

# EFFECTIVENESS LEARNING MANAGEMENT SYSTEM (LMS) ON COURSE LEARNING OUTCOMES IN ISLAMIC HIGHER EDUCATION AMIDST THE COVID-19 OUTBREAK

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**Abstract:** Physical distancing policy because Covid-19 has entered schools, including Islamic colleges in Indonesia, which must revolutionize itself with an online learning policy. Meanwhile, public education courses' effectiveness is still minimal, raising questions about the impact and what media is used and its effectiveness on Course Learning Outcomes (CLO). Therefore, it tries to be explored in depth from the implementation of bold learning from the results of its evaluation. Research Survey descriptive equilibrium method, taking a sample from one population using a questionnaire as a tool and the primary data. The survey was conducted on 4000 out of 205 lecturers at IAIN Ponorogo. The research data were also taken from the evaluation reports of pink lessons from fifteen Indonesian Islamic higher education. The results showed that lecturers used at least 23 islands of media. The most used Whatsapp Group, namely 58.5%, google classroom 57%. The lecturer used various media to improve some student competencies: student reasoning by 43.4%, conveying ideas in 38.8% good categories, 33.8% good creative categories, and 45.6% good cooperation. Online learning and teaching in Islamic higher education IAIN Ponorogo Covid-19 pandemic table run quite effectively. Even though it is still a relative island, such as internet accessories, limited facilities, and student abilities, this does not flow from the spring table in front of the educators.

**Keywords:** Course Learning Outcome, Covid-19, Learning.

## Introduction

In March 2020, the World Health Organization officially announced the COVID-19 outbreak as a global Pandemic.<sup>12</sup> The emergency that arose due to the covid-19 pandemic forced educators and educational institutions worldwide to revolutionize themselves.<sup>3</sup> Its control and prevention demand social distancing, which is also known as physical distancing. In less than two weeks, conventional teaching in the world stopped. Major universities such as Harvard University in the United States have decided to provide online learning in 2020.<sup>4</sup> More than two billion students around the globe attend school physically, although presently, the numbers have changed. The UNESCO noted that at least 1,37 billion students are affected by covid-19 in 188 countries(<https://plus.google.com/+UNESCO>, 2020), of which sixty million are Indonesian. More than 40% of students have no Internet access at home to continue their studies through devices. The most appalling is that the inequality of digital information access has paralyzed education for the marginalized. This situation will result in a snowball of social problems in the future, such as unemployment, crime, poverty, and the fragility of social networks.

Simultaneously, education has fundamentally changed its practice. Students previously studied at school, but now they do it at home. They also studied under the supervision of teachers, but presently they individually manage their learning. Every home must transform into a self-organized learning environment (SOLE), where learners manage their learning process.<sup>5</sup> This approach theoretically offers a promising path to evolving 21<sup>st</sup>-century students amidst the covid-19 pandemic. It is crucial to investigate the effectiveness of SOLE, given the vast inequality of internet access.

The affected countries have tried to enact the best policies in maintaining the sustainability of educational services. Due to the global crisis,

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<sup>1</sup> Lina Ahmad, Marco Sosa, and Karim Musfy, "Interior Design Teaching Methodology During the Global COVID-19 Pandemic," *Interiority* 3, no. 2 (July 30, 2020): 163–84, <https://doi.org/10.7454/in.v3i2.100>.

<sup>2</sup> Sylvia Szabo et al., "Towards a Successful Post COVID-19 Transition of Monitoring, Evaluation, and Learning in Complex Sustainability Science Research-to-Policy Projects," *Sustainability* 13, no. 1 (January 2021): 387, <https://doi.org/10.3390/su13010387>.

<sup>3</sup> Lori Uscher-Pines et al., "School Practices to Promote Social Distancing in K-12 Schools: Review of Influenza Pandemic Policies and Practices," *BMC Public Health* 18, no. 1 (December 2018): 1–13, <https://doi.org/10.1186/s12889-018-5302-3>.

<sup>4</sup> "Officials Detail University's Move to Online Learning to Combat Coronavirus – Harvard Gazette," accessed September 25, 2020, <https://news.harvard.edu/gazette/story/2020/03/officials-detail-universitys-move-to-online-learning-to-combat-coronavirus/>.

<sup>5</sup> Gina Z. Weisblat, Elizabeth A. Stiles, and Jeffrey D. McClellan, "Does the Innovation Really Work?: Effectiveness of Self-Organized Learning Environment (SOLE) in the Classroom," *Childhood Education* 95, no. 2 (2019): 60–66.

the Government of Indonesia issued circulars totaling 28 types, scattered in various ministries within two weeks.<sup>6</sup> In higher institutions, an effective response to the crisis was made by The General- Director of Higher Education, Ministry of Education and Culture, Republic of Indonesia, Number 2 and 3, the Year 2020, on the Prevention and Management of the Coronavirus Disease (Covid-19) in each institution on March 9, 2020, and Circular Letter Number 697/03/2020 regarding Changes to Circular Director General of Islamic Education Number 657/03/2020, on the Prevention of the Spread of covid-19 in Islamic Religious Colleges, and a circular from the Director-General of Islamic Religious Higher Education, number 701/03/2020 on March 27, 2020, concerning the implementation of learning at the State Islamic Religious Higher Educations (PTKIN) during the Covid-19 emergency response period.

State Islamic Institute (IAIN) Ponorogo, as a higher institution, under the Ministry of Religion in the Republic of Indonesia, also dealt with the crisis by issuing circular Rector Number B-1931 / In. 32.1 / PP / 03/2020 concerning the follow-up policy to prevent the spread of Covid-19 in the institution, which was followed by a Letter of Vice-Rector for Academic and Institutional Development Number B-1938 / In.32.1 / PP.00.9 / 03/2020 concerning Implementation of Lectures, Final Exam, Online Learning and Thesis Exams. To guarantee the quality of the circular implementation, the Rector's Decree No. 555 / In.32.1 / 04/2020 was issued concerning IAIN Ponorogo Distance Learning Implementation Guidelines. One crucial point of the circulation is that the lecturers have to prepare distanced education by employing online or e-learning. These can be done through various platforms, including Google Classroom, Moodle, Schoology, Edmodo, Zoom, meet.google.com, jitsi, WAG, cloud meetings, audio and video conferences, video broadcasting or others.

