

***New trends in pedagogical assessment in the post Covid-19 Era.  
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By

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**ABSTRACT**

The COVID-19 pandemic has forced sudden transformation in many sectors of the global community, turning the world upside down. Everything has been impacted, not excluding the education sector, which has experienced some unforeseen changes in many parts of the world. The sudden transition to online pedagogy as a result of COVID-19 in developing countries has exposed some inequalities and challenges, as well as benefits. These challenges and inequalities have now become the new realities in the educational sector of developing countries. Suggestions are provided here so that the challenges presented by the new approach can be mitigated while we come to terms with the disruptions introduced by COVID-19 to our education sector

**Introduction**

With the declaration of COVID-19 as a pandemic on 30 January 2020 by the World Health Organisation (WHO) (Sohrabi, Alsafi, O'Neill, Kerwan, & Al-Jabir, 2020), the outbreak has had tremendous effects on many of the global sectors and global systems, including, but not limited to, healthcare systems (Holshue, DeBolt, & Lindquist, 2020; Peng, Xu, & Li, 2020), agricultural sectors (Association, 2020; Rediff, 2020), manufacturing (e.g., Knieps, 2020), energy (Mohamed, 2020) and socio-economic systems (Buck, Arnold, Chazan, & Cookson, 2020; Nicola et al., 2020). The education sector has not been immune from the impact of COVID-19, as it has affected all levels of global education systems from the pre-school to the university and has also caused cancellation or postponement of academic conferences (Impey, 2020; Panesar, Dodson, Lynch, Bryson-Cahn, Chew, & Dillon, 2020). One of the policies or measures adopted by the countries all over the world in preventing the spread of the disease involves the complete closure of schools and educational facilities (e.g. Alsafi, Abbas, Hassan, & Ali, 2020; Harvard University, 2020; Pather et al., 2020), thereby affecting over 900 million of students globally (according to UNESCO, 2020).

As with other global university communities, campuses across the developing countries were closed and classes suspended, while administrators scrambled to convert the traditional classes to online formats. Similarly, with the arrival of COVID-19 on the shores of the Cooperative Republic of Guyana in South America on 11 March 2020, traditional face-to-face classes were cancelled, campuses of the university of Guyana were placed on lock-down and efforts were made to transfer classes online. While it is easier for tertiary institutions in the developed

countries to migrate to online and virtual teachings (Langford & Dams, 2000), the COVID-19 has made it compulsory for tutors/lecturers in developing nations to rapidly adopt, consolidate and/or embrace the use of technology for survival at this challenging time.

The main purpose of this article is to provide a rapid assessment of the benefits of the online mode and the challenges that accompany the dynamics of this pedagogy. The paper also seeks to provide suggestions to improve teaching and learning using online facilities in times of pandemics and unrest, especially in the developing and least developed countries. It is hoped that this contribution provides an addition to the growing body of knowledge on the impacts of COVID-19 on education sectors, especially in the developing countries.

### **At the beginning**

With the confirmation of COVID-19 in Guyana on 11 March 2020, The Ministry of Education declared total closure of all schools in Guyana for two weeks initially from 16 March 2020. This was later extended for another two weeks as the nation was monitoring the trend of the spread of the disease. All schools were then closed to face-to-face classes indefinitely. Working under the guidance and advice of the Government, the University of Guyana's Transition Management Committee (TMC) released the directives which closed the university to the teaching staff and students and only allowed some non-teaching, but essential staff on its physical campus initially before including all staff when the total lock-down was declared. The university administration thereafter set up several communication channels to update the university staff and students on various measures being put in place for the rapidly-changing circumstances in the country and the world. The principal avenues used for these communications were emails and university webpages (public and intranet). There were several communiqués that were released in quick successions as the university was grappling with how to respond to the challenges. With the departments and the faculties being asked to move their teachings online, educators were forced to look for solutions to many challenges posed by the sudden change. This is because the guidance and directives meant moving teaching online within hours, (using Moodle and other platforms) without prior adequate provisions such as the recognition and provisions of internet access, stable power supply, licenses for online communications platforms, and other facilities that could facilitate blended and/or hybrid modes of learning were not fully in place.

