



## Online Education in Promoting Continued Education during Coronavirus Outbreak in Zimbabwe: 'Challenges and Solutions'

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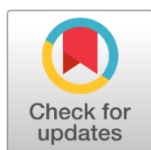
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**Abstract:** The education system has been affected by 2019–20 coronavirus pandemic. In order to curb the widespread of coronavirus pandemic, people were recommended to exercise social-distancing and self-isolation. The idea of social-distancing and self-isolation has resulted in the closures of schools, universities and colleges as Ministry of Primary and Secondary Education try to control the spread of the contagious disease among learners in Zimbabwe. The effects and perceptions of Zimbabwean parents, teachers, learners and stakeholders on education and Covid19 are a cause for concern. The closure of educational institutions in response to the pandemic has risen to alarming levels. In this article, the issue of online learning has been seen as the impending solution to the challenges posed to the teaching and learning process during the coronavirus pandemic outbreak in Zimbabwe. What is very disturbing is that the mitigating measures proposed by stakeholders and government seem to favour the have and the have-not are severely impacted. At the end of the day, all the strides Zimbabwe has been making in terms of bringing education to the door step and improvement of standards of life is just going down the drain due to lack of ICT equipment and technical expertise. The study was carried out through qualitative method through a phenomenological approach. Snowballing, interviews, observations and document reviews were made use of in gathering the data for this article. Presentation is mainly descriptive since the type of data gathered depended much on the experiences and feelings of the people in the society about the impact of Covid19 on education. A number of recommendations were put forward that include the government putting in place laws that restrict mobile operators to hike their charges and all educational stakeholders should be heard when they air their concern.

**Keywords:** Coronavirus, Education, Online learning.

### Introduction

Unexpectedly, the world was caught unawares when the deadly coronavirus

pandemic thump. The coronavirus pandemic has changed how millions around the globe

are educated (Tam and El-Azar, 2020). The rapid spreading of coronavirus around the world has seen several countries take rushed and crucial actions to alleviate not only the development of a full-blown pandemic but the attainment of Sustainable Development Goal (SDG) number 4 which ensures the inclusive and equitable quality education and promotion of lifelong learning opportunities for all. In many developed countries, online classes could be the solution but how are the students in underdeveloped countries going to cope with the closure of schools during the national wide lockdowns advocated by World Health Organisation during the novel coronavirus outbreak.

(Lindzon, 2020) maintains that school closures impact not only students, teachers, and families, but have far-reaching economic and societal consequences. The impact of school closure in response to Covid19 was more severe for disadvantaged children and their families, causing interrupted learning, childcare problems, and consequent economic cost to families who could not work. Closure of schools affects learners in both the urban and rural areas of Zimbabwe but the rural areas learners are unduly affected as they are more severely disadvantaged. Their overall development is compromised, leaving them technologically disadvantaged with little or no ICT tools and skills.

This study is done after an observation of the trend that has been on going in the education system during the Covid19 national lockdown. Many learners who were very much promising in terms of their academic studies were left dump folded and perplexed whether they would be accorded the opportunity to write their public examinations because of the Covid19 pandemic. Efforts to get meaningful explanations from the parents or guardians, teachers, pressure groups, government and learners themselves did not yield much as most of them were happy to have time to rest and extend their holidays.

Moreover, the background is emanating from the efforts to ensure continued learning by The Ministry of Primary and Secondary Education and teachers' pressure groups such as Progressive Teachers' Union of Zimbabwe. This ministry is concerned about the education of the nation in Zimbabwe. They have made efforts to implement online education in schools before the outbreak of coronavirus. Unfortunately, after all the work by this ministry, some schools were ignorant opting for traditional way of imparting knowledge. The pressure was coming from old teachers who were not well versed with information and communication technology (ICT), or lack of technological skills and ICT equipment.

As high school teachers, experiencing the adverse effects of lockdown on the teaching and learning process, and dialoguing with parents has shown the researchers that there is a lot that needs to be done to facilitate continued learning during the ravaging coronavirus outbreak. This backdrop has created a need for inquiry into the whole issue of online education during coronavirus outbreak in Zimbabwe.

