Covid-19: Against Education In A Socio-Economic Perspective

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Abstract

The Covid-19 pandemic that is felt today has an impact on socio-economic in Indonesia. The outbreak of Covid-19, which was so severe made education in Indonesia quite miserable. The big challenge of the 21st century is how the Covid-19 era, Indonesia was able to balance education with the socio-economic of the people. The Ministry of Education and Culture of the Republic of Indonesia (Kemendikbud) believes that the presence of the Kampus Merdeka as a support for the freedom of the education system for students and lecturers to achieve quality learning has an impact on socio-economic. However, this has not yet worked because of Covid-19. So the purpose of this study is the application of the REP system in higher education which significantly provides benefits to the socio-economic with digital transformation during the Covid-19 period. When Covid-19 with the presence of the gamification concept on the REP Apps website made the learning of the Kampus Merdeka much more enjoyable. Analysis of the quality of the REP program is calculated to produce a Cronbach's Alpha score of 0.81> 0.6, and student motivation produces a Cronbach's Alpha score of 0.86> 0.6 and the REP System produces a Cronbach's Alpha score of 0.90> 0.6 meaning the instrument is Reliability. Therefore, Covid-19 is not an obstacle in socio-economic or education, and this is a bold way to balance between socio-economic and education in the Covid-19 era.
Keywords: socio-economic, Kampus Merdeka, REP, Digital Transformation, Gamification.

1. Introduction

Low socio-economic status (SES) and poverty affect people's social lives, such as education, income distribution, health services to health status [1]. Where are these socio-economic factors such as parental support in children's learning in creating children's competence so that there is a gap in an equal society [2]. However, lately, the Coronavirus (Covid-19) pandemic problem has taken place in more than 200 countries in the world, causing unrest in socio-economic in Indonesia, especially in education. At present 5 May 2020, it has been confirmed that 3,435,894 cases in various countries and 239,604 have reached global mortality [3]. On 5 May 2020, Covid-19 cases in Indonesia were 11,192 positive COVID-19 confirmed cases in 34 Provinces with 1,876 cases recovered (Recovery Rate 16.8%) and 845 died (CFR 7.6%) [4]. The existence of the Covid-19 case needs further action from the government by implementing stay at home and Work From Home (WFH)[5]. Deliberate isolation at home is a workable social distance measure, thereby reducing transmission, reducing the peak size of the epidemic, and reducing pressure on the health care system [6]. Another thing has an impact on socio-economic in Indonesia. According to the ABD (Asian Development Bank) report, the Indonesian economy will grow 2.5% this year, and from four in 2019, the lowest will be 5.02%. ABD also predicts that the Covid-19 pandemic period will have a significant impact on slowing the growth of economic prosperity in Indonesia [7].
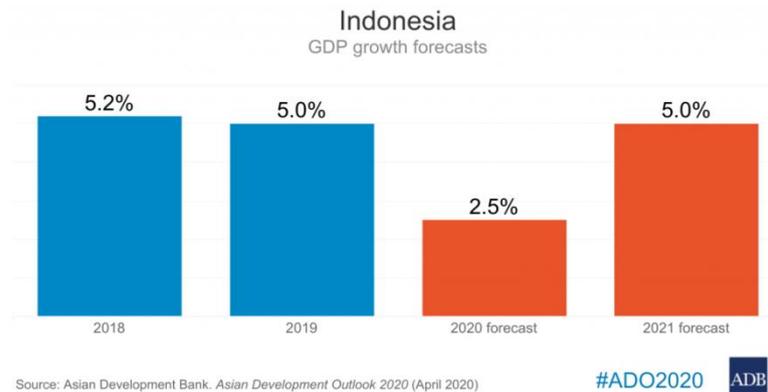
Figure 1. ADO 2020

