
Digital Education Impact during Pandemic and Entering New Normal in 5.0 Society located in Tobelo, North Halmahera-Indonesia

Audy A Kenap^{*}
Eddy Kembuan^{}**
Henri Tondo^{*}**
Drevy Malalantang^{**}**

Abstract

The research was focus on impact of digital education since the global pandemic was officially declared by the world health agency on March 2020. The purpose of this research would discuss the impact of digital learning during and post Covid-19 pandemic from elementary to senior high school favourite in Tobelo, North Halmahera, Indonesia. Tobelo was an ex-conflict area with riot mass in 1999. The research would identified the education side; curriculum, human resources, facilities include infrastructures. The use of digital devices was increased and the internet use by up to 40% since the Covid-19 pandemic began. The teachers, students and parents level of digital literacy was varies until schools took policy, even broke the rule at that time, as long as the learning activities achieved. Interviews with Head Master, Curricullum section, teacher, Department of Education and Culture found that the ammount of teachers with Information and communication technology background not enough and they are not distributed well. Educations stake holder forced to adapt with digital learning, commonly buy smart phone mainly for education equipment and communication after pandemic, entering new normal in 5.0 society.

Keywords:

Digital Education;
GMIH;
Ex-conflict;
New Normal;
5.0 Society.

Copyright © 2023 International Journals of Multidisciplinary Research Academy. All rights reserved.

Author correspondence:

Audy A Kenap,
Engineering Faculty, Informatics Program Studies
Manado State University, Jl. Kampus Unima, Minahasa, Manado-Indonesia
Email: audyakenap@unima.ac.id

1. Introduction

Digitalizations become main indicator in modern society while entering the 5.0 society era. It covers all human life world wide activities, more over in pandemic time (Chriscaden, 2020). From education side, pandemic changed the methode of learning from offline to online learning drastically. Digital technology could help accelerate learning with the ability to adapt to the needs of learners in addition to facilitating learning administration such as learning process control, evaluation process and learning outcomes. In wholeistic learning, other important notes need to be documented, such as individual academic abilities that require special attention both the talented and less talented. The application of digital learning requires preparation in terms of content and non-content, such as understanding the use of digital aids, interaction with the equipment used so that learning activities can run well. Related to our personal live and business, when we gained skill well access the digital world and afford all the need of consumer, digital technology possible to support us to make new product and

^{*}Lecturer, Informatics Program Studies, Manado State University Minahasa, Manado-Indonesia

^{**}Dean, Engineering Faculty, Manado State University, Minahasa, Manado-Indonesia

^{***}Researcher, Badan Riset dan Inovasi Nasional

^{****} Head, of STIEPAR Manado, Tourism College Manado, Indonesia

increasing efficiency(Klaus, 2016).Before pandemic, digital applications have been preceded to be applied in almost all aspect of human life. According to United Nation:" the Covid-19 pandemic has created the largest of education system in history, affecting nearly 1.6 billion learner in more than 190 countries and all continents"(United Nations, 2020) as shown by following figures :

