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Educational Challenges: Covid-19 as a Contemporary Challenge in Education

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ABSTRACT: As the potential challenge outbreak of COVID-19 continues toaffects many areas in our day to day activities especially, especially theEducational sectors, as the result, directives were issued to mobilize a national campaign through forming a various Committee for COVID-19, and taking increasingly stringent measures to halt the virus outbreak some countries. The COVID-19 pandemic has not only affected higher education but also the general educational systems on a global scale but it has also brought numerous challenges to the higher education and the general education at large. Challenges and or problems faced by many students, educational sectors and the general public as the result of Cvid-19 pandemic and some opinions, views and recommendations from various Non-Governmental Organizations and Governmental organizations, contemporarily. Although initial responses involved schools rushing to change their traditional curriculums to fit an online environment, other challenge opined is that transitioning contents to an online learning environment is not enough. It is not a simple trade-off, but one requiring a nuanced consideration of how schooling benefits children, families, and wider society. Lost schooling is likely to compromise the benefits of education, including future earnings and better job prospects. This article basically focused on some effects of Covid-19 on Children's education in Africa, prevention and control measures to be prepared and put in place in schools, some global effects of Covid-19 on Education system and views of the emergency remote teaching at Sultan Qaboos University, general analysis on impact of covid-19 on education (views under thematic series on education – November 2020), the impact/effects of covid-19 on secondary education in Africa, challenges and silver lining of higher education in time of covid-19 pandemic, challenges and silver lining of higher education in time of covid-19 pandemic.

INTRODUCTION

According to Bhagat, S., &Kim, J. D, 2020, the COVID-19 pandemic has not only affected higher education on a global scale but it has also brought numerous challenges to the higher education community. Due to the COVID-19 pandemic, there are more than 1.5 billion students in 190 countries who have not able to attend school physically (UNICEF, 2020). As such, educational institutions made a dramatic transition from traditional face-to-face learning to remote learning in a very short time period (Kandri, 2020). Initial responses from the educational institutions involved faculty rushing to change their traditional curriculum to fit an online environment, mindful of technology, learning management systems, and various online learning platforms that learners could access from home (Perrotta, 2020). However, we opine that transitioning contents to an online learning environment is not enough. It is evident that while transitions to online delivery are a necessity, overlooking online pedagogy can be equally detrimental. In essence, it has been a test of organizational digital agility on the part of the educational institution (Zhaohui, 2020), in that, this pandemic has forced the higher education sector to undergo various forms of operational changes in addition to making adjustments to course delivery methods (UNESCO, 2020).

Wikipedia, the free encyclopedia (as cited by UNESCO, 2020), the COVID-19 pandemic has affected educational systems worldwide, leading to the near-total closures of schools, universities and colleges.

Most governments around the world decided to temporarily close educational institutions in an attempt to reduce the spread of COVID-19. As of 30 September 2020, approximately 1.077 billion learners are currently affected due to school closures in response to the pandemic. According to UNICEF, 2020, monitoring, 53 countries are currently implementing nationwide closures and 27 are

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implementing local closures, impacting about 61.6 percent of the world's student population. 72 countries' schools are currently open.

According to Wikipedia, the free encyclopedia, 2020, on 23 March 2020, Cambridge International Examinations (CIE) released a statement announcing the cancellation of Cambridge IGCSE, Cambridge O Level, Cambridge International AS & A Level, Cambridge AICE Diploma, and Cambridge Pre-U examinations for the May/June 2020 series across all countries. International Baccalaureate exams have also been cancelled.[4] In addition, Advanced Placement Exams, SAT administrations, and ACT administrations have been moved online and cancelled.

School closures impact not only students, teachers, and families. But have far-reaching economic and societal consequences. School closures in response to the pandemic have shed light on various social and economic issues, including student debt,digital learning, food insecurity, and homelessness,[13][14] as well as access to childcare,[15] health care,[16] housing,[17] internet,[18] and disability services.[19] The impact was more severe for disadvantaged children and their families, causing interrupted learning, compromised nutrition, childcare problems, and consequent economic cost to families who could not work.[20][21]

In response to school closures, UNESCO recommended the use of distance learning programmes and open educational applications and platforms that schools and teachers can use to reach learners remotely and limit the disruption of education.