In ADB's major annual economic publication, ADO (Asian Development Outlook), the Covid-19 pandemic is a turmoil in financial markets and low prices for merchandise. Externally, the risk to Indonesia's economic prospects due to the prolonged Covid-19 pandemic caused a decline in the prices of sustainable goods and increased fluctuations in financial market prices. The perceived tension is also on the health care system which is in tandem with the challenge of coercion of social distance whose impact worsens the economy [8]. The presence of the Kampus Merdeka is an autonomous change in the paradigm of freedom for educational institutions, lecturers and students are given the freedom to choose the fields that preferred to be a more innovative learning culture [9]. If someone has a low level of education, it will affect the state of socio-economic in society [10]. Where the independent campus is believed to be an effort in freeing the education system that better supports students and lecturers in achieving quality learning in the face of the Covid-19 pandemic [11][5]. There is four Legal Basis of Merdeka Belajar-Merdeka Campus: 1) Opening of new study programs by Minister of Education and Culture Regulation No. 7 of 2020 and Permendikbud No. 5 of 2020, 2) Higher Education Accreditation System by Minister of Education and Culture Regulation No. 5 of 2020, 3) Legal Entity State Universities by Minister of Education and Culture Regulation No. 4 of 2020 and Number 6 of 2020, 4) The right to study three semesters outside the study program Minister of Education and Culture Regulation No. 3 of 2020 [12]–[16].

Figure 2. Forms of Free Campus Learning Activities [17]

1) Exchange students to respect cultural diversity, views, religion and beliefs, as well as other people's original opinions or findings. 2) Internship / practical work to provide experience and direct industrial competence for students. 3) Teaching Assistants in the Education Unit, increasing the quality of education and providing opportunities for students to have an interest in education. 4) Research / Research can build critical thinking, things that are needed for a variety of scientific families at the

level of higher education. 5) Humanitarian Project, preparing superior students with young souls, scientific competencies, and interests can become "foot soldiers" in humanitarian projects. 6) Entrepreneurial Activities, students who have an interest in entrepreneurship to develop their business earlier and are guided and handle unemployment issues. 7) Independent Project, to realize great works that are contested at the international level or work from innovative ideas. 8) Building a Village / Thematic Real Work Lecture, Thematic Real Work Lecture (KKNT) is a form of education by providing learning experiences for students to live in the community outside the campus, who directly together with the community identify potentials and handle problems so that they are expected to be able to develop village / regional potentials and formulate solutions to problems that exist in the village [18]. One example is the UGM campus which supports the existence of an independent campus that was sparked by the Minister of Education and Culture NadiemMakarim in the hope of becoming a leader and learning transformation trend of 4.0 [18].

However, the existence of Covid-19 independent campus learning is still constrained by anxiety and anxiety, and a different atmosphere from learning which is usually supported by teleconferencing only[19]–[21]. So in knowing the need for further research in this study analyzed the significant impact on the socio-economic during the Covid-19 pandemic on education with digital transformation technology, the REP (Raharja Enrichment Program) system. The REP uses a combination of MOOC Framework, gamification and iLearning, which helps reduce socio-economic unrest during the Covid-19 pandemic. In particular, the level of education obtained can effectively improve the quality of learning. The result is the digital transformation of REP Apps that has an impact on student motivation during Covid-19 in the 4.0 era[22][23].

2. Related Work

Research related to this paper, namely research explores perceptions about student exchange and the experience of Swedish nursing students, cultural aspects and cultural awareness as well as a strong motivating factor, both independent and professional to broaden insights in the program [24]. Furthermore, the importance of a realistic understanding of the size of the effects obtained from someone in different cultural and educational rules, where students who migrate can benefit more from interventions that are more reliable themselves [25]. Next, the description of Turkish migration research students has two sides, one of which is self-efficacy which has a positive impact on individual welfare and life satisfaction [26]. Subsequent research on the formation of a modern distance learning model has dependencies and is interrelated with e-mail technology to provide experience gathered in the field of distance learning [27]. The next research discusses the internship program which is a learning model that can hone the experience and abilities of students so that they can adapt to the world of work that requires professionalism, teamwork, discipline and communication [28].

