# Learning From Experience In The Midst Of Covid -19 Challenges and Strategies in Online Teaching

VatsiniainaTatamo Sahondra<sup>1</sup>, Linda Septarina<sup>2</sup> Institute Informatika Dan Businis Darmajaya (IBI Darmajaya), Lampung Indonesia tatamovatsiniaina@gmail.com<sup>1</sup>, Lindaseptarina@darmajaya.ic.id2

Abstract: The set of a new pandemic, which named corona virus (COVID-19) during the year of 2020, brings challenges for education including transferring online courses, which gave experienced online lecturers an inherent advantage over their less tech-savvy counterparts. Online teaching poses challenges and affords opportunities for e-Learning instructors who rely on live communication through types of platform such as zoom, google meet and so on, in order to providing materials and lessons explanation. This research conducted is basic research type with the purpose to help newcomers overcome the steep learning curve associated with computer-assisted learning, this study maps expected benefits, challenges, and strategies of implementing an online e-learning course among teachers with different levels of online teaching experience. Analysis of variance across no- low-, and high-experience groups revealed several findings. Key differences between experience level included expected challenges for instructors and activity choice. Those with online teaching experience perceived fewer obstacles and used a wider array of communication channels and activities when doing so. All groups reported similar levels of expected benefits for instructors, teachers, and challenges for students. The most popular benefits, challenges, strategies, and differences between the no- and high experience groups are discussed and recommendations for future teacher training are given.

Keywords: Covid-19 Experiences. Learning Challenges of Covid-19. Online Teaching strategies challenges.

## 1. INTRODUCTION

The global spread of COVID-19 in 2020 has led to unprecedented disruptions in schooling around the world. While the precise educational effects across countries will take years to evaluate, a report that the United Nations released in the early days of the pandemic estimated the scale of the disruption. It suggested that the closure of education institutions across 166 countries prevented nearly nine in ten of the world's student population from attending in-person classes (United Nations, 2020[1]). This estimation captures the known number of learners impacted by the closure of educational institutions due to COVID-19. It is based on enrolment statistics at pre-primary, primary, secondary and tertiary education levels that are reported in the UNESCO Institute for Statistics Database (UNESCO. (n.d.)., 2020

During the summer of 2020, the OECD released a report based on an international survey of education systems in 59 countries that captured their immediate obstacles to learning and the strategies being used to try to overcome them (Reimers, 2020[3]). Respondents included senior government officials, system-level administrators, school administrators and teachers. The authors emphasized that the closure of schools has led to a wide-spread reduction in instructional time for primary and secondary students, and that schools need to turn to alternative learning opportunities. They found that schools and governments have implemented a range of measures to mitigate the loss in instructional time, including the use of paper-based instructional packages, educational radio and television programs, and online learning tools. As crucial as these interventions have been, respondents estimated that only half of their students were able to access all or most of their curriculum through remote learning alternatives. Reimers and Schleicher note that there may still be a silver lining to these findings: if efforts to expand education access are effective, then the actions taken during the pandemic may help build the capacity to improve educational equity in the post-pandemic world (Reimers, 2020[3]).

However, students continue their education through online learning and via video calls with their teachers, especially in big cities such as Jakarta. The model is currently the best alternative as keeping schools open poses a safety risk for students.

Globally, many countries have adopted this approach. Schools in New York, the United States, prepared for online learning by distributing gadgets to their students, ensuring they had access to learning materials. As of early April, education authorities distributed around 500,000 laptops and tablets to their students, allowing them to participate in classes online.

When the first two COVID-19 cases were announced in Indonesia in early March, the country was in a panic. On March 14, Jakarta Governor AniesBaswedan announced that all schools in Jakarta were to be closed. However, many schools were not ready to apply home learning programs yet. The online classes implemented in Indonesia work differently from those in the US. This is due to a lack of preparation in this country.

student participating in the home-learning program, online school was confusing to adjust to as they had not been prepared through simulations or practices beforehand. Students reported the homelearning program to be even more stressful than regular classrooms. Some of the common reasons for this went along the lines of: "Normal classes may have been difficult, but having friends makes it so much more manageable and less stressful. Online classes take out the benefits of having friends to socialize with and being stuck alone with nothing but assignments."

Many students participating in home-learning programs also say that the workload of online classes is larger than that of regular classes. The general consensus is that home-learning programs — although highly beneficial and a good alternative to school as schools are closed — still require some getting used to by students, as it is a novel concept and not many are experienced with them.

However, although the closing of schools does have a silver lining (home-learning programs where students are still able to learn), the true sufferers of the government order of school closings are the students in less fortunate situations and the students who are in schools that are not well-funded.

This is because those students lack the devices and internet access to be able to participate in online classes, and the schools do not have the capacity to teach online. Unlike in New York where devices are distributed to students by schools and private companies, in Indonesia, there is yet to be this kind of effort.

This leaves many students in a bad spot where they are unable to receive an education. Although internet service providers have been giving out free data packages, they are simply not capable of supporting video calls on programs such as Zoom.

To further complicate things, it seems that COVID-19 will last a while in Indonesia. For context, in China, it took months for the transmissions to stabilize — and this was with a fast government response, instant lockdown and people obeying the rules and quarantine policies.

Despite the lack of a nation-wide lockdown, schools remain closed, meaning that students who have no access to a device or internet connection will have a difficult time maintaining their education. Due to these factors, they will be in a very difficult spot educationally until the COVID-19 pandemic dies down in Indonesia. In this situation, the government should make extra efforts to support the education sector and build a sense of solidarity among schools, such as by facilitating networks between international and national/public schools to share experiences and study methodologies for online teaching.

Thankfully, there are now some alternatives to online learning in which students in less fortunate situations could participate. The Education and Culture Ministry recently introduced a Belajar di Rumah (Learning at Home) program through state-owned broadcaster TVRI (for the next three months) and a platform called Guru Berbagi (Teachers Sharing), providing creating learning and teaching materials. To add on to this, however, the government should still have more offline options for students without internet access, such as the distribution of books and learning materials.

### 2. LITERATURE REVIEW

Effect of educational disruptions on student learning outcomes:

The negative effects of educational disruptions on students have been well-documented even before the pandemic. Researchers have shown that prolonged breaks from schooling can impact

performance in core subject areas. For example, Cooper et al. showed that the pause in instruction over summer break was detrimental to students' math and reading skills (Cooper, n.d. [10]). The effect on students appeared to correlate with income, with middle-class students exhibiting gains on grade-level equivalent reading tests over the summer and lower-class students exhibiting declines. These negative effects became more pronounced with increases in students' grade levels. The study traced these effects to disparate opportunities to practice and learn over summer. Other studies, however, have shown that learning gaps exacerbated by summer vacation in the United States can also be traced to differential familial and community influences, which also vary across socioeconomic levels (Alexander, 2007[11]).

- Beyond the literature on student outcomes following school breaks, research on delivering educational services during emergency situations also shows that exposure to natural disasters tends to significantly lower student test scores and academic achievement ( (Andrabi, 2020[12]; Baez, 2011[13]; Ceyhan, 2007[14]); (Frankenberg et al., 2013[15]); (Thamtanajit, 2020[16])). Studies on earthquake survivors have shown that those living closer to the fault line are likely to have lower academic scores (Andrabi, 2020[12]). A study that followed students who had survived an earthquake in Turkey found that, even six years after the event, those who were affected had lower educational attainment than their peers who did not experience the disaster (Ceyhan, 2007[14]).
- Another study that examined how severe flooding in Thailand impacted student outcomes found that affected students had significantly lower standardised test scores and educational attainment, with adverse effects most pronounced among younger students (Thamtanajit, 2020[16]). In addition to effects on student learning, disruptions in schooling also have broader impacts on student well-being. Schools serve not only as essential spaces for fostering students' intellectual growth, but also for supporting their socio-emotional development and overall wellbeing. Researchers studying the relationship between school disruptions and student well-being in the United Kingdom found that extended holidays can lead to increased anxiety, depression and loneliness among students (Morgan et al., 2019[17])

The effects are particularly pronounced among lower-income students, who tend to disproportionately experience social exclusion and isolation over summer break due to additional barriers to healthy and culturally rich activities compared to their wealthier peers (Blazer, (2011).[18]). Surveys of students in the United States during the COVID-19 pandemic indicate declines in self-reported emotional well-being during the week that most schools closed nationwide; feelings of social isolation have also been widespread, with about four in ten teens reporting that they felt "more lonely than usual" (Common Sense Media, (2020)[19]; Gilbert, (2020, April 29).[20]); School closures may also impact the well-being of many students who rely on free or discounted meals that are regularly provided by their schools for food and nutrition (UNESCO, 2020[8]). Additionally, school closures have been associated with increases in young people's exposure to violence and sexual exploitation (Baytiyeh, 2018[21]; Werber, (2015, November).[22]).

