Educational Learning and Teaching Methods' Challenges during COVID-19 Outbreak and a Sudden Transformation Towards Totally Digitizing Education

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Dear Editor!

The outbreak of Coronavirus disease 2019 (COVID-19) was reported on 31st of December 2019 by Wuhan City Health Committee, China (Joseph et al., 2020). The early cases were about 27 pneumonia confirmed cases and linked to Wuhan Seafood Market. Late in January 2020 the number of cases jumped exponential and the confirmed cases reached 697.244 with 33.257 deaths on 31 March 2020 based on the declaration of World Health Organization (Joseph et al., 2020). Initially, the early cases were thought to be a type of seasonal influenza; however, the deep investigation lead to a novel coronavirus that later called (COVID-19). The symptoms are similar to that of seasonal virus infections such as fever, cough, sneezing, fatigue; however, other symptoms observed and reported such as diarrhea, severe headache, lymphopenia, haemoptysis, and dyspnea (Barranco & Ventura, 2020). The epidemic rendered pandemic and the whole world encountered a sudden shock of the fast-moving viral infections and spread of the disease that made countries to change the course of life. The unprecedented pandemic growth lead to a chaos in the whole world (Agoramoorthy, 2020) and changed dramatically many things in a rapid pace in all aspects of our lives.

Almost all sectors were affected; the tourism sector with all associated sectors, the industrial sector, the health care system, the business flow, the exchange stock markets, Information Technology sectors, etc. Further, the outbreak changed the social bonds and behavior of all people regardless of their education, age, gender, race, social status, income. This triggers a dire need to conduct thorough explorative research in all related matters and challenges.

The educational sector was no exception and faced many obstacles to continue the education process. The closure and suspension of schools, universities, colleges, and educational entities was imposed in almost all the countries around the globe. This sudden and dramatic change created a chaotic situation not only for these educational institutions, but also for students in all grades starting from KG to university levels. In addition, educators in these institutions were also faced with new challenges and parents had much new burden upon their shoulders more than ever. The educators must deliver the educational materials' content online and the problem resides as many institutions, as well as the teaching staff, were not ready for such a sudden change in this digitized transformation of teaching and learning methods. The difficulties became wider as many educators were unfamiliar with such new online technologies to deliver the content to students. Therefore, a more research is needed to unveil the impact of COVID-19 on educators and the consequence on education quality.

For the parents, the matter concerns not only because of the financial issues, but also new responsibilities towards their children and their jobs as many had to shift to their houses and perform their working tasks online too. The problem escalated more and more as the period of isolation extends from few weeks to months, which led to a more stress and the overburden of parents' mental, physical, psychological issues as many of them have to take care children physically, psychologically, and educationally. The discussion on the effects of coronavirus is substantiated based on the standpoints of Melo, and de Sousa Soares (2020).

The students are no exception from this chaotic phenomenon as their habits of learning changed unexpectedly and new difficulties are facing them. They must stay at home, which made many of them became psychologically ill or started to have Bodrum. Social distance was imposed, and children cannot go outside or have the regular visits as they were accustomed to. Many habits changed, many tasks including learning to study through online methods has to be mastered, leisure times and meeting with friends and colleagues became another phenomenon (Tran et al., 2020).

As a result of these emerging issues, new research avenues are expected to take place on a large scale leading to new horizons of research areas that include but not limited to: Education, Innovation of new teaching and learning methods to comply with Sustainable Development Quality Education 4 (Do, Hoang, Le, & Tran, 2020), Business sustainability and Education process, the Exchange of money and digital coins, impacts of COVID-19 on: working parents, single parents, the violence in houses, the health tracking systems and related privacy issues, university education and distance learning facilities, and skill building of staff to work remotely especially in developing countries and the middle eastern countries.

Furthermore, the students must be surveyed to gain insights of the pandemic impacts on the learning habits and their effects on the students' performance, psychological and mental stability in all nations as well as the implementation of parallel studies.

The role of Data Sciences is expected to grow faster than ever to get more insights of emerging issues and its role to help building datasets with all possible issues to be studied and to automate all possibilities to help decision makers in all sectors. The policies, strategies, and practices should be updated immediately by governments' education ministries and educational

authorities as this pandemic seems to prolong and may new ones come in the coming winter of 2020 and so forth. Hence, further investigation on these issues should be probed.

One last aspect that worth shedding light is the role of universities toward their students during the lockdown and closure. An interesting example is observed in the University Utara Malaysia where the university provided free meals for students on-campus and offered them free delivery of needed food and necessary staff while providing proper guidelines on all developments such as the medical instructions and the safety procedures in addition to the health services. This can trigger the investigation of the role of universities during pandemic, catastrophic, and unexpected events and its impact on the reputation of the university itself and the enrolled students' satisfaction.

To summarize, as result of the COVID-19, the world would become different and governments alongside education entities should update their policies, procedures, and practices to cope with the emergent changes in life. The quality of education should be maintained, and the emerging technologies should be adopted, but not without cost.

All these issues are consequences of COVID-19 and new area of research should take place immediately in the government sectors, the educational institutes, the learning/teaching methods, the educators technological skills, pandemic effects on parents, students, educators, and much more of research on the role of technology to sustain the teaching/learning process without compromising the quality of education.

Funding source

Conflict of interests

The author declares that no conflict of interests.

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Cite this article as: