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Online Learning Quality Control in the Pandemic Covid-19 Era in Indonesia

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History Article

Abstract

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Keywords Covid-19; Online Learning; Quality Learning; Student Response The Covid-19 pandemic that hit the world in early 2020, has rapidly changed the structure of people's lives, including Indonesia. The world of education is forced to replace face-to-face learning with online learning. The Rector of UNP has followed up on the central government policy to shift the face-to-face (conventional) learning process into online learning. For this reason, the UNP Quality Assurance Center needs to ensure that the implementation of online learning has gone well and is able to meet the predetermined learning-outcame (LO). Through the distribution of learning assessment instruments circulated using google-form to 40,000 UNP students, it was found that 4820 respondents had filled in the instrument. From the respondents' answers, it is known that 99.3% of the lecturers have conducted online leatures, 58% of them are according to the schedule. From the aspect of student readiness, 43.9% were ready, 40.5% were not ready. Furthermore, 50.2% of the lecturers provided guidance well, 44.4% sometimes, and only 5.4% did not. The main obstacles for students: 39.8% less stable internet and 47.7% signal difficulties and no signal at all 12.4%. Other difficulties are 82% internet access, 75.9% credit fees, 63.7% tuition fees, and 51.6% other difficulties. E-learning process at UNP has been going well and can meet the learning outcomes that have been set. To improve the quality of better learning outcomes, it is necessary to improve the quality of network infrastructure by Telkom, increase the quality of instructional learning by lecturers, and provide credit subsidies for students.

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INTRODUCTION

The Corona Virus (Covid19) pandemic outbreak has revolutionized the lives of the world community frontally and very quickly. Covid-19 was first detected in Wuhan City, Hubei Province, China in December 2019, and on January 30, 2020, WHO declared the status of the 2019-nCoV outbreak a Global Health Emergency. Furthermore, on March 11, 2020, the World Health Organization (WHO) declared Covid-19 a pandemic (Sohrabi et al., 2020). Pandemic (Pandemic) according to the Big Indonesian Dictionary (KBBI) is an epidemic that has spread simultaneously everywhere, covering a wide geographical area. As of 23 April 2020 alone, it was reported that more than 210 countries and regions had contracted Covid-19 (Dong et al., 2020), (Xie et al., 2020).

In Indonesia, Covid-19 was detected and announced directly by the President of the Republic of Indonesia, Joko Widodo, on Monday, March 2, 2020 (Abdillah, 2020), confirmation, 556,335 cases died, with 167 countries having been infected. Meanwhile, in Indonesia, 75,699 were recorded positive, 35,638 recovered and 3.606 died. Based on the data above, it can be understood how Covid-19 has had a tremendous impact, not only in terms of public health, but also social, cultural, economic, scientific and technological problems, in fact it is not impossible to lead to geo-political problems (Yunus & Rezki, 2020). Besides that, Covid-19 has also proven to be able to accelerate the Industrial Revolution 4.0.

The corona virus has had a major impact on the world of education, where with the issuance of the government's call to jointly fight against Covid -19 by avoiding complex activities, social distancing, psychological distancing (Annalaura et al., 2020), (Telaumbanua, 2020), limiting going out of the house through work from Home (WFH) and maximizing activities that allow to be carried out remotely through the online system (on-line). The central government policy was quickly followed up by UNP with the issuance of the first UNP Chancellor's Circular on March 14, 2020, which confirmed the transfer of all conventional (face-to-face) lecturing activities to online lectures based on e-learning platforms and other forms of online learning, as well as activities. Office administration is carried out through the online work from home (WFH) program. Changing the learning method from the conventional method to the on-line method is certainly not an easy and simple job (Atsani, 2020).