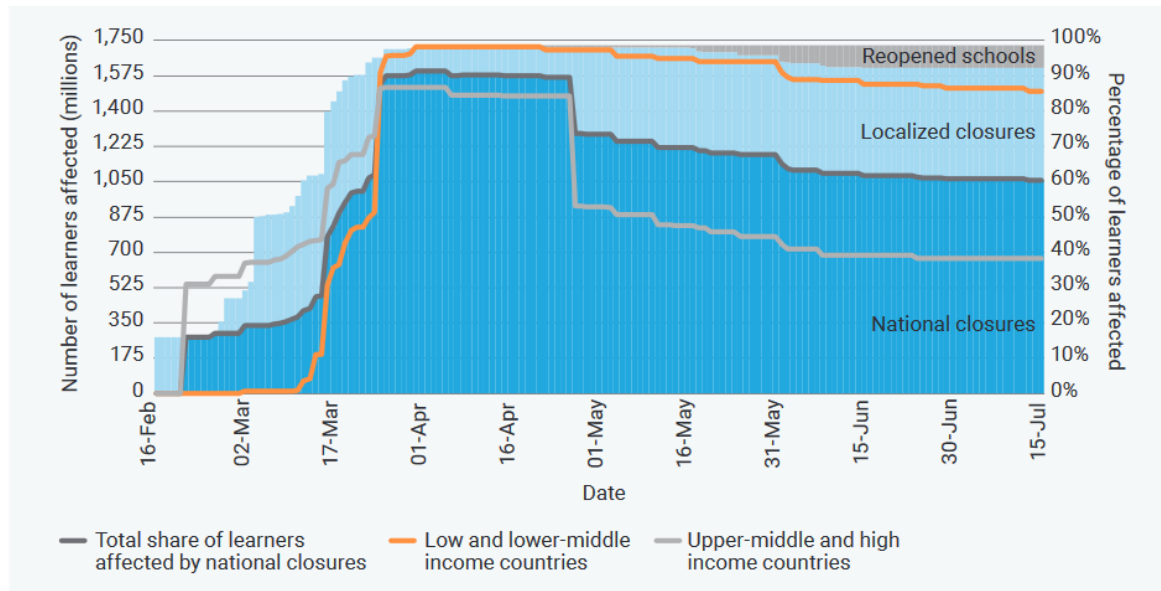


Figure 1. Number of Children Affected by School Closures Globally(UNESCO, 2020)

Source: <https://en.unesco.org/covid19/educationresponse>, modified by author

In Indonesia, the researches related to online learning were giving various results. As summarize by Wandik in his paper, there are 86,3 % support implementation and 77% expresses satisfaction about online learning (Saifuddin, 2018) and contrary, Cahyawati(Cahyawati & Gunarto, 2020) found that only 15 percent of students agree with online learning(Wandik et al., 2023). This contradiction could be understood while the research was depending on the situation of the place for conducting research. The teachers capability, academic atmosphere such as curriculum availability, facilities such as equipment and connection specification that support online learning. These factors were very various in Indonesian, the research result could be different, commonly the research conduct in West part of Indonesia has better facilities compare to East region.

World Economic Forum in 2015 made a survey of 800 high tech expert and executives determined a series of dates by which tipping points would be reached (Penprase, 2018). "A survey of 800 high tech experts and executives determined a series of dates by which tipping points would be reached. Examples include implantable cell phones by 2025, 80% of people with a digital presence by 2023, 10% of reading glasses connected to the internet by 2023, 10% of people wearing internet connected clothes by 2022, 90% of the world population with access to the internet by 2024, 90% of the population using smartphones by 2023, 1 trillion sensors connected to the internet by 2022, over 50% of internet traffic directed to homes and appliances by 2024, driverless cars making 10% of all cars in the US by 2026, and many other outcomes such as AI members of the board of directors, Ai auditors and robotic pharmacists, proliferation of bitcoin in the economy, 3D printed cars by 2022, transplants of 3D printed organs such as livers by 2024, and several others" World Economic Forum 2015(Horch, 2021). These number researches serve before pandemic, and we are sure that number of internet and digital connection was increased as report by Kompas, in June 2022, the internet user in Indonesia reach 210 million (Rianto, 2022)and according to general head of APJII (Asosiasi Penyelenggara Jasa Internet Indonesia) Mr. Muhammad Arif internet user in Indonesia reach 77,02 % in August 2022 (Liputan6.com, 2022). In this situation, the digital literacy need to understand for majority people in Indonesia.

Observations in North Halmahera district, especially in the city of Tobelo, the number of teaching staff with an Information and Communication Technology Education background varies greatly, we found there are even schools that have more than one thousand students, and do not have any teachers with information technology education backgrounds.The teacher did learning related to information and communication technology only have theology background (even term 2021/2022) with so many extra effort. She must learn new thing, especially the content that related to hardware and fundamental theory of computer. This teacher was quite fluntly for tools that

used for learning distance such as zoom application, google classroom, word processing and spreadsheet application. Digital literacy is needed in the era of society 5.0 in the rapid development of more complex information and communication technology advances which are spurred by the increasing use of information technology in the era of the new normal order caused by covid-19. This pandemic has become a significant global obstacle as it has impacted people's lives in various sectors, including social, economic and education (Tukiran et al., 2022).

