II, 31.5% were in semester IV, 20.6% were in semester VI, and 8.9% were in semester VIII in the 2019/2020 school year. The majority of student respondents reside were in East Java Province, as much as 97% and as much as 1.2% live in Kalimantan. Meanwhile, only 1 person was in the province of Bangka Belitung. Most of the respondent's parents' income was in the range of Rp. 1,000,000 - Rp. 3,000,000, namely 50.1% and a small proportion (4.2%) who earned more than Rp. 5,000,000. As many as 31.1% of respondents used Telkomsel and 22% used Indosat as their internet operator. While a small proportion of respondents who use wifi were 9.7%.

Table 2. Distribution of student respondents

	Characteristics	Frequency	Percentage
1.	Gender		
	Male	295	9.6
	Female	2782	90.4
2.	Department		
	Nursing	1183	38.4
	Midwifery	838	27.3
	Nutrition	366	11.9
	Applied Health	690	22.4
3.	Study Program		
	D3	1941	63.1
	D4	1038	33.7
	Profession	98	3.2
4.	Semester		
	II	1199	39.0
	IV	970	31.5
	VI	633	20.6
	VIII	275	8.9
5.	Residence		
	Jawa Timur	2985	97.0
	Jawa Tengah	2	0.1
	Jawa Barat	7	0.2
	Tangerang	4	0.1
	Bali	6	0.2
	Nusa Tenggara Barat	9	0.3
	Nusa Tenggara Timur	2	0.1
	Sulawesi	8	0.3
	Sumatera	8	0.3
	Kalimantan	37	1.2
	Papua	5	0.2
	Maluku	3	0.1
	Bangka Belitung	1	0.0
6.	Parents income		
	< Rp 1.000.000	750	24.4
	Rp. 1.000.000 – 3.000.000	1543	50.1
	Rp. 3.000.000 – 5.000.000	655	21.3
	> Rp. 5.000.000	129	4.2
7.	Internet operator		
	Indosat	677	22.0
	Telkomsel	956	31.1
	Smartfren	312	10.1
	Tri	284	9.2
	XL	549	17.8
	Wifi	299	9.7

Table 3. Distribution of lecturer respondents

	Characteristics	Frequency	Percentage
1.	Gender		
	Male	39	29.8
	Female	92	70.2
2.	Department		
	Nursing	39	29.8
	Midwifery	43	32.8
	Nutrition	27	20.6
	Applied health	22	16.8
3.	Position		
	Associate professors	14	10.7
	Assistant professors	55	42.0
	Lecturers	6	4.6
	Lecturers with general functional positions	56	42.7

While total number of lecturer respondents who filled out the questionnaire were 131 respondents and most of them were female as much as 70.1% and men were 29.8%. As many as 32.8% of the lecturers were in the Midwifery Department, 29.8% were in the Nursing Department, 20.6% were in the Nutrition Department, and 16.8% were in the Applied Health Department. As many as 42% had assistant professors positions and 42.7% were lecturers with general functional positions, 10.7% were with the position of associate professors and 4.6% were lecturers.

Analysis of Respondent Achievement Level

Table 4. Analysis of respondent achievement level

	RAL (%)	Criteria
Learning process	55-69	Less Good
Learning atmosphere	55-59	Less Good
Learning method	43.2-44.3	Not Good
Academic guidance and thesis guidance	70-79	Good Enough
Research and community service activities	1-54	Not Good

DISCUSSION

Learning Process and Learning Structure

Based on the results of data analysis carried out on the results of the questionnaire answers, it was known that the learning process using the online method was not considered optimal. This is supported by the results of the RAL who were vulnerable to 55% - 69% with the "Less Good" category contained in the student and lecturer questionnaire items D1, D4, M1, M9, M18, D2, D3, M2, M3, M4, M6, M7, M8, M10. The interaction between lecturers and students were felt to be less than optimal in online lectures, students had difficulty communicating the problems they experienced to lecturers during learning. While lecturers also experienced the same problem, the interaction between lecturers and students, especially when delivering material and giving assignments, was deemed not optimal, lecturers had difficulty evaluating student learning outcomes after the learning process. Often there was miscommunication between lecturers and students which can hinder the learning process. In addition, the interaction among students in the learning process and doing assignments was also not optimal.