Based on an initial survey of 313 IAIN Ponorogo lecturers, which provided 205 responses – though it was observed that 108 lecturers did not respond. According to Edi I and Arif R interviews, March 20, 2020, there were some online learning problems. They included (1) technological disparities between students from cities and regions, (2) limited competence of lecturers in utilizing learning applications, (3) limited resources for the utilization of educational technology such as the internet and quota, (4) disintegrated relations between students and lecturers in online learning. Additionally, as IAIN Ponorogo had not yet prepared a set of official online learning applications, the Rector's Decree Number 555 / In.32.1 / 04/2020

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<sup>6</sup> Zaharah Zaharah and Galia Ildusovna Kirilova, "Impact of Corona Virus Outbreak Towards Teaching and Learning Activities in Indonesia," *SALAM: Jurnal Sosial Dan Budaya Syar-i* 7, no. 3 (2020).

obliged them to utilize any easy learning platform to use, cheap and easily achieves the learning objectives. A similar method was followed in all universities in Indonesia, for example, in IAIN Surakarta through Rector Decree No. 320 of 2020 concerning Quality Guidelines for Distance Learning and Monitoring.

The policy was a concrete and precise step in the process of implementing online systems effectively. It was referred to as the best experience in some countries.<sup>7</sup> Therefore, it is important to research the impact of covid-19 at PTKIN, including IAIN Ponorogo, the use of online media by the lecturers, and its effectiveness in the learning process. It is expected that online learning is not merely a supplement that provides additional benefits,<sup>8</sup> but also a viable substitute for conventional learning during the covid-19 pandemic.

This section includes information on the research model. A reviewing protocol was developed and followed to enact a systematic review. The authors introduced inclusion criteria to find the relevant international research among 48 articles reached in total. These criteria were as follows: Related to online learning during the pandemic, learning outcomes through online media during the Covid-19 pandemic, developing creative thinking in future teachers as a topical issue of higher education, mapping instructional barriers during COVID-19 Outbreak: Islamic education context, the effectiveness of distance learning using social media during the Pandemic Period of COVID-19, design teaching methodology during the global covid-19 pandemic, faculty perception toward online education in higher education during the Coronavirus Disease 19, and reporting practice an effective Teaching and Learning Strategy in Higher Education Amidst The Covid-19 Outbreak in Islamic Higher Education in Indonesia.

This study used a survey design, and its data were taken from June to August 2020. The survey method involves describing and analyzing the national trending problems on the implementation of a particular policy.<sup>9</sup> Contextually, it involved the online learning policy, as a covid-19 outbreak in Indonesia and the world. In this study, the researcher presented the survey to

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<sup>7</sup> Alexandra A. Tolsteneva et al., "Organizational and Technical Conditions for the Implementation of Educational Programs of the University Using Open Online Courses of the National Platform for Open Education," in *Growth Poles of the Global Economy: Emergence, Changes and Future Perspectives* (Springer, 2020), 473–83. See also Aleksander Aristovnik et al., "Impacts of the COVID-19 Pandemic on Life of Higher Education Students: A Global Perspective," August 19, 2020, <https://doi.org/10.20944/preprints202008.0246.v2>.

<sup>8</sup> Andrew Williams, Elisa Birch, and Phil Hancock, "The Impact of Online Lecture Recordings on Student Performance," *Australasian Journal of Educational Technology* 28, no. 2 (2012).

<sup>9</sup> John W. Creswell, *Riset Pendidikan: Perencanaan, Evaluasi, Dan Evaluasi Riset Kualitatif & Kuantitatif* (Yogyakarta: Pustaka Pelajar, 2015).

the lecturers and students to describe the attitudes, opinions, and behaviours that became the population's special characteristics. The data collection method involved questionnaires distributed via Google forms from June 13 to July 13 2020, and supported by interviews<sup>10</sup> with the secretary of the Quality Assurance Institute (LPM) IAIN Ponorogo, and the head of the learning development study centre.

Furthermore, in order for the description of the research results to be clearer and more detailed, the research was also designed to be multi-site with replication logic, namely the results of monitoring and evaluation of online learning during the pandemic from fourteen Islamic Higher Education in Indonesia; namely UIN Yogyakarta, UIN Sumatera Utara Medan, UIN Jambi, UIN Palembang, UIN Mataram, IAIN Samarinda, IAIN Jember, IAIN Purwokerto, IAIN Surakarta, IAIN Tulungagung, IAIN Curup, IAIN Metro Lampung, IAIN Bukit Tinggi Sumatera, IAIN Kendari. The 15 PTKINs chosen was because they used similar monitoring and evaluation instruments. The survey instrument measured the media used by lecturers, the learning outcomes during the online learning process, and the lecturers' evaluation. It was given to 315 lecturers and 4067 students. The sampling met the formula by Slovin, 11 and the technique used was random sampling, as the data was homogeneous. Every individual in the population had the same probability of being chosen<sup>12</sup>. However, some of the population taken in this study could not be ascertained, representative.<sup>13</sup> Therefore, all populations were assumed to have the same opportunity to be elected in the survey about the online learning process. The questionnaire had five scales. They were 5 = very good; 4 = good; 3 = fair; 2 = poor; 1 = very poor.

### **The Impacts of COVID-19 from Various Dimensions**

The WHO declared the covid-19 a pandemic on March 11, 2020. This pandemic spread to Indonesia for the first time in March 2020 after President Jokowi held a press conference to inform the public through TV broadcasts. Its spread occurs speedily through physical contact by handshaking, holding hands and communicating directly. The coronavirus is a pandemic that spreads contagiously. This virus attacks anyone connected

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<sup>10</sup> Clifford J. Drew, Michael L. Hardman, and John L. Hosp, *Designing and Conducting Research in Education* (California: SAGE, 2008).

<sup>11</sup> Sevilla Consuelo, *Research Methods* (Quezon City: Rex Printing Company, 2007).