## Methodology

This study utilised qualitative research methodologies. Qualitative research methods are more concerned with uncovering knowledge about how people feel and think in the circumstances in which they find themselves than making judgment about whether those thoughts and feelings are valid (Cole, 2006). Moreover, qualitative researchers are more interested in understanding the meaning people have constructed, that is, how people make sense of their world and experiences they have in the world (Merriam, 2009). Tewksbury avers that qualitative research methods provide more emphasis on interpretation and providing consumers with complete views, looking at contexts, environmental immersions and a

depth of understanding of concepts (Tewksbury, 2009). The educators, learners and stakeholders' reasons for adopting online learning in curbing the spread of coronavirus can best be explained by the educators, learners and stakeholders themselves rather than the health officials. Therefore, interpretive or qualitative paradigm gave the researchers more room to investigate through document analysis, telephone interviews and conversations with research participants what can be done to provide continued learning to learners during the coronavirus pandemic outbreak. The advantage of interpretive paradigm was that it does not rely on the mechanical precision of steps being performed, but instead focuses on how the overall product communicates a message and moves people both emotionally and intellectually (Tewksbury, 2009).

In this study, qualitative research method was employed in gathering data. There was use of document analysis from notes to parents from school heads, education pressure groups, Ministry of Primary and Secondary Education, ten purposively selected individuals who were directly related to the education of learners in Zimbabwe. 15 people were used in a WhatsApp Group Discussion that was carried out from the 25<sup>th</sup> to 28<sup>th</sup> of April 2020. Apart from the telephone interviews, the researchers also used observation method in gathering more data as he noted how online learning could bridge the gap during the lockdown period of coronavirus pandemic outbreak.

### Population and sampling

The population for the study included the heads of schools, teachers and pressure group members in Zimbabwe. Since it is impossible to study the whole population, a sample of a few heads of schools, teachers and one teachers' pressure group was made use. There was selection of respondents from

different locations to get varied data. This study utilised the snowball sampling or chain sampling. Sharma referred chain-referral sampling as a non-probability sampling technique where existing study subjects recruit future subjects from among their acquaintances (Sharma, 2017). Thus the study sample builds up from one source and enough data was gathered that was useful for this research.

The researchers began the snowball sampling or chain sampling process by posting a question on the effect of school closure during the ravaging coronavirus pandemic outbreak on his WhatsApp group. The probing invited group members to air out their views but referred the researchers to one teachers' union member who was also in dilemma about the closure of schools during the lockdown. Thus the process of snowballing began. Upon probing more from the teachers' union member about what actually could be done to secure continued learning, the researchers were referred to teachers and heads of schools who were also concerned about the subject and on the snowballing went. The entrée this group was gained through people one knows and that spilled over to get acquainted to others and through them, entree to new circles was enlarged (Etikan et.al, 2016).

Through this sampling method, the researchers were able to get hold of the population under lockdown or who were on social distancing. The method saved researchers from contradicting the lockdown regulations and time resources during the sampling process. In contradiction to Etikan et al. who argue that snowball sampling method is advantageous in that it does not require a diverse planning and the respondents used is considerably smaller in comparison to other sampling methods, the method attracted a lot of respondents (World Health Organization, 2020).

The researchers used triangulation to complement the method with purposive

sampling which was used to get to the three heads of elite schools in Mashonaland East in this article. Purposive sampling was also opted for because the researchers wanted to target respondents who had a lot of information about online education.

## The Disease

Coronavirus is a type of infection that affects the respiratory system. Coronaviruses are a family of viruses that range from the common cold to Middle East Respiratory Syndrome (MERS) coronavirus and Severe Acute Respiratory (SARs) syndrome coronavirus (World Health Organization, 2020). Any new coronavirus is called novel and is denoted by nCov. The recently discovered coronavirus is called 2019-nCov. (Perlman & Netland 2009) defines corona virus disease 2019 (COVID-19) as an RNA virus, with a typical crown-like appearance under an electron microscope due to the presence of glycoprotein spikes on its envelope. According to World Health Organization, Covid19 is an acute respiratory disease which is caused by a newly emerged zoonotic coronavirus. A positive-sense enveloped single-stranded RNA virus, named Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2), has been secluded from a patient who had suffered from pneumonia, and connected to the cluster of acute respiratory illness cases from Wuhan. Further genetic analysis revealed that it is almost related to SARS-CoV and genetically clusters within the genus B etacoronavirus, subgenus S arbecovirus.