Report presented bySultan Qaboos University, 2020, the global impact of Covid-19 is multifaceted and is clearly manifested in almost all sectors, particularly the health, economic and education sectors. Since the announcement of the virus as a pandemic in March 2020, there have been a plethora of daily reports on its impact on the lives of millions across the world. Accordingly, every country's primary concern has become to diminish the spread of the virus and alleviate its effects on the society in general, and the most vulnerable communities in particular. Compared to its small population, the Sultanate of Oman is one of the countries that were relatively being hit hard by COVID-19. As of 17 June 2020, Oman has reported 26,079 confirmed positive cases, 116 deaths and 11,797 recovered cases (Times of Oman, 2020). Based on medical research, there seems to be a global consensus among infectious disease specialists and public health officials to limit face-to-face classes as a means of protecting the students and the community at large from the spread of the pandemic, Sultan Qaboos University, 2020 (as cited in Murphy, 2020).

Sultan Qaboos University, 2020 observed that,obviously, COVID-19 has been a real test for higher education institutions around the globe in terms of their level of readiness, flexibility and adaptability in responding to similar global crises. Nevertheless, on a bright side, it serves as an effective 'change agent' for promoting rapid adoption of e-learning in such classically change-resisting institutions. According to Lederman (2020), forthcoming normalization of the current emergency e-Learning does not necessarily mean extending the limitations placed upon face-to-face schooling, but rather, it refers to strategies that frame the prevalent adoption of online learning under COVID-19 as a pathway to a new conventional rather than an emergency response. Thus, it can be argued that, although Emergency Remote Teaching has been initially introduced as a safety and security measure to protect the community, it will eventually change the learning landscape in both schools and higher education institutions. It is important, therefore, to reflect on the lessons learned from the current experience so that higher education institutions will be better prepared for a possible extension of the emergency e-learning through the upcoming Fall semester.

Some Effects Of Covid-19 On Children's Education In Africa

According to Human Rights Watch, 2020, between April and August 2020, Human Rights Watch (HRW) conducted 57 remote interviews with students, parents, teachers, and education officials across Burkina Faso, Cameroon, the Democratic Republic of Congo, Kenya, Madagascar, Morocco, Nigeria, South Africa, and Zambia to learn about the effects of the pandemic on children's education. The research shows that school closures caused by the pandemic exacerbated previously existing inequalities, and those children who were already most at risk of being excluded from a quality education have been most affected

Children Receiving No Education

Many children received no education after schools closed across the continent in March 2020.

"My child is no longer learning, she is only waiting for the reopening to continue with her studies," said a mother of a 9-year-old girl in eastern Congo. A mother of two preschool-aged children in North Kivu, Congo, said, "It does not make me happy that my children are no longer

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going to school. Years don't wait for them. They have already lost a lot... What will become of our uneducated children? Lusenge K., 16, also from Congo, said in June she had no education after schools closed, and was concerned that she would not enter her final school year: "Lockdown is not good for me."

The director of a nongovernmental organization (NGO) in Madagascar that provides education and alternative care services to children who were previously homeless and either orphaned or unable to live with their parents said that children accommodated with host families "did not have any education during the closure." Human Rights Watch (HRW), 2020).

Children Receiving No Teaching

According to Human Rights Watch (HRW), 2020, Many children received no instruction, feedback, or interaction with their teachers."Children are not taught during this period," said an education official in Congo in June echoing the experiences of many children across the continent. Although some students had received printed assignments, she said, "We cannot say that this is normal education." One Congolese student told us, for example, "We were just told to regularly reread our notes while waiting for new instructions from the authorities… At first, I thought school would start again soon so I didn't read my notes and then when I saw that it was going to go on, I started to read them. I'd forgotten a lot." Chéckina M., 13, in Kinshasa, said she was given a study book by her school when it closed, but afterwards had no contact with her teachers. "I reread my old lessons… I find math difficult to study at home [alone]."

In Zambia, just before 15-year-old Natalie L.'s school closed, "The headmistress came through the classes and told us to study on our own." Natalie uses books she already had. "Most topics are difficult to understand without the help of a teacher." She said, "It's been a little bit nerve-racking. Next year I have my [school leaving] examination and I think I will have to work harder for that." Human Rights Watch (HRW), 2020).