<sup>12</sup> John W. Creswell, *Research Design, Pendekatan Metode Kualitatif, Kuantitatif, Dan Campuran*, trans. Achmad Fawaid and Rianayati Kusmini Pancasari (Yogyakarta: Pustaka Pelajar, 2016).

<sup>13</sup> Freed N Kerlinger, *Asas-Asas Penelitian Behavioral* (Yogyakarta: Gadjah Mada University Press, 2014).

with a virus carrier in a physical, social network.<sup>14</sup> Therefore, as one of the corona-affected countries, the Indonesian people have to prevent social distancing and self-isolation. By doing these, a person must assume the role of an isolate without negative connotations, including the absence of power, loneliness, boredom, etc. Isolation also helps to decrease the network density. However, the effort and sacrifice to be isolated are worth the risk faced if ignored.<sup>15</sup> As humans cannot stop the coronavirus, what can be done is to prevent it from spreading astronomically.

Various countries, including Indonesia, have implemented social distancing or restrictions on social gatherings. This reduces interactions among people in the broader community, as individuals who may be infected but unidentified will then be isolated.<sup>16</sup> The government's efforts considered all sectors of community life, and its main focus involved breaking the chain of its spread. It also focused on the people's economy, foreign relations, education, aid and other equal distribution. All levels of society are committed to ending this pandemic, as this virus neither chooses the country nor distinguishes people or position. Not only covid-19 has ever been a pandemic, but also the SARS and H5N1 viruses. Therefore, it requires a global readiness, response and commitment in ending it. Hurlbut (2017) stated that preparedness for a pandemic requires the science of global surveillance that sees through epistemic noise from various forms of social, economic and political life to produce a globally readable picture of pandemic risks. Based on Hurlbut's opinion, the Indonesian government always provides information related to Covid-19 to reduce noise in people's social life. To break the distribution chain, the Indonesian government enacted policies for Work From Home (WFH) and Study From Home (SFH).<sup>17</sup>

The same was done by other Asian countries, such as Malaysia's movement control order (MCO) (National Responses to COVID-19 in Southeast Asia, Center for Strategic and International Studies, April 23 2020).

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<sup>14</sup> Nailul Mona, "Konsep Isolasi Dalam Jaringan Sosial Untuk Meminimalisasi Efek Contagious (Kasus Penyebaran Virus Corona Di Indonesia)," *Jurnal Sosial Humaniora Terapan* 2, no. 2 (2020).

<sup>15</sup> Michael Greenstone and Vishan Nigam, "Does Social Distancing Matter?," SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, March 30, 2020), <https://doi.org/10.2139/ssrn.3561244>.

<sup>16</sup> Annelies Wilder-Smith and David O. Freedman, "Isolation, Quarantine, Social Distancing and Community Containment: Pivotal Role for Old-Style Public Health Measures in the Novel Coronavirus (2019-nCoV) Outbreak," *Journal of Travel Medicine* 27, no. 2 (2020): taaa020.

<sup>17</sup> J. Benjamin Hurlbut, "A Science That Knows No Country: Pandemic Preparedness, Global Risk, Sovereign Science," *Big Data & Society* 4, no. 2 (2017): 2053951717742417.

Singapore has also carried out social restrictions called circuit breakers.<sup>18</sup> Furthermore, the Philippine government also imposed social restrictions.<sup>19</sup> As of March 13, 61 countries in Africa, Asia, Europe, the Middle East, and North and South America have announced or implemented school and university learning restrictions. The UNESCO provides direct support to various countries, including solutions for inclusive distance learning.

### **The Impacts of COVID-19 on Teaching and Learning Activities**

The application of WFH and SFH is a solution to terminating the spread of covid-19 in education. Wong and Cheng (2010) stated that the virus outbreak poses challenges to the education sector worldwide. Educators controlled the spread of the virus and relied on it. It requires redefining it needs to redefine its teaching methods, leadership models, and interaction channels by going digital towards the improvement of the sustainable development of its teaching.<sup>20</sup> The government has enacted a policy to close all schools, including kindergarten, elementary, junior high, high school and university.<sup>21</sup> The closure of schools, colleges, cinemas and public places prevents the spread of a virus.<sup>22</sup> Consequently, all learning activities must be moved from schools and campuses to online homeschooling. This policy requires the readiness of lecturers and teachers in using information technology, as not only its efficient use is necessary, but it also has to meet the educational demands and objectives based on the lesson plan.<sup>23</sup>

Higher education during WFH needs to strengthen online learning.<sup>24</sup> IAIN Ponorogo is one of the Islamic Higher Education in Indonesia that has to follow the policies enacted by the central government to conduct online or distance lectures. Lecturers are given the freedom to deliver material based

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<sup>18</sup> National Responses to COVID-19 in Southeast Asia, "Center for Strategic and International Studies," 2020, <https://www.csis.org/programs/southeast-asia-program/southeast-asia-covid> 19.

<sup>19</sup> Andreo Calonzo, "Philippines Extends Lockdown of Main Island Until End of April," *Bloomberg*, April 7, 2020.

<sup>20</sup> Maria José Sá and Sandro Serpa, "The COVID-19 Pandemic as an Opportunity to Foster the Sustainable Development of Teaching in Higher Education," *Sustainability* 12, no. 20 (2020): 8525.

<sup>21</sup> Emmy MY Wong, May MH Cheng, and Sing Kai Lo, "Teachers' Risk Perception and Needs in Addressing Infectious Disease Outbreak," *The Journal of School Nursing* 26, no. 5 (2010): 398–406.

<sup>22</sup> Nancy Tomes, "'Destroyer and Teacher': Managing the Masses During the 1918–1919 Influenza Pandemic," *Public Health Reports* 125, no. 3\_suppl (2010): 48–62.

<sup>23</sup> Aleksander Aristovnik et al., "Impacts of the COVID-19 Pandemic on Life of Higher Education Students: A Global Perspective," *Sustainability* 12, no. 20 (2020): 8438.

<sup>24</sup> Wahyudin Darmalaksana, "Capaian Pembelajaran Model Online Masa WFH Covid-19 Pada Mata Kuliah Metode Penelitian Hadis Di UIN Sunan Gunung Djati Bandung, Bandung, UIN Sunan Gunung Djati Bandung."

on the lesson plan, provide structured assignments, quizzes, and give thesis guidance through an online system.