European Centre for Disease Prevention and Control (ECDC, 2020) airs out that the modes of transmission of the virus from person to person are coughed droplets, exhaled droplets by infected persons and touching droplet-contaminated surfaces or objects and then touching the eyes, nose or mouth. According to (WHO World Health

Organization, 2020), the first clinical symptom in laboratory-confirmed cases is fever (88%) which is followed by a dry cough (68%), fatigue (38%), sputum production (33%), dyspnoea (19%), sore throat (14%), headache (14%) and myalgia or arthralgia (15%). Less common symptoms are diarrhoea (4%) and vomiting (5%). Around 80% of the reported cases in China had mild-to-moderate disease (including non-pneumonia and pneumonia cases), 13.8% had severe disease and 6.1% were critical (respiratory failure, septic shock, and/or multiple organ dysfunction/failure) (European Centre for Disease Prevention and Control, 2020; World Health Organization, 2020).

It is further believed that the novel coronavirus is caused by the virus SARS-CoV-2 which is found in bats and easily jumped the species barrier to humans from another intermediate animal host (World Health Organization, 2020). The intermediate animal host could be a domestic food animal, a wild animal, or a domesticated wild animal which has not yet been identified and how humans could have possibly got infected. Current investigations indicated that coronaviruses are very stable in a frozen state as they show survival for SARS-CoV-2 for up to two years at -20°C. In addition, WHO (World Health Organization, 2020) indicate that SARS-CoV and MERS-CoV viruses can continue to survive on different surfaces for up to a number of days depending on a combination of parameters such as temperature, humidity and sunlight.

## Quarantines and disease control

(Matovinovic, 1969) defines quarantine (from the Italian “quaranta,” meaning 40) was adopted as an obligatory means of separating persons, animals, and goods that may have been exposed to a contagious disease. Reflecting back to the fourteenth century one can note that quarantine was the cornerstone

of a coordinated disease-control strategy. The strategy included isolation, sanitary barricades, fumigation, disinfection, and regulation of groups of persons who were believed to be responsible for spreading the infection. In the Zimbabwean context, the famous lockdown terminology is associated with quarantines and has seen the Government of Zimbabwe putting all the activities in the country at hold save for essential service like hospital personal, security forces, and food and groceries provision personal. A rigid preventive separation strategy was initially accomplished through the use of self-isolation and social distancing method where citizens were instructed by the President of Zimbabwe to stay in their homes and avoid roaming around the streets. Accordingly, national lockdown became prevalent among the urban dwellers on the 29<sup>th</sup> of March 2020 after instructions that no commuter omnibuses were allowed to transport passengers to the city centre. The commuter omnibuses commonly known as 'makombi' is believed to be most reliable form of transport by commuters in the country. The austerity measure to stop individual commuter omnibuses has gone a long way in addressing the issue of movements in the country and, as a directive from the president's office, it has a great impact on effecting quarantine. Williams (Saunders-Hastings, 2016) purports that some colonies induced health authorities to order mandatory home isolation of persons with smallpox. The fear of coronavirus outbreaks, which coincided with the arrival of citizens from China, South Africa, United Kingdom and other infected countries saw the controversial lockdown strategy in an economic strained country being used to protect the nation against the disease. Although the government authorities strongly believe in quarantine, this practice might have far reaching implications on the Zimbabwean education system.

Quarantine became the core of a multicomponent strategy for controlling

communicable disease outbreaks, traditional public health tools are being adapted to the nature of individual diseases and to the degree of risk for transmission and are being effectively used to contain outbreaks, such as the 2003 SARS outbreak and the 2009 influenza A (H1N1) pdm09 pandemic (Tognotti, 2013). To start with, public health control measures have been an essential way to reduce contact between persons sick with a disease and persons susceptible to the disease. The public health control measures often disregards the implication of such measures to the education system. The researchers' observation is underlined by one teachers' union leader who pointed out that:

*The lockdown of the country has been received with mixed feelings and sentiments by many but there is need to analyse it along its implication to education in the country. I totally agree with the Presidential declaration of locking down the country for 21 days for health is more crucial than anything else but what is the implication of this to the teacher and learners? The closure of schools to effect lockdown might see the suspension of examinations as witnessed in 1976 where schools were closed.*

Coronavirus is not only a threat to people's health, but also an obstacle to Sustainable Development Goal number 4 and people's freedom which therefore calls for the nation's attention. Some members of the education sect felt that lockdown or quarantine has a challenge with the teaching and learning of learners in the country. This is because some teachers cannot prepare lessons using the online facilities or teach through E-learning facilities. Online classes at home as has been delayed due to the novel coronavirus outbreak, in Fuyang, Anhui province, China since March 2, 2020 (Tam and El-Azar, 2020).

## Pandemic effects on education

Despite significant medical progress over the last centuries, infectious diseases such as influenza or malaria still represent a considerable threat to society (European Centre for Disease Prevention and Control, 2020). Little literature is available on the effect of pandemics on education but on the country's economy as impacts on health, transportation, agricultural and tourism sectors are the severely impacted during the pandemic periods. Efforts to control outbreaks had to rely on non-pharmaceutical interventions (NPIs), such as quarantines, school closure, banning public gatherings, and infection prevention practices like cough and sneeze etiquette and use of facemasks (OECD, 2020). Interventions were of variable effectiveness. On the same note, citing USDHHS as it commented on the great pandemic that affected The United States in 1918–1919, note that social and economic disruption were prevalent, as absenteeism led to shutdowns of schools and businesses (OECD, 2020). The intervention method that includes the shutting down of educational institutions, did not dig deep into the far reaching effects of closure of schools due to these pandemics and alternative was that can be adopted to facilitate continued learning during these pandemic outbreaks.

Powell (College Update, 2020) opines that despite unprecedented steps taken in China to stop the spread of the virus, evidence was noted on the disruption it had to the Chinese economy, and subsequent contagion to other economies as the movement of people became restricted and supply chains became disrupted. In Australia the impacts were first felt by domestic businesses such student and not-student tourism which rely on the movement of people from China to Australia. The movement restrictions have a great impact on the day scholars in Zimbabwe as well as boarding schools whose catchment areas are across the whole country, a view

shared by National Associations of Secondary Heads national secretary (National Association of Secondary Heads, 2020). Management of learners from urban centres would be a nightmare as they were likely to get in contact with a lot of people outside the school hence closure of schools was prolonged (National Association of Secondary Heads, 2020).

Infectious diseases such as influenza and malaria still represent significant threats to modern societies (Delivorias and Scholz, 2020). In an article by Kostova et al, the estimated total value of losses could reach about US\$500 billion per year that was about 0.6 % of global income (Kostova et Al., 2019). The losses included lost earnings which was a direct result of reductions in the size of the labour force and productivity, increased in absenteeism and, importantly, as the result of individual and social distancing measures that interrupt transmission, but disrupt economic activity incurred by a severe global influenza pandemic. Articles about pandemics dwelt much on the effects on the economies of countries, access to health and transport yet the education system is shelved aside.

NASH highlighted some of the direct impacts of Covid19 to the education system as it took cognisance of the facts that despite the closure of schools, there were continued expenditure incurrence through ancillary staff salaries, water and electricity charges which ordinarily are paid using fees and levies collected from learners, the ZIMSEC June 2020 examinations were pending and candidates were working towards those examinations for which they had already registered, and the preparations for the October/November 2020 Examinations were currently underway on the ZIMSEC side (National Association of Secondary Heads, 2020). The covid19 outbreak posed a direct impact on the learners as the on learners' side no preparations were evident due to closure of schools. However, NASH 2020 was more concerned about the fact that schools remain closed for a prolonged

time. Some of their concerns included the effects of the lockdown on the learners who were not writing examinations in the year 2020 have their academic year. The question was whether they were not going to graduate to the next level following year or were they going to have to make the whole country repeat a grade or form. One parent remarked in concurrence with the NASH view:

*My concern is on my child's education. Was it a waste of money to pay for external examinations this year? What then will happen to those who were supposed to write in June given that the nation or world does not find a vaccine to the virus in time? The Ministry should do something.*

The negative impact on examinations were not easily felt by many but those parents with Grade 7, Form 4s and 6s. Another parent remarked that the parents had experienced exam fees hike in February 2020 and after committing themselves, the devastating pandemic came along to add salt to the wound. While Powell (College Update, 2020), and (Delivorias and Scholz, 2020) looked at the impact of pandemics from the economic perspective, the impact on education might be disturbing.