The apprenticeship program applied in subsequent research has a positive impact on the students who follow it, they benefit from the internship program so that most of them propose to extend the internship time which can improve the quality of themselves [29]. Furthermore, research on community service programs, the purpose of this study is to train students in doing the best service to the community by creating groups of students and placing them in places that need service; students must document what they have done during the program runs [30]. Research that also discusses community service to improve students' perspectives on homelessness, where they are sent to provide full service to homelessness from which they will learn something they will not get when learning in class [31]. Subsequent research into the effects of the Covid-19 pandemic on the education system in Indonesia has caused great harm. Students conduct online lectures from home using the zoom application, google meet, skype etc., the results of the analysis show that online college activities are beneficial when the covid-19 pandemic [32]. Next is research on online learning methods during the Covid-19 pandemic, from the results of analyzes conducted by students liking and being able to understand online lectures using whatsapp groups and zooms, of course this can be a reference that the teaching process in the classroom is not always effective and efficient, it is time for universities to apply flexible learning methods for students [33].
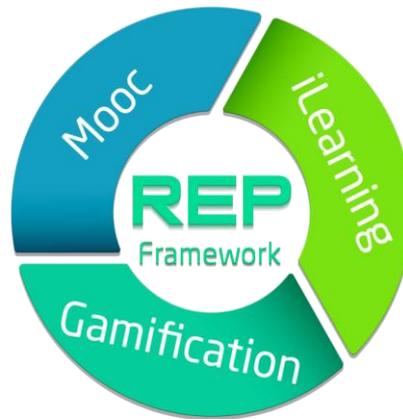
3. Methods

Figure 3. REP Framework

This research creates a more flexible, and effective REP framework for learning by combining the MOOC Framework, Gamification and iLearning. The REP framework can improve the quality of learning in the 4.0 era so that it can be accessed massively because it implements online learning with many benefits in it. Besides, the presence of gamification can increase student motivation in participating in an interactive learning process to produce high-quality research. From the integration of the three methods, all the benefits provided can produce a positive impact on socio-economic that benefits students and universities as well as ongoing research, the learning process continues online, the process of research guidance by utilizing the REP system, from quality research results universities get benefits for accreditation and so on. Moreover, students do not feel disadvantaged because they still get value and useful knowledge, especially when the Covid-19 pandemic.

Sampling Data

To answer the problems of this study, using survey methods, data collection, and SEM analysis in hypothesis testing. In this study, students in semester 1 to 4 that were used as population data were then calculated using the Slovin formula to find out the right number of samples.

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{725}{1 + 725.(0,01)^2}$$

$$n = \frac{725}{8,25}$$

$$n = 87,87 \rightarrow 88$$

n in the formula above is the result of the number of samples from the population. In the first stage, data from semester 1 to 4 students were entered into a population variable with a total of 725 students. Furthermore, the population variable will be calculated using the following Slovin formula. As a result of the calculations, 88 respondents will go through the analysis of the Structural Equation Method (SEM).

Table 1. Respondent data

Level	Total persons
Semester 1	19
Semester 2	24
Semester 3	22
Semester 4	23
Total	88

4. Result and Discussion

REP is an activity of TridharmaKampus Merdeka of Raharja. Learning in REP provides challenges and opportunities for developing creativity, capacity, personality, and needs of students, as well as developing independence in seeking and finding knowledge through reality and dynamics in the field such as capability requirements, real problems, social interaction, collaboration, self-management, performance demands, its targets and achievements.

Figure 4. Raharja Enrichment Streaming Program Concept

REP is carried out in order to realize the learning process at the Raharja University that is autonomous and flexible to create an innovative learning culture, not curb, and by the needs of students. This policy also aims to increase link and match with the business world and the industrial world, as well as to prepare students in the world of work from the start.

Grade Map	
A+	950-1000
A	900-950
A-	850-900
B+	800-850
B	750-800

B-	700-750
C+	650-700
C	600-650
C-	550-600
Failed	<550

Table 2. Grade Map ECP

4.1. Frequency Table

This study uses a questionnaire as a reliability analysis of 3 information variables that have been collected using Alpha Cronbach's, in order to obtain accurate and reliable results from the respondents. The questionnaire using the Google Form platform was given to 88 respondents from various semesters; the number of questions was ten items, and each statement had a Likert scale point, following.