Almost all parties (students, lecturers, parents, and society) find their own problems, both in terms of skills, knowledge, habits, infrastructure, technology, time, costs and so on. Whatever the story of all parties, like it or not, you have to struggle to overcome all these problems in accordance with the passage of time, if you do not want to be left behind or crushed by the change itself. Many colleges and schools are limp with the challenges of online learning policies, because schools, teachers and students are not ready to switch quickly from conventional learning to online learning. Because on-line learning requires good and qualified information technology infrastructure support (Azmi & Rukun, 2020), in addition, teachers and students need to understand the principles and methods of online learning well. So that the occurrence of chaos in the online learning process during this initial pandemic period is of course normal (Murphy, 2020).

However, Padang State University should no longer find significant problems, because long before the Covid-19 pandemic appeared, UNP had carried out learning for up to 50% of online lectures through Moondle-based eleraning plate forms. Officially, Padang State University has started building an eleraning platform since 2012 by preparing its infrastructure in stages, starting with installing a fiber optic network on campus, setting up a large enough server, preparing an elearning platform, conducting e-learning training for lecturers and students massively. Even long before that the Faculty of Engineering UNP in 2009 had implemented this e-learning learning system in a collaboration program between the Faculty of Engineering and P4TK Medan. In 2018 the Chancellor has issued an official policy, that UNP will carry out e-learning for 50% of existing lectures, and carry out intense collaboration with Telkom Indonesia related to the provision of a wider internet network infrastructure, increased bandwidth capacity, IT equipment upgrading systems and networks . So that the UNP should be able to carry out the on-line learning process in a good, measurable and controlled manner.

Therefore it is necessary to ascertain whether the on-line learning carried out by UNP during this initial pandemic, namely in the last semester of January-June 2020 lectures (especially from mid-March to June 2020/ week 8 to 16) has been running properly in accordance with applicable regulations? So, we from the UNP Quality Assurance Center are obliged to ensure that the lecture has been carried out properly according to the learning standards (Permenristekdikti no.44 of 2015 concerning National Higher Education Standards, and Permendikbud no.3 of 2020 revised).

The UNP Quality Assurance Center has the main task of implementing the Internal Quality Assurance System (SPMI) in accordance with the mandate of Permenristekdikti no.62 of 2016, which is an integral part of the External Quality Assurance System implemented by the National Accreditation Board for Higher Education (BAN PT) through Study Program Accreditation and Institutional Accreditation activities. In order to ensure the implementation of the on-line learning process, the Quality Assurance Center has circulated a number of measurement instruments regarding the implementation of on-line lectures during the initial Covid-19 pandemic in the January-June 2020 semester (specifically for the 9th to 16th week) to various parties, including to students, to lecturers, and also to educators (tendik).

Online learning concept according to (Belawati, 2019). It is an ordinary learning that is carried out on-line (online), so that the principles of learning that are carried out normally and conventionally still apply. According to (J. Anderson & McCormick, 2005) outlines that online learning needs to pay attention to: (a) compliance with the curriculum, (b) inclusive, (c) involving learners, (d) Innovative, (e) Effective learning, (f) Formative evaluation, summative, (g) Coherent, consistent, and transparent, (h) The device is easy to operate and use, and (i) cost effective. Furthermore (Asarta & Schmidt, 2020) emphasizes the importance of (a) contact between learners and teachers, (b) collaboration between learners, (c) an active learning atmosphere, (d) fast feedback, (e) achievement of learning objectives, and (f) respect for differences. (Garrison et al., 1999), (T. Anderson & Garrison, 1998), (Bangert, 2004), and (Oliver, 2000) illustrates the principles of online learning as shown in Figure 1.

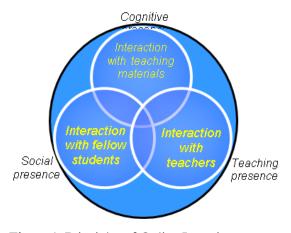


Figure 1. Principles of Online Learning

On-line learning has many types and models, all types will be good, as long as we apply the principles of on-line learning well and with quality. In terms of the interaction scheme, online learning can be distinguished between synchronous and asynchronous forms (Puskom, 2013), (Seluakumaran et al., 2011). Synchronous, meaning that the learning process is carried out on the same schedule, thus allowing direct interaction between lecturers and students and between students and students at the time of learning. Meanwhile, ansikronus allows students to study at different times within a set time range, so that interaction and communication take place indirectly. Of course, both schemes promise their respective advantages and disadvantages, so they need to be adjusted according to needs.