During the 1918-1919 influenza pandemic in the United States, school closures and public gathering bans were associated with lower total mortality rates (Barnum, 2020).

### **Covid19 and E-learning**

The term e-learning usually refers to the use of different kind of information and communication technologies (ICT) and electronic devices in education (Guragain, 2016). It is a broad term for teaching and learning activity that uses any electronic devices or network completely or only partially. In order to deviate from the traditional education or training system, e-

learning provides a more ICT-based personalized and flexible education systems. E-learning may also be referred to as distance learning, virtual education, digital education, web-based training (WBT), internet based training (IBT), computer-based training (CBT) or technologically enhanced learning depending on the emphasis of the delivery method or the components. The delivered learning materials may be in the form of text, images, animations video tutorials or even a computer programme. In response to school closures during pandemics, UNESCO recommends 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 (Guragain, 2016).

The use of distance learning programmes and open educational applications and platforms can go a long way especially during the Covid19 pandemic outbreak where social distance and self-isolation is recommended. Internet has become one of the vital ways to make available resources for research and learning for both teachers and students to share and acquire information (Richard and Haya, 2009). Learners in Zimbabwe could utilize any of the two the types of e-learning which are computer-based and the internet based e-learning (Algahtani, 2011). The internet-based learning according to Almosa (United Nations Development Group, 2015) is a further improvement of the computer-based learning, and it makes the content available on the internet, with the readiness of links to related knowledge sources. The internet-based learning could be useful in the Zimbabwean context since the computer-based learning would entail the full use of a variety of hardware and software generally available for the use of Information and Communication Technology. The availability of computers to the children at home can pose a challenge.

(Guragain, 2016) highlights some advantages of using e-learning. He notes that e-learning materials are self-placed and can be accessed any time the learner wants. Because e-learning materials do not require the learner to be physically present in a classroom, the use of distance learning programmes and open educational applications and platforms during coronavirus could be the rightful solution. At the same time, e-learning provides an up-to-date learning materials. The study materials in e-learning systems can be updated more frequently than in the classroom-based education systems. Once the study materials are placed in the system, they can be updated without changing the whole materials and the materials can be available and reused for longer times. Most importantly is that it is a flexible way of learning for many students. Most of the study materials are stored for the students to access whenever they want. The researchers noted that the advantages of e-learning explained contribute to usefulness of the distance learning programmes and educational applications and platforms during the fight of coronavirus pandemic outbreak (UNESCO).

(Kalaivani, 2014) concurs with (Guragain, 2016) by arguing that in e-learning the instructional material and content may be delivered by any one of all electronic media including the internet, intranet, extranet, LAN, Satellite broad costs, audio video tapes. All lessons can be learned in just one click. Teachers who are giving online lectures are real with vast experiences, without going to school, without spending single rupee for enrollment that is the wisest thing to do if we are not financially equipped (Kalaivani, 2014). The social distance and working from home mantra could have positive ripple effects on curbing coronavirus on school children if learning is done online (World Health Organization, 2020).

## Findings

### Challenges with online learning

In response to Covid19 pandemic, OECD (European Centre for Disease Prevention and Control, 2020) came up with a check list for education response that aimed at supporting education decision making to develop and implement effective education responses to the Covid19 Pandemic. In the report, OECD explains the necessity of social isolation measures in disruption of school-based education for several months in most countries around the world. Although, the disruption would cause severe learning losses for students, there was need to create a website to communicate with teachers, students and parents about curriculum goals, strategies and suggested activities and additional resources. Challenges were then noted on the feasibility of employing online education strategy as a mitigation measure during the coronavirus pandemic outbreak. OECD noted the availability of technological infrastructure, addressing student emotional health, addressing the right balance between digital and screen free activities and managing the technological infrastructure were among the domains challenges of education response to Covid19.

