
**IMPACT OF COVID 19 LOCKDOWNS ON THE EDUCATION SECTOR. THE CASE OF RWANDA**

**Rwigema, P. C.**

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# IMPACT OF COVID 19 LOCKDOWNS ON THE EDUCATION SECTOR. THE CASE OF RWANDA

**Rwigema, P. C.**

PhD, Member of East African Legislative Assembly [EALA], Rwanda

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**ABSTRACT**

*Globally, coronavirus pandemic (COVID-19) has had a devastating impact on the day-to-day human activities and various sectors of economy in different countries education being one of the sectors with education sector being one of them. It is increasingly clear that apart from the medical health and overall social impact of the coronavirus, the economic impact will be very deeply felt and for a long time. COVID-19 outbreak has posed serious threats concerns to global education systems with the efforts to contain the spread of COVID-19 prompting temporarily unscheduled closure of schools with other schools closing permanently. However, learning has not stopped but it is currently taking place via online platforms as schools and universities provide remote teaching. The purpose of this study was to investigate the impact of COVID-19 lockdowns on education sector; the case of Rwanda. The study adopted a survey design. The target population for the study was 150 respondents who included educators, students, parents and policy makers from the three districts of Kigali City. Self-prepared questionnaires were administered to 110 respondents. Due to the lockdown, the questionnaires were administered online using digital survey platform. During literature review secondary data was generated from media sources such as newspapers as well as journals, and reports during the review of literature. Thereafter, factorial analysis was conducted on the collected data using STATA. The results showed that COVID-19 had adverse effects on education including, learning disruptions, and decreased access to education and research facilities. It also led to Job losses and increased student debts. The findings further revealed that many educators and students relied on technology to ensure continued e-learning during the Coronavirus pandemic. However, online education was hindered by limited digital skills, poor infrastructures including, network connectivity, need clarification power, inaccessibility and unavailability issues. The study underscored the damaging effects of COVID-19 on education sector and the need for educational institutions, educators, and learners to embrace technology, and improve their digital skills to respond to the emerging global trends and realities in the education sector. The study concluded that the lockdown had provided young students unique opportunity to effectively utilize sample time to acquire new skills through digital platforms. In addition to attending the online classes conducted by educational institutions, students learn life skills education such as hygiene, moral and family values through frequent family interactions.*

*However, there were various challenges related to online education system and closure of the educational institutions. This situation required quick reforms in the education system to embrace digital technology and encourage personal development. The study recommended that preventing a learning crisis from becoming a generational catastrophe required urgent action from all stakeholders. Education is not only a fundamental*

*human right but is an enabler and integral component with direct impact towards full realization all other human rights. It is a global common good and a primary driver of progress across 17 Sustainable Development Goals. Education is a bedrock of just, equal and inclusive peaceful societies. When education systems collapse, peace, prosperous and productive societies cannot be sustained. Further study could be undertaken on students' performance after COVID-19 lockdowns.*

***Keywords:*** *Lockdowns, Coronavirus pandemic, Education*

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**INTRODUCTION**

In the first quarter of 2020, the COVID-19 (caused by the SARS-CoV-2 virus) pandemic shocked the world, almost bringing it to an unprecedented stop (Zhang et al., 2020). To date 24th January 2021, 02:45pm (CAT) COVID-19 had spread across 220+ countries and territories, with over 99.4 million confirmed cases and 2,132,012 deaths. North America then had confirmed approximately 25.6 million cases, South America 15.2 million cases, Europe 28.9 million cases, Asia 22.5 million cases, Africa 3.4 million cases, and Oceania 49,864 cases (World Health Organization. Coronavirus Disease (COVID-2019) Situation Reports, 2021).

COVID-19 is not only a global health crisis but is also triggering a profound economic recession, which may overturn the gains on poverty reduction that different governments worked so hard to achieve in the past decades (Frith, 2020). Of late, no nation or race across the world is immune from the coronavirus pandemic. The entire world seems overwhelmed by the speed of the spread and the devastating effects of COVID-19 (Peeri et al., 2020). Just within few months of the outbreak of the disease, it has drastically changed the lifestyles of the entire world with billions of people being forced to 'stay at home', 'observe self -isolations', and work and learn from home (World Health Organization, 2020). It has limited the freedom of people to move, trade or associate (Mandal & Pal, 2020). Not only has COVID-19 caused total lockdown in many countries across the world, but it also caused the death of thousands of people including, women, and the elderly.

Though, the Coronavirus pandemic is novel with no boundaries since its effects is huge and fast has noxious effects on humanity (Ibarra-Vega, 2020). COVID-19 has affected all aspects of human activities ranging from education, research, sports, entertainment, transportation, worship, social gatherings, economy, businesses, and politics (ICDE, 2020). Indeed, the entire world is distress as a due to COVID-19 threats and the education sector remains one of the worst-hit by Coronavirus pandemic.