Digitalization occurs in almost all areas of human life, including essential fields such as Education, Health, Government, Employment, and Economy including Banking and even in our life itself. The complexity of digital development and its use requires proper analysis so that its use can be optimal. Adjustments to local conditions are adjusted to the level of education and regional needs, so that program targets in the field of education can be achieved, including the use of regional languages and cultures that have the potential to become extinct. The use of digital technology in learning by emphasizing the ease and quantity of learning targets can provide maximum results in its achievement, not only in learning regional languages in local contexts, but other foreign languages in a global context and Indonesian as a unifying language.

The role of digital technology in learning can help targets in education management including accelerating the dissemination of learning materials and objectives as well as administration in essential learning activities such as good local language and indigenous learning. Digital education could be used to learn the local context such as local language and indigenous culture due to the situation of the region). Sad to say that this area was experiencing mass riot in 1999-2000, with the atmosphere of research need to adjust with the situation of interviewee that have conflict several decade ago. North Halmahera, Capital Tobelo, consist of 197 village with 197.638 population live in 3.891,62 km² which located 1057' North Latitude – 3000' South Latitude and 127017' East Longitude – 129008' East Longitude (Pemkab Halut, 2022).

2. Research Method

The used of Web 2.0 was in exponential growth of exploration around the pedagogical use in recent years, especially in China (Teo et al., 2019). Another methodology, called Methodology Survey Database Index via Web 2.0 could be a powerful lure for an organization while the interactively promises to bring more employees into daily contact at lower cost (Bughin et al., 2009). Web based searching and the digital education interaction could be adjustable way to reach the purpose in adequate way. In epidemic era, it could be one of most effective way to run research activities. We could adjust the mode of synchronus and asynchronous depend on the situation needed for research.

The classic method also being used, such as a field observation, interview, literature study. We did interview with head of education authorities, planning department, curriculum section, several school headmaster and teacher, head of communication and informatics department, head of Telkom in Halmahera Utara. Interview at Sekolah Menengah Pertama (SMP) Negeri I Tobelo was done with headmaster and head of curriculum section. At SMP Negeri I Tobelo, recapitulation at 10 September 2022, there are 1107 students (Leibo, 2022) with 3 (three) teacher with information and communication technology (ICT) background. This school are lucky while they have three teachers with ICT background, two of them graduated from my institution, Universitas Negeri Manado. Student in this school was various, while they came from variety background. The situation was different with Sekolah Menengah Atas (SMA) Kristen I Tobelo, with students also more than one thousand (1000) and do not have teacher with ICT background. Teacher with religion education background teach at ICT subjek, for the learning application like google classroom, Whatsapp application run well, but said difficult to explain core in ICT subject like programming, network and computer system. Sekolah Dasar (SD) Gereja Masehi Injili Halmahera (GMIH) 4 Tobelo, have experienced with digital learning used application, only 2 students from 30 students could interact well.

Regarding the use of information and communication technology in learning, the readiness to use technology during the covid period can be said to start from the beginning in SMP Negeri I Tobelo, especially for senior teacher in the use of digital technology. Teachers are encouraged to learn to use digital information technology in teaching. The need for online learning begins March 18, 2020, with 3 teachers with educational backgrounds in information and communication technology, coincidentally 2 teachers who come from research alumni, Universitas Negeri Manado. The training on the use of information technology for teachers is carried out for 3 weeks, in the third week of training it is on demand, taking into account the service period of teachers who will retire in the near future, which is less than 2 years who generally experience difficulties in using digital technology. Changing habits in interacting with new media requires extra effort, so with the efforts made, the results achieved are quite encouraging with an achievement rate of more than 90 percent according to the principal.