In the Zimbabwean context, one parent highlights that the feasibility of creating website or online communication in Zimbabwe is doubtful as electricity and network challenges were rampant. The cost of purchasing electricity was out of reach to many Zimbabweans due to the fact that most Zimbabweans were indigenous people or were informally employed. Although creating websites for communication and collaboration among students would foster mutual learning and well-being during Covid19 pandemic outbreak, it poses a great threat to the Zimbabwean community.

In addition, (Tam and El-Azar, 2020) cites that students at one school in Lebanon



began using online learning in all learning areas including physical education. They noted that students were encouraged to shoot and send over their own videos of athletic training and sports to their teachers as homework during the Covid19 pandemic outbreak. That drove learners to learn new digital skills as well as their assigned work. However, one challenge is the time spent by learners in shooting, editing and sending the video in the right format to the teachers (Tam and El-Azar, 2020). With reference to physical education homework, learners could take a few minutes to carry out the exercise but spent hours attempting to shoot, edit and send the videos. It also calls for expertise in filming and video making.

In line with the challenges associated with online learning, OECD (European Centre for Disease Prevention and Control, 2020) looked at the readiness of students and schools to learn online during the Covid19 pandemic outbreak. The evidence provided by the OECD's Programme in International Student Assessment (PISA) shows that most of the education systems participating in the most recent administration of PISA in 2018 are not ready to offer most students opportunities to learn online (European Centre for Disease Prevention and Control, 2020). That was affected by the fact that online learning doesn't just require a place to study, but also a computer which students and teachers can use to their work in their homes.

The researchers noted that some factors impeding online learning were related to the economic and social situation the teachers and learners were caught in. The respondents sometimes were affected by their poverty such that they could hardly afford to purchase a computer or laptop for their children to use as hunger was terrorizing them. The researchers probed the respondents why they cannot just use the cellphones in place of computers to carry out online learning for their children. The researchers'

observation is underlined by one parent who pointed out that:

*There is network required for online learning. On this note again, the mobile service providers who provide internet access services are charging exorbitant prices for data bundles. As a parent you have to weigh whether one should buy data bundles or food for the upkeep of the children during this pandemic. Some of us are not privileged to have neither ZOL internet links in our homes nor internet dongles.*

This concurs with OECD's observation that there are countries where internet access at home is close to universal while in others it reaches just half of 15-year-olds. In Mexico, 94% of 15-year-olds from privileged backgrounds have a link to the internet in their homes, but just 29% of those from disadvantaged backgrounds. This is an area where also geography matters in many countries. How many families in Zimbabwe have access to internet in their homes or who can afford purchasing data bundles? To the ordinary Zimbabwean in the rural areas, the use of online learning is a fallacy. This leaves them with no option but to wait until the pandemic is over and physical classroom contact is established to see their children attend schools in their communities.

Communication between parents and teachers can be useful as it puts the child under optical microscope and the child can easily comply because he/she is aware that whatever he/she does at school can easily be communicated home (Montgomery, 2005). This kind of a mutual relationship is fruitful and profitable to the learner and as such parents have always been enthusiastically involved in augmenting their children's growth and educational progress. However, the researchers noted that some schools were now putting all the burden of imparting knowledge to the parents. The researchers'

reflection is underlined by one school head who pointed out that:

*Part of the E-Learning Interface includes: receive schedule, participate, carry out tasks, submit and get feedback for the learner. Learners should be disciplined to follow the schedule and gainfully interact with their Teachers in the E-Learning Class. We urge you parents and guardians to be actively involved and to continue encouraging and reminding them of the need for good behaviour in the E-Learning "classrooms".*

Some parents and guardians felt that they were undertaking the roles of the teachers. The researchers also noted that another school head complained of non-compliance by parents and students when it comes to submission of work on the available online platform. The head informed the learners to "adhere to due dates" after noting that they were complacent in submission of the work assigned. The collaboration between the school and parents concurs with (Ralph, 2005) findings who revealed that collaboration among the parent, child and school can influence student attitudes and behaviours, thereby ultimately having a bearing on the student's achievement. This article intended to assess the extent to online learning under the guidance of parents would impact on the teaching and learning of children during the closure of schools after the coronavirus pandemic outbreak.

