Implementation of UNESCO Recommendations on Enhancing Learning During COVID-19 Pandemic: A Case of Kenya

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Abstract

Most countries worldwide during the COVID-19 pandemic adopted online learning as a means for mitigating the challenges facing face-to-face classroom education. The adoption of remote learning is largely informed by the decisions reached by individual country experts in pursuant to health guidelines of social distancing by the World Health Organization. Further, the United Nations Educational, Scientific and Cultural Organization (UNESCO) suggested recommendations to countries to implement to ensure that learning remains uninterrupted during the COVID-19 period. The paper analyzes critically the Kenyan situation in implementing and adhering to the UNESCO recommendations to enhance learning in all levels of education. Also, it evaluated the challenges faced and possible remedies in form of recommendations for future actions. The paper is largely based on library research to draw practical implications for both education research and policy.

Keywords: COVID-19, implementations, Kenya, learning, online teaching, strategies.

Introduction

The recent COVID-19 pandemic has negatively affected global education. Statistics by the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020a) estimates that "620 million learners are out of school, 35.4% of the world's student population and 39 countries have been affected by school closures." Although the closure was one of the recommendations of the joint mission on 30th December 2019 in China to curb the spread of the disease, many countries responded differently (UNESCO, 2020; Viner et al., 2020). China was the epicenter of the COVID-19 pandemic, but through emergency measures such as social distancing and lockdown, the country managed to control the spread of the virus (Zhang, 2018). Apart from these interventions, China has lessons to offer to the world in terms of how they managed the education system during the outbreak. The Chinese government launched the "School's Out, But Class's On" campaign. This large-scale online education had an impact on society and education in China (Zhou et al., 2020).

In February 2020, the Ministry of Education (MOE) in China issued a notice on supporting education and teaching using information technology during the pandemic. This was a huge calling considering that China has 270 million students at all levels and nearly 20 million faculty members at all levels. Such a huge population was required to carry out educational activities online for six weeks. This initiative provides lessons that can be useful for countries that are learning to cope

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with the COVID-19 outbreak (Zhou et al., 2020). Apart from providing online content, students were assisted in developing home-based study plans and provided with the necessary guidance. In addition to using the mass media to educate the population, the ministry recommended the adoption of local resources and national platforms. In China, Internet giants such as Tencent, Alibaba, ByteDance, iFlytek, and Dongshi Ideal have long been deeply involved in the education industry (Zhou et al., 2020).

Kenya's case during the COVID-19 pandemic

During the pandemic, Kenya adhered to the World Health Organization's recommended guidelines to curb the spread of the COVID-19. In Kenya, the Ministry of Health COVID-19 Taskforce implemented initial prevention and mitigation measures to control the spread of coronavirus. These measures include the closure of schools and workplaces, suspension of large gatherings, maintaining social distance, implementing curfew, and restricting entry and exit from most affected regions (Aluga, 2020).

Despite the sudden and unprecedented disruption in education, initiatives to enhance learning were embraced by the government and other partners. In response to the pandemic outbreak, the MOE developed the COVID-19 response plan in collaboration with education partners and other stakeholders to ensure continuity in learning for about 3.2 million Pre-primary, 15 million learners in Primary and Secondary schools in Kenya, and close to 150,000 refugees (Republic of Kenya, 2020). The World Bank and the Global Education Coalition worked with the ministries of education worldwide to support remote learning in countries. This initiative was aimed at curbing the impact of school closure - particularly for the vulnerable and marginalized communities (UNESCO, 2020a; World Bank, 2020). Furthermore, UNESCO (2020b) suggested 10 recommendations to ensure that learning remains uninterrupted during this period. This presents the rationale for investigating the implementation of the UNESCO recommendations to boost learning. Furthermore, the paper examines the implementation and adherence of Kenya to the UNESCO recommendations with a view of guiding future research and policy.

UNESCO Recommendations and Kenya's Implementation Programs
1: Examining the readiness and choosing the most relevant tools

"*Decide on the use of high-technology and low-technology solutions based on the reliability of local power supplies, internet connectivity, and digital skills of teachers and students. This could range through integrated digital learning platforms, video lessons, MOOCs, to broadcasting through radios and TVs*" (UNESCO, 2020b).

In Kenya, the closure of schools and institutions from mid-March 2020 to curb the spread of COVID-19 resulted in uncertainty and great concern from all education stakeholders. The Government through the Kenya Institute of Curriculum Development (KICD, 2020) rolled out online learning through Radio, TV, Kenya Education Cloud and You-Tube, ed-tech apps, and mobile phones. The radio and TV learning timetable for both secondary and primary schools including the early years begins at 7.30 am and 8.30 pm daily, apart from Sundays. The Kenya Education Cloud hosts; interactive digital content in pdf, epubs, audio and visual, radio lessons on demand, textbooks for all levels to serve pupils and teachers, and also online courses for teachers on curriculum implementation and use integration of ICT in learning.

Also, an online Safaricom application called Viusasa offers digital audio content in collaboration with KICD that allows learners to engage online by viewing and listening to e-content for each subject for free. Similarly, Eneza Education's Shupavu 291 platform is available on mobile phones and the web for a fee (Baraka, 2020). Besides, to provide wider internet coverage to all students and families, the Kenya Civil Aviation Authority in partnership with Alphabet Inc. and Telkom Kenya has been having Google's Loon Balloons floating over Kenyan airspace to provide internet connectivity to rural and remote communities. This has provided free internet bundles for lecturers to continue engaging their students in online learning activities.

Both both private and public universities turned to online learning to ensure students finish their courses on time, but preparedness varied in each institution (Association for the Development of Education in Africa, ADEA, 2020; Ndede-Amadi, 2020). For instance, the majority of private universities implement e-learning initiatives for students, trained their staff and students, and also entered into the 'Soma na Telkom' bundles partnership with Telkom Kenya to ensure their staff

and students receive cheaper data bundles specifically for e-learning. Specifically, KCA University administered their end-of-semester examinations online to ensure students complete their studies on time. Strathmore University adopted online and produced user manuals to ensure online teaching continues effectively and Mount Kenya University did the same. United States International University–Africa partner with Safaricom through the 'Remote Learning Mobile Data Bundle Subsidy' package to ensure staff and students receive subsidized data bundles to carry on with e-learning (Wachira, Ombati, 2020). Although online learning in private universities has preceded that in public universities, the levels of implementation have varied considerably from one university to another. It is therefore imperative to investigate these divergences in implementation.

Despite rolling online learning for pre-primary, primary, and secondary schools, a study revealed that only a limited number of learners have access to remote learning while the majority in rural and urban poor have no access since most of the homes lack electricity, internet bundles, radio, television, and smartphones (Mhlanga, Moloi, 2020; Ngwacho, 2020). Also, Usawa Agenda revealed that on average 22 out of 100 children are accessing online learning in Kenya, with children in private schools having an advantage over children in public schools (Kihiu, 2020). Similarly, learning mediated through ed-tech remains out of reach for many disadvantaged children in primary and secondary schools due to connectivity, the cost of internet, and privacy challenges (Parsitau, Jepkemei, 2020). Lack of access to technology and reliable internet connectivity was pointed out as a barrier to continued learning, especially for students from disadvantaged families hence creating inequalities in access to education (Republic of Kenya, 2020). Furthermore, the adoption of online learning in the universities mainly focused on postgraduate students and implementation varies due to the ICT challenges still facing both students and lecturers mainly in disadvantaged areas. Issues pointed out as challenges of online teaching in the Kenyan universities include inadequate information technology facilities and equipment in university; lack of skills by lecturers to teach effectively, cost of data bundles for students and lecturer to utilize online materials, students lack technical skills to access and utilize online learning materials and lack of internet in rural areas (Ndede-Amadi, 2020). Further, despite adopting remote learning, the majority of students were not reached out, and learners in public universities being disadvantaged because of the large numbers (ADEA, 2020).

2: Ensuring the inclusion of distance learning programs

"*Implement measures to ensure that students including those with disabilities or from low-income backgrounds have access to distance learning programs if only a limited number of them have access to digital devices. Consider temporarily decentralizing such devices from computer labs to families and support them with internet connectivity*" (UNESCO, 2020b).

The online learning approaches incorporated only sign language for the deaf favoring only one category of disabilities (ADEA, 2020). Inclusion seems to be still challenging across countries including Kenya since online learning approaches are not inclusive and effective enough particularly for the visually impaired (ADEA, 2020). Also, virtual learning had its challenges as radio and TV lessons were not properly designed to include learners with varied needs and abilities per county while the slow learners have not been taken care of in remote learning (Ngwacho, 2020). The decentralized access to connectivity is one of the MOE's proposed interventions that may be useful even after COVID-19 (Republic of Kenya, 2020).

3: Protecting data privacy and data security

"*Assess data security when uploading data or educational resources to web spaces, as well as when sharing them with other organizations or individuals. Ensure that the use of applications and platforms does not violate students' data privacy*" (UNESCO, 2020b).

Remote and distributed learning has exposed an increased number of learners and teachers to online learning with its imminent threats of security breaches and data protection. While developed countries have initiated serious regulatory laws governing data privacy and security, the same cannot be said about developing countries that are still lagging in these matters. Many online learning management systems have conceptual problems with principles of privacy that must be decided. The shift to online learning occasioned by the COVID-19 pandemic has increased access to the components of cyberspace (websites, distributed resources, content, libraries, forums, social media, cloud services, etc.). This requires adequate protection based on the rules of international conventions (Humayun, 2020). European regulation accepts using the so-called

"Privacy Enhancing Technologies" for individual protection of privacy. In Africa, the data protection protocol is still a grey area that is being developed (Makulilo, 2016). This exposes the learning that is taking place online to a lot of potential threats. Recently the Directorate of Criminal Investigation issued an alert and warning regarding the increased cases of cybercrimes in Kenya as a testimony to the increase in potential threats facing young learners. The learning system must protect the sensitive personal data of the learners. While many Learning Management System used in our higher learning institutions have taken these precautions, the proliferation in the use of messaging services such as skype, zoom, adobe connect has exposed the users to issues of privacy violation. Since access codes to such forums are shared on open platforms such as WhatsApp groups, the propensity of unauthorized parties to get access to confidential information has become a greater risk. The Government of Kenya enacted the Data Protection Act 2019 which provides for the protection of personal and sensitive data. The level of awareness of the provisions of this Act is still very low and this exposes the users and providers of online learning forums to cases of violation or misuse of personal data thereby exposing themselves to numerous potential threats. The most frequent types of violations occur when online sessions are recorded without the consent of the users and posted onto open access platforms without regard to the participants' privacy issues. Several loopholes have been raised regarding the Act which can be exploited for selfish interests. Remote learning both in primary and secondary schools faced privacy challenges (Parsitau, Jepkemei, 2020). The Data Protection Act has been criticized for inconclusively addressing issues of individual privacy.

4: Prioritizing solutions to address psychosocial challenges before teaching

"Mobilize available tools to connect schools, parents, teachers, and students with each other. Create communities to ensure regular human interactions, enable social caring measures, and address possible psychosocial challenges that students may face when they are isolated (UNESCO, 2020b).

Issues of psychosocial challenges facing learners, teachers, and parents are only noted by MOE in its report and proposed interventions such as building the capacity of teachers in life skills, guidance and counseling to effectively respond to changes in social behavior, providing appropriate psycho-social support to learners, teachers and education officials including caregivers to manage the impact of COVID-19 and deal with future crises. Also, it focused on approaches to sensitize learners, teachers, and education staff on approaches to deal with post-traumatic stress caused by COVID-19 (Republic of Kenya, 2020). The psychosocial challenges occasioned by the COVID-19 pandemic take various forms and assumes different modalities.

The foremost challenge is the feeling of loneliness and disconnectedness associated with learning online. Students and faculty who have previously been used to face to face interactions have suddenly been pushed to online platforms that have little room for interaction. Because of the sudden transition, a lot of faculty were ill-prepared to design inline courses that provide interaction amongst the participants. This has created a sense of isolation and brooding loneliness amongst students and faculty. Online interaction by their design does not provide much room for providing emotional and psychological support for learners who are either directly or indirectly affected by the COVID-19 situation. Many of them have to contend with the minimal interaction that occurs in discussion and chat forums. These forums are created to engage with the academic content and so there is little engagement at the emotional level (Johnson et al., 2020).

Engagement of learners through online interaction enhances their levels of motivation which in turn improves the level of satisfaction (Martin & Bolliger, 2018). When this is absent in online remote teaching, the students' level of satisfaction decrease. This has been the case especially amongst primary school pupils who feel demotivated to engage in online classes. Remote learning does not provide opportunities to address individual learning needs. Parental role in learning has been diminished and in most cases relegated to meeting the cost of internet and equipment such as laptops, smartphones, and ipads for their children. Many parents are working remotely and the time spend working online coincides with the children's online classes. Since the activities are done and posted online, it is difficult to monitor learning and provide the emotional and psychological support that children need. In Kenya, classroom sizes are typically large. By shifting large classes to the online platforms, the levels of engagement have naturally gone down because the interfaces used allows a small picture of the individuals to be seen at a time. This means that unless the facilitator makes deliberate efforts to engage learners in a balanced manner, some of them are left

out. Teachers tend to focus their attention on learners who are active or stand out on the platforms. The others who are left out feel bad about this because they think all the attention is being directed to specifics students and not them. To prevent online students from experiencing potential boredom and isolation, it is necessary to design activities that enhance engagement (Martin, Bolliger, 2018). Unfortunately, the platforms that are currently being used to teach primary school children, in particular, do not allow this kind of interaction.

5: Planning the study schedule of the distance learning programs

"Organize discussions with stakeholders to examine the possible duration of school closures and decide whether the distance learning programme should focus on teaching new knowledge or enhance students' knowledge of prior lessons. Plan the schedule depending on the situation of the affected zones, level of studies, needs of students, and availability of parents. Choose the appropriate learning methodologies based on the status of school closures and home-based quarantines. Avoid learning methodologies that require face-to-face communication" (UNESCO, 2020b).

To curb the spread of the virus in learning institutions, the Government of the Republic of Kenya closed all learning institutions on the dates of 16th March and 20th March. Further, the MOE developed COVID-19 Response Plan in collaboration with education partners and other stakeholders to guide on remote learning (Republic of Kenya, 2020). Further, the COVID-19 Education response committee was established to advise on the possible reopening period that is safe. The team proposed that schools, colleges, and universities be reopened in September 2020. Meanwhile, virtual platforms offer continued learning and revision for learners (UNESCO, 2020b).

6: Providing support to teachers and parents on the use of digital tools.

"Organize brief training or orientation sessions for teachers and parents as well, if monitoring and facilitation are needed. Help teachers to prepare the basic settings such as solutions to the use of internet data if they are required to provide live streaming of lessons" (UNESCO, 2020b).

The education television broadcasts on the Edu Channel TV programs are made available as live streams as well as on-demand content via KICD's Edu TV Kenya YouTube channel (UNESCO, 2020b). The ministry continues to assure the quality of programs on TV, radio, and online through the development of online and offline monitoring tools for headteachers and principals and the development of a mechanism for communication between headteachers and QASOs using bulk SMS, emails, and WhatsApp (Republic of Kenya, 2020).

On contrary, findings by the Directorate of Quality Assurance and Standards in the State Department of Early Learning and Basic Education revealed that parents/guardians for pre-primary, primary, and secondary are not at the forefront of their children learning at home, while teachers' supervision role is extremely low for learners while at home (Mhlanga, Moloi, 2020). Another study revealed that two out of ten parents were not aware that their children were expected to continue learning from home (Kihiu, 2020).

7: Blending appropriate approaches and limit the number of applications and platforms.

"*Blend tools or media that are available for most students, both for synchronous communication and lessons and for asynchronous learning. Avoid overloading students and parents by asking them to download and test too many applications or platforms*" (UNESCO, 2020b).

The MOE through KICD provided virtual platforms that enhanced both synchronous communication and lessons, and asynchronous learning for instance through radio programs broadcasted on all weekdays and education television broadcasts on the Edu Channel TV. The television programs are made available as live streams as well as on-demand content through KICD's Edu TV Kenya and YouTube channel. Similarly, there is a partnership with the Kenya publishers association, where electronic copies of textbooks have been made available for free on the Kenya Education Cloud for all students. Additionally, Safaricom, a private mobile network operator, has partnered with Eneza Education, Longhorn publishers, and Viusasa to support primary and secondary school students with free access to educational e-content (UNESCO, 2020; Republic of Kenya, 2020).

8: Developing distance learning rules and monitoring students' learning process

"*Define the rules with parents and students on distance learning. Design formative questions, tests, or exercises to monitor closely students' learning process. Try to use tools to*

support the submission of students' feedback and avoid overloading parents by requesting them to scan and send students' feedback" (UNESCO, 2020b).

There is an application that has also been developed for high school learners, topic by topic lesson notes, questions, and answer for revision. These materials are being shared through WhatsApp groups and the internet (UNESCO, 2020b). The learners in private schools and their teachers get online feedback, they also utilize Zoom video conferencing to respond to learners' issues on WhatsApp (ADEA, 2020). However, a study on monitoring and evaluation revealed that since head-teachers received the information regarding the closure of learning institutions, there is no format provided for them for monitoring the learners' assignments particularly in public schools (ADEA, 2020).

9: Defining the duration of distance learning units based on students' self-regulation skills

"*Keep a coherent timing according to the level of the students' self-regulation and metacognitive abilities especially for live-streaming classes. Preferably, the unit for primary school students should not be more than 20 minutes and no longer than 40 minutes for secondary school students*" (UNESCO, 2020b).