Likert Scale	Statement
1	Strongly Disagree
2	Disagree
3	Undecided
4	Agree
5	Strongly Agree

Table 3. Likert Scale

From the first questionnaire given on the Sustainability of the REP Program during the Covid-19 Pandemic Period, there were 88 valid respondents, with the following details.

Sustainability Measurement		Frequency	Percent	Valid percent	Cumulative percent
Valid	1	1	1.14	1.14	1.14
	2	6	6.82	6.82	7.96
	3	9	10.23	10.23	18.19
	4	16	18.18	18.18	36.37
	5	56	63.63	63.63	100
	Total	88	100	100	

Table 4. REP Sustainability Measurement

As many as 56 (63.63%) respondents from various semesters stated Strongly Agree in the REP program even more so during the current Covid-19 pandemic; It could be interpreted that students felt benefits such as the benefits and positive effects of REP. Of course, this enhances socio-economic for students and also tertiary institutions because lectures become very flexible and can continue to produce research that is also beneficial for tertiary institutions. The second stage questionnaire regarding the motivation of respondents towards learning the REP program, obtained valid information as many as 88 respondents, with the following detailed information.

Motivation Measurement		Frequency	Percent	Valid percent	Cumulative percent
Valid	1	0	0	0	0
	2	4	4.55	4.55	4.55
	3	10	11.36	11.36	15.91
	4	13	14.77	14.77	30.68
	5	61	69.32	69.32	100
	Total	88	100	100	

Table 5. Student Measurement Motivation

Table 6. Student Measurement a total of 61 (63.63%) respondents gave Strongly Agree answer; this explains the level of student motivation that is so great towards the REP program, they feel a huge benefit because of the presence of gamification with a focus on engagement that arouses a sense of enthusiasm and motivation to produce quality research. It is undoubtedly in line with the improvement of the socio-economic of the community in the field of education.

The third stage questionnaire regarding the REP system, obtained the results of valid information of 88 respondents, with the following detailed information.

REP System Measurement		Frequency	Percent	Valid percent	Cumulative percent
Valid	1	0	0	0	0
	2	2	2.27	4.55	4.55
	3	3	3.40	11.36	15.91
	4	9	10.22	14.77	30.68
	5	74	84.09	69.32	100
	Total	88	100	100	

Table 6. REP System Measurement

As many as 74 (84.09%) respondents gave Very Agreeing answers, meaning 74 respondents were pleased about the REP system that was created to support the REP Program with a combination of gamification, MOOC, iLearning[34][35]. The positive impact of this is the socio-economic obligation on the part of students because of the direct benefits of eating as well as for universities, because they can continue learning without obstacles due to Covid-19.
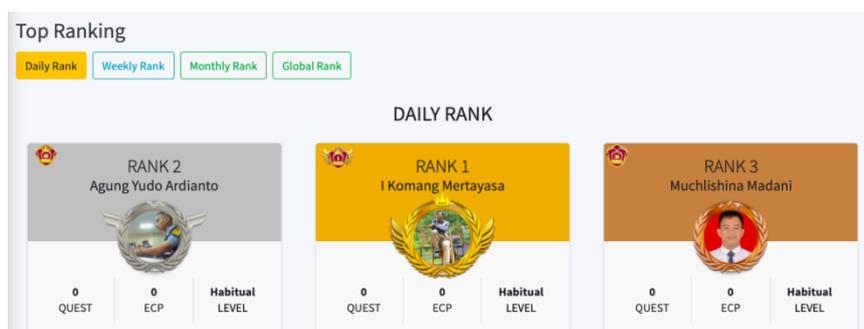

Figure 5. Gamification REP

Gamification applied by the REP with the iLearning method also proves that the learning process is more interactive and efficient so that lecturers can also see students who are active in space [36][37]. That in socio-economic also needs conditions that make learning more fun and relaxed when Covid-19. The motivation of students can be even more active in achieving ECP points and getting an A +.

4.2 Alpha Cronbach's analysis

Of all the statements based on the three above information variables generated through a Likert scale questionnaire, the next step is to calculate the reliability of each variable to determine the level of accuracy and trust of the respondents. If the total Cronbach alpha results> 0.6 then stated reliability, and <0.6, then the level of reliability is doubtful. The calculation starts from the REP Program variable, student motivation variable, and REP System variable. The researcher calculates the total of each question answered by each respondent. Moreover, obtain the following results.