### Mitigation measures

According to United Nations Development Group (United Nations Development Group, 2015), the closure of schools is a great loss to children in terms of cognitive learning. All the schools in the three epicentre countries during the Ebola virus pandemic were closed in June 2014 only to be re-opened on 19 January 2015 in Guinea,

primary and secondary schools on 16 February 2015 and tertiary institutions on 4 March 2014 Liberia. Sierra Leone, lately reopened its schools in March 2015. United Nations Development Group reported that the closure of schools might also have exposed children to several types of child abuse (including sexual exploitation and violence against young girls) with a long-term impact (Arkorful and Abaidoo, 2014). The re-opening of schools should be complemented with back-to-school programmes that focus on teacher training on school safety, hygiene education and school sanitation as well as psychosocial care. Therefore, it appears that the Ministry of Primary and Secondary Education in Zimbabwe is not turning a blind eye on these far reaching implications of closure of schools during the coronavirus pandemic outbreak.

The researchers noted that some mitigation measures were put in place by the Ministry of Primary and Secondary Education, several Heads of schools and teachers to see to it that school learners continue learning during the devastating Covid19 lockdown period. Ministry of Primary and Secondary Education took the initiative to provide through inviting teachers to submit prepared recorded audios and video lessons which can be used during the lockdown (Arkorful and Abaidoo, 2014). The Permanent Secretary of the Ministry of Primary and Secondary Education urged teachers to submit the lessons online. In response to that idea sentiments have been expressed the readiness of Zimbabwe as a country to roll out E-learning programmes. Some have suggested that this mitigation measure can be hampered by inadequate training of teachers in ICT, failure to embrace ICT in its totality by allowing teachers to use soft copies for all school records, provision of computers to all schools to ensure total coverage of all schools in the country and modeling of centralized schools management system that are connected to the district for supervision and monitoring (Ralph, 2014). This exposes the online learning

mitigation measure's weakness and shutters the efforts by the Ministry Primary and Secondary Education to provide access to education to learners during the Covid19 lockdown period.

In addition to the mitigation factor cited above, the researchers noted that some teachers had a tendency of thriving to maintain WhatsApp groups despite challenges of data bundles and access to android cellphones by learners. Instead of try by all means to provide adequate food provisions for their own families, some teachers guide their exam classes through creation of WhatsApp groups where the learners would discuss burning issues and over up the syllabus. There was one high school teacher who bragged at the idea of utilizing WhatsApp class group at the expense of the online lessons because they are easily accessible and affordable to many learners in the country. He remarked that:

*I highly recommend the notion of using WhatsApp class groups especially when the learner has access to an android cellphone. It does not mean a learner has to have an expensive phone but a phone that can be installed a WhatsApp application. Given that most of my high school learners have cellphones and are connected on WhatsApp, I do have a functional and active group which operates perfectly and I can just spare \$110 from my salary to purchase One Fusion Gold which provides me with 25 minutes OnNet, 10 minutes OffNet, 400megabits of data, 160 megabits of WhatsApp and 25 SMS for a period of one month. This takes money from my salary but with no option but to provide education to my learners during this Covid19 pandemic lockdown period.*

The mitigation measure of using WhatsApp groups at the expense of teachers' salaries against the Covid19 pandemic hampering education system has disturbing and monetary problems to the teachers which

Source cited that forcing teachers to use own money contributes to violations of their rights as it puts learners at greater risk of failing to access education during natural disasters and epidemics. He, however, encourage teachers to this at their own expense as teaching is a calling to most of the teachers. One member of the Progressive Teacher's Union of Zimbabwe questions the Government's lack of concern of teachers by staggering their back pay and how they were going to survive especially during the coronavirus pandemic. From those sentiments, the researchers noted that not all teachers would be in a position to use their meager salaries to fund the continuation of learning during the Covid19 pandemic national lockdown.