Early research suggests that the COVID-19 pandemic will likely increase children's vulnerability to domestic violence and abuse in the home. For example, an article published in a paediatrics journal noted physicians' concern that the closure of schools and heightened economic distress increases the risk of domestic violence and child neglect; the authors warn that "the COVID-19 school closures pose an imminent threat to child health and well-being" (Masonbrink, (2020).[23]).

#### 3. CONCLUSIONS

COVID-19 (CORONA Virus Disease 2019) has significantly resulted in a large number of psychological consequences. The aim of this study is to explore the impacts of Covid-19 specifically on student learning cases and to improve the big effort experiences during its existence.

Instructors across the world especially Indonesia were thrust upon the online teaching stage, allowing the comparison of expectations between teachers with and without online teaching experience. Other serious local, regional, national, and international crises may occur in the future, and educators need to develop online learning contingency plans to mitigate any anticipated educational challenges.

Several key findings were uncovered from this research due to the unique situation brought on by the coronavirus pandemic.

While returning to the face-to-face classroom, instructors can consider integrating blended learning activities in the classroom to further support and supplement regular lessons. Having an online component in a traditional, face-to-face class should make the transition to fully online learning more successful if needed for another future crisis.

Surfacing from this study was that instructors with experience teaching online use a wider array of online teaching activities and expect fewer challenges during the process. Students benefit from having an experienced CALL teacher because "knowledge is created through the transformation of experience" (Kolb, 1984, p. 38). Teachers with experience teaching online can act as a guide for the colleagues and a role model for their students. Online teaching experience transforms instructors. Over time, instructors develop more CALL teaching strategies for applying teaching knowledge in practice as system designers and course facilitators (Yang &Kua, 2020). E-Learning instructors with no online teaching experience should increase their knowledge of online teaching communication channels. A more diverse approach to communication allows for a broader spectrum of activity choices and more types of activities cater to more language learning styles (Tai, 2013) and strategies (Oxford, 2011).

Expectations are grounded in experiential knowledge allowing instructors with online teaching experience to make accurate predictions of how future courses will manifest based on their past semesters. Teaching and class expectations are less precise if grounded in supposition, and consequently more likely to lead to misaligned online curriculum and course design. False expectations may cause negative impressions by students, resulting in poor learning outcomes and low course satisfaction. Due to the timely nature of this study during the COVID-19 pandemic of 2020, it was essential to conduct the research quickly. It would have been beneficial to obtain more survey responses from participants teaching at a wider range of universities. Moreover, it would have been advantageous to conduct additional interviews and online.

Obtaining data on the benefits and challenges of online teaching during the sudden COVID-19 would also be valuable for teachers and administrators who are seeking to create mitigation plans for future crises. Additionally, follow-up research could determine if instructors plan to adapt to any of their future face-to-face classes in light of their new experiences using online teaching methods.

#### ACKNOWLEDGEMENT

We acknowledge and thank you to IIB Darmajaya

## REFERENCES

- [1] Affects Student Achievement", American Behavioral Scientist, Vol. 64/7, pp. 927-949,
- [2] Africa, https://qz.com/africa/543354/how-ebola-led-to-more-teenage-pregnancy-in-west-africa/.
- [3] Alexander, K. (2007), "Lasting consequences of the summer learning gap.", American Sociological Review, Vol. 72(2), pp. 167-180.
- [4] America., https://www.newamerica.org/weekly/schools-coronavirus-shutdowns-are-only-halfbattle/?utm\_medium=email&utm\_campaign=EdCentral%20-%20COVID19%20Edition&utm\_content=EdCentral%20-%20COVID19%20Edition+CID\_29049f638854f2edc84aa641928b0035&utm\_source=Ca mpaign% (accessed on 18 September 2020) and Society, Vol. 18/2, http://dx.doi.org/10.5751/es-05377-180216.
- [5] Andrabi, T. (2020), "Human Capital Accumulation and Disasters: Evidence from the Pakistan Earthquake of 2005.", RISE Working Paper Series. 20/039, https://doi.org/10.35489/BSG-RISEWP\_2020/039.
- [6] Azevedo, J. (2020), Simulating the potential impacts of covid-19 school closures on schooling and learning outcomes. A set of global estimates. World Bank Group.