COVID-19 pandemic has created the largest disruption of education systems in history, affecting nearly 1.6 billion learners in more than 190 countries and all continents (UNESCO, 2020a). Closures of schools and other learning spaces have impacted 94 per cent of the world's student population, up to 99 per cent in low and lower-middle income countries (UNESCO, 2020). COVID-19 has created educational disruptions, and global health concerns that proved very difficult to manage by global health systems (UNESCO, 2020c). Different governments have launched emergency policy initiatives based on the suspension of classes and the closure of educational centres to continue teaching activities from homes telemetrically through the use of information and communication technologies to be able to stop the number of infections (Zhang et al., 2020). Specifically, in the paradigm shift that is assuming the transfer from face-to-face teaching to online teaching and how education professionals will adapt to the new global context through the online modality, a movement

that has occurred and is happening in a frantic and abrupt way (Piopiunik et al. 2020).

In the United States, many schools were closed down, and scheduled tests and examinations were also cancelled. According to Madeline (2020) some of the schools closed down for Coronavirus in the U.S might not resume back for the rest of the academic year. New York and the California States were among the worst-hit states in the U.S and the number of cases increased steadily despite strong measures put in place by both the federal and state governments to contain the pandemic. At a point, the country surpassed China in the number of cases of Coronavirus, but the country is determined to defeat the deadly virus. School closures in the U.S affected over 60 million students in the country (Nuhu, 2020).

Most of Africa's 54 countries have confirmed cases and death toll due to COVID-19. Some have closed their borders and banned international flights while local and international trade are declining at a drastic rate. Countless of Sub-Sahara African governments have had to momentarily shut educational institutions in an effort to mitigate and prevent the spread of in their individual countries. Egypt was the first African country to record a case of COVID-19. Since then, Africa has witnessed more than 3.4 Million cases with over 84,000 deaths and over 2.8 Million recoveries. The Democratic Republic of the Congo, Rwanda, South Africa, Tunisia, Nigeria and most of the African countries declared complete lockdowns of the whole country affecting education. According to Wondwosen Tamrat and Damtew Teferra (2020), research on the April 2020 Africa economic forecasts revealed that Africa could experience economy loss of between US$90 billion and US$200 billion in 2020, with the GDP shrinking by three to eight points. In South Africa, growth is expected to contract by 1.5% in the first two months of the outbreak, due to its effect on key economic sectors, such as mining and tourism. Ethiopia's recent request for assistance, on behalf of the African nations to the G20 forum, for US$150 billion emergency financing, the freezing of interest rates on loans and the cancellation of debts is a clear indication of the massive threat to the continent's economies and sustainable development.

In Nigeria, the federal government ordered a total close down of all schools. The decision was largely applauded, and the National University Commission (NUC), a regulatory body for all universities in Nigeria also issued a follow-up directive to all universities in the country to shutdown (Wikipedia.org, 2020). The government also suspended social gatherings, and Public servants were asked to work from home. An Italian who was reported to be the first case of coronavirus in Nigeria was successfully treated and discharged according to the government, but new cases emerged thereafter (Taibat, 2020).

Kenya confirmed its first case of COVID-19 on 13th March, 2020 and the cases have continued to steadily rise and spread across the country. To curb the spread of the disease in learning institutions, March 15, 2020, the Kenyan government abruptly closed all schools and colleges nationwide in response to COVID-19 pandemic, disrupting nearly 17 million learners countrywide (MoE, 2020). Additionally, the ministry of health has set policy priority that aims to reduce the burden of communicable disease including the outbreak of COVID-19 pandemic (Nation Media Newspaper, April 29th, 2020). The lockdown and prolonged institutional closures have long-term ramifications, particularly for the marginalized and most vulnerable children who already experience barriers accessing education, or who are at higher risk of being excluded for a number of reasons. These include learners with disabilities, those in urban slums, informal settlements; remote locations, asylum seekers and refugees, and those whose families have lost livelihoods as a result of job cuts or businesses closures and casual jobs among other difficult situations (Ouma, 2020). In matters of education, the Kenyan government has developed a three-pronged approach to aid the continuation of learning remotely, adhering to the international and

national guidance for social distancing, quarantine and self-isolation. The Education Ministry has developed online content that some school going children are accessing through various channels to ensure uninterrupted learning for learners in the country while they are at home. However, this is riddled with a lot of challenges (MoE, 2020). Remote learning has also faced a lot of challenges due to lack of well-defined infrastructure. With both children and teachers at home the government had limited time for preparation of the sudden change. Most of the teachers and education stakeholders have limited knowledge for online dissemination of knowledge, lack of detailed costs of teaching and preparation of online teaching, online assessment and evaluation. This has further resulted into slack in the implementation of online learning (Abidjan, 2020).

Rwanda was in the middle of an economic boom prior to the COVID-19 pandemic with a real economic growth of 9.4 percent in 2019, driven mostly by large public investments for implementation of the National Strategy of Transformation. With the advent of COVID-19, international flows of goods and services have been seriously disrupted with significant spill over to the global economy. The services sector which accounts for over half of Rwanda's gross domestic product has taken a strong hit amid disruption in international trade and travel. Conservative estimates for 2020 have reduced economic growth by about 7 percentage points to between 2 and 3.5 percent -- signalling the acute impact already on Rwanda.

As at March 16th the ministry of education issued a temporary closure of all schools and higher learning activities (private and public) for two weeks. The ministry of education took responsibility to facilitate the travel of all secondary boarding schools by covering the related costs from their respective schools to different towns and cities. The schools have been closed until recently when the second lockdown was imposed in Kigali city. The Rwandan government officially commenced a lockdown on 22nd March 2020 and partially lifted it in phases beginning on 4th May 2020 (Republic of Rwanda-Prime Minister Office: Cabinet_Communique, Rwanda_-01-04-2020). At each phase of easing social distancing measures, relevant health authorities monitored transmission rates domestically and internationally. Lockdown measures have helped to contain COVID-19 while also creating socioeconomic harms as well.

On December 6, the Minister of Education chaired a virtual meeting with Heads of all Higher learning institutions and it was resolved that the teaching and learning activities that were implemented remotely (e-learning platforms) were to continue, and those that require face-to-face instruction or practicals be implemented as schools re-open.

Effective Monday, January 18, 2021, all nursery, primary and secondary schools were closed in the City of Kigali. According to a statement released on Sunday, January 17, 2021 by the Ministry of Education, the schools will be closed for two weeks before the ministry revises the guidelines. Temporary closure of schools in Kigali comes at the time young learners from lower primary and nursery schools were getting ready to start classes on Monday, January 18, 2021 after 10 months of Covid-19 to replace forced "holidays" unexpected holidays.

**Objective of the Study**

The main objective of the study was to examine the impact of COVID-19 pandemic lockdown on education. Consequently, the study also investigated the various challenges that hinder online education during the COVID-19 lockdown.

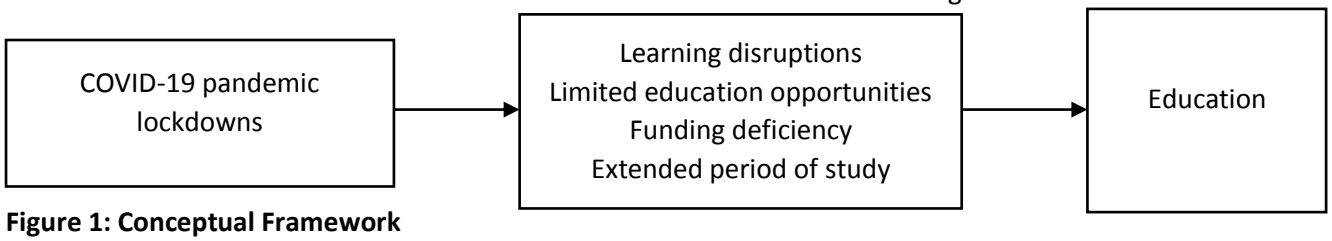


**Figure 1: Conceptual Framework**


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**Impact of COVID-19 lockdown on Education sector**

The outbreak of Coronavirus negatively affected educational activities worldwide. The coronavirus pandemic affected educational systems worldwide, leading to the widespread closures of schools (Wikipedia, 2020b). It created serious disruptions in academic activities, as well as in career plans. As part of the global efforts to combat COVID-19, many countries across the world closed down schools in an attempt to contain the coronavirus pandemic. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO) (2020) monitoring, over 100 countries implemented nationwide closures, impacting over half of the world's student population (UNESCO, 2020a). Even Britain, where Prime Minister Boris Johnson - one of those who earlier opposed the move, later admitted that "closing down schools could place further downward pressure on the upward curve of the Coronavirus outbreak" (ABC News, 2020). Some of the countries that closed down schools due to COVID-19 include, Nigeria, Ghana, Senegal, South Africa, China, Kazakhstan, Ethiopia, Honduras, India, Japan, Iran, USA, France, Spain, Italy, North and South Korea, Lebanon, Vietnam, Thailand, Germany, and South Korea just to mention but a few. School closures carry high social, educational and economic costs, and the disruptions they cause or affect touch people across communities, but their impact is particularly severe for disadvantaged persons and their families (UNESCO, 2020b).