The researchers noted that some elite schools across the country were embracing the use of online learning to educate the learners during the lockdown period. Realising the negative impact of the Covid19 pandemic to the learners, one elite school in Harare embraced and became ready to roll out E-Learning in order to mitigate against shortfalls that arose from the unexpected end to term one of 2020 and the possible delayed physical re-opening of term two of 2020. The school adopted Google's G- Suite for Education as the platform for their E-Learning program. In a newsletter to the parents, the Head emphasized that:

*The College has adopted Google's G-Suite for Education as the platform for our E-Learning program. A professional development program has empowered all our teaching and administrative staff to enthusiastically embrace this technology and new paradigm. Parents and guardians have been advised of hardware, software and other requirements for participation in the E-Learning program.*

These mitigation measures are in agreement with The Permanent Secretary of the Ministry of Primary and Secondary

Education urged teachers to submit the lessons online (Arkorful and Abaidoo, 2014). One wonders how the parents and guardians were going to foot the bill of purchasing data bundles for the effective facilitation of the online learning during the prolonged lockdown period.

Another private school that embraced online education to help assist learners during the covid19 pandemic adopted Google classroom platform for their E-Learning program. The Head through the school's ClassDojo platform informed parents that:

*...due to Corona virus pandemic which has devastated the whole world, the school has resuscitated its learning programs online. Children are to get support online through ClassDojo because that is where class teachers are communicating with parents and students concerning subjects' online support.*

These mitigation measures are in concurrence with (Tam and El-Azar, 2020) who purport that new solutions for education during the coronavirus pandemic of 2020 could bring much needed innovation.

The National Association of Secondary Heads (National Association of Secondary Heads (2020) also aired their views on schools opening post covid19 threat. The researchers noted that secondary school heads concurred with setting up WhatsApp groups, urging learners who were not currently sitting for exams in 2020 to learn through Ruzivo, eLearning platforms, WhatsApp, radio audio lessons where possible. Instead of making the non-exam classes redundant, alternative learning would go a long way since they were considering settling for the worst and only allowing the examination classes to resume lessons provided the Ministry of Primary and Secondary Education decongest classes to usher in social distancing, test teachers, learners and the ancillary staff nationally prior to the commencement of the lessons, subject

classrooms, hostels and offices to comprehensive disinfection and disinfectants for daily use by stakeholder among other conditions were unflinchingly adhered to. NASH aired these views in a bid to urge government to take steps and strategies which were aimed at preventing school-based transmission of the novel coronavirus. The views from NASH would surely go a long way in curbing the spread of Covid19 but who was going to provide financial assistance to see the conditions suggested, a puzzle that might burden the parent in the long run.

## Recommendations

There is quite a lot that has to be done in line with ICT during the era of Covid19. The government should play a big role in ensuring that a fund is set aside to cushion the education sector when such trying times come. This will give a soft landing to the government rather than to be caught unaware. The provision of ICT equipment to schools is something that has to be on-going. Private schools might consider partnering with other rural schools in providing them with ICT equipment so that they can sail through especially in this pandemic.

Apart from the above recommendations, the government should put in place laws that restrict mobile operators to hike their charges. Rather, they should reduce the price of the data bundle so that more people can get access to the internet. Moreover, mobile operators should improve on promotions that give people free access to internet.

The educators must not be left out. They need to be equipped with ICT gadgets so that they keep abreast with the new trends. They should not be demoralised particularly in their salaries. More time should be spent in looking for ways to improve their lessons delivery, rather than doing other activities to cushion their salaries.

All educational stakeholders should be heard when they air their concern. This has to be so to guard against antagonism that may prop up. These include; teacher unions, parents, teachers and learners. When all concerns are heard, solutions will be found that make it easy to propel the education of the nation forward.

## Conclusion

Online learning in Zimbabwe is a dream that can be achieved if all concerned stakeholders put their minds together. In the wake of Covid19 the education sector has been shaken from ECD up to tertiary level. Various views from the respondents have indicated diverse views which aired concerns with online education. From now on, the thrust of learning must not be traditional, where physical contact between the educators and learners is the norm. New forms of learning such as online should be implemented for the benefit of learners. Covid19 has given the nation a rude awakening and a new thinking in dealing with the education of the country as it is crucial for the development of the country.

## Areas Recommended for further reading by other Researchers

In connection with coronavirus pandemic and education system, it is recommended that the employment of E-learning needs to be revisited so that attempts may be made to effectively utilise it for the benefit of all learners in Zimbabwe.

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