Varian Item	0.489	1.067	0.178	2.267	2.000	1.556	1.656	1.656	1.211	0.233

Table 7. Total Varian Item REP Program

Varian Item	1.556	1.122	0.178	2.267	2.000	1.556	1.656	1.656	1.211	0.233

Table 8. Total Variant Item Motivation Student

Varian Item	1.556	1.122	0.178	1.433	2.000	0.456	1.656	1.656	1.211	0.233

Table 9. Total Variant Item REP System

The next step, the researchers calculated reliability for each REP Program Item variant, student motivation variables, and REP System variables. The researcher calculates the total reliability of each total item variant. Moreover, obtain the following results.

Total Variant Item 1-10	12.311
Total Varian Respondent 1-88	45.556
Reliability	0.811

Table 10. Total Reliability REP Program

Total Varian Item 1-10	13.433
Total Varian Responden 1-88	60.233
Reliability	0.863

Table 11. Total Reliability Motivation Student

Total Variant Item 1-10	11.500
Total Variant Responden 1-88	61.433
Reliability	0.903

Table 12. Total Reliability REP System

From the results of the above calculation, the REP Program gets a result of 0.81> 0.6, meaning that the questionnaire against the respondent regarding the REP Program is reliable. and Motivation Student get 0.86 > 0.6. This variable gets a reliable value. Moreover, the last is the REP System gets the highest results reaching 0.90> 0.6; this is the highest achievement and certainly reliable. From all the information above, it can be concluded that the REP Program is the main key that can improve the socio-economic of higher education institutions and students. Also, the motivation of universities and students in conducting learning and research has also increased rapidly, which is an advantage for both parties. Moreover, the presence of the REP system as a supporter of the REP program is the key

to the success of the REP program. Of the three variables above creates an extraordinarily positive impact that can improve students' socio-economic because they are not burdened by monotonous routines and can provide the best results such as qualitative research, and University can continue their effective learning routines during the Covid-19 pandemic. In general, learning during the Covid-19 pandemic made digital communication and the flow of information an important part of everyday life that made digital society continue to access the internet and the presence of digital technology to help socio-economic[38].
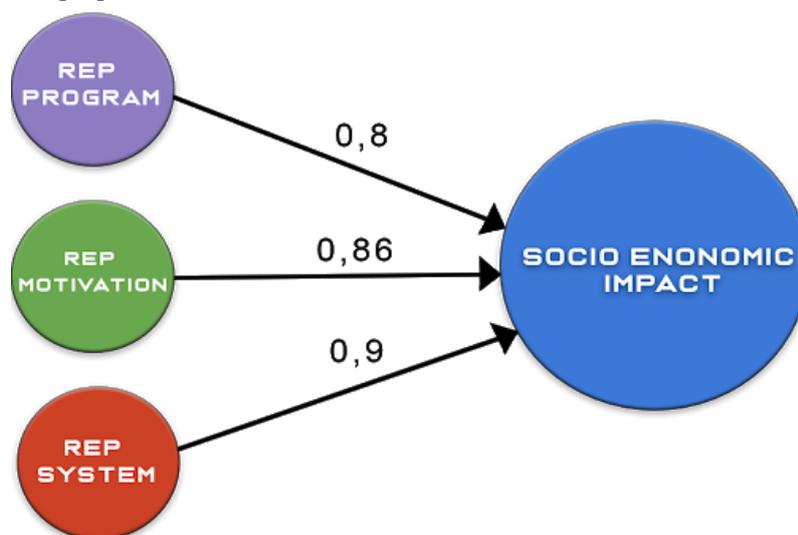

Figure 6. Reliability Score to Socio-Economic Impact

Fig6. describes the Covid19 REP framework. The framework explains the 3 variables that most influence socio-economy impact. The independent variable REP System with a total score of 0.9 reflects as the most significant positive influence to the dependent variable. Even though the impact factor is not as high as the REP System, the variables REP program and REP Motivation also have significant positive impact on the socio-economic with reliability score of 0.8 and 0.86 respectively, This REP System is implemented with the relevance of the proven reliability score, which result in significant impact on the concept of an independent campus. Thus the 3 variables REP Program, REP Motivation and REP System, is said to support strongly on the implementation of Independent Campus during the Covid-19 pandemic conditions, because they have significant positive impact on socio-economy in Indonesia. There are possibly other variables besides REP Program, Motivation and REP System that affect the socio-economy, but the impact is predicted to be not significant.