Synchronous, meaning that the learning process is carried out on the same schedule, thus allowing direct interaction to occur. When viewed from the learning scheme, (Zainul et al., 2020) distinguishes learning into three types, namely conventional learning, blended learning, and fully on-line learning. Conventional learning is learning that is carried out directly through face-to-face in ordinary classes, while learning with blended learning, which is using IT as a support for conventional learning, by combining IT assistance in part of the learning process, for example by using the internet to distribute teaching materials or get additional teaching materials , both off-line and on-line (Bersin, 2004). While fully on-line learning, namely the full learning process using the on-line system in all learning components. Fully On-line Learning absolutely must be supported by the existence of a Learning Management System (LMS) which is in charge of integrating all learning processes in an integrative manner, starting from the curriculum, materials, processes, and evaluation (Aydin & Tirkes, 2010). Through the LMS allows all forms of learning media to be used in an integrated manner in a learning management (Saputro & Susilowati, 2019), (Schwartz et al., 2020).

On-line learning is not enough to simply transfer teaching material directly into material that is delivered on-line, but one of the most important things in on-line learning is how lecturers can interact with their students. (Belawati, 2019), (M. Giatman et al., 2019) through appropriate and effective learning instructions so that the learning process itself can run well, so that the defined learning outcame can be achieved and owned by students. Building trust, motivation and awareness of student learning needs to be raised and developed by lecturers through instructional learning prepared by the lecturer. Checking assignments and providing feedback to students is the first step in building confidence, motivation and awareness of this learning (Belawati, 2019).

METHODS

This type of research is descriptive research. The study population was Padang State University students for all study programs and levels of education, starting from the D3, D4, S1, S2 and S3 levels who were active / registered in the January-June 2020 semester. The research was conducted through the distribution of research instruments to university student respondents. Negeri Padang randomly via the google form link. Research questions to obtain information related to the implementation of on-line lectures during the time period March-June 2020 or weeks 9 to 16. The results of the study were processed with simple descriptive statistics in the form of percentages. And then presented descriptively to be interpreted and interpreted in policy evaluation.

RESULTS AND DISCUSSION

The instrument distributed to students via the google-form link contains two groups of questions, group I with questions related to the identity of the respondent. Related to the faculty, department, study program, NIM, entry generation, gender, place of residence, and activities outside of lectures. The second group consisted of 30 question items related to the teaching and learning process during the Covid-19 pandemic, namely March-June 2020.

Of the instruments circulated, there were 4,822 student respondents who responded from 10 to 20 June 2020. Spread across 8 Faculties and 1 Postgraduate, as shown in graph 2. This means that all faculties and levels of study programs are represented by respondents.

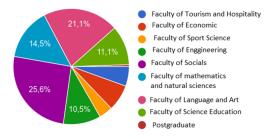


Figure 2. Graph of Respondent Distribution

Based on gender, respondents turned out to

be dominated by female students, namely 70.7% and male 29.3%. This data reflects the distribution of sex approaching the percentage of the UNP student population. The residence or domicile of 24.7% is in the city of Padang, 53% in the province of West Sumatra, outside the city of Padang, and 22.3% in other provinces in Indonesia, and none of them live outside Indonesia (Figure 3). So, the respondents represent all provinces in Indonesia, and there are no international respondents.