### **Online Platform**

Within days of the directives, many educators and colleagues at the university started exploring all forms of available video-conferencing applications and platforms. Forms such as GoToMeeting, Skype, WhatsApp, ezTalk, emails, BlueJeans, and Zoom were used in addition to the Moodle platform used by the university. Based on the relatively positive experience of many colleagues with the use of the Zoom platform, the university purchased Zoom Enterprise versions for use by lecturers and with the help of the University's Software Department, this was integrated into the university's learning platform, Moodle. Presently, virtually all

programmes for the second semester are over and there is no doubt that the online mode has proven to be the saving grace for the completion of the semester in difficult times.

### **Scope**

The basis of this write-up and evaluation is on the writer's informal conversations with colleagues and students, class experience, observations during virtual presentations, assignments, and a review of the literature while utilizing the dynamics of online teaching. The inferences and suggestions presented here are based on opinions and perspectives from the writer's experience and what was gathered from the literature

### **The Benefits**

At the University of Guyana, staff and students were able to transition to the online mode despite the suddenness of this change. Some of the benefits of this transition are itemized below: General benefits

-The use of online resources thrived significantly among other resources at this time as many lecturers and students were able to search for information and materials through online blogs, papers, websites, and other related resources.

– Another benefit of the transition to online teaching is the opportunity for live cloud recordings of teachings, meetings, lectures and other interactions.

Personal growth and development benefit

- ❖ Increase in the use of available resources. Moodle and other platforms that were under-utilized before COVID-19 became intensely utilized and widely- used during this period. It is of significance that online facilities, which were already in place in the university but were in minimal use prior to COVID-19 by both lecturers and students, proved to be extremely useful tools during the transition.
- ❖ Exposure to several sessions of training organized by the university's Software Department for lecturers on various forms of digital learning and education; and also, the sharing of materials and videos for the benefit of lecturers by colleagues and university administration.
- ❖ Upgrading of new technologies for the university: purchase of many facilities and licenses, especially add-ons, to support the university's Moodle (online learning platform) and Zoom video conferencing,

Pedagogical benefits/changes

– Students and staff were able to explore different learning options using technology and other online tools for instruction and learning.

– Lecturers and the university administration explored the opportunity for the development of blended learning.

- The opportunity of working remotely, which allow both staff and students to continue engagement outside the confines of a traditional university classroom

## Challenges

COVID-19 came abruptly with little or no preparation plan in place in some developing countries. All sectors, including education, have greatly been affected by the pandemic. In the case of Guyana, online education which has become the new normal, courtesy of COVID-19, is currently facing different kinds of challenges, some of which are classified below:

### **Lack of resources**

- Digital inequalities among students and staff were suddenly laid bare, as there is no internet accessibility in many of the villages in the hinterland areas where some students and staff are domiciled. – Unavailability of computers, laptops and/or tablet facilities for students to use in connecting to the online mode. Some other lecturers were affected by these inadequacies too;
- Lack of adequate prior training on the requirements of online teaching for both students and lecturers. Many lecturers and students grappled with how to function effectively using the new technologies.
- Lack of practical training for the students: The inability to make use of lab or fieldwork because of social distancing for courses that required the use of lab, fieldwork or practical exercises; Poor national infrastructure
- Slower internet speed at home due to sudden and unprecedented internet traffic, and the lack of preparedness of internet providers for the sudden enormous demands on their services.
- Inconsistent power supply: Unlike the developed countries, Guyana is yet to guarantee a stable power supply as there are occasions of power-cuts during the delivery of lectures, affecting both students and lecturers. Course delivery problems
- Reduced student–teacher engagement: As noted in some of my class experiences while teaching, many students no longer engage in class discussion as they do in the traditional face-to-face class and there is often little or no feedback when questions are asked. As a result, some online classes become long and sometimes stressful. It is the students who do the learning (Lavy&Naama- Ghanayim, 2020; Orkibi&Tuaf, 2017) and if they resist or minimizing their investment, attention or effort on their participation, they will only accomplish little in their learning.
- Slow and extended work: Students are unable to submit assignments when due, lecturers are unable to keep up with their schedules because of either power-cuts or internet problems.

- Compromise with deadlines: On many occasions where students and staff were unable to use technological tools to get work done in a timely manner, they were compromising with deadlines and even with the standard expected of their delivery because of other constraining factors they are confronted with.
- Limited opportunity for monitoring assessments, which has restricted many lecturers/tutors to the use of multiple-choice questions (MCQ);
- Malpractices: With the online method of testing and the realities of many students' inability to utilize video services during some live class exercises and tests because of the limitation of the technological devices, students could receive assistance and help that the instructor may not be privy to.