Some individuals, including students, opine that information technology media in the learning process is different from traditional classes, where teachers and students gather in class to discuss and provide feedback. Both face-to-face and online learning will achieve the learning objectives, given that the lecturers can manage the classes.<sup>25</sup> In online classes, an active discussion and interaction have to be fostered among students and between students and the lecturer to enhance their critical thinking skills. The lecturers also have to provide feedback on students' performance through a discussion forum and feedback available in some IT media. Unfortunately, some obstacles arose during its implementation, as the character and personality of each student are different. Merisotis and Phipps (1999) stated that the effectiveness of distance learning depends not only on information technology but also on other factors such as lecturers' character, students' personalities, motivations, and task instruction or material given. Therefore, to ascertain the effectiveness of online media, there has to be a progress report from lecturers.<sup>26</sup>

Achieving the learning outcomes does not merely depend on the lecturers' ability to utilize IT media but also on the students' facilities and their ability to use it. Heinich et al. (in Personal, 2004) proposed some advantages of using computer media in learning. It (including online learning) allows students to learn independently, without being bound by time and place, accessed via the internet.

### **Online Learning Media used by Lecturers**

As explained before, most universities in Indonesia have implemented distance classes or online classes to action on the spread of Covid-19. In addition to learning and teaching, several campuses have adopted policies until the end of this even semester. All lecture activities are online, including midterm, midterm, practicum, final assignment guidance, thesis, and dissertation. This decision was taken based on the current conditions of the spread of Covid-19 at the national level.

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<sup>25</sup> Ima Frafika Sari, "ONLINE LEARNING FOR ENGLISH LANGUAGE TEACHING," *EDUKASIA: Jurnal Pendidikan Dan Pembelajaran* 1, no. 2 (May 23, 2020): 216–30.

<sup>26</sup> Ronald Phipps and Jamie Merisotis, "What's the Difference?: A Review of Contemporary Research on the Effectiveness of Distance Learning in Higher Education," 1999.



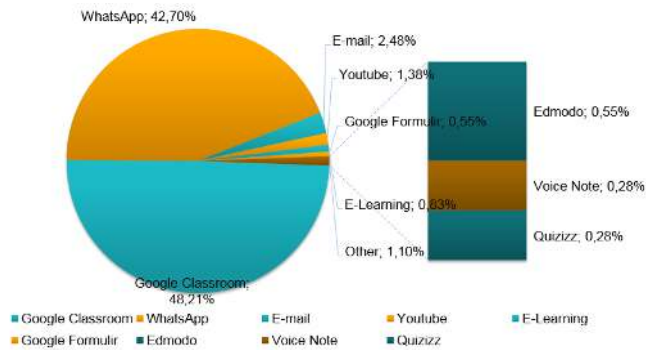


Figure 1. The Online Learning Media Used by the Lecturers

Figure 1 illustrates 23 media used by the lecturers at IAIN Ponorogo for online learning during covid-19. The most widely used media is the Google classroom, which peaked at 42,70%. The second is the Whatsapp Group at 48%, the third is email at 2,48%, and the fourth is YouTube. The Whatsapp Group is the most preferred choice, as students and lecturers were accustomed to using it in the communication process before the outbreak. In some PTKIN, namely IAIN Jember in East Java, the use of WhatsApp Group was also the most frequent reaching 77%, in IAIN Samarinda East Kalimantan it was 94.3%, IAIN Surakarta Central Java 57%, IAIN Purwokerto Central Java 48.3%, UIN Mataram 56.1%, UIN Palembang South Sumatra 76.1%, 54.2% UIN North Sumatra, 85.2% IAIN Curup Bengkulu, 83.5% IAIN Tulungagung East Java.

According to the results, online learning in the State Islamic University (UIN) Bandung also used WhatsApp the most. Indeed, for the last ten years, the WhatsApp application has been applied in m-learning.<sup>27</sup> Furthermore, previous research showed that WhatsApp in the classroom had increased the motivation of higher education students. The WhatsApp technique is recognized as having a significant effect on their advanced learning skills.<sup>28</sup> And it turns out that its use has been proven effective.<sup>29</sup> Students gave positive perceptions of its use in learning.<sup>30</sup> Most participants

<sup>27</sup> Glad Mohesh MI and Semmal Syed Meerasa, "Perceptions on M-Learning through WhatsApp Application," *Journal of Education Technology in Health Sciences* 3, no. 2 (2016): 57–60.

<sup>28</sup> Said Fathy El Said Abdul Fattah, "The Effectiveness of Using WhatsApp Messenger as One of Mobile Learning Techniques to Develop Students' Writing Skills.," *Journal of Education and Practice* 6, no. 32 (2015): 115–27.

<sup>29</sup> Ghada Awada, "Effect of WhatsApp on Critique Writing Proficiency and Perceptions toward Learning," *Cogent Education* 3, no. 1 (2016): 1264173.

<sup>30</sup> Elias Bensalem, "The Impact of WhatsApp on EFL Students' Vocabulary Learning," *Arab World English Journal (AWEJ) Volume* 9 (2018).

liked mobile learning (m-learning) through this platform, and it was generally accepted with a positive attitude.