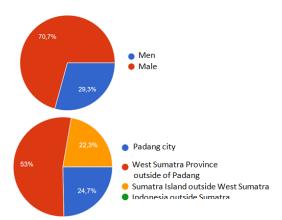


Figure 3. Gender and Domiciled at the Covid-19 Pandemic

In implementing the teaching and learning process during Covid-19, 99.3% of students admitted that the teaching and learning process had been done online, only 0.7% did not conduct lectures for various reasons. This means that there are no obstacles in carrying out lectures by both lecturers and students. Regarding the devices used by students, 66.7% of students use laptops, and 96.5% use two HP and laptop devices alternately or simultaneously, and only 4.6% use devices outside of HP and Laptops, such as PC computers and others. Thus, enabling students to be mobile and flexible with learning locations. This is important especially for students who are in blank-spoth areas, or places where the signal quality is not good enough, so that students need to move from one location to another to get a signal.

How is the schedule for implementing the learning that is carried out, 58.9% of the lecturers carry out the schedule (Synchronous) and the rest reschedule according to the agreement with the students. Which means that lectures continue to be carried out with an un-Synchronous concept. Thus, it can be concluded that all lecture activities have gone well, no lecture activities have stopped. Regarding online metota which is implemented 28.5% is implemented using the UNP e-learning platform, 6.2% via com video such as zoom,

google met and similar, 42.7% through a combination of social media such as WA, email, google classroom and Instagram. As well as 22.6% mix face to face and on-line (Figure 4). This means that more than 50% of lecturers are still teaching without using standard plate forms such as e-learning, this shows that on-line learning has not been expected, because if you use social media facilities such as WA, email, google met and the like, it can only be a condition of emergency learning. Temporary (Gunawan et al., 2020), because it cannot be managed in an integrated manner. Of course, this needs to be avoided for future on-line learning that is more permanent and can be managed properly through the Management Learning System (MLS).

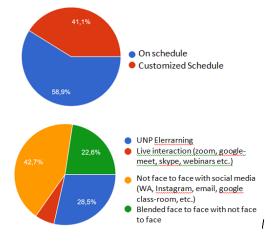


Figure 4. Online schedule and the on-line method are done

What about the readiness of students to get online learning, 5.9% stated that they are very ready, 39% are ready, 40.5% are not ready, and the rest are not ready. This means that half of the students are ready for online lectures, but there are still half of them who are not quite ready, but are forced to be ready by the situation, and in the end they are also ready. Furthermore, regarding the regularity of lecturers in carrying out lectures, it turns out that 50.2% have carried out lectures regularly according to schedule, 44.4% are less regular, and only 5.4% of lecturers provide unorganized lectures (Figure 5).

Regarding the quality of lecturer presentation in online lectures, including the use of media images, videos, animation and the like, 4.1% and 35.6% stated that they were very good and good, 40.4% were quite good, only 16.5% and 3, 6% who said less and very less. This means that almost all lecturers have been able to present online lecture material properly, only a small portion of which the quality of presentation is considered lacking by students. Regarding the assignment of in-depth assignments by the lecturers, 32% and 40.2% of the lecturers gave assignments very often and frequently, only 21.8% and 5% of the lecturers were less and less giving assignments to students. This means that the lecturer has carried out the on-line learning process well (Figure 6).

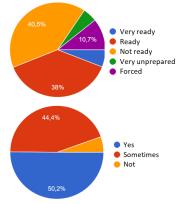


Figure 5. Student readiness and Lecturer readiness and regularity

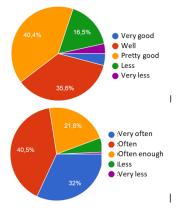


Figure 6. Quality of presentation and Giving assignments by lecturers

How is the student's ability to do the assignments given by the lecturer, 44.1% stated that they were capable, 52.5% said that sometimes, only 3.6% stated that they were not capable, so also if it was converted to the target of achieving the assignment value, 8.6% score above 85, 29.3% reach 80-84, 33.6% score 70-79, 16.2% get 60-69 scores, and the rest get scores below 60. This suggests that students are able to achieve learning outcame expected (Figure 7).