Regarding specifying a duration for the remote learning, the MOE rolled out a radio and TV time table for both secondary and primary schools - including the early years. Learning is between 7.30 am and 8.30 pm daily, apart from Sundays (Republic of Kenya, 2020). The entire learning timetable is updated on monthly basis. However, the MOEST report on e-learning found out that some 18 % of the learners do not have access to the online learning timetable. The adequacy of the timetable for learning as per the syllabus was inaccessible to the majority of learners, the time allocated was inadequate, there was an unequal distribution of subjects, and not all lessons are covered in the timetable (Ngwacho, 2020).

10: Creating communities and enhancing connection

"*Create communities of teachers, parents, and school managers to address a sense of loneliness or helplessness, facilitate sharing of experience and discussion on coping strategies when facing learning difficulties*" (UNESCO, 2020b).

Despite the creation of communities and enhancing connection at the infancy stage, the United Nations High Commissioner for Refugees (UNHCR) recognizing that virtual learning requires a different approach has focused on identifying available resources. These also include identifying tools for virtual learning and the collaboration work with partners like EdTech Hub to update the list of available digital resources and tools for students and teachers (UNHCR, 2020). However, the use of online remote learning, while creating a forum for distance learning, can also foster a sense of loneliness and lack of community amongst the learners and the facilitators. Virtual spaces can become lonely for the participants especially if there is infrequent interaction. Learning in a virtual environment can create a lack of connectedness especially when those engaged in the process are loosely related and connected. When learners are not familiar with the online educational delivery system, they may become frustrated and develop a sense of disconnection with the learning process (Bawa, 2016). It is important therefore for online facilitators to ensure the learners are familiar with all the online tools that can promote engagement and a sense of community. Multiple communication options can be used to facilitate online engagement. It is important to use these to promote more interaction between the facilitators and the students and between students themselves. If online engagement is not active, then learning becomes less since the learners are not adequately motivated (Bawa, 2016). The limitations of using online technology to engage are not limited to students alone. Faculty limitations in using technology are another concern. At times there is a disconnect between the facilitators and the students who may be digitally disengaged. The reason for this is the paucity of technical resources and expertise in online course design. Course designers need to use the available tools to engage the participants. The technology used to create effective course designs is rapidly evolving and faculties are struggling to keep pace with these emerging technologies. They lack the confidence, knowledge, and expertise required to practically apply the technologies in a way that engages learners and fosters learning (Bawa, 2016) reports that one of the reasons for the faculty's failure to design good online courses is the limitations in faculty training. Although large amounts of money are spent on acquiring technology, the amount spent on training faculty is not adequate.

Recommendations

The recommendations are based on areas that need to be strengthened in Kenya regarding the implementation and adherence to the UNESCO recommendations to enhance effective online teaching and learning in all the levels of education in the country.

Prioritizing mechanism of protecting data privacy and data security

The beginning of data protection should begin with amendments to the data protection Act to take into cognition the specific rights of children. The government should then develop regulatory policies through the MOE to guide the processing and handling of personal data related to children. Schools and other educational institutions should develop policies that guide online engagement and safeguard personal data and safe online learning spaces. Faculty and staff need to be sensitized to these policies and must comply with them by signing relevant commitment forms. Parents have to be sensitized to the need to safeguard the children while engaged in online/remote learning.

Prioritizing the creation of communities and enhancing the connection

While the government has achieved commendable milestones in expanding access to internet connectivity by laying undersea fiber cables that have increased internet speeds and connectivity especially in Urban areas; the same needs to be done in rural parts of the country. Many rural homes do not have electricity connections and the internet. The government should prioritize making internet access to rural children so that learning can continue during such emergencies. Students from rural communities should be given smart devices per family to enable them to access digital educational content while at home.

Boosting ICT infrastructure

In line with the foregoing discussion, the ICT-related infrastructure needs to be expanded and strengthened to enhance access to the internet and digital educational resources. Schools should be equipped with servers that can accommodate Learning Management Systems. They can also do capacity-built to develop online versions of the physical curriculum that is offered through the face to face classroom interaction. This can be a backup plan to ensure continuity of instruction during emergencies when regular teaching is disrupted or cannot continue.

Enhancing faculty training and support

It is important to train faculty on effective online course design and delivery (Bawa, 2016). The shift from face-to-face learning to the online platform was so abrupt that the faculty did not have enough time to get re-trained on the use of online technologies. Having less time to re-learn how to use these technologies, many of them engaged learners with little know-how. Faculty need adequate time to prepare for online delivery so that they can develop various activities that engage learners effectively. These include discussion forums, quizzes, and chats.

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