The disruption caused by COVID-19 in the educational sector may last longer than expected if a more reliable solution for coronavirus is not found in time, and the spread of the disease continues. UNESCO Director-General, Andrey Azoulayals quoted by VOA News (2020), warned that "the global scale and speed of the educational disruption due to coronavirus is unparalleled and, if prolonged, could threaten the right to education". No doubts, unplanned school closures can cause severe problems for students, educators, parents and the society at large. It could negatively affect the academic interest and performance of students. If the students are not engaged productively, it could lead to idleness which might result in youth involvement in crimes, loss of interest in learning, and poor academic performance. The US Centre for Disease Prevention and Control (CDC) also expressed concerns about the implications of school closures. According to the CDC, "longer closures may result in more students congregating outside of schools. Quentin (2014), states that school closing is very controversial, and it can have spill over effects on a large number of students in receiving schools. It can affect the quality of teaching and learning and academic achievement particularly for students with special needs or those with learning difficulties that often requires more physical attention and guidance from the teachers. Though, technology can be used to remedy some of the fallouts from school closures, but it cannot replace the important effect of face-to-face interactions by students and teachers. Besides, many students do not have the necessary access to supportive technologies which makes it harder to maximize the potentials of learning technology during school closures. However, against all odds, mathematical model and empirical analysis of reactive closures of schools in past pandemics indicates that it reduces the total number of cases in the community by 25 percent and postpones the peak of the pandemic by a week or two, while proactive closures of school during pandemics remains one of the most beneficial interventions that can be employed to mitigate the impact of epidemic disease (Erika & Nicholas, 2020).

**Consequences of Closing Schools during the Pandemic**

School closure means the closing down of schools as a result of the pandemic, emergencies, labour strikes, disasters or deliberate efforts to reposition a school or curb crimes in a given campus or environment. This means that school closures are not only for emergencies or pandemics, but also a deliberate way of addressing some identified gaps in a given school. For instance, in Nigeria, the

government or school authorities often shutdown schools to address security issues such as cultism, terrorism or violent protests on the campus. Gewertz (2009) cited in Ben, Mathew, and Kristen (2010) reported that "Obama's administration endorsed closure as part of an array of strategies to turn around 5,000 failing schools in the United States during his regime. Even though, school closures sometimes may be for good reasons, but the recent school closures due to Coronavirus is detrimental to many educational systems across the world. As of 23 March, 2020, over 1.3 billion learners were out of school due to school closures in response to COVID-19 (UNESCO, 2020b)

According to Erika and Nicholas (2020), school closures can either be reactive or proactive. Erika and Nicholas further stated that reactive closing schools occur upon the discovery of coronavirus case among the students, staff or parents. While proactive school closure occurs before the disease even reaches the doors of the school. Madeline (2020) opined that school closures due to coronavirus has posed new problems like how to make the transition to online and at-home learning, and how to cater for those who rely on school for food and housing security. School closures for coronavirus tends to increase pressures on students, teachers and parents especially those with limited digital skills a*nd infrastructure*, education and resources for continued education. It increases the burden on parents to not only struggle to provide for the home, but also to perform the supervision task of ensuring that their children learn from home. Unparalleled school closures increase the pressure on hospitals because they have to cater for as many health situations as possible that ordinarily could have been attended to by school health centres. Coronavirus school closures could increase student debt, extend the graduation time of students, and shatter the academic dreams of students, as well as programme schedules of educational institutions. Protracted school closures may result to increased rate of dropouts due to loss of interest and lack of resources to continue. If not well managed, school closures can also increase the rate of crime, because prolonged school closures can lead to idleness which contributes to negative peer influences and youth involvement in crimes. Education jobs were also affected; many workers risks pay cuts or even disengagement from work during unscheduled school closures.

Most governments around the world have temporarily closed educational institutions in an attempt to contain the spread of the COVID-19 pandemic. School closures - even when temporary - carry high social and economic costs. The disruptions they cause touch people across communities, but their impact is particularly severe for disadvantaged boys and girls and their families. The consequences of the closure of educational schools have affected the entire population suffering from this situation caused by the pandemic situation, but even more so in the most disadvantaged countries. According to UNESCO (2020), there are a number of factors that are seriously affected.

- ***Disruption of learning:*** Closure of schools implies a deprivation of the right to education and to their own personal development. The more access to education is limited, the greater the damage caused by the closure of educational centres.
- ***Food:*** As there are a large number of children and youth who only have the food they receive in schools for free or at a minimal cost.
- ***Poor training of parents for distance learning:*** This circumstance is due to the low educational level of the parents, so that once again, the most disadvantaged families are harmed to a greater extent.
- ***Unequal access to information and communication technologies:*** The lack of resources, once again, increases the digital divide, which leads to a difficult obstacle to overcome to access learning from digital platforms.

- ***Lack of childcare:*** As a result of parents having to leave the house to seek the livelihood of the family, the children are left alone in the houses, and with it, a series of very negative consequences arise.
- ***Economic consequences and increased unemployment:*** Parents with young children have to stay at home to care for their children, which causes a loss of wages and damages the productivity of the region.