Furthermore, it represents a paradigm shift from e-learning to m-learning.<sup>31</sup> WhatsApp is recognized as a significant impetus on modern media, which continues to adapt towards learning purposes.<sup>32</sup> The rapid advancement of cellular technology and the availability of smartphones for each student has given a broad scope to m-learning through WhatsApp for use in education.<sup>33</sup>

The number two learning media is the Google classroom at 57%. It can simplify communication between lecturers and students and provide convenience in distributing and assessing assignments. Although in the second place, its application in the learning process is still lacking, several studies state that it positively influences learning. A previous study titled "The Effect of Google Classroom Media in Learning: A Real Analysis on Student Learning Motivation" showed a significant influence in student motivation after applying Google classroom. This is indicated by the significant value  $p = 0.000 < \alpha = 0.05$ . In addition, the average scores, student learning outcomes and the percentage response value was 78.31%, each in the high category and 83.72% in the very good category.<sup>34</sup>

The online learning process used by lecturers fulfils the responsibility of replacing face-to-face with online methods during the covid-19 pandemic and facilitates students following the Indonesian Qualification Framework (KKNI-based curriculum) to enhance the level of one's competence and is not merely a diploma. The recognition of an individual's educational outcome, whether formal, non-formal or informal, is based on the nationally recognized qualifications framework, which is accountable and transparent. The implementation of IQF goes through 8 stages. These include determining graduation profile, formulating learning outcomes, formulating material competency, mapping learning outcomes, creating content, course packaging, compiling curricular framework, and preparing lesson plans.<sup>35</sup>

The purpose of IQF is in line with the demands of the 21<sup>st</sup> century. The students have to possess creativity, critical thinking, and collaborative,

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<sup>31</sup> MI and Meerasa, "Perceptions on M-Learning through WhatsApp Application."

<sup>32</sup> Walther Nagler, Martin Ebner, and Martin Schön, "Why Facebook Swallowed WhatsApp!," in *EdMedia+ Innovate Learning* (Association for the Advancement of Computing in Education (AACE), 2015), 1872–81.

<sup>33</sup> MI and Meerasa, "Perceptions on M-Learning through WhatsApp Application."

<sup>34</sup> Nirfayanti Nirfayanti and Nurbaeti Nurbaeti, "Pengaruh Media Pembelajaran Google Classroom Dalam Pembelajaran Analisis Real Terhadap Motivasi Belajar Mahasiswa," *Proximal: Jurnal Penelitian Matematika Dan Pendidikan Matematika* 2, no. 1 (2019).

<sup>35</sup> Mukhibat Syaufa, *Manajemen Mutu Perguruan Tinggi, Teori, Strategi, Dan Aplikasi* (Yogyakarta: Publica Institut, 2019).

integrative, and participative abilities. Therefore, lecturers are also required to enhance these abilities following the demands of the 21st century in the learning process. IQF demands a switch in teaching approach from TCL (Teacher-Centered Learning) to SCL (Student-Centered Learning) as a paradigm change.<sup>36</sup> It is a change in the perspective of certain aspects of learning, such as a) knowledge; This is seen as something that has been transferred from lecturer to student, becomes knowledge as a result of construction or transformation by the learner, b) studying; receiving knowledge (passive-receptive) through finding and constructing it (active-specific), c) learning; lecturers deliver the knowledge, which involves active participation of both lecturer and student.

Furthermore, the researchers utilized some indicators to ascertain whether the learning outcomes demanded by IQF achieved online learning objectives. These include the ability to 1) improve reasoning in materials, assignments and quizzes, 2) improve thinking activities in materials, assignments and quizzes, 3) manage discussions among students as well as with lecturers, 4) build students' confidence in expressing their ideas during discussions, 5) use problems to increase their creativity in materials, assignments and quizzes, 6) provision of materials using contextual problems, 7) improving group collaboration among students, 8) giving empathy and respect to different students' perspectives.

### Effectiveness of Online Teaching and Learning on Course Learning Outcomes

The effectiveness of online learning in this section is based on the results of an online survey to students, with criteria of 5 = very good; 4 = good; 3 = fair; 2 = poor; 1 = very poor.

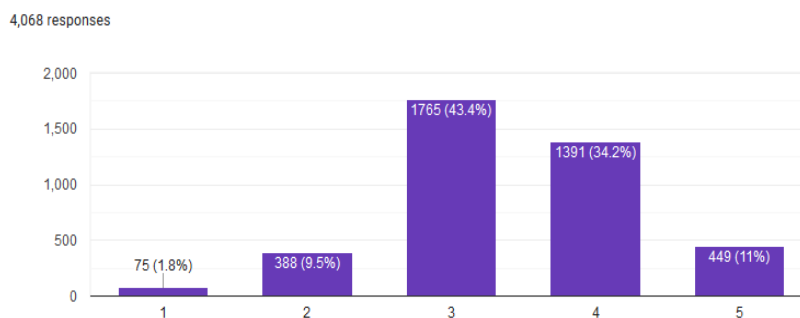


Figure 2. The Ability to Improve Reasoning Skills

<sup>36</sup> Fatwiah Noor, "Pendekatan Pembelajaran Dalam KKNi," *An-Nahdhat* 10, no. 2 (2017): 151-74.

Figure 2 shows IAIN Ponorogo students' response toward the ability of lecturers to improve students' reasoning skills in comprehending the material, doing the assignments and quizzes. 11% of students reported good, 34.5% of students stated it was good, and 43.4% said it was fair. However, only about 11% of students opined that it was poor. Meanwhile, in the UIN in North Sumatra, the difficulty faced by students in improving their thinking skills reached 27.5%, while 66.9% stated it was easy. Therefore, it is concluded that lecturers may package online learning efficiently through problem-based assignments, materials, and quizzes to improve their reasoning skills.

From the questionnaire, the students agreed with the learning strategies used by the lecturers and were interested. Consequently, the strategy of assigning online tasks and quizzes were greatly effective. Their reasoning and thinking in certain questions began with receiving data or information from lecturers, reading the assignment instructions and perusing the related sources, such as the internet or blog).

Based on the curriculum, Islamic Higher Education in Indonesia had various course types. They include theoretical, practical, theoretical and practical, and fieldwork courses.<sup>37</sup> A recent meta-analysis of online learning finds that it is more effective in developing reasoning than face-to-face meetings.<sup>38</sup> This effectiveness, in general, shows how far learning objectives have been achieved.