Children Learning Less through Distance Education

Students frequently studied fewer topics or less content through distance learning.

Many students echoed 17-year-old South African Lwandle M. who said she struggled with online learning: "I do not think I have the discipline to sit down and have no one teach me."

Makena M., a 17-year-old girl from Nairobi, Kenya, said she prioritizes her limited internet data to download learning material for mathematics and science. "Subjects like Christian Religious Education, English, or Kiswahili language; I read from the textbooks that I have."

Although Nawal L.'s school in Morocco offered online classes, some teachers faced difficulties, she said: "Sometimes we don't hear from a teacher for the whole day, and then he'd show up at 6 saying he didn't have enough internet credit." She added, "The physics teacher… just disappeared... She just didn't give any class."Nawal estimated that about half of the students attended online classes. Human Rights Watch (HRW), 2020).

Mental Health Consequences

Many students shared feelings of stress, anxiety, isolation, and depression, which they linked to the lack of contact with their school community. "It's stressful when I have to study all alone," said Makena M., 17, in Kenya. "I tend to think a lot about school and my friends," said 15-year-old Kioko Y. from Kenya. "It makes me sad. I know my school has a counsellor, but we were never given contacts after we closed and before this, I had never gone to him."

"No emotional and social support is provided by the school," said a caregiver to four students not receiving any education in Congo at the time of the interview. "This aspect is too neglected."

A 16-year-old South African boy said, "That time to think about stuff and being alone kind of sucks, I guess. Especially as a teenager… I was completely struggling for a whole two weeks, like crying every day. Um, yeah, so that was like a big thing for me, starting to think life was meaningless."

Digital Divide: Limited Access to Technologies

Human Rights Watch (HRW), 2020 stated that lack of access to radios, television, computers, internet, and data left many students unable to engage in remote learning. "There were lessons offered on Warsan Radio," said a 16-year-old in Garissa, Kenya, "But I never tuned in because we don't have a radio."In Burkina Faso, a teacher in Boucle du Mouhoun region said that many students he knew "don't have electricity—not even a lamp to study."A teacher from Centre-Nord region said of remote learning: "Many [students] don't even have access to radios, let alone TVs. So this is something that will not cover all the students. There will be discrimination. It will not take all children into account."[33] A teacher in Congo's

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Kasai region said the education ministry had organized television courses, but the city where he lived—with a population of more than 1 million people—is not fully electrified. "How can students follow these courses?"

Many children lack access to the internet, which is increasingly indispensable for education. A teacher in the Mathare informal settlements in Nairobi, Kenya, said, "None of the students have access to internet-enabled smartphones. Only a handful have access to mobile phones that can support calling and texting functionalities. Digital learning is not an option." Kioko Y., 15, in Kenya said he uses his mother's phone for the internet. His school does not offer online classes, but he uses YouTube and Google for research. "I tend to pick and choose which subjects to research because I cannot stay with my mother's phone for too long because she runs a business." Human Rights Watch (HRW), 2020).

PREVENTION AND CONTROL MEASURES TO BE PREPARED AND PUT IN PLACE IN SCHOOLS

WHO opined this question; what are the prevention and control measures to be prepared and put in place in schools?

According to World Health Organization (WHO), 2020, there are several actions and requirements that should be reviewed and put in place to prevent the introduction and spread of COVID-19 in schools and into the community; and to ensure the safety of children and school staff while at school. Special provisions should be considered for early childhood development, higher learning institutions, residential schools or specialized institutions.

World Health Organization (WHO), 2020 recommends the following actions;

Community-level measures: Carry out early detection, testing, contact tracing and quarantine of contacts; investigate clusters; ensure physical distancing, hand and hygiene practices and age-appropriate mask use; shield vulnerable groups. Community-led initiatives such as addressing misleading rumors also play an important role in reducing the risk of infection.

Policy, practice and infrastructure: Ensure the necessary resources, policies and infrastructure, are in place that protect the health and safety of all school personnel, including people at higher risk.

Behavioral aspects: Consider the age and capacity of students to understand and respect measures put in place. Younger children may find it more difficult to adhere to physical distancing or the appropriate use of masks.