- [7] Baez, J. (2011), "Do natural disasters affect human capital? An assessment based on existing empiricalevidence.", IZA Discussion Papers. Institute for the study of Labor (IZA) 5164,
- [8] Baytiyeh, H. (2018), "Online learning during post-earthquake school closures", Disaster Prevention and Behaviour in School-Aged Children Survey in Wales", International Journal of Environmental
- [9] Bertling, J., et al. (2020), "A tool to capture learning experiences during Covid-19: The PISA Global Crises Questionnaire Module", OECD Education Working Papers, No. 232, OECD Publishing, Paris, https://doi.org/10.1787/9988df4e-en.
- [10] Bettinger, E. (2020), Does edtech substitute for traditional learning?experimental estimates of the
- [11] Blazer, C. ((2011).), "Summer learning loss: Why its effect is strongest among low-income students and
- [12] Ceyhan, E. (2007), "Earthquake survivors' quality of life and academic achievement six years after the Changing Education", OECD Publishing, Paris,
- [13] Clements, D. ((2003)), Engaging young children in mathematics: Standards for early childhood
- [14] Common Sense Media ((2020)), "How teens are coping and connecting in the time of the Coronavirus.",
- [15] Cooper, H. (n.d.), "The effects of summer vacation on achievement test scores: A narrative and metaanalytic review", Review of Educational Research, Vol. 66(3), pp. 227-268.
- [16] Creed, C. ((2014).), "Continuity education in emergency and conflict situations: The case for using open,
- [17] Davies, L. ((2011).), Understanding education's role in fragility: Synthesis of four situational analyses of distance and flexible learning", Journal of Learning for Development, 1(3), earthquakes in Marmara, Turkey. Disasters,", Vol. 31(4),, pp. 516-529.
- [18] EdSurge., https://www.edsurge.com/news/2020-04-29-how-to-help-students-navigatethis-socialemotional-rollercoaster. (accessed on 24 August 2020,).
- [19] EDU/WKP(2020)20
- [20] education and fragility: Afghanistan, Bosnia and Herzegovina, Cambodia, Liberia UNESCO.
- [21] Education Endowment Foundation. (2019), Digital technology Moderate impact for moderate cost based educational production function (No. w26967)., National Bureau of Economic Reserch.
- [22] European Journal of Research and Reflection in Educational Sciences, 3(2), pp. 25-36.
- [23] Export options: EndNote, Zotero, BibTeX, RefWorks, Procite, Import into RefWorks, Mendeley
- [24] Frankenberg, E. et al. (2013), "Education, Vulnerability, and Resilience after a Natural Disaster", Ecology Gaps: A Validation and Extension of the Technology Maintenance Construct", Communication
- [25] Gilbert, C. ((2020, April 29).), How to help students navigate this social-emotional rollercoaster.
- [26] Gonzales, A., J. McCroryCalarco and T. Lynch (2018), "Technology Problems and Student Achievement
- [27] Hanushek, E. (2020), The economic impacts of learning losses. Education Working Papers, No. 225., how it can be combated. Information Capsule,", Research Services, Miami-Dade County Public
- [28] http://dx.doi.org/10.1177/0002764220919145.