Did the lecturers review the assignment given, 27.8% answered yes, 55.5% sometimes, and only 16.8% did not review the assignment given. This means that most of the lecturers review the assignments given to students, so that feedback from the assignments given will be felt useful for students to understand the weaknesses that exist

in students, so that students are able to measure the learning outcomes that must be achieved. Students who feel that they have not fulfilled the learning outcomes are given the opportunity to improve through remedial giving. This is proven by the fact that 72.5% of the lecturers provide remedials to their students (31.9% always, and 40.6% sometimes), and only 27.48% do not. This means that the lecturer has carried out the mentoring process well (Figure 8).

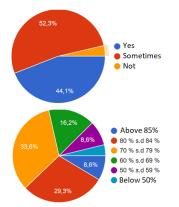


Figure 7. Ability to complete tasks and Achievement of assignment grades

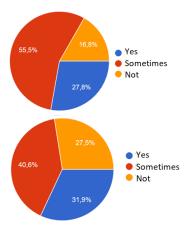


Figure 8. Feedback on assignments and Opportuni ties for remedial

Regarding the availability of the internet network as the main factor in the smooth running of online lectures, only 2.1% said the network / signal was very good / fast, 11.9% said it was good, 26.4% was sufficient, 47.7% was not good and 12.4% is not very good. When compared to which face-to-face lecture is better than on-line, 94.4% of students still choose face-to-face lectures better than on-line (Putra & Giatman, 2020). This means that until now on-line lectures have not been able to replace face-to-face lectures perfectly, whether due to inadequate infrastructure support or the ability of lectures and students to adapt to the on-line system itself is not optimal. (Figure 9)

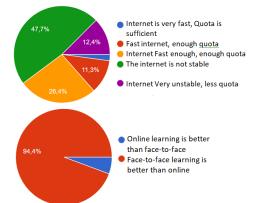


Figure 9. network availability / signal and online face-to-face comparison of lectures

Based on the results of research on the implementation of online lectures for Padang State University students fully on-line during the initial Covid-19 pandemic, which is the 9th week to 16th Semester January-June 2020 conducted by the UNP Quality Assurance Center at the end of June 2020 Where the respondents were taken randomly, the students responded well in quite a large number, namely 4,822 respondents who spread across 101 study programs in 8 faculties and 1 postgraduate program, both from Diploma, Undergraduate, Masters and Doctoral levels. So that the data obtained is trusted and believed to be able to represent the existing population and is well distributed. From the respondent's data, it is also known that respondents have represented by class group, and the distribution of domicile during the online process took place, some were in the city of Padang, city districts throughout the province of West Sumatra, and in almost all provinces throughout Indonesia.

How many important points need to be underlined, namely that lecturers have carried out the on-line learning process during the initial Covid-19 pandemic in total according to the Chancellor's circular dated March 14, 2020, only 6.7% have not implemented it for various reasons, 58.6% carried out according to the existing lecture schedule, and the rest rescheduled and adjusted to the available opportunities. From the data above, it is known that the learning process has been carried out well by lecturers and students, where the lecturer has prepared good instructional materials, provided sufficient assignments, reviewed the assignments given, gave students the opportunity to remedial. against rudimentary assignments, providing feedback and

so on. This proves that Padang State University is indeed ready to enter the era of on-line learning, because it has indeed prepared itself long before the Covid pandemic case appeared, by building good infrastructure and human resources (Adnan & Anwar, 2020), (Muhammad Giatman, 2017). However, almost all respondents still believe faceto-face learning is much better and preferable to online learning, it is proven that 94.4% still want face-to-face learning. This finding is also in line with the findings of research conducted by the Director General of Higher Education in his research on all PTN and PTS students in Indonesia (Dirjen Dikti Kemendikbud, 2020), (Li et al., 2020), (Demuyakor, 2020). Of course this needs to be found out what the reason is, even though students have stated online learning is good and can be done, but still choose face-to-face learning, is it because of imperfect infrastructure support, or is the support of human resources who are not yet competent to run, or the principle of the status quo which responds to students' thinking, so that it makes students not ready to transform in the intended learning process. For this, of course, further research is needed in order to reveal these problems.