Safety and security: School closure or re-opening may affect the safety and security of students and the most vulnerable children may require special attention, such as during pick-up and drop-off.

Hygiene and daily practices at the school and classroom level: Physical distancing of at least 1 metre between individuals including spacing of desks, frequent hand and respiratory hygiene, age-appropriate mask use, ventilation and environmental cleaning measures should be in place to limit exposure. Schools should educate staff and students on COVID-19 prevention measures, develop a schedule for daily cleaning and disinfection of the school environment, facilities and frequently touches surfaces, and ensure availability of hand hygiene facilities and national/local guidance on the use of masks.

Screening and care of sick students, teachers and other school staff: Schools should enforce the policy of "staying home if unwell", waive the requirement for a doctor's note, create a checklist for parents/students/staff to decide whether to go to school (taking into consideration the local situation), ensure students who have been in contact with a COVID-19 case stay home for 14 days, and consider options for screening on arrival.

Protection of individuals at high-risk: Schools should identify students and teachers at high-risk with pre-existing medical conditions to come up with strategies to keep them safe; maintain physical distancing and se of medical masks as well as frequent hand hygiene and respiratory etiquette.

Communication with parents and students: Schools should keep students and parents informed about the measures being implemented to ensure their collaboration and support.

Additional school-related measures such as immunization checks and catch-up vaccination programmes: Ensure continuity or expansion of essential services, including school feeding and mental health and psycho-social support.

Physical distancing outside classrooms: Maintain a distance of at least 1 metre for both students (all age groups) and staff, where feasible (World Health Organization (WHO), 2020)

SOME GLOBAL AFFECTS OF COVID-19 ON EDUCATION SYSTEMS: VIEWS OF THE EMERGENCY REMOTE TEACHING AT SULTAN QABOOS UNIVERSITY

Reports by **Sultan Qaboos University, 2020,** the global impact of Covid-19 is multifaceted and is clearly manifested in almost all sectors, particularly the health, economic and education sectors. Since the announcement of the virus as a pandemic in March 2020, there have been a plethora of daily reports on its impact on the lives

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The Impact of COVID-19 at the National General Education Level

According to **Sultan Qaboos University (as cited by** UNESCO, 2020), reports, more than 1.5 billion students in about 165 countries have been affected by the lockdown of schools and campuses. As a result, schools, colleges and universities were forced to shift in some way or another to online learning as a replacement for on-site delivery. Needless to say, the Sultanate of Oman is no exception. In response to the lockdown decision by the Supreme Committee, the Ministry announced other alternatives for public schools (e.g. on-air lessons and some e-learning platforms) to keep the students in touch with the schooling process and continue their education from home. On the other hand, both the Private and International Schools were able to shift to online schooling using various platforms such as Google Classrooms, Schoology, Seesaw, Blackboard and Moodle. However, due to the exponential increase in societal transmission of the virus, the Supreme Committee took further safety measures and decided to end the academic year for all students in public and private schools, on 7 May 2020, and authorised the Ministry of Education to implement suitable assessment alternatives for students' transfer to higher levels from grades 1 to 12.

According to Bacow (2020). The extraordinary preventive measures that have been taken in most higher education institutions to limit exposure to the pandemic will essentially change the ordinary way that classes take place. In the same line, Blumenstyk (2020) argues that global crisis such as the COVID-19 pandemic would prompt colleges and universities to stop distinguishing between the classroom and online programmes. One of the main measures that the Sultan Qaboos University, 2020, administration has taken was a full lockdown of all campus services from the 15 March 2020 to the 15 April 2020. Fortunately, the students at that time were about halfway through the Spring semester. They completed 7 weeks of normal face-face teaching. In light of the exponentially increasing rate of the pandemic during the 4 weeks of lockdown, the university Academic Council decided to resume the rest of the semester online. However, given the short period of time to plan for a full-fledged e-learning, the Council decided to adopt an Emergency Remote Teaching (ERT) plan, building on the existing blended courses on the Moodle platform. Nonetheless, the initial challenge for the university was to provide equal access to online courses for all students who live in rural areas where internet services may not support synchronous or live streaming remote teaching. To overcome this challenge, the university urged the domestic telecom companies, in collaboration with the Ministry of Industry and Information Technology to improve network coverage in the identified rural areas. In addition, in anticipation of system overload or any possible platform crashes, the university administration proactively purchased extra servers to accommodate the potentially large number of concurrent online users.