Apart from the learning process, the learning atmosphere also influenced the online lecture process. The learning atmosphere was the main supporting factor for the learning process and the learning methods used. According to Trianto (2009), the use of varied learning methods will provide an interesting and not boring learning atmosphere, but the selection of learning methods that are less precise can prevent students from understanding the material. Therefore the competence of lecturers and the use of learning methods or tools need to be adjusted to the learning conditions⁽¹⁴⁾. From the results of the questionnaire given to students, there were questions related to the learning atmosphere, these questions were contained in the student questionnaire on items M11, M12, M13, M15, M17, M19, M20, M21, M22, M25. From these items, the RAL results were obtained in the vulnerable 55-59% with the "less good" category. Online lecture learning environment could not help students in understanding learning material, most students were not satisfied and not excited about online lectures because the learning environment was not conducive, students felt unable to solve their learning problems with this online method, most students were not comfortable with answer the questions given by the lecturer in online lectures so that the learning feedback was not maximized. Most students disagreed if online learning continues because the learning environment was less effective and different from face-to-face learning methods including learning through online videos. Learning with the online method was disrupted due to internal and external factors that influence it. Internal factors, namely motivation in students, students tent to be not enthusiastic about the learning given by the lecturer, some students felt bored and bored with the learning method being used. Students had difficulty asking questions or feeling confused about the material described due to the unsupportive class atmosphere and sometimes the internet network was slow or even dead. In addition, giving assignments and short collection times causes the decrease of student motivation to take part in learning. According to Pawicara and Conillie (2020) in their research, online learning triggers cognitive fatigue, namely a loss of enthusiasm for learning, loss of interest in learning, and difficulty concentrating, and these symptoms are considered demotivated⁽¹⁵⁾.

External factors that affect online learning, namely the student learning environment such as interference from family (siblings, siblings, or younger siblings), this causes students to be unable to focus on the material provided by the lecturer. In addition, the activities of family members at home cause online classes to be disrupted because sounds from home can be heard in online classes, this can interfere with the learning process so that the material presented by the lecturer cannot be understood by students properly. The same thing also happened to lecturers, external factors, both students and lecturers, were felt the same, because some lecturers also did recovery

at home. Internal factors that influence lecturers, namely lecturer learning methods that must be varied and communicative in order to foster student interest in learning, this makes lecturers need extra time to prepare for learning. In addition, lecturers were required to be able to carry out learning with online videos and the latest information technology, in order to support the learning process. During learning, the lecturer also needs to ensure that the student's focus is on the material provided and this is difficult to do because the lecturer cannot make direct contact with students. In addition, Health Polytechnic of Malang is a vocational college whose learning method emphasizes student skills so that it requires practicum learning in laboratories and in practical fields. During this pandemic, these activities could not be carried out optimally. Several lecturers and students gave suggestions that practicum in the laboratory should be carried out if conditions allow, students can come to campus by implementing strict health protocols.

Learning Method

During the current pandemic, lecturers and students are required to use distance learning methods effectively and optimally. Lecturers and students need to quickly adapt to changes in learning methods from face to face to distance learning in order to achieve learning goals. The media that is used as a means of distance learning currently using the internet is also known as online learning or online. One of the distance learning that can be implemented during this pandemic is by video conferencing. According to Ismawati and Prasetyo (2020), the use of video conferencing in distance learning can help students and educators continue to have face-to-face interactions even though they are not close together⁽⁷⁾. In addition, distance learning can shorten learning time and can save costs incurred by educational institutions⁽¹⁶⁾.