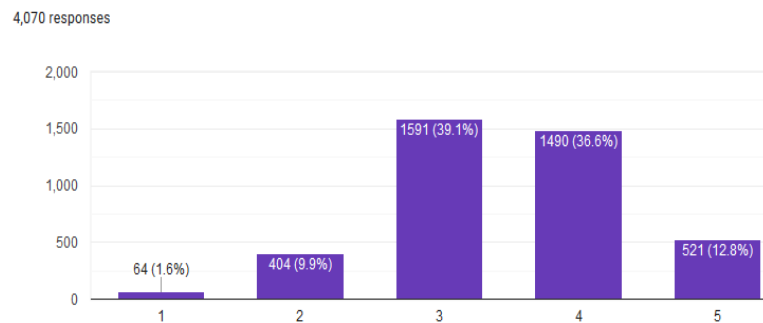


Figure 3. The Ability to Increase the Students' Thinking Skill

<sup>37</sup> A. Rusdiana and Nasihudin Nasihudin, "The Implementation of National Standard-Based Curriculum in Private Islamic Higher Education: Leadership Impact," *Jurnal Pendidikan Islam UIN Sunan Gunung Djati* 4, no. 1 (2018): 87–98.

<sup>38</sup> Robert M. Bernard et al., "A Meta-Analysis of Blended Learning and Technology Use in Higher Education: From the General to the Applied," *Journal of Computing in Higher Education* 26, no. 1 (2014): 87–122.

According to Figure 3, the lecturer has very good abilities. It was higher than fair at a level of 49.4%. Therefore, it is concluded that the lecturer could improve students' thinking skills during the covid-19 pandemic. Materials, assignments, and quizzes were used to change the conventional face-to-face learning and required students to think. However, at IAIN Kendari, Southeast Sulawesi, this ability level was 43.3%, as the student said they were not satisfied.

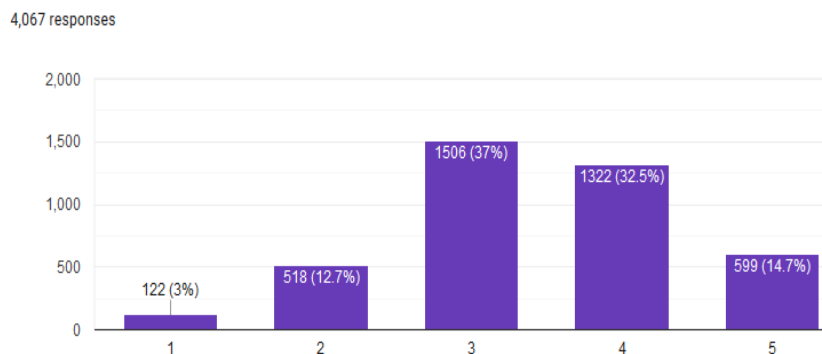


Figure 4. The Ability to Manage Discussions

Figure 4 shows the students' response toward lecturers' ability to manage discussions between both students and lecturers of IAIN Ponorogo, East Java. 14.7% said it was very good, 32.5% opined it was good, 37% stated it was fair. However, only 13% said that it was poor. The ability of lecturers in this aspect at UIN Yogyakarta reached 71%, which increased collaboration between students in discussions. However, the courage to ask questions during discussions at Gajah Mada University (UGM) Yogyakarta was 26.8%. This was because online media made the communication process easier, but it was hard to manage the discussions for 30 students due to the extra effort it requires. Furthermore, it also needed good signals and internet quotas from each individual, which were the obstacles faced. Nevertheless, the students gave a good response on the ability of lecturers. Group work allowed the students to exchange ideas with their friends, learn from each other, gain responsibility, build unity and togetherness, and socialize.

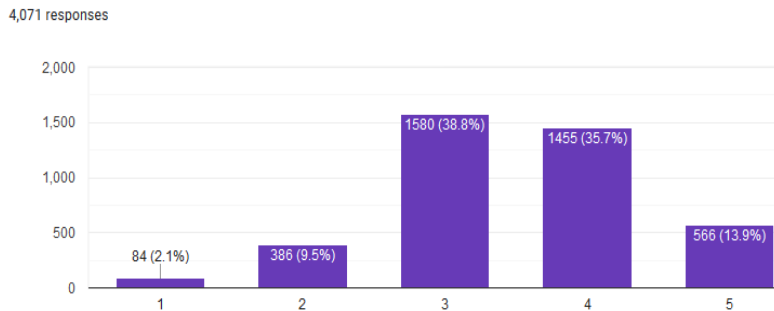


Figure 5. The Ability to Build Students' Confidence in Conveying their Ideas

Figure 5 shows that lecturers' ability to develop students' confidence to express their ideas was very good at 13.9%, good at 35.7%, fair at 38.8% and poor at 11%. Managing or enhancing their ideas in online learning was more difficult than in the conventional classroom. A similar result was observed at UIN Jambi within a good category of 23.2% and 23.8%. In IAIN Samarinda, East Kalimantan, the good category was 33%.

Lecturers have to think about how to make students more creative in line with the learning objectives of KKNI, as critical thinking is a must-have skill for its students, according to the National Higher Education Standards (SN DIKTI). Students possessing critical thinking will have the courage to express their ideas in developing and implementing their knowledge.<sup>39</sup> Critical thinking involves thinking reasonably and reflectively, emphasizing making decisions on what to believe or do.<sup>40</sup>

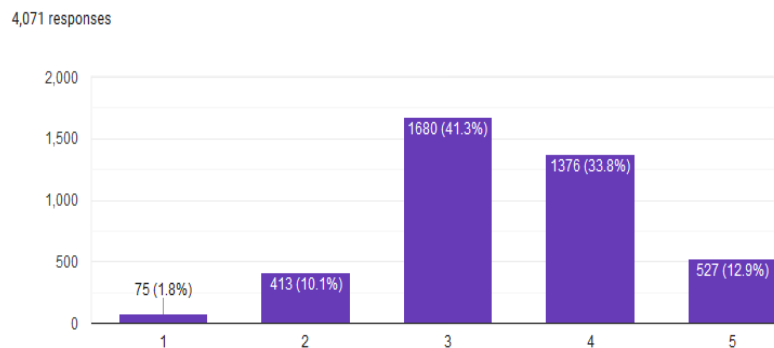


Figure 6. The Ability to Increase Creativity

<sup>39</sup> Umi Hasanah, Herawati Susilo, and Hadi Suwono, "Kemampuan Berpikir Kritis Mahasiswa Pendidikan Biologi Pada Matakuliah Ekologi," 2016.

<sup>40</sup> Robert H. Ennis, "The Nature of Critical Thinking: An Outline of Critical Thinking Dispositions and Abilities," in *Sixth International Conference on Thinking, Cambridge, MA, 2011*, 1-8.