The case at SD GMIH 4 with less than one percent could use the digital / smart phone technology, school ask parents to pick the content/learning material at school with health protocol. The same way also happened in SMP Kristen and SMA Kristen but the way just give solution about 50 percent that pick the learning material. This one still better than case at SD GMIH 4 with digital learning with just less than 1 percent at the earlier pandemic. And what are the causes? Based on information from interviewee, summarize below:

1. Digital literacy still need to be improved
2. Infrastructure for the internet connection still not distributed well.
3. Lack of data pulse for internet connection, and also the unfair distribution of government pulse management cause bad academic atmosphere.
4. Devices used was own by parents that used for work, so the student do not have the equipment.

Digital literacy could be understood that still need process to understand the use of new equipment for learning. The others condition that mention above could be undertand as the situation to be receive and find the solution. For example, the addition of the base transmission system was improved, and the distribution of data pulse for internet connection would be better. The devices that own by parents need to be improved, well management so it could be used and function better. As we analyzed, the most problem that happened which the memory management was not good. The capacity was almost full and most did not realized. This could be understood that social media consist of many interesting image and video and it being saved many time caused memory full, especially many of the user still not well mastering the digital literacy. This memory of course could impact the digital equipment not run well. Storage and cache memory could help erase temporary file with clear cache could help solve memory problem. As digital equipment used, the bugs, crashes and other issues are inevitable, especially as your phone gets older (Nield, 2021). It is could be understood about the dog year, that every six months the capacity of the processor could be double. On the other side, the users are still in learning adapt with new technology, the next generation available already. These cycles are not constant, except changes. Digital literacy is the key to face this currently situation and happening at present. Digital equipment has become ubiquitous in daily life for almost our activities, include work, study and research.

3. Results and Analysis

The research was challenges while we have faced the situation from academic side, education management and social problem as ex-conflict area. From academic side, educational background of the teacher, computer and internet illiteracy, and ages of the teacher could be the factors that obstruct in digital learning. The using of software used could need time and effort to adaptate. The teacher with the academic side that less support with Information and Communication Technology (ICT) literacy and computational thinking, need more effort to run the digital learning as mention. Related to education management to run the digital learning, the system design need to adjust with the culture and habit which has occurs for many years. Learning activities, evaluation, curriculum/sillaby target, need to transfer from conventional way, to digital way which is realized very chalanging. Human computer interaction need step by step change the culture to adaptate the conventional teacher to be familiar machine/screen interaction. Teacher that born on digital native, normally could easy to adaptate compare with the teacher that born earlier. But we have to realize that not all teacher come from that generation was difficult to adaptate with the new digital interface, because it also depend on the teacher it self. In my experience to train the teacher with application office at the one of good high school in Manado, North Celebes, Indonesia. We found two (2) teacher from 20 teachers in 2003 that could adaptate well with the computer interaction using office application. The teacher ages at that time around 55 years old.

Digital interaction need to train to the teachers that still need time to adaptate. Besides the new way to interact, the tool that used have so many various of platform, like smart phone, tablet, laptop, personal computer and any other more. Besides the several of platform in type, the various platform of softwares used to inteact also exist in many platform. There are still upgrade and update software version that need to follow in order to make the digital tools run well. This update is a must and this features also need the good internet connection to finish complete download so the digital toll will be "up to date" condition both hardware and software. This problem need to fix with the human resource that understand well the hardware and software used and usually graduated from proper education background and uptodate with the current ICT issues. As we know that update is almost every day and the tools need to be always connected to the internet.

The impact of digital eduation was also in economic and lifestyles. After pandemic, entering new normal, almost student even in elementary, used to use digital equipment such as smart phone. For example at *SD GMIH 4 Tobelo*, at the beginning of pandemic, less than 1 percent used smart phone, entering new normal almost all student has and uset to work school activities with smart phone. Smart phone could be used for learning, and also

communicate. This situation could be understandable, even still in a big question, whether we could learn full with the using of smart phone. For the media to receive the task may be adoptable, but full interaction with the small equipment to learning could affect the human health especially eyes health.