From the results of the questionnaire at the Poltekkes Kemenkes Malang, online learning methods were carried out through communication applications using video, the RAL results show that learning through video conferencing was still considered to be less than optimal with 43.2% - 44.3% vulnerability which was included in the category "not good". However, learning through video conferencing was still better than through social media or other online platforms. For the platforms used during lessons, 43% of students used Google Classroom during online lectures, 23% used Zoom, 23% used Whatsapp Groups, 4% used Cisco Webex, 3% used Edmodo, and 1% used Skype and Quipper. There were several video conference platforms used by students, Google Classroom was a platform that students were interested in, using Google Classroom was easier than other platforms. Google Classroom provided easy access and also didn't absorb too much internet quota, besides that Google Classroom was also integrated with Google Drive storage making it easier for students and lecturers to share material and assignments. According to Utami (2019), Google Classroom also has the ability to make automatic copies of assignments that have been made by students. Lecturers can also check every assignment collected by students in the virtual classroom that has been created. However, once there are students who use platforms other than Google Classroom for various reasons, such as lecturers who determine the video platform to use, easier use, a better level of security, good video and sound quality, not too much quota is absorbed, or only a few the platform that can be reached by student residences.

Even though there were applications that support it, there are still obstacles in accessing it. These constraints include network and internet speed constraints that occur because the area where students or lecturers live does not support the cellular operator's network, besides the cost of internet packages, both cellular and WiFi, which are considered to be burdensome for students. According to Naserly (2020), the use of online learning using video conferencing is quite expensive⁽¹⁷⁾. From the results of the questionnaire, it was found that 90.3% of students used internet networks and 9.7% used Wifi to participate in online learning. As many as 89% of students' RAL scores stated that internet signals hampered learning and 86% stated that the expenditure for internet packages during online lectures was quite large, on average students spent Rp 100,000 per month, depending on the cellular operator used. These obstacles cannot be immediately resolved by both students and lecturers, so learning is often interrupted. Another obstacle was that lecturers were not accustomed to using online learning methods, resulting in difficulties in accessing video conversions or assignments that have been uploaded by students. According to Indrawati (2019), academics who are not familiar with online learning need additional tutorial support to adjust the learning method used⁽¹⁸⁾.

Academic Guidance and Final Project Guidance

Academic guidance and thesis guidance activities as well as the implementation of thesis examinations at the Health Polytechnic of Malang were also carried out online, the discussion was in the question items of the Lecturer D5, D6 questionnaire with the results of RAL analysis being 70% -79% vulnerable in the category "good enough". This showed that the thesis guidance and examination activities could run quite well. While item D7 was at a value of 80% which was included in the "Good" category. This showed that academic guidance activities could be carried out effectively during the application of social distancing. Lecturers and students could schedule guidance and applications that were used according to mutual agreement. Lecturers and students found it easier

to adjust their final assignment and exam guidance schedules, especially students who felt they didn't have to queue for hours to provide guidance. Lecturers also could flexibly determine the time of guidance. However, another obstacle was that students experience difficulties in conducting field research so that the method or even the title of the final project must be changed according to the conditions. During the final exam or thesis, students found it easier to contact the supervisor and examiner lecturers, so that the exam time can be done on time. In academic guidance activities with academic supervisors, students and lecturers felt more worthy and know the progress of student learning. The results of research conducted by Dewi Juita and Yusmaridi M (2020) found that the quality of the student thesis guidance process during the pandemic was in a good category. The media that are widely used during the thesis guidance process are WhatsApp and email. As many as 60% of the student sample were satisfied with the guidance process they underwent during the pandemic⁽¹⁹⁾.