- [29] http://dx.doi.org/10.1353/jda.2020.0042.
- [30] http://uis.unesco.org/. (accessed on 24 August 2020).
- [31] http://www.ftp.iza.org/dp5164.pdf.
- [32] http://www.oecd.org/education/The-economic-impacts-of-coronavirus-covid-19-learning-losses.pdf.
- [33] https://en.unesco.org/covid19/educationresponse/consequences. (accessed on 24 August 2020).
- [34] https://files.eric.ed.gov/fulltext/EJ1106122.pdf.
- [35] https://globaled.gse.harvard.edu/files/geii/files/education\_continuity\_v3.pdf. (accessed on
- [36] https://www.brookings.edu/blog/education-plus-development/2020/04/29/the-covid-19-cost-of-schoolclosures/. (accessed on 29 April 2020).
- [37] https://www.commonsensemedia.org/sites/default/files/uploads/pdfs/2020\_surveymonke y-keyfindings-toplines-teens-and-coronavirus.pdf.
- [38] https://www.oecd.org/pisa/sitedocument/PISA-2021-questionnaire-framework.pdf.
- [39] https://www.researchgate.net/profile/Janet\_Raynor/publication/277743233\_Open\_and\_di stance\_learning\_for\_basic\_education\_in\_South\_Asia\_its\_potential\_for\_hard\_to\_reach\_c hildren\_and\_children\_in\_c
- [40] https://www.researchgate.net/publication/343219357\_Learning\_from\_experience\_in\_the \_\_midst\_of\_COVID-19\_Benefits\_challenges\_and\_strategies\_in\_online\_teaching Institute of Statistics..
- [41] Ishmael, K. ((2020, March 16).), For Schools, Coronavirus Shutdowns Are Only Half the Battle. New
- [42] Management: An International Journal, Vol. 27/2, pp. 215-227, http://dx.doi.org/10.1108/dpm-07-
- [43] Masonbrink, A. ((2020).), "Advocating for children during the COVID-19 school closures", Pediatrics, mathematics education., Routledge.
- [44] Mental Wellbeing on Return to School: Analysis of the School Health Research Network/Health
- [45] Morgan, K. et al. (2019), "Socio-Economic Inequalities in Adolescent Summer Holiday Experiences, and
- [46] Morpeth, R. (2009), "Open and distance learning for basic education in South Asia: Its potential for hard
- [47] OECD (2015), Students, Computers and Learning: Making the Connection, PISA, OECD Publishing,
- [48] OECD. ((2017).), PISA 2015 Technical Report, Chapter 9: Scaling PISA Data. PISA, OECD Publishing,
- [49] OECD. ((2019).), PISA 2021 Content Questionnaire Framework (Field Trial Version)., on extensive evidence,
- [50] https://educationendowmentfoundation.org.uk/evidence-summaries/teachinglearningtoolkit/digital
  - technology/.onflict\_and\_disaster\_areas/links/5c4ecade299bf12be3e8eeb7/Open-a.
- [51] Paris, https://dx.doi.org/10.1787/9789264239555-en.
- [52] Paris.,https://www.oecd.org/pisa/data/2015-technicalreport/09\_Chapter\_09\_PISA2015.pdf.
- [53] Petko, D. ((2017).), "Perceived quality of educational technology matters: A secondary analysis of Psacharopoulos, G. (2020), The COVID-19 Cost of School Closures,
- [54] Radwan, E., A. Radwan and W. Radwan (2020), "The Mental Health of School Students and the COVID19 Pandemic", Aquademia, Vol. 4/2, p. ep20020, http://dx.doi.org/10.29333/aquademia/8394.

- [55] Reimers, F. (2020), "Schooling Disrupted, Schooling Rethought: How the Covid-19 Pandemic is
- [56] Reisdorf, B., W. Triwibowo and A. Yankelevich (2020), "Laptop or Bust: How Lack of Technology
- [57] Research and Public Health, Vol. 16/7, p. 1107, http://dx.doi.org/10.3390/ijerph16071107.
- [58] Research, Vol. 47/5, pp. 750-770, http://dx.doi.org/10.1177/0093650218796366.
- [59] Research, Vol. 54(8),, pp. 1070-1091.
- [60] Schools, Vol. Volume 1011, https://files.eric.ed.gov/fulltext/ED536514.pdf.
- [61] Severe Floods in Thailand", Journal of Developping Areas, Vol. 54(4).
- [62] Severe Floods in Thailand", The Journal of Developing Areas, Vol. 54/4,
- [63] Shahidul, S. (2015), "Factors contributing to school dropout among the girls: A review of literature",
- [64] students' ICT use, ICT-related attitudes, and PISA test scores", Journal of Educational Computing
- [65] Thamtanajit, K. (2020), "The Impacts Of Natural Disaster On Student Achievement: Evidence From
- [66] Thamtanajit, K. (2020), "The Impacts Of Natural Disaster On Student Achievement: Evidence From
- [67] The Brookings Institution., https://www.brookings.edu/blog/educationplusdevelopment/2020/04/10/top-10-risks-and-opportunities-for-education-in-the-faceof-covid-19/
- [68] to reach children in conflict and disaster areas. UNICEF, Nepa: Kathmandu",
- [69] UNESCO (2020), Adverse consequences of school closures. UNESCO.,
- [70] UNESCO. (n.d.). (2020), "Data for the sustainable development goals.", UNESCO Institute of Statistics.,
- [71] UNESCO. (n.d.). (Retrieved August 24, 2020), Data for the sustainable development goals. UNESCO
- [72] UnitedNations(2020),https://www.un.org/sites/un2.un.org/files/sg\_report\_socioeconomic \_impact\_of\_covid19.pdf..Van Lancker, W. ((2020).), "COVID-19, school closures, and child poverty: A social crisis in the making", The Lancet Public Health, Vol.5(5),/e24e244,https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(20)30084-0/fulltext.
- [73] Werber, C. ((2015, November).), "How Ebola led to more teenage pregnancy in West Africa.", Quartz
- [74] Winthrop, R. ((2020, April 10).), Top 10 risks and opportunities for ed*ucation in the face of COVID-19*.