CONCLUTION

Based on the description and discussion above, it can be concluded that the on-line learning process has been carried out by UNP lecturers properly in accordance with the provisions and learning standards. Students as the subject of the learning process have prepared themselves and supported the implementation of the online lecture process properly, through the process of creativity and innovation, so that the specific obstacles encountered in the online lecture process can be handled properly. Therefore, it can be ascertained the fulfillment of learning outcomes (LO). It is necessary to expand the internet network in areas where the network is not yet available, especially in rural areas by Telkomsel or the government, and improve the quality of networks for existing networks. Besides that, due to the high desire of students to get face-to-face learning in front of the class, it is necessary to investigate further why there is still a counter-productive between students' on-line learning responses and the desire to continue to expect face-to-face classroom learning.

REFERENCES

Abdillah, L. A. (2020). Stigma Terhadap Orang Positif

COVID-19.

- Adnan, M., & Anwar, K. (2020). Online Learning amid the COVID-19 Pandemic: Students' Perspectives. Online Submission, 2(1), 45–51.
- Anderson, J., & McCormick, R. (2005). Ten pedagogic principles for e-learning. OINSIGHTObservatory for New Technologies and Education.
- Anderson, T., & Garrison, D. R. (1998). Learning in a networked world: New roles and responsibiliies. In Distance Learners in Higher Education: Institutional responses for quality outcomes. Madison, Wi.: Atwood.
- Annalaura, C., Ileana, F., Dasheng, L., & Marco, V. (2020). Making waves: Coronavirus detection, presence and persistence in the water environment: State of the art and knowledge needs for public health. *Water Research*, 115907.
- Asarta, C. J., & Schmidt, J. R. (2020). The effects of online and blended experience on outcomes in a blended learning environment. *The Internet* and Higher Education, 44, 100708.
- Atsani, K. L. G. M. Z. (2020). Transformasi media pembelajaran pada masa Pandemi COVID-19. *Al-Hikmah*, 1(1), 82–93.
- Aydin, C. C., & Tirkes, G. (2010). Open source learning management systems in distance learning. *TOJET: The Turkish Online Journal of Educational Technology*, 9(2).
- Azmi, R. A., & Rukun, K. (2020). Analisis Kebutuhan Pengembangan Media Pembelajaran Berbasis Web Mata Pelajaran Administrasi Infrastruktur Jaringan. Jurnal Imiah Pendidikan Dan Pembelajaran, 4(2), 303–314.
- Bangert, A. W. (2004). The seven principles of good practice: A framework for evaluating on-line teaching. *The Internet and Higher Education*, 7(3), 217–232.
- Belawati, T. (2019). *Pembelajaran on-line* (kesatu). Univertsitas Terbuka.
- Bersin, J. (2004). The blended learning book: Best practices, proven methodologies, and lessons learned. John Wiley & Sons.
- Demuyakor, J. (2020). Coronavirus (COVID-19) and online learning in higher institutions of education: A survey of the perceptions of Ghanaian international students in China. *Online Journal of Communication and Media Technologies*, *10*(3), e202018.
- Dong, E., Du, H., & Gardner, L. (2020). An interactive web-based dashboard to track COVID-19 in real time. *The Lancet Infectious Diseases*, 20(5), 533–534.
- Garrison, D. R., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2–3), 87– 105.
- Giatman, M., Haq, S., & Pratama, Y. F. (2019). Effectivity of Online Learning Teaching Materials Model on Innovation Course of Vocational and Technology Education. *Journal of Physics: Conference Series*, 1387(1), 012131.