Research and Community Service Activities

During this pandemic, the policy for implementing research and community service by lecturers also changed. Most of the research and community service activities need to be carried out in direct contact or collect respondents to obtain data but currently this implementation must be carried out through social distancing and complying with health protocols. The discussion was contained in the question items of the lecturers' questionnaire D8 to D12 and the M5 student questionnaire with the RAL results at 1% -54% susceptible which were included in the "not good" category and the RAL results of the student questionnaire were included in the "less good" category with 55% results. This showed that research and community service activities were deemed impossible during this pandemic, including activities that involve students. If it can't be done, it will affect the target in the Lecturer Performance Report (LPR). Most of the lecturers' respondents gave suggestions so that policies related to research and community service can be changed and the target of LPR can be adjusted to the current situation. Some respondents also argued that research and community service activities were postponed until conditions were conducive and it was possible to carry out activities. The pandemic has an impact on the emergence of changes in the implementation of Tri Dharma Perguruan Tinggi activities including research and community service, resulting in changes in the method of implementation. The condition of the covid-19 pandemic has created challenges for obstacles to be resolved and opportunities for technological transformation that began during the Covid-19 pandemic⁽¹⁸⁾.

The following are policies and strategic steps that educational institutions can take in dealing with the Covid-19 pandemic:

1. Revise the Semester Learning Plan by adjusting it to the current situation. There is a need for guidelines or guidelines regarding appropriate methods and target outcomes.
2. As a solution related to the cost of internet packages for students, the Directorate General of Higher Education in the Circular of the Director General of Higher Education Number: 331 / E.E2 / KM / 2020 Regarding Online Learning Facilities Assistance to Students, calls on universities to help students, such as providing credit subsidies for connections online learning, logistical assistance, and health for those in need (Dikti, 2020). In addition, the institution can also ensure that the internet network is adequate for both lecturers and students. Institutions can also subscribe to video conferencing platforms so that the time limit for using video is longer.
3. It is necessary to improve facilities and infrastructure related to technology and information not only for the Three pillars of college activities but also for academic, administrative, personnel, financial and other service activities. In learning, there are many obstacles and difficulties, but basically online learning makes it easy for lecturers and students to continue to carry out distance learning activities. In the future, lecturers and students are expected to be familiar with the growing use of technology and information, so that learning will be more varied. Do not deny that if the Covid-19 pandemic has ended, online learning will be carried out alternately with face-to-face learning. Therefore, apart from getting used to online learning, lecturers and students need to be equipped with good technology and information skills. The briefing and training activities for the application of IT to lecturers were further enhanced. Guidelines for use and video tutorials for platforms or applications also need to be explained so that users can understand better and can apply them well. In addition, the growing era of online learning activities is increasingly needed to attract students who live far from campus, because of the convenience and flexible time, it can increase the interest of prospective applicants. Therefore, it is necessary to develop education at the Health Polytechnic of Malang related to online learning or blended learning.
4. In accordance with the appeal in the Circular of the Director General of Higher Education Number: 302 / E.E2 / KR / 2020 concerning the Learning Period for the Implementation of the Education Program, the final project research activities during this emergency period must be arranged both methods and schedules adjusted to local status and conditions. Therefore, it is necessary to have rules related to the final task during the pandemic period and the data collection model.

To assess the performance of lecturers during this pandemic, it is necessary to change the achievement targets. Therefore, the institution first needs to make an agreement related to lowering the target with lecturers

and stakeholders that are adjusted to the conditions and methods of implementation. Especially in research and community service activities, the processes and methods used need to be adjusted to the current conditions. Community service activities can be made possible by providing health needs, medical devices, vitamins, support, as well as information to the public and health workers using available media.

CONCLUSION

From the results of the analysis and discussion above, it can be concluded that online learning at the Health Polytechnic of Malang was still not optimal. From this there needs to be a follow-up to improve the methods and policies that are adapted to the current pandemic situation such as making guidelines related to learning, research, and community service activities adapted to the current pandemic situation, revising semester learning plans, providing credit subsidies for students and lecturers, improving facilities and infrastructure, especially in information technology (IT) systems. This research is expected to be an evaluation material about the effectiveness of online learning, research, and other three pillars of college activities during the Covid-19 Pandemic at the Health Polytechnic of Malang, so that it can achieve the desired quality of learning.

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