Figure 6 shows the ability of lecturers to provide students with creative problems in materials, assignments and quizzes. 12.9% said it was very good, 33.8% said it was good, 41.3% said it was fair, and 11% stated it was poor. This is in line with the research findings conducted by Mulhayatiah<sup>41</sup> and Borodina<sup>42</sup> explained that implementing the learning process using a project-based learning model with online media was good at 79.61%. These results are by the results of research by Sahin et al. the purpose of education today is to train students who can solve problems, adapt their knowledge to real life, work collaboratively, and engage in lifelong learning.<sup>43</sup>

These results required lecturers to have creativity in making questions and materials during the learning process. Based on the data, it is concluded that IAIN Ponorogo lecturers have guided students in the learning process. Therefore they have good creativity.

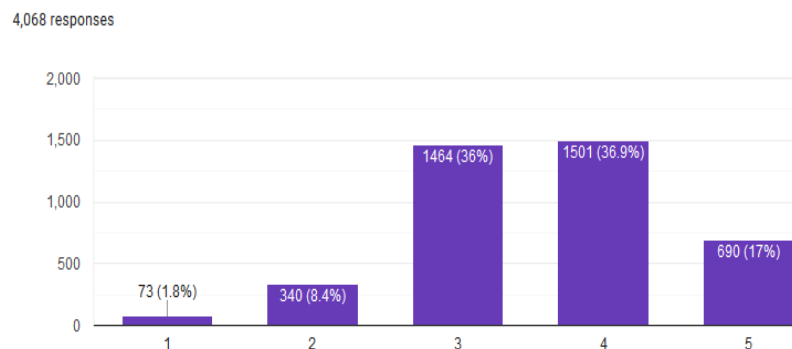


Figure 7. The Ability to Update the Material based on the development

Lecturers are required to be up to date with the development of knowledge in modern times. If they do not, they will become monotonous in teaching. This drives the students to become inactive, uncreative and left behind, which is not the goal of education in Indonesia. Based on Figure 8, lecturers can be abreast of the times and were therefore within the very good

<sup>41</sup> Diah Mulhayatiah, "Penerapan Model Pembelajaran Berbasis Proyek Untuk Meningkatkan Kemampuan Berpikir Kreatif Mahasiswa," *EDUSAINS* 6, no. 1 (2014): 17–22.

<sup>42</sup> Tatiana Borodina, Alfiya Sibgatullina, and Anna Gizatullina, "Developing Creative Thinking in Future Teachers as a Topical Issue of Higher Education," *Journal of Social Studies Education Research* 10, no. 4 (December 24, 2019): 226–45.

<sup>43</sup> Şeyma Şahin, Burcu Ökmen, and Abdurrahman Kılıç, "Effects of Teaching a Learning Psychology Course in Different Ways on the Students' Success and Attitudes," *Journal on Efficiency and Responsibility in Education and Science* 13, no. 3 (2020): 113–29.

category of 17%, the most dominant was the good category at 36.9%, fair at 36% and poor at 8%.

These findings indicate that the lecturers of IAIN Ponorogo are one of the important pillars in higher education. They have played a strategic role in facing the era of digitalization and the Industrial Revolution 4.0. This is in line with the opinion of the Minister of Research, Technology and Higher Education, in that it requires keen core competencies of lecturers with soft skills such as critical thinking, creative thinking, communication, and true collaboration with students to produce graduates with high competencies that are well equipped to compete in the Industrial 4.0 era.<sup>44</sup>

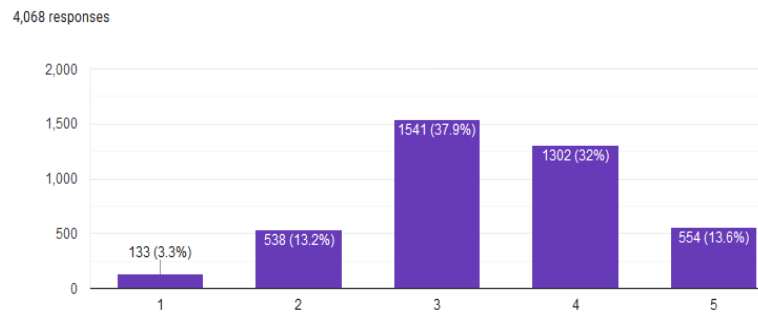


Figure 8. Ability to Improve Students' Collaboration

Holding discussions based on the assignments given by lecturers enabled students to express their opinions and ideas and respect the views of others. This has to be formed early, as the difference between the lower and college students is discussing. Therefore, the lecturers' ability to use various strategies in the learning process to improve group collaboration among them during the discussion process and assignment is essential. Cooperation is a social, natural part of people's lives that cannot be separated from humans in everyday life<sup>45</sup>. It involves working together to achieve desired goals.

Based on Figure 8, the ability of lecturers to improve collaboration in making assignments and discussions was mostly fair, 37.9%. The good and very good categories were 45.6%. This shows that IAIN Ponorogo lecturers can improve group collaboration among students.

<sup>44</sup> Kasinyo Harto, "Tantangan Dosen Ptki Di Era Industri 4.0," *Jurnal Tatsqif* 16, no. 1 (2018): 1–15.

<sup>45</sup> Fajar Fitri and Dian Artha Kusumaningtyas, "Penerapan Metode Pembelajaran Tugas Kelompok Sebagai Alternatif Peningkatan Kerjasama Mahasiswa," *Omega: Jurnal Fisika Dan Pendidikan Fisika* 1, no. 1 (2015): 1–5.