#### Problems facing students

- Students' inflexibility: Many students who were accustomed to the traditional face-to-face method of teaching found the online method burdensome, with some becoming rude and impolite to lecturers because of the stress experienced as a result of adjusting to online education.
- Domestic affairs: The online delivery mode forced many students to be working at home where they are under enormous distractions and other domestic issues (Sutton, 2020); and as such, most students found it challenging to maintain focus during online teaching.
- Mental health challenges: Fear and anxiety surfaced among some students as a result of the sudden change. Due to some students' inability to cope with the combination of their academic rigours and domestic challenges, depression, mental issues, and suicidal thoughts were some of the conversations that were encountered during this period.

#### Cybersecurity problem

Cybersecurity threats: With computers and other portable technological devices being entrenched in our daily educational and teaching lives driven by the migration of traditional learning to online mode, there abounds various kinds of breaches, exposure to viruses, hacking potentials, and other cybersecurity threats (Nam, 2019)

#### **Recommendations**

The University of Guyana, as an example of a university in a developing country, fared relatively well in handling the disruption caused by the COVID-19. However, based on the experience of this phenomenon, the following recommendations can further help to stabilize tertiary education systems of the developing nations during crises.

*Recognition of disparities:* Online education is new to the majority of students in developing countries, and Guyana is not an exception. Therefore, the change from traditional face-to-face learning to online should take into consideration the disparities in technology availability and usage among the student population in higher institutions. Most students in developing nations are struggling to learn and use computer tools effectively. Some students do not even have personal computers, and some are living in remote areas where there is limited or no internet access and facilities. The World Bank, in its recent report on the effect of COVID-19 pandemic on education, noted that most students will have great difficulties in transitioning to and accessing online education because many are subjected to numerous internet access and other disadvantages (World Bank, 2020). Therefore, recognition of the reality of these disparities should make the university tutors and administrators allow some flexibilities as the students migrate to the online platforms for their educational and academic needs.

Provision of technical assistance to those in need: For an easy and a successful transition to the online approach of learning, government and the university authorities should identify those in need and provide devices for free or at discounted rates. In addition, the government should provide internet hubs at strategic and safe public places in the communities where the needy students can access the needed academic and educational services. The plethora of interests in the development and application of technology to enhance qualitative teaching and learning has gathered momentum this year and this has been well-documented in the literature (Ali, 2020; CoSN, 2020; Smith & Judd, 2020; UNESCO, 2020; World Bank, 2020). However, as the World Bank noted, most education systems are not well- equipped to offer online education or transition to a blended education system because of technological deficiencies (World Bank, 2020). Hence, for the transition to online education to be effective, support is needed for the provision of infrastructural tools including hardware and software support systems (Ali, 2020). The goal here should be that no student is left behind or disadvantaged because of the student's lack of technological devices or internet access while transitioning to the online educational delivery.

Gradual transitioning: With the pandemic ravaging everywhere while everyone is asked to stay indoors, the home environment may not be suitable for learning because of other family engagements. There is, therefore, the need to make the transition to online education slow and steady so as to reduce tension and stress (Sutton, 2020). Practical training sessions: Education boards and university authorities should increase their efforts at providing free training via media such as television, radio, newspaper, social media, etc. Also, the step-by-step guidelines for the use of most of these platforms could be translated to other native languages spoken by students to enable a wider understanding of such platforms. The shift from a traditional face-to-face controlled environment to an online learning environment does require some pieces of training (Geng, Law, & Niu, 2019) and the teaching staff are encouraged to have the right attitude in embracing the new paradigm (Mirzajani, Mahmud, FauziMohdAyub, & Wong, 2016).

**Explore phone modality:** School administrations could effectively reach out and communicate timely information about the developments surrounding teaching and learning using mobile telephone communication. The needs of students nowadays have become so sophisticated that they no longer carry heavy books but phones which they also use for educational purposes. Thus, phones can be a useful tool for learning in times of crisis (Tuncay, 2016). A good example of a higher institution that explored this phone modality in ensuring that students and staff were speedily connected with, is the University of Bologna, Italy, which did not only extend the deadline for payment of tuition fees but distributed free SIM cards to students, utilising the students' easy access to phones to continue with online teaching (See Ali, 2020).