The situation is further aggravated when it comes to health personnel who must leave their job, which is very possible in a pandemic situation. After prolonged closure of schools, the probability of student's school dropout of students who do not return after the closure order is completed increases.

Research activities were negatively affected because school closures and lockdowns limit researchers' ability to conduct researches particularly in situations whereby face-to-face interactions with students and teachers are required or access to school facilities or research laboratories were denied. School driven innovations and research are also affected during school closures. Erika and Nicholas (2020) suggested that closing schools are not the only option to mitigate coronavirus. They advocated for authorities to give parents some flexibility to choose what is best for their families, while implementing stronger mitigation measures. However, in contrast to Erika and Nicholas's position, the president of the New South Wales Teachers Federation opposed the opening of schools during the outbreak of coronavirus. He believed that "the design of their schools and the size of the classrooms makes it impossible" to implement social distancing in schools (Michael, 2020). To mitigate the effects that accompanied the closures of schools, educators and learners had to rely on use of technological tools and platforms to ensure continued education. Consequently, it is important to admit in the present study that despite the perceived challenges imposed by school closures for coronavirus, the option remains one of the most effective measures to halt the spread of the pandemics.

**Technological Therapy for Coronavirus lockdown on School Closures**

The unplanned closure of schools for COVID-19 came with obvious implications on the education industry globally even though; the decision to close schools appears to be right considering the need to contain the Coronavirus pandemic. The fortuitous closure of schools worldwide revalidated the need for adoption and deployment of cutting-edge technologies in education. The outbreak of COVID-19 increased the global demand for online education. Technology has the potential to facilitate education from any location including home. Thus, as the world struggles to contain COVID-19 or any future outbreaks, the use of educational technology platforms would become the new reality for educational institutions, educators and learners. Technology is integral to student-teacher connection and communication especially in moments of isolations, quarantines, and lockdowns as a result of health crises and other emergencies. Technology is an essential tool to offer educational, psychological, spiritual, and medical advice or support to parents, educators and students during and after pandemics. Technology aid report of cases, testing and social distancing which are critical to mitigate the spread of COVID-19. In some places, robots and drones were also used to deliver goods to reduce human interactions. Staying at home all day could be very challenging for students especially the digital millennials who are very mobile and inquisitive in nature. Therefore, with the aid of technology, learners and educators can be productively and educationally engaged to reduce the boredom that could push them become Covidiots during lockdowns for pandemics.

Educational institutions that have inculcated the use of emerging technologies in their systems before the outbreak of COVID-19 had a comparative advantage over those who were yet to embrace technology in their operations. Teachers were required to teach remotely and students needed


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adjustments to the new teaching and learning techniques. The transition to online learning posed a challenge to learners in countries where there were no relevant infrastructures and facilities that facilitate online education. The problem of the digital divide was also a big issue particularly for learners in rural areas. This is because students and teachers in rural areas often lack the needed facilities and expertise to implement remote teaching and learning. While many lack the required digital skills to implement online education. Technology remains a therapy to bridge the educational gaps that often emanates from unscheduled closure of schools during pandemics.

**Concept of Online Education**

Technology is a key component of education in the 21st century. The increasing use of technology in education has modified teachers' methods from the traditional approach that often place them as dispensers of knowledge to a more flexible approach where they act more as facilitators, mentors and motivators to inspire students to participate and learn (Onyema & Deborah, 2019). Technology facilitates Remote learning, Distance learning, Virtual learning, Blended learning, Mobile learning, Distributed learning, Machine learning, Ubiquitous learning, Deep learning, Cooperative and Collaborative learning. Most aspects of education are going digital, and education stakeholders including students are confronted with the challenge of transition to online education. The use of appropriate educational technologies increases accessibility to learning resources such as Massive Open Online Courses (MOOCs), and multiple learning approaches to meet the needs of diverse learners (Onyema et al., 2019).

Online education is a general concept for teaching and learning with the aid of technology tools and platforms. The success of online education depends on factors including, good internet connections, learning software, digital skills, availability and access to technology. Online education platforms are vital tools that support inclusive education and online learning. Online education has its roots in distance education and the emergence of digital technologies that facilitate the efficient and reliable delivery of lectures, virtual classroom sessions and other instructional materials and activities via the internet (Onlineeducation.com, 2020). With the high penetration of the internet and mobile technologies across the globe, online education platforms can be maximized to bridge the gaps in education, thereby reducing the rate of global illiteracy. There are broad ranges of online platforms that facilitate online education particularly in times of outbreaks like the Coronavirus pandemic.

The use of educational technologies facilitates online education, student-teacher interactions, connection and relationships. It enhances teaching and learning experiences, content creation, course sharing, assessments, and feedback. Educators can reach and interact with their students on the go from any location, and lectures can be fixed at any time of convenience. Educators and students can optimize these technologies to supplement classroom teachings, and to improve their digital skills in line with emerging trends in education. More so, knowledge of technology increases educators' and students' interest, competence, confidence, creativity, employability and output, and also prepares them for the future.