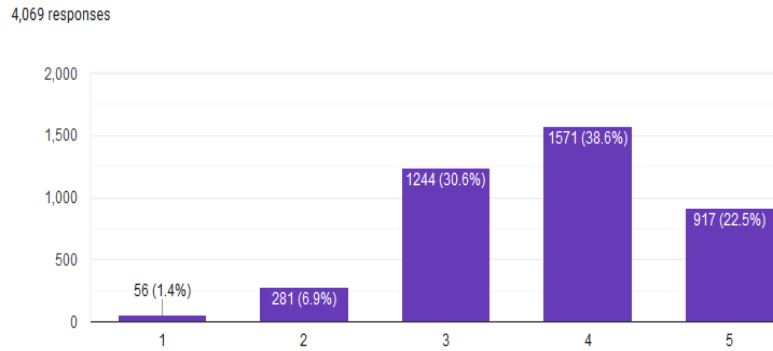


Figure 9. Building Empathy

The next factor is the ability of lecturers to respect and treat students fairly according to their abilities and character. Figure 9 shows that IAIN Ponorogo lecturers have a good ability to appreciate the students' perspective by 38.6% and very good category at 22.5%. Alternatively, it is known as the lecturers' empathy, an integral aspect of the theory of imitation, which is an impetus to imitate others.<sup>46</sup> This theory states that someone will imitate others that they believe to possess elements that attract their attention. The use of empathy to overcome students' problems will help students not to feel lonely regarding the problems they face. It rejects the opinion most schools in developing nations have focused on using computers to improve students' achievement and attitudes and overlooked other learning outcomes such as social skills that could foster functional citizenship skills in students.<sup>47</sup>

Having these abilities has some constraints, as both students and lecturers have different experiences. They have different learning styles, methods, and strategies. The obstacles faced by students were quota in 29.5%, difficulty accessing the internet in 23%, and procedures in using the application in 1.1%, and others 7.1%.

Out of the 237,193 students who participated in the national survey, 94.73% had conducted online learning. In its implementation, there were many obstacles, such as internet connections. 76.2% at UGM Yogyakarta and 83.8% at IAIN Curup experienced internet network problems, application and software hitches, low quality of presentation and facilities. Based on the evaluation results at UIN North Sumatra, these constraints were 19.7% and 8% at IAIN Samarinda, East Kalimantan. Therefore the learning objectives were not achieved. Meanwhile, the level of effectiveness at IAIN Kendari was only 48.9%. The present limited ownership of

<sup>46</sup> Bimo Walgito, *Psikologi Sosial* (Yogyakarta: Andi, 2003).

<sup>47</sup> Olugbenga Ige, "Impact of Computer-Assisted Instructional Strategy on Schoolchildren's Social Skills," *Journal of Social Studies Education Research* 10, no. 4 (December 24, 2019): 490–505.

computers /laptops and internet access, for example, is a major problem that results in uneven access to online learning. These results tallied with developed countries such as the United States, United Kingdom, and neighbouring Singapore. Research in China honed the barriers to online learning that existed before the pandemic outbreak.<sup>48</sup>

The various obstacles above then led to the desire of Islamic Higher Education, including IAIN Ponorogo, to establish an official online media platform used in online learning. Furthermore, 39.8% of IAIN Metro Lampung students require assistance in terms of internet quota. They are reluctant about this new digital pedagogy and prefer traditional teaching to online teaching during the coronavirus pandemic. This is due to financial barriers in internet procurement and technology use constraints on IAIN Metro Lampung Sumatra students, thus affecting the existence of pedagogical obstacles for lecturers and students. Against such conditions, it encourages stakeholders to prepare better an effective and efficient move in facing the future of education, not neglect the education system in Indonesia. However, learning is said to be successful when there is transferability of learned knowledge or skills from one learning context to other learning contexts, such as application towards the job, personal lives and daily.<sup>49</sup>

A large number of studies find positive statistically significant effects for student learning outcomes in the online or hybrid format compared to the traditional face-to-face format. Positive learning outcomes are improved learning as measured by test scores, student engagement with the class material, improved perception of learning and of the online format, and a stronger sense of community among students. This shows that the various online media arranged according to student-centred approaches positively affected success, although their levels were at face to face event. Moreover, it has been shown that student-centred education increases students' academic achievement, increases their motivation to learn, increases the level of knowledge recall, and provides in-depth understanding.

The ability of lecturers and students to use information and communication technology in learning has a strong influence on learning objectives. The unpreparedness of lecturers and students in using bold learning platforms is one of the problems affecting learning effectiveness. Lecturers and students must adapt to new learning habits using bold media. Lecturers have been able to use bold learning media. They have been able to

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<sup>48</sup> Tinggui Chen et al., "The Impact of the COVID-19 Pandemic on User Experience with Online Education Platforms in China," *Sustainability* 12, no. 18 (2020): 7329.

<sup>49</sup> Noor Azura Mat Said et al., "CONCEPTUALIZING CRITICAL THINKING LEARNING TRANSFER MODEL: A QUALITATIVE APPROACH," *Malaysian Journal of Learning and Instruction* 18, no. 1 (January 31, 2021): 111–30, <https://doi.org/10.32890/mjli2021.18.1.5>.

replace the face-to-face classroom atmosphere that has been carried out directly into a bold classroom atmosphere so that students still feel comfortable participating in learning is an essential factor for students who can accept bold learning.

### **Conclusion**

Physical distancing policy due to covid-19 has forced educational institutions in Indonesia to implement Study From Home (SFH). This means that every house is required to transform into a self-organized learning environment (SOLE). A survey of 4000 students and 205 lecturers at IAIN Ponorogo and other Islamic Higher Education in Indonesia showed at least 23 media used by lecturers. The Whatsapp Group is the most widely used at 58.5%. The Google classroom was the second most used at 57%. These various media have been able to increase student reasoning by 43.4%, conveying of ideas 38.8% (good), creativity 33.8% (good), and cooperation 45.6% (very good). Therefore, it is concluded that online Learning at IAIN Ponorogo during the covid-19 pandemic ran quite effectively. According to the survey, the lecturers' ability in improving students' creativity, critical thinking, collaborative and integrative skills was good. It also achieved the Course Learning Outcomes (CLO) in the Indonesian Qualification Framework (KKNI). This is because the presentation of online learning systems (e-learning) is more interactive and borderless, and as a result, learning is done effectively and efficiently. However, some obstacles were encountered, such as difficulties accessing the internet, facilities limitations, internet quota, the lack of skill in using the applications, and students' IT skills. Learning Outcomes through online media during the Covid-19 pandemic has highlighted universities' importance and maintained an official online learning platform.

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