5. Conclusion

The Kampus Merdeka is an autonomy change in the paradigm of freedom for educational institutions, bureaucratic freedom for lecturers and students are given the freedom to choose their preferred field so that a more innovative learning culture. Where the independent campus is believed to be an effort in freeing the education system that better supports students and lecturers in socio-economic to achieve quality learning in the face of the Covid-19 pandemic. Kampus Merdeka is quite attached to socio-economic status in Indonesia. Where, the Ministry of Education and Culture itself carries out the President's order regarding the Merdeka Campus to have a significant impact on socio-economic. However, because of the current Covid-19 pandemic, the Kampus Merdeka is less significant. So this study discusses the digital transformation for higher education with the REP (Raharja Enrichment Program) system.

The results of the REP program analysis that combines three methods, namely MOOC, Gamification and iLearning can have a significant impact on socio-economic where great benefits are felt by students and also universities. From the reliable test conducted on the REP program getting 0.81> 0.6, meaning that students get the opportunity for students to hone skills by learning more knowledge without having to worry about being limited by time, place and the existence of the covid-19

pandemic. Reliable test Students' motivation gets 0.86> 0.6; this indicates that the gamification of learning becomes more interactive, exciting and able to provide a spirit effect that arouses student motivation. Reliable testing of the REP system gets a result of 0.90> 0.6, indicating that the presence of the REP system makes it easier for students and also universities so that research continues to provide great benefits for universities because of quality research, universities get high accreditation. Also, higher education does not need to worry because of the covid-19 pandemic, which causes the REP system hampers the learning process, all problems can be resolved.

It can continue to develop in further research. That the REP system can be developed into more sophisticated and decentralized technology using the Blockchain. Where Blockchain also has not been so widely applied in the world of education, so this can be future work that is very useful globally.

Acknowledgements

References

1. F. Reiss, "Socioeconomic inequalities and mental health problems in children and adolescents: A systematic review," Soc. Sci. Med., vol. 90, pp. 24–31, 2013, doi: 10.1016/j.socscimed.2013.04.026.
2. D. Hartas, "Families' social backgrounds matter: Socio-economic factors, home learning and young children's language, literacy and social outcomes," Br. Educ. Res. J., vol. 37, no. 6, pp. 893–914, 2011, doi: 10.1080/01411926.2010.506945.
3. WHO, "WHO Coronavirus Disease (COVID-19)," 2020. .
4. Kementerian Kesehatan Republik Indonesia, "Info Infeksi Emerging Kementerian Kesehatan RI," Jakarta, ID: Kementerian Kesehatan Republik Indonesia, 2020. .
5. S. Watini, Q. Aini, A. Khoirunisa, and U. Rahardja, "Assessment System for Testing the Evaluation of Diversity in Traditional Malay Dance by Early Childhood Students," Int. J. Psychosoc. Rehabil., vol. 24, no. 8, pp. 2721–2729, 2020, doi: 10.37200/IJPR/V24I8/PR280291.
6. M. W. Fong et al., "Nonpharmaceutical Measures for Pandemic Influenza in Nonhealthcare Settings-Social Distancing Measures," Emerg. Infect. Dis., vol. 26, no. 5, pp. 976–984, 2020, doi: 10.3201/eid2605.190995.
7. Made Anthony Iswara, "ADB projects Indonesia's economy to grow 2.5% in 2020," The Jakarta Post, 2020. .
8. Asian Development Outlook (ADO), "Indonesia's Economic Growth to Slow in 2020 on COVID-19 Impact, but Gradual Recovery Expected in 2021," Asian Development Outlook (ADO), 2020. .
9. Kemdikbud, "Merdeka belajar: Kampus Merdeka," Kementeri. Pendidik. Dan Kebud., pp. 1–19, 2020, doi: https://doi.org/10.31219/osf.io/sv8wq.
10. S. Saptawartono, K. Widen, H. Segah, and Y. Yanarita, "Socio-Economic Condition of Communities in Resolving Conflicts in the Bukit Tangkiling Conservation Area," J. Ilmu Sos. dan Ilmu Polit., vol. 23, no. 2, p. 150, 2019, doi: 10.22146/jsp.44308.
11. B. K. Prahani et al., "The Concept of" Kampus Merdeka" in Accordance with Freire's Critical Pedagogy," Stud. Philos. Sci. Educ., vol. 1, no. 1, pp. 21–37, 2020.
12. Permendikbud Nomor 3 Tahun 2020 tentang Standar Nasional Pendidikan Tinggi. .
13. Permendikbud Nomor 4 Tahun 2020 tentang Perubahan Perguruan Tinggi Negeri menjadi Perguruan Tinggi Negeri Badan Hukum. Kemendikbud: Jakarta. .
14. Permendikbud Nomor 5 Tahun 2020 tentang Akreditasi Program Studi dan Perguruan Tinggi. Kemendikbud: Jakarta. .
15. Permendikbud Nomor 6 Tahun 2020 tentang Penerimaan Mahasiswa Baru Program Sarjana pada Perguruan Tinggi Negeri. Kemendikbud: Jakarta. .
16. Permendikbud Nomor 7 Tahun 2020 tentang Pendirian, Perubahan, Pembubaran Perguruan Tinggi Negeri, dan Pendirian, Perubahan, Pencabutan Izin Perguruan Tinggi Swasta.