**Giving options and reassurance:** In times of crises and troubles, all forms of encouragement and reassurance should be provided. It is not every student and staff member who could rapidly innovate nor implement online learning in developing countries like those in a developed or advanced developing world where online learning is an established familiarity. Striving to make staff and students comfortable should be the utmost goal in times of crisis. Options such as giving a reduction in course loads or deferring any enormous workloads should be provided for both students and staff. The institutions that had no prior preparation or planning measures in place prior to the outbreak of COVID-19 need to consider relief measures and all forms of reassurance for their staff and students, so as to avoid every form of excessive demands or tensions following this rapid adoption of online teaching (Ali, 2020).

**Streamlining the teaching content:** Teaching contents and loads should be made easier and not monotonous. The change from face-to-face to online education should not be seen as a temporary shift of instructional delivery to alternative online delivery model due to the crisis of circumstances (Al Lily, Ismail, Abunasser, & AlhajhojAlqahtani, 2000; Hodges, Moore, Lockee, Trust, & Bond, 2020). There should be a curriculum review of face-to-face materials that are practicable for online delivery, thereby preventing the teaching contents from becoming burdensome, repetitive, non-engaging, and resulting in learning being resisted (Chizhik & Chizhik, 2009; Negiri, 2013).

**Bearable schedules:** To make life easy and bearable for everyone learning in difficult times, rigid adherence to calendar schedules, number of tests, and assignments may create a worse situation that can deflate the desire and enthusiasm for online learning. For students to be able to focus, faculty should break down contents for easier online delivery and management (Bao, 2020). Woolley (2015) observed that students believe that manageable online educational engagements could be helpful to get better results and that students who understand this are more likely to be involved in online learning and complete any assigned tasks than students who do not. It is therefore suggested that schedules for teaching, tests, assignments, and so on should be made bearable with the benefits of staff (tutor) and students in focus (Rosário et al., 2015).

Alternative assessment: Traditional forms of assessment are getting criticised these days because they leave students with a crammed knowledge for marks and not the skills they need for proficiency (Ali, 2020; Czerniewicz, 2020; Ismail, Mokhtar, Nasir, Rashid, & Ariffin, 2014; Magalhães, Ferreira, Cunha, & Rosário, 2020; Zhang, Wang, Yang, & Wang, 2020). In the light of this current pandemic, alternative forms of assessments should be considered and embraced because of their real benefits and positive outcomes. Assessments can be in the form of virtual presentations, interaction models, oral presentations, creative projects using 3-Dimensional modelling and graphics, skits or plays, blogpost journaling, one-to-one conferencing, and so on (Ali, 2020; Gipps&Stobart, 2003; Lavy&Naama-Ghanayim, 2020). These forms of assessments can be used to measure authenticity and performance (Gipps&Stobart, 2003) and could thus be a kind of a relief measure in this time of rapid pedagogical transformation.

Change letter grades to credit or no-credit: Whatever will provide relief to students and motivate them to work in an online mode should be given the utmost priority. The awarding of "credit" or "no-credit" might be the best option when the use of letter grade appears to demoralize every effort students put towards learning. As Sutton (2020) noted while arguing in favour of changing letter grades to credit or no-credit, the learning arrangement has become disruptive as a result of the pandemic, this relief should be offered to students. The consideration of credit or no-credit in replacement for letter grades is one of the suggested palliative measures at such a time as this.

## **Conclusion**

The sudden transition to online pedagogy education as a result of COVID-19 in developing countries has exposed some inequalities and challenges as well as provided some benefits. Suggestions and recommendations are provided here so that the challenges presented by the new pedagogy can be mitigated while the university system comes to terms with the disruptions introduced by COVID-19 in the higher education sector. In times of crisis, offering comfort should be the priority for both the staff and the students, and this should be the core of any teaching and learning dynamics. Further studies and research into the success or otherwise of this sudden migration from traditional face- to-face teaching to online education is therefore recommended as this will provide the necessary data and findings on how effective this sudden change has been to students, staff, and the entire university system.