Remote Teaching for Special Needs Students

Sultan Qaboos University, 2020 adopts an inclusion policy for students with special needs in various areas of specialisation. Prior to the implementation of the ERT plan, the university paid special attention to this most vulnerable group of students. The Department of students with Disabilities provides these students with various types of assistive technologies such as Nvda screen reader, Index Everest v5, Natiq Reader, Braille display, OCR software for PDF reading, Text to speech software, etc. In addition, the Department announced required instructional adjustments to be made in any online courses offered for visually impaired students. For example, course instructors were asked to consider the following design guidelines when transferring their courses to the online platform:

- Upload only PDF files that were exported from a word document, and avoid using PDF files that have been prepared by scanning a printed document.
- Provide a textual description. For any uploaded graphics.
- When using videos that present text on the screen try to overlay captioning or speech.
- Read aloud if you need to present written text in a recorded lecture.

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- Try to avoid using tables for designing the layout of your document, only use tables for structuring some sections that require a tabular presentation.
- Meeting or Video software used by the course instructor should be accessible with Voice over on apple and NVDA on Microsoft Windows.

Although the vast majority of courses in all colleges were taught in asynchronous mode, the instructors teaching students with special needs were able to offer synchronous sessions with their students. It is worth mentioning that one of the students with special needs (a blind student) ranked in the top 2% of his classes.

Given the short time for faculty members to plan for shifting from their comfort zone of a face-face teaching environment to a relatively new remote teaching experience, it was anticipated that the level of awareness, readiness and acceptance would certainly vary. Accordingly, the Instructional and Technical Support Team offered a series of short online training workshops and weekly Webinars, on a number of relevant topics (e.g. online course design, Moodle applications, interactive teaching, online quizzes, screencast recording, live-stream teaching, e-form design, alternative assessment tools, etc.). In addition, the students were also provided with initial online training and a 24/7 hotline for WhatsApp communication with the technical support team for any technical assistance that they might need (Sultan Qaboos University, 2020).

Rate Adoption of Electronic-Learning (E-Learning) in Teacher Education

According to Sultan Qaboos University (2020), has a well-established infrastructure for e-learning environments. It offers a campus-wide landline internet and free Wi-Fi services in all teaching and students' service areas. It also provides faculty members with a continuous technical and instructional support services through the Centre of Information Technology, and the Centre of Education Technology, respectively. Nonetheless, just until recently before the lockdown, only about 41% of the College of Education courses were partially online. It is important to note that it took over 17 years for this small proportion of courses (151 courses and sections) to be taught in a blended format. This demonstrates the levels of readiness, acceptance, and consequently, the slow rate of adoption of e-learning among faculty members. On the other hand, perhaps due to COVID-19, in only one week the number of courses that have been transferred to e-learning environments has increased significantly from 41% to a 100% of all courses offered during this Spring semester (371 courses and sections). Students' engagement and active interaction with their instructors and learning material have also been monitored through weekly reports from the e-platform. Figure 2 illustrates the number of students enrolled in the online course, and the number of actively engagement students in online learning activities during the 6 weeks (week 8 – week 13) of the Emergency Remote Teaching plan **(Sultan Qaboos University, 2020).**

THE IMPACT/AFFECTS OF COVID-19 ON SECONDARY EDUCATION IN AFRICA

Secondary Education in Africa (2020) opined that,economic contraction in Africa due to COVID-19 threatens the ability of countries to invest in secondary education at a time when demand is increasing. This will have long term impacts on the future of Africa's labour force, which requires the skills gained through high quality and relevant secondary education to adapt to a digitized, fast changing, and globalized world of work.