Kemendikbud: Jakarta. .

17. Nizar, "Buku Panduan Merdeka Belajar - Kampus Merdeka," 2020.

18. Dwi Murdaningsih, "UGM Siap Dukung Kebijakan Kampus Merdeka," REPUBLIKA.CO.ID, YOGYAKARTA -, 2020. .

19. R. C. Chick et al., "Using Technology to Maintain the Education of Residents During the COVID-19 Pandemic," J. Surg. Educ., 2020, doi: 10.1016/j.jsurg.2020.03.018.

20. K. F. Hew and C. K. Lo, "Flipped classroom improves student learning in health professions education: A meta-analysis," BMC Med. Educ., vol. 18, no. 1, pp. 1–12, 2018, doi: 10.1186/s12909-018-1144-z.

21. Q. Aini, S. Riza Bob, N. P. L. Santoso, A. Faturahman, and U. Rahardja, "Digitalization of Smart Student Assessment Quality in Era 4.0," Int. J. Adv. Trends Comput. Sci. Eng., vol. 9, no. 1.2, pp. 257–265, Apr. 2020, doi: 10.30534/ijatcse/2020/3891.22020.

22. Q. Aini, A. Badrianto, F. Budiarty, A. Khoirunisa, and U. Rahardja, "Alleviate Fake Diploma Problem In Education Using Block Chain Technology," J. Adv. Res. Dyn. Control Syst., vol. 12, no. 2, pp. 1821–1826, 2020, doi: 10.5373/JARDCS/V12I2/S20201225.

23. Sudaryono, N. Lutfiani, Suseno, and Q. Aini, "Empirical Study of Research Performance Leading to Education 4.0 using the iLearning Method," Int. J. Adv. Trends Comput. Sci. Eng., vol. 8, no. 1.5, pp. 264–268, Nov. 2019, doi: 10.30534/ijatcse/2019/4681.52019.

24. D. M. Bohman and G. Borglin, "Student exchange for nursing students: Does it raise cultural awareness'? A descriptive, qualitative study," Nurse Educ. Pract., vol. 14, no. 3, pp. 259–264, 2014, doi: 10.1016/j.nepr.2013.11.006.

25. T. Marksteiner, S. Janke, and O. Dickhäuser, "Effects of a brief psychological intervention on students' sense of belonging and educational outcomes: The role of students' migration and educational background," J. Sch. Psychol., vol. 75, no. July, pp. 41–57, 2019, doi: 10.1016/j.jsp.2019.06.002.