## **References**

- Al Lily, A. E., Ismail, A. F., Abunasser, F. M., & AlhajhojAlqahtani, R. H. (2000). Distance education as a response to pandemics: Coronavirus and Arab culture. *Technology in Society*. <https://doi.org/10.1016/j.techsoc.2020.101317>.
- Ali, W. (2020). Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic. *Higher Education Studies*, 10(3), 16–25.
- Alsafi, Z., Abbas, A. R., Hassan, A., & Ali, M. A. (2020). The coronavirus (COVID-19) pandemic: Adaptations in medical education. *International Journal of Surgery*, 78, 64–65.
- American Veterinary Medical Association (AVMA) (2020) COVID-19: Resources for shelters,



food animal veterinarians <https://www.avma.org/blog/covid-19-resources-shelters-food-animal-veterinarians>.

Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Human Behaviour and Emerging Technologies*, 113–115. Buck, T.,

Arnold, M., Chazan, G., & Cookson, C., (2020) Coronavirus declared a pandemic as fears of economic crisis mount, <https://www.ft.com/content/d72f1e54-6396-11ea-b3f3-fe4680ea68b5>.

Chizhik, A. V., & Chizhik, E. V. (2009). Theory of resistance: lessons for students and teachers. In *Educational Psychology in Multicultural Environment* (pp. 68–74). IA Bunin: Elec: Elets State University. CoSN. (2020). COVID-19 Response: Preparing to Take School Online. [https://www.cosn.org/sites/default/files/COVID-19%20Member%20Exclusive\\_0.pdf](https://www.cosn.org/sites/default/files/COVID-19%20Member%20Exclusive_0.pdf).

Czerniewicz, L. (2020). What we learnt from “going online” during university shutdowns in South Africa. <https://philonedtech.com/what-we-learnt-from-going-online-during-university-shutdowns-in-south-africa/>.

Geng, S., Law, K., & Niu, B. (2019). Investigating self-directed learning and technology readiness in blending learning environment. *International Journal of Educational Technology in Higher Education*, 16. <https://doi.org/10.1186/s41239-019-0147-0>.

Gipps, C., & Stobart, G. (2003). Alternative assessment. In T. Kellaghan & D. L. Stufflebeam (Eds.), *International handbook of educational evaluation*. Kluwer international handbooks of education. [https://doi.org/10.1007/978-94-010-0309-4\\_33](https://doi.org/10.1007/978-94-010-0309-4_33).

Harvard University. (2020). Coronavirus (COVID-19) <https://www.harvard.edu/coronavirus>. Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning.

Educause Review, 27. Holshue, M. L., DeBolt, C., & Lindquist, S. (2020). First case of 2019 novel coronavirus in the United States. *New England Journal of Medicine*, 382, 929.

Impey, C. (2020). Coronavirus: Social distancing is delaying vital scientific research. *The Conversation* <http://theconversation.com/coronavirus-social-distancing-is-delaying-vital-scientific-research-133689>.

Ismail, M., Mokhtar, W. Z., Nasir, N. N., Rashid, N. R., & Ariffin, A. K. (2014). The development of a web-based homework system (WBH) via TCEExam. *Mediterranean Journal of Social Sciences*. <https://doi.org/10.5901/mjss.2014.v5n15p249>.

Knieps, S. (2020). Will COVID-19 turn Germany's export-oriented economy into a weakness? <https://www.euractiv.com/section/economy-jobs/news/>.

Langford, M., & Dams, C. (2000). Online Teaching in the Time of Covid-19: Academics' Experiences in Norway. Oslo, Norway. Centre for Experiential Legal Learning (CELL).

Lavy, S., & Naama-Ghanayim, E. (2020). Why care about caring? Linking teachers' caring and sense of meaning at work with students' self-esteem, well-being, and school engagement. *Teaching and Teacher Education*, 91. <https://doi.org/10.1016/j.tate.2020.103046>.

Magalhães, P., Ferreira, D., Cunha, J., & Rosário, P. (2020). Online vs traditional homework: A systematic review on the benefits to students' performance. *Computers & Education*, 152. <https://doi.org/10.1016/j.compedu.2020.103869>.

Mirzajani, H., Mahmud, R., FauziMohdAyub, A., & Wong, S. L. (2016). Teachers' acceptance of ICT and its integration in the classroom. *Quality Assurance in Education*, 24(1), 26–40. <https://doi.org/10.1108/QAE-06-2014-0025>.