Economic growth in Africa is set to decline due to the COVID-19 pandemic

This will have significant implications for the financing of secondary education, at a moment when far greater investment is needed. Recent estimates by the World Bank indicate that economic growth in Sub-Saharan Africa is projected to decline by 5.1 percent in 2020, compared to economic growth rates of 2.4 percent in 2019, marking the first recession in the region in 25 years. The impact of COVID-19 on economic growth in Sub-Saharan Africa beyond 2020 is unknown, but many forecasters project a long-term negative impact for the continent. It is worthy to note that access to primary education in Sub-Saharan Africa expanded during a period of high economic growth driven in part by a boom in commodity prices. Lower projected economic growth would reduce tax revenues available for education in coming years and accelerate competition for scarce resources with other vital sectors such as health and infrastructure.

The disadvantaged are likely to suffer the most

According to Secondary Education in Africa ,2020, the loss of livelihoods and economic downturn mean many families won't be able to afford to send their children to secondary school. Household contributions account for a significant share of secondary education costs. An analysis across 16 Sub-Saharan African countries shows that household contributions make up 49 percent and 44 percent respectively of the cost of lower and upper secondary education, in comparison with 30 percent for primary education. Remittances, an important source of family household spending on

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education, are also set to decline by almost 20 percent.**[8]** Students from poorer households often face increased pressure to work to support the household. Reliance on this income makes returning to school after the crisis more difficult. Permanent dropout is more likely for older students at the secondary and tertiary levels after long periods of disengagement with the education system.As the pandemic continues to evolve, impacting education and economic recovery across Africa, let's use the opportunity to minimize the negative implications on education systems, particularly for the most disadvantaged, and integrate the best of these responses into our long-term vision for secondary education systems in Africa, to ensure youth develop the skills they will need for a fast-changing future.

General Analysis On Impact Of Covid-19 On Education (Views Under Thematic Series On Education – NOVEMBER 2020)

Assessment Capacities Project (ACAPS), 2020. Worldwide school closures, alongside other secondary impacts of the COVID-19 pandemic, are projected to have far-reaching implications in the short and the long term for children, their families, and their communities. Education is a particularly challenging issue in the context of the pandemic. On the one hand, school environments risk high rates of COVID-19 transmission, and closures are seen as necessary measures to protect public health. On the other hand, the linkages between schools and children's health, safety, and life prospects are significant.

Therefore, it is not a simple trade-off, but one requiring a nuanced consideration of how schooling benefits children, families, and wider society. Lost schooling is likely to compromise the benefits of education, including future earnings and better job prospects:

• losing access to school, as a protective space, exposes children to abuse and trauma if their homes are unsafe, putting both their physical and mental health at risk

• many families and children will miss out on critical health services and information that are usually available in schools and other learning spaces

• disruptions to school feeding programmes mean that millions of children no longer have access to a regular, nutritious meal

• the economic shock of the pandemic will likely push many children into poverty, increasing risks of malnutrition, stress, protection violations, and child labour – all factors that further restrict their future access to effective learning

• government and donor cuts to education and aid funding may further restrict recovery.

This report seeks to map out the linkages and relationships between education and its short and longterm impacts, and to provide analysis on how these impacts may develop. It uses the term 'short-term impact' to describe those impacts emerging in 2020, during the pandemic, and 'long-term impact' as those projected to emerge as consequences of the pandemic, from one year in the future up to the next generation. This report is complemented by region/crisis-level reports on COVID-19 and education (Assessment Capacities Project (ACAPS), 2020).

Challenges And Silver Lining Of Higher Education In Time Of Covid-19 Pandemic

According to Bhagat& Kim 2020, the educational institutions are still wary of lifting closures in order to minimize the spread of the disease. This, in turn, has affected their core efforts directed toward teaching, learning, and conducting research. As a solution, educational institutions have decided to keep the remote/online learning intact. However, both teachers/students and educational institutions face numerous other difficulties associated to access to technology, quality of online learning, financing, and available infrastructure. How will higher education sector become prepared for a crisis? How do they address the concerns related to the quality of online learning and digitalized curriculum? How do we address the issues of diversity and inclusion? It is imperative to address these legitimate questions by going beyond short-term solutions. This opinion article briefly adds to the conversations surrounding the problems faced by higher education sectors and potential solutions to minimize these problems.