**Challenges of Learning from Home**

The Coronavirus outbreak has forced millions of students to study and learn from home. This is not a new phenomenon because the home has long been epicentres of learning particularly as regards informal education. Learning from home is becoming a new normal for students. According to Education Task (2020), the majority of university students still prefer to study in the comfort of their own homes because the learners tend to have everything at their disposal without having to leave their chairs. However, the realities of receiving formal education from home could be very challenging to many educators, learners and parents especially those in developing countries where the accessibility, availability and use of

technology in education are not widespread. Apart from the cost of accessing online education, many other factors such as network issues, poor power supply, distractions, poor digital skills, inaccessibility and availability issues can also hinder smooth study from home. There is also the problem of time to learn new technologies and noise that emanate internally or externally from neighbours and neighbourhood. Unequal access to technology is another serious concern for many countries. Furthermore, prolonged school closures could deprive millions of students' access to education particularly those in third world countries, rural areas, and people with special needs. UNESCO understood these challenges, and efforts were undertaken to help educators and students in the affected countries to teach and learn online from their homes through the provision of free software that facilitate remote education. Catherine (2020), reported that UNESCO assembled an online guide with links to distance learning apps and other resources to mitigate the effects of school closures for Coronavirus. Students were expected to optimize the Coronavirus mandatory school closures to improve their digital learning skills and home study habits. The challenges imposed by Coronavirus could be transformed into an opportunity by learners to advance their problem-solving skills and digital capabilities.

**Theoretical and philosophical thought for the study**

This theoretical study is grounded on the Classical Liberal Theory of Equal Opportunities advocated by Sherman and Wood cited by Njeru & Orodho, (2003) who advances the perspective of the need for equal opportunities in education for every learner. The classical Liberal Theory of Equal Opportunities affirms that every learner is born having some amount of ability which to some bigger margin is congenital and cannot be substantively altered. Therefore, education systems and structures ought to be tailored in a manner that removes challenges of any form (social, economic, political, geographic, gender etc.) that prevent ingenious learners from lesser economic upbringings from taking full gain of innate talents, which fast-track them to social promotion. The Classical Liberal Theory insinuates that social mobility would be stimulated by equal opportunity of educational structures. According to this theory, education systems and structures ought to be planned with a view to eliminating obstacles or challenges of any form for instance, challenges based on socio-cultural, socio-economic and ecological factors, and institution-based dynamics which inhibit students from gaining from their innate talents. The education delivered to marginalized and vulnerable students would accelerate them to social promotion as education is a great equalizer.

The outbreak of pandemics like COVID-19 and related infectious ailments, which send schools to unexpected prolonged closures, pause a lot of challenges to marginalized and vulnerable learners. While the parents for learners from well to do backgrounds afford good meals, decent accommodation, best medication and robust digital gadgets to continue learning from the comforts of their homesteads, the contrast for the disadvantaged learners is true. Hence, for access and equity concern, it virtually becomes *imminent?* to disregard the premise that uneven involvement in education will finally complicate the status of the underprivileged and the susceptible learners (Njeru & Orodho, 2003). The classical liberal theory was established to be appropriate for this study as COVID-19 pandemic challenges affected more the poor, marginalized and vulnerable parents and guardians consequently the effect trickled down to their children who cannot afford to provide the basic necessities both at home and school. The situation was worsened by the digital divide; as the fortunate learners were being taught through radio, TV, YouTube, among other digital gadgets, the less fortunate were busy labouring to put a meal on the table hence not having equal opportunity to education.


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This theoretical study was further steered by theory of justice and fairness as advanced by Rawls John (1971) who is for the values of justice to govern modern social order. The theory gives a structure that explicates the importance, in a society presumed to comprise of equal and free persons of political and individual liberty of equal opportunity and cooperative organization that profit the privileged and less privileged members of the society. It advances the notion of justice from the perception that individuals are equal and free thus, educational structures ought to be planned so as to eliminate peripheral obstacles of any form (social, cultural, economic, political or, ecological) that inhibit learners from less privileged upbringings from maximizing innate talents which triggers them to social promotion.