26. N. McElvany et al., "Attainment-aspiration gap in students with a migration background: The role of self-efficacy," Learn. Individ. Differ., vol. 65, no. February 2015, pp. 159–166, 2018, doi: 10.1016/j.lindif.2018.05.002.

27. N. Nurmukhametov, A. Temirova, and T. Bekzhanova, "The Problems of Development of Distance Education in Kazakhstan," Procedia - Soc. Behav. Sci., vol. 182, pp. 15–19, 2015, doi: 10.1016/j.sbspro.2015.04.729.

28. O. E. M. Khalil, "Students' experiences with the business internship program at Kuwait University," Int. J. Manag. Educ., vol. 13, no. 3, pp. 202–217, 2015, doi: 10.1016/j.ijme.2015.05.003.

29. M. A. Martín-Lara, I. Iáñez-Rodríguez, and G. Luzón, "Improving the internship experience in the master of chemical engineering at the University of Granada," Educ. Chem. Eng., vol. 26, pp. 97–106, 2019, doi: 10.1016/j.ece.2018.07.003.

30. M. L. Horning, L. Ostrow, P. Beierwaltes, J. Beaudette, K. Schmitz, and J. A. Fulkerson, "Service learning within community-engaged research: Facilitating nursing student learning outcomes," J. Prof. Nurs., no. April, pp. 0–1, 2020, doi: 10.1016/j.profnurs.2020.04.005.

31. J. Gardner and J. Emory, "Changing students' perceptions of the homeless: A community service learning experience," Nurse Educ. Pract., vol. 29, no. April 2017, pp. 133–136, 2018, doi: 10.1016/j.nepr.2018.01.001.

32. E. W. Pratiwi, "DAMPAK COVID-19 TERHADAP KEGIATAN PEMBELAJARAN ONLINE DI SEBUAH PERGURUAN TINGGI KRISTEN DI INDONESIA Ericha Windhiyana Pratiwi Universitas Kristen Satya Wacana THE IMPACT OF COVID-19 ON ONLINE LEARNING ACTIVITIES OF A," Perspekt. Ilmu Pendidik., vol. 34, no. 1, 2020, doi: 10.21009/PIP.341.1.

33. Q. Aini, U. Rahardja, and T. Hariguna, "The antecedent of perceived value to determine of student continuance intention and student participate adoption of ilearning," Procedia Comput. Sci., vol. 161, pp. 242–249, 2019, doi: 10.1016/j.procs.2019.11.120.

34. I. U. Rahardja and S. Raharja, "Artificial informatics," 2009 4th IEEE Conf. Ind. Electron. Appl. ICIEA 2009, pp. 3064–3067, 2009, doi: 10.1109/ICIEA.2009.5138764.

35. U. Rahardja, T. Hariguna, and W. M. Baihaqi, "Opinion mining on e-commerce data using sentiment analysis and k-medoid clustering," Proc. - 2019 12th Int. Conf. Ubi-Media Comput.

Ubi-Media 2019, pp. 168–170, 2019, doi: 10.1109/Ubi-Media.2019.00040.

36. Q. Aini, T. Hariguna, P. O. H. Putra, and U. Rahardja, "Understanding how gamification influences behaviour in education," Int. J. Adv. Trends Comput. Sci. Eng., vol. 8, no. 1.5 Special Issue, pp. 269–274, 2019, doi: 10.30534/ijatcse/2019/4781.52019.

37. U. Rahardja, Q. Aini, Y. I. Graha, and M. R. Tangkaw, "Gamification Framework Design of Management Education and Development in Industrial Revolution 4.0," J. Phys. Conf. Ser., vol. 1364, no. 1, pp. 0–13, 2019, doi: 10.1088/1742-6596/1364/1/012035.

38. A. R. Hidayah, "Persecution Act as Filter Bubble Effect: Digital Society and The Shift of Public Sphere," J. Ilmu Sos. dan Ilmu Polit., vol. 22, no. 2, p. 112, 2019, doi: 10.22146/jsp.33244.