Muhammad Giatman et al. / Journal of Nonformal Education 6 (2) (2020) 168-175

- Giatman, Muhammad. (2017). Building School Organizational Work Culture Through The Implementation of Quality Management System ISO 9001: 2008. International Journal of GEO-MATE, 12(30), 132–139.
- Gunawan, G., Suranti, N. M. Y., & Fathoroni, F. (2020). Variations of Models and Learning Platforms for Prospective Teachers During the COVID-19 Pandemic Period. *Indonesian Jour*nal of Teacher Education, 1(2), 61–70.
- Li, J., Wong, S. C., Yang, X., & Bell, A. (2020). Using feedback to promote student participation in online learning programs: Evidence from a quasi-experimental study. *Educational Technol*ogy Research and Development, 68(1), 485–510.
- Murphy, M. P. (2020). COVID-19 and emergency eLearning: Consequences of the securitization of higher education for post-pandemic pedagogy. *Contemporary Security Policy*, 1–14.
- Oliver, R. (2000). When teaching meets learning: Design principles and strategies for web-based learning environments that support knowledge construction. *ASCILITE*, 17–28.
- Puskom, U. (2013). *Panduan Elearning Universitas Negeri Padang* (kedua). UPT Puskom Universitas Negeri Padang.
- Putra, D. F., & Giatman, M. (2020). The Development Of Interactive Learning Media In Computer And Basic Networks Subject On Computer And Netwroks Engineering Of Smkn 2 Lubuk Basung. Jurnal Pendidikan Teknologi Kejuruan, 3(1), 50–54.
- Saputro, B., & Susilowati, A. T. (2019). Effectiveness of Learning Management System (LMS) on In-Network Learning System (SPADA) Based on Scientific. *Journal for the Education of Gifted Young Scientists*, 7(3), 481–498.
- Schwartz, A. M., Wilson, J. M., Boden, S. D., Moore Jr, T. J., Bradbury Jr, T. L., & Fletcher, N. D.

(2020). Managing resident workforce and education during the COVID-19 pandemic: Evolving strategies and lessons learned. *JBJS Open Access*, 5(2), e0045.

- Seluakumaran, K., Jusof, F. F., Ismail, R., & Husain, R. (2011). Integrating an open-source course management system (Moodle) into the teaching of a first-year medical physiology course: A case study. *Advances in Physiology Education*, 35(4), 369–377.
- Sohrabi, C., Alsafi, Z., O'Neill, N., Khan, M., Kerwan, A., Al-Jabir, A., Iosifidis, C., & Agha, R. (2020). World Health Organization declares global emergency: A review of the 2019 novel coronavirus (COVID-19). *International Journal* of Surgery.
- Telaumbanua, D. (2020). Urgensi Pembentukan Aturan Terkait Pencegahan Covid-19 Di Indonesia. QALAMUNA: Jurnal Pendidikan, Sosial, Dan Agama, 12(1), 59–70.
- Xie, C., Jiang, L., Huang, G., Pu, H., Gong, B., Lin, H., Ma, S., Chen, X., Long, B., & Si, G. (2020). Comparison of different samples for 2019 novel coronavirus detection by nucleic acid amplification tests. *International Journal of Infectious Diseases*.
- Yunus, N. R., & Rezki, A. (2020). Kebijakan Pemberlakuan Lock Down Sebagai Antisipasi Penyebaran Corona Virus Covid-19. Salam: Jurnal Sosial Dan Budaya Syar-i, 7(3), 227–238.
- Zainul, R., Adri, M., Wahyuningtyas, N., Wedi, A., Surahman, E., Aisyah, E. N., Oktaviani, H. I., Meilanie, R. S. M., Purnamawati, S. N., & Listyasari, W. D. (2020). Development of e-Learning Courses for Subjects about 'Learn and Learning'with Moodle-based for Prospective Teacher in Indonesia. *Journal of Physics: Conference Series*, 1594(1), 012023.