The theory of justice and fairness stresses that all social key goods (income and wealth, liberty and opportunity and the bases of self-respect) are to be shared equally so that everybody in society would equally have ability to realize their interests. Any uneven sharing of any or all of these goods will be to the detriment of the underprivileged. Economic and Social inequities are to be organized so that they are, to the larger magnitude, profit the less privileged and also be issued to offices and locations accessible to all under rules of fair equality of opportunity. Theory of justice and fairness stresses that every citizen should be accorded, through education, a chance to exercise freedom and advance their social rank. By availing education to students from every social stratum, it is believed that one eliminates the barriers that are congenital by the virtue of being born in less unfortunate background, marginalized or vulnerable (MINEDUC, 2018). This theory supports the view that learners should have equal opportunity at all levels of education disregarding their socio-economic background. This will ensure that ideal conditions are created to implement the vision of equal opportunity, where every learner has admission to the education being offered. The theory of justice and fairness was established to be appropriate for this study given that unequal provision of out of school education through the digital platform discriminates the poor families in their quest for basic education as they cannot afford to purchase the digital infrastructure to equally learn from home just as their counterparts of means hence not giving them equal opportunity and this perpetuates inequalities.

**Pros and Cons of Covid-19: A Tale of two sides**

School closures carry high social and economic costs for people across communities. Their impact however is particularly severe for the most vulnerable and marginalized boys and girls and their families. The resulting disruptions exacerbate already existing disparities within the education system but also in other aspects of their lives. These include:

- **Interrupted learning**: Schooling provides essential learning and when schools close, children and youth are deprived opportunities for growth and development. The disadvantages are disproportionate for under-privileged learners who tend to have fewer educational opportunities beyond school.
- **Poor nutrition**: Many children and youth rely on free or discounted meals provided at schools for food and healthy nutrition. When schools close, nutrition is compromised.
- **Confusion and stress for teachers**: When schools close, especially unexpectedly and for unknown durations, teachers are often unsure of their obligations and how to maintain connections with students to support learning. Transitions to distance **learning** platforms tend to be messy and frustrating, even in the best circumstances. In many contexts, school closures lead to **furloughs** or **separations** for teachers.
- **Parents unprepared for distance and home schooling**: When schools close, parents are often asked to facilitate the learning of children at home and can struggle to perform this task.


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This is especially true for parents with limited education and resources.

- **Challenges creating, maintaining, and improving distance learning**: Demand for distance learning skyrockets when schools close and often overwhelms existing portals to remote education. Moving learning from classrooms to homes at scale and in a hurry presents enormous challenges, both human and technical.
- **Gaps in childcare**: In the absence of alternative options, working parents often leave children alone when schools close and this can lead to risky behaviours, including increased influence of peer pressure and substance abuse.
- **High economic costs**: Working parents are more likely to miss work when schools close in order to take care of their children. This results in wage loss and tend to negatively impact productivity.
- **Unintended strain on health-care systems**: Health-care workers with children cannot easily attend work because of childcare obligations that result from school closures. This means that many medical professionals are not at the facilities where they are most needed during a health crisis.
- **Increased pressure on schools and school systems that remain open**: Localized school closures place **a burden** on schools as governments and parents alike redirect children to schools that remain open.
- **Rise in dropout rates**: It is a challenge to ensure children and youth return and stay in school when schools reopen after closures. This is especially true of protracted closures and when economic shocks place pressure on children to work and generate income for financially distressed families.
- **Increased exposure to violence and exploitation**: When schools shut down, early marriages increase, more children are recruited into militias, sexual exploitation of girls and young women rises, teenage pregnancies become more common, and child labour grows.
- **Social isolation**: Schools are hubs of social activity and human interaction. When schools close, many children and youth miss out social contact that is essential to learning and development.
- **Challenges measuring and validating learning**: Calendared assessments, notably high-stakes examinations that determine admission or advancement to new education levels and institutions, are thrown into **disarray** when schools close. Strategies to postpone, skip or **administer** examinations at a distance raise serious concerns about fairness, **especially** when access to learning becomes **a matter of the past.** Disruptions to assessments results in stress for students and their families and can trigger disengagement.

**However, the pros are:**

There are no significant advantages because there is a huge loss in jobs, lives, and the economy of the Country. But speaking about the children, there are some advantages.

***School and College holidays***

Students can use their quality time in studying and the other activities in which they are interested. Spend time in the house by not going out and enjoy watching movies and do some craftwork.

***Time to spend with family***

Best time to spend with grandparents, cousins, mother, father, and other relatives as there is ample time to spend (if possible, as per government norms). Moreover, everyone is working from home. There is no need to step out of the house and meet with relatives, you can pick the phone and call them and chat to strengthen family relations. Watching a movie along with the family and enjoying were rare moments during COVID 19 period. It was time to spend time with parents and explaining career planning views, brainstorming with them to chart


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towards a bright future path towards proper feature path.

***Saving Time:*** Saving time to avoid transportation time, prayer, sports, chatting with friends. Spending five to six hours of the quality time for the online classes while in school, spent 10 hours. Getting more time for the self-study if well utilized such as minimize use in the proper way to avoid watching movies and playing mobile games.

***Technology accelerant:*** Lockdown regulations have acted as an accelerant for services and infrastructure offered by technology companies. Forced to stay at home, consumers have been watching more streaming video and buying more online. Those fortunate enough to still be in work have been connecting to their office computers and colleagues remotely, increasing the need for networking and cloud computing solutions.