In Tobelo, North Halmahera, consist of 197 villages that there are school in every village; elementary and junior high school. According to head of Telkom in Tobelo, almost all villages in Tobelo have coverage with mobile signal, even in various strength of mobile signal. Almost all school in Tobelo city have connected with cable internet connection (called Indihome and some ASTInet for commercial sale). But in fact, the Indihome capacity still reach 50% of maximum 8000 (eight thousand) *satuan sambungan telepon (sst)*. There are still 4000 (four thousand) that still not used. Discussed with the head of Telkom company in Tobelo, the people in this area still think that they still not realize the benefits of internet. Besides the price was too expensive for some society, but there are people with economics side seems able to subscribe, but they didn't. This happened to the area near mining company Nusa Halmahera Minerals (NHM). There are around 2000 telephone connected from 4000 (four thousand) capacity near that mining area. There were Telkom connection (ASTInet and Indihome) and broadband connection from Kominfo (Komunikasi dan Informatika) Department. So the connection established was well prepared, but in implemetation there were some difficulties related to technical, management and human resources.

The threat that we face related to government regulation, such as the changes of education from National Education, Education and culture, Tourism and Culture that implicate was quite difficult to find the archives. For example, to find the Tobelo dictionary, we have to search for the people that ever involved in that program. Difficulties also related to ex-conflict area, while we experienced related to psychological impact with with people during research. In interview, there was any atmosphere that could be feeling as interviewer that we are going to interogate them. They react and answer with cautious as we could see from the gesture. Lucky for us there are several teacher and worker graduated from researcher universities, but the atmosphere impact as ex conflict area still affect during the interaction, especially with the people that we meet at the first time. Government of Halmahera Utara initiated Hibualamo in 2015, mean the big house, the indigenous community of north Halmahera by the decision letter of Bupati Halmahera Utara, in his exelency, Ir. Hein Namotemo, M.SP number: 189/133/HU/2015 tentang Pengakuan dan Perlindungan Masyarakat Hukum Adat Hibualamo sebagai Kesatuan Masyarakat Hukum Adat Kabupaten Halmahera Utara. The former regency of Halmahera Utara, Hein Namotemo said: "In that forum I was threatened with death. After the break for Friday, the person who made bad word of me advised me. I did say what war is for, education is gone, teachers are no longer there, there is no use for war, we make peace and we build our country. A week later, friends who refused to reconcile apparently changed" (BeritaSatu.com, 2012). Government responsible for education in conflict area was understandable. The teacher move to other area, include in reseracher area which safe for them. Means this situation still affect until in pandemic time. The role of government in this area ought to be significant expecially to develop the community from all aspect of life, which our believe, could be start from education. As unique area in Tobelo, this area has 2 (two) International school; Yayasan Manggala Perkasa and Hohidiai (Hohidiai, 2022). Other challenges related ICT teacher, when they finished study from other region (while there were still not any study program related to ICT in Tobelo) the graduated prefer to work in mining and wood company, include biggest Nickel Factory in the world (Rachman, 2023), located in South Halmahera because of revenue reason.

Table 1. The School type, Degree, ICT Resources and facilities

School	Type	Degree	ICT Teacher	ICT Module	Internet Connection	Note
SMA Kristen	Private	High School	1	v	v	Teacher not graduated in ICT background
SMA Negeri I	State	High School	3	v	v	Most favorite state senior high school
SMA Manggala Perkasa	Private	High School	1	v	v	International school
SMP Negeri I	State	Junior High School	3	v	v	Students 1107 and most pluralism school
SD GMIH 4	Private	Elementary	0	-	v	