Mohamed, T. (2020), 'There is no escape': Stocks, oil, and bitcoin plunge as US lawmakers fight over coronavirus rescue package|Markets Insider, [Internet]. [markets.businessinsider.com.https://markets.businessinsider.com/news/stocks/noescape-stocks-oil-bitcoin-plungesenate-argues-coronavirus-bill-2020-3-1029021850](https://markets.businessinsider.com/news/stocks/noescape-stocks-oil-bitcoin-plungesenate-argues-coronavirus-bill-2020-3-1029021850).

Nam, T. (2019). Understanding the gap between perceived threats to and preparedness for cybersecurity. *Technology in Society*, 58 101122

Negiri, V. A. (2013). Psychological problems of learning resistance. *Procedia – Social and Behavioral Sciences*, 86, 116–121.

Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., ... Agha, R. (2020). The socio-economic implications of the coronavirus pandemic (COVID-19): A review. *International Journal of Surgery*, 78, 185–193.

Orkibi, H., & Tuaf, H. (2017). School engagement mediates well-being differences in students attending specialized versus regular classes. *The Journal of Educational Research*, 110(6), 675–682. <https://doi.org/10.1080/00220671.2016.1175408>.

Panesar, K., Dodson, T., Lynch, J., Bryson-Cahn, C., Chew, L., & Dillon, J., (2020). Evolution of COVID-19 guidelines for University of Washington oral and maxillofacial surgery patient care. <https://doi.org/10.1016/j.joms.2020.04.034>.

Pather, N., Blyth, P., Jamie, A., Manisha, C., Dayal, R., Flack, N. A. M. S., ... Lazarus, M. D. (2020). Forced disruption of anatomy education in Australia and New Zealand: An acute response to the covid-19 pandemic. *Anatomical Sciences Education*, 1–14.

Peng, X., Xu, X., & Li, Y. (2020). Transmission routes of 2019-nCoV and controls in dental practice. *International Journal of Oral Science*, 12, 1.

Rediff (2020). Prices of agricultural commodities drop 20% post COVID-19 outbreak. RediffRealtimeNews. [https://realtime.rediff.com/news/india/Prices-of-agriculturalcommodities-drop-20-post-COVID19-outbreak/955078599584b749?](https://realtime.rediff.com/news/india/Prices-of-agriculturalcommodities-drop-20-post-COVID19-outbreak/955078599584b749?srcinterim_alsoreadimage)

Rosário, P., Núñez, J. C., Vallejo, G., Cunha, J., Nunes, T., Suárez, N., & Moreira, T. (2015). Teachers' homework follow-up practices and students' EFL performance: A randomized group design. *Frontiers in Psychology*, 6, 1–11.

mith, J. A., & Judd, J. (2020). COVID-19: Vulnerability and the power of privilege in a pandemic. *Health Promotion Journal of Australia*, 31(2), 158–160. <https://doi.org/10.1002/hpja.333>.

Sohrabi, C., Alsafi, Z., O'Neill, N., Kerwan, A., & Al-Jabir, A. (2020). World Health Organization declares global emergency: A review of the 2019 novel coronavirus (COVID-19). *International Journal of Surgery*, 76, 71–76.

Sutton, H. (2020). Keep your mission student-centered, even in the face of crisis. *Dean & Provost*, 21(10), 12. Tuncay, N. (2016). Smartphones as tools for distance education. *Journal of Education & Instructional Studies in the World*, 6(2), 20–30.

UNESCO. (2020). COVID-19 Educational Disruption and Response. <https://en.unesco.org/covid19/educationresponse/>.

Woolley, D. J. (2015). Which helps accounting students learn more: Traditional homework, online homework, or clickers?. *Academy of Educational Leadership Journal*, 19(3), 337–343.

World Bank. (2020). Remote Learning and COVID-19 The use of educational technologies at scale across an education system as a result of massive school closings in response to the COVID-19 pandemic to enable distance education and online learning. <file:///E:/PC/Rapid-Response-Briefing-Note-Remote-Learning-andCOVID-19-Outbreak.pdf>.

Zhang, W., Wang, Y., Yang, L., & Wang, C. (2020). Suspending classes without stopping learning: China's education emergency management policy in the COVID-19 outbreak. *Journal of Risk and Financial Management*, 13(55), 1–6. <https://doi.org/10.3390/jrfm13030055>