Challenge: Quality concerns for remote learning

Another peculiar challenge stems from the concerns about the quality of online education. Higher education sector's movement toward remote learning has not only raised questions about the value of online learning due to limited or inadequate access to technologyBhagat& Kim (as cited in Anderson, 2020; Carey, 2020), but it has also raised a myriad of concerns about the quality of online learning (Newton, 2019). A recent report indicates that only 15% of college students were enrolled in full-fledged online programs even before the pandemic (Ginder et al., 2019). Research also indicates that students in the vulnerable category, more often than not, scuffle just to complete their online courses, let alone achieve positive learning outcomes (Barshay, 2019;

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Protopsaltis & Baum, 2019). Moreover, students find many online options to be more expensive than the conventional learning environment at colleges and universities and believe that online options do not offer favorable returns given their investment (Newton, 2018). It has been reported that about only 50% of institutions are equipped with educators with prior online teaching experience (Bettinger& Loeb, 2017; Lederman, 2020). There is no doubt that online learning is an essential response amidst this ongoing pandemic; however, educational institutions need to make a well-grounded assessment of the skill, knowledge, and ability they hope to instill in their students while considering the implications of online learning in terms of quality, achievement, and job market.

Financial Challenge

Another addition to the set of challenges that higher education is facing is related to finances on the parts of both students and educational institutions. The pandemic has severely affected the household financial situation of most new and current college and university students; this implies the majority of students will more than likely need more financial aid than expected (SimpsonScarborough, 2020). This is going to add extra strain on college and university resources.

Colleges and universities are already facing budgetary challenges of cash flow together with an array of uncertainties surrounding enrollments in the 2020–21 academic year. Even well-resourced institutions are unable to accurately predict student enrollments for the upcoming calendar year (Goebel & Eric Hoover, 2020). As such decreasing levels of student enrollments could make the situation worse for the educational institutions. This challenge will continue to persist as long as (1) students feel dissatisfied with their online education experience and (2) their capacity to manage funds for education in the present economic condition is minimal.

Online delivery Challenge

Another challenge is related to online delivery. The majority of educational institutions have now resorted to alternative forms of learning, some have temporarily halted the learning to design and transition into online learning and others have decided to continue face-to-face learning with supplemental online resources such as recorded lectures while still following the needed social-distancing guidelines. A few institutions have undergone rapid transformation toward online learning without suspending any courses. Even though educational institutions are offering courses to their students via software such as Zoom and Team, educators are still facing difficulties in maintaining the same level of student engagement and attention as in a regular face-to-face scenario. Likewise, all universities do not possess the necessary resources or academic capabilities to make such a transition (Leung & Sharma, 2020). Limited capabilities or capacities may stem from large enrollments, inadequate, or limited access to the needed technologies, systems, dedicated tech support, and storage capacity.

The silver lining: digital resilience challenge

Digital resilience is defined as an organization's ability to maintain, change, or recover technology-dependent operational capability, Bhagat, S., &Kim, J. D (as cited in Garside, 2018). In the case of the higher education sector, being digitally resilient means that universities and colleges are well-placed to adopt new systems and processes, ensuring continued competitiveness and survival especially when either internal or external interventions force them to undergo certain disruptions. In other words, becoming digitally resilient involves (1) evaluating existing technologies in terms of their capabilities to meet the demand of educators and learners, and (2) evaluating new technologies in terms of their impact on their overall resilience. Temporary solutions to mitigate the impact caused by the pandemic may not necessarily mean being more resilient because such temporary solutions may invite flawed or inflexible procedures that affect educational institutions' capability to handle the push and pull forces brought about by the demand and supply of digitally enabled teaching-learning capabilities and competencies. However, it should be noted that building a sense of digital resilience in the higher education sector involves looking at its necessity from two different angles simultaneously, in that, building such a resilience not only involves bouncing back from the crisis but it also involves bouncing forward into a new realityBhagat& Kim 2020(as cited in Close et al., 2020).

While there are many studies that indicate online education does not stack-up well against comparable evidence, we believe that with a well-thought-out investment in online education with a proper emphasis on the science of learning, the higher education sector may initiate a much-needed revolution in the education paradigm. Even though online education comprises roughly 2% of the global higher education sector (which is worth 2.2 USD trillion), it has been noted that the online higher education sector is ready for the much-needed disruption (HolonIQ., 2020).

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