The infrastructure also important in learning management in order to connect one another. According to Mr. Irianto, head of Telkom Company in Tobelo, almost all school in Tobelo area have connected with internet, both from two commercial offered, Indihome and AstiNet. Besides Telkom, the broadband line from Komunikasi dan Informatika Department also established in Tobelo. This is a wired system that could be complete solution for network from infrastructure side. Even it still not covers all area, but with this condition, the learning process could be run with asynchronous mode as needed. The learning management system in this research still not being applied well while the condition of the human resources was still need to be improved. As the basic of learning management consist of material, control and evaluation was available in digital feature. Besides the content, the scope of power sharing between region, province and central government become a problem. This power sharing could make more difficult especially in society 5.0. For example, regulation in education, kinderkarten until junior high school under the region level, and senior high school under province level, and higher education under central government authorities. In Informatics and communication department also has same regulation, for example name of domain under central government authorities, sub domain under province authorities (Tawaris, 2022). Interesting side to analyze was the tourism potential in Tobelo. While Halmahera Island was surrounded by sea, the beautiful Island like Tanjung Bongo, Kupa-Kupa, Tagalaya beach and Hibualamo means big house (Liputan6.com, 2021). In Tobelo, we found two international schools that prepare well education. Yayasan Manggala Perkasa that serve school from kindergarden untuk vocational school and Hohidiai serve the preparation school until junior high school (Hohidiai, 2022). Hohidiai is a Tobelo language that means the improvement continuously.

4. Conclusion

Human resource as educator need to prepare well as the lack of teacher with ICT background in this area. Teacher with this background could be the peer multiplication for the problem to fix the digital literacy. The learning management system need to socialized and implemented well related to training, inovative curriculum, digital literacy, include self upgrade for the digital equipment trouble shooting in digital education. As we know that the development and rapid development in digital technology bring the complex problem in applying this digital technology. Social and economic sector also affect by digital education like occurred at SD GMIH 4 which almost all student has smart phone for schools. As there are several international company in this area, the human resource with information technology background tend to work at company compare to be a teacher. Wealth reason becomes the main factor in this case even need to do more research for this case. The government role needs to consider as education in important for every country. More over, the education tends to frequently use the digital technology post covid-19 pandemic, entering new normal, especially in 5.0 society.

References

- [1] BeritaSatu.com. (2012, April 23). *Wawancara Bupati Halmahera Utara Hein Namotemo: Kalau Tuhan Bisa kasih Saya Jadi Tuhan Saya Akan Minta*. beritasatu.com. <https://www.beritasatu.com/news/44200/wawancara-bupati-halmahera-utara-hein-namotemo-kalau-tuhan-bisa-kasih-saya-jadi-tuhan-saya-akan-minta>
- [2] Bughin, J., Chui, M., & Miller, A. (2009, September). *How companies are benefiting from Web 2.0: McKinsey Global Survey results | McKinsey & Company*. <http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/how-companies-are-benefiting-from-web-20-mckinsey-global-survey-results>
- [3] Cahyawati, D., & Gunarto, M. (2020). Persepsi mahasiswa terhadap pembelajaran daring pada masa pandemi Covid-19. *Jurnal Inovasi Teknologi Pendidikan*, 7(2), Article 2. <https://doi.org/10.21831/jitp.v7i2.33296>
- [4] Chriscaden, K. (2020, October 13). *Impact of COVID-19 on people's livelihoods, their health and our food systems*. <https://www.who.int/news/item/13-10-2020-impact-of-covid-19-on-people's-livelihoods-their-health-and-our-food-systems>
- [5] Hohidiai. (2022, September 10). Hohidiai. *Sekolah Hohidiai*. <https://hohidiai.sch.id/faqs/>
- [6] Horch, D. (2021). THE IMPACT OF THE COMPUTATIONAL INTELLIGENCE ON HIGHER EDUCATION (HE4.0): A STUDY OF MASSIVE ONLINE OPEN COURSE. *British International Journal of Education And Social Sciences*, 8(8), 43–51.
- [7] Klaus, S. (2016, January 14). *The Fourth Industrial Revolution: What it means and how to respond*. World Economic Forum. <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>
- [8] Leibo, A. (2022, September 10). *Data Pokok SMP NEGERI 1 HALMAHERA UTARA - Pauddikdasmen*. <https://dapo.kemdikbud.go.id/sekolah/72353961B651A61250FB>
- [9] Liputan6.com. (2022, August 3). *Ketum APJII: 77 Persen Orang Indonesia Kini Terhubung ke Internet, Perlu Literasi Digital*. liputan6.com. <https://www.liputan6.com/tekno/read/5032470/ketum-apjii-77-persen-orang-indonesia-kini-terhubung-ke-internet-perlu-literasi-digital>
- [10] Liputan6.com, H. (2021, December 29). *6 Fakta Menarik Halmahera Utara, Punya 50 Pulau dengan Keindahan Alam yang Khas*. liputan6.com. <https://www.liputan6.com/lifestyle/read/4841062/6-fakta-menarik-halmahera-utara-punya-50-pulau-dengan-keindahan-alam-yang-khas>
- [11] Nield, D. (2021, April 9). How to fix common smartphone problems. *Popular Science*. <https://www.popsci.com/fix-most-common-smartphone-problems/>
- [12] Pemkab Halut. (2022, April). *Pemkab Halut*. halmaherautarakab.go.id. <https://web.halmaherautarakab.go.id/letak>
- [13] Penprase, B. E. (2018). *The Fourth Industrial Revolution and Higher Education*. 10.
- [14] Rachman, A. (2023, June 4). *Indonesia Punya Pabrik Nikel Terbesar Dunia, Ini Pemiliknya*. CNBC Indonesia. <https://www.cnbcindonesia.com/market/20230604141600-17-442773/indonesia-punya-pabrik-nikel-terbesar-dunia-ini-pemiliknya>
- [15] Rianto, G. (2022, June 10). *Kompas.com*. Pengguna Internet di Indonesia Tembus 210 Juta pada 2022 Artikel ini telah tayang di Kompas.com dengan judul "Pengguna Internet di Indonesia Tembus 210 Juta pada 2022", Klik untuk baca: <https://tekno.kompas.com/read/2022/06/10/19350007/pengguna-internet-di-indonesia-tembus-210-juta-pada-2022?page=all>. Penulis : Galuh Putri Riyanto Editor : Yudha Pratomo Download aplikasi Kompas.com untuk akses berita lebih mudah dan cepat: Android: <https://bit.ly/3g85pkA> iOS: <https://apple.co/3hXWJ0L>. <https://tekno.kompas.com/read/2022/06/10/19350007/pengguna-internet-di-indonesia-tembus-210-juta-pada-2022?page=all>
- [16] Saifuddin, M. F. (2018). E-Learning dalam Persepsi Mahasiswa. *Jurnal VARIDIKA*, 29(2), Article 2. <https://doi.org/10.23917/varidika.v29i2.5637>
- [17] Tawaris, D. (2022). *Rencana Strategis Dinas Komunikasi Informatika dan Persandian 2021-2026*. <https://diskominfo.halmaherautarakab.go.id/download>
- [18] Teo, T., Sang, G., Mei, B., & Hoi, C. K. W. (2019). Investigating pre-service teachers' acceptance of Web 2.0 technologies in their future teaching: A Chinese perspective. *Interactive Learning Environments*, 27(4), 530–546. <https://doi.org/10.1080/10494820.2018.1489290>
- [19] Tukiran, M., Sunaryo, W., Wulandari, D., & Herfina. (2022). Optimizing Education Processes During the COVID-19 Pandemic Using the Technology Acceptance Model. *Frontiers in Education*, 7. <https://www.frontiersin.org/articles/10.3389/educ.2022.903572>
- [20] UNESCO, U. (2020, July). *Education: From school closure to recovery | UNESCO*. <https://www.unesco.org/en/covid-19/education-response>
- [21] United Nations, U. (2020). *Policy Brief: Education during COVID-19 and beyond*. <https://docs.edtechhub.org/lib/QLB4Z2N2>
- [22] Wandik, Y., Wanena, T., Sinaga, E., & Prima Putra, M. F. (2023). Student Attitudes and Satisfaction with Online Learning During the COVID-19 Pandemic: A Perspective from Indonesia. *International Journal of Multidisciplinary Research and Analysis*, 06(06). <https://doi.org/10.47191/ijmra/v6-i6-21>