***Deepened moats:*** The economic damage caused by COVID-19 is sadly not falling equally across all people in society – the poor and low-paid faring worse. Nor is it falling equally across companies. Companies with strong financial positions – little debt and sound balance sheets – are better able to weather the downturn. This could leave them with deepened competitive advantages – what we call, using a term coined by Warren Buffett, 'moats' – that will enable them to be even more profitable when revenues eventually improve. We search emerging markets for high quality businesses with strong balance sheets and deep moats. Among banks, for example, we think HDFC, the India-based financial services company, and Bank Central Asia, based in Indonesia, are exceptionally strong. All banks will be adversely affected by the downturn – banks are perhaps the single most economically-sensitive sector – and their non-performing loans may in general increase. Yet strong banks will not only survive, but go on to flourish.

***More time for fitness:***

For some people, restrictions on movement could be a reason for missing out on gym sessions, leading to an increase in body weight. However, if you manage your time judiciously, you can focus on your fitness. Home workout and activities like Zumba and Yoga are gaining popularity during this lockdown period. Burning calories from the comfort of your home can be enjoyable and save you from the health risks.

***Family Togetherness:*** Hectic work life that involved long hours of commute to the office had left no time for personal life. The lockdown and self-isolation period have given us more time for our family. With schools closed and many young couples working from home, the current scenario has brought families closer than before. Mothers have a respite from tiring household chores as children and other family members are sharing the burden of cleaning and cooking. It is one of the noticeable benefits of staying at home.

***Improvement in Sleep Hygiene:*** Sound sleep is essential for boosting our immunity, thus helping our body fight deadly viruses. Earlier, sleep was the last thing we focused on in our effort to meet other priorities in life. Waking early and rushing to our offices had become a regular feature of our daily schedules. As people are staying at home and bound to work from their homes, they are now able to get sufficient sleep.

***Focus on Health:*** The lockdown has brought our focus on health and healthcare at home. The food that we eat compels us to think about the nutritional value it has. The crisis has also highlighted the need to be financially prepared when a medical emergency strikes unexpectedly. Many people are now realising the importance of buying a health insurance policy, which is a safety net that keeps a family worry-free.

***Discipline and Hygiene:*** The outbreak of COVID 19 and the lockdown measures have taught us the importance of hygiene and disciplined lifestyle. It has shown us the simple way of living, and brought back attention to healthy practices like washing hands, for the sake of good health. Being confined to homes also implies no visits to restaurants, which is a blessing in disguise. This time can be best

utilised relishing home-cooked foods. Staying at home has highlighted the need for healthy eating, which will enhance our body's immune system as well.

***Saving lives:*** Despite the various downsides, many health experts believe lockdowns have been an effective and necessary measure.

***Lessen strain on NHS:*** Announcing the UK lockdown back in March, Johnson warned that "without a huge national effort to halt the growth of this virus, there will come a moment when no health service in the world could possibly cope, because there won't be enough ventilators, enough intensive care beds, enough doctors and nurses".

***Drop in pollution:*** A positive side-effect of lockdowns worldwide has been a significant drop in levels of air pollution and warming gases in many cities and regions where the pandemic has resulted in reduced travel and industrial production.

**The cons are:**

There are significant disadvantages because there is a huge loss in jobs, lives, and the economy of the Country. Main disadvantages for students are

***Online Classes***

Online classes, the adoption rate is around 50-60% whereas in the classroom the adoption was around 80-90%. Online classes affect the eyes of the students due to long hours in front of the blue screen.

Small children like the play school and the primary grades must not have this type of class because they have low concentration power, and these small kids do not have the ability to sit for a longer time in front of the blue screen.

Lots of poor students do not have access to laptops and computers; all these students are naïve, think there should not be this disparate education.

Surely there are many disadvantageous factors such as there are no exams; students are being given marks by the internals. This may impact their career in the feature. These factors are going to be a foreshadow to the child's future life. On this note, want to say that students are missing the days in the schools and colleges. Hoping the government take good decisions on education with clear instructions as early as possible to avoid necessitated by Covid-19 pandemic.

These are not limited to:

**Economic downturn:** The economic slump and forced closure of businesses has seen unemployment soar, with newly released data from the Office **of** National Statistics (ONS) showing that a total of 695,000 payroll jobs were lost in the first five months of the pandemic.

**Further disruption to education:** Schools across the world were forced to close in late March as the virus spread across the nation exams cancelled or postponed.

**Mental health**: Dealing with the physical threat of Covid-19, feelings of isolation brought on by lockdown, distance from support networks of family and friends, and the uncertainty of future restrictions has taken its toll".

**Democracy and freedoms curtailed:** For many people, having the minutiae of daily life coming under government rule is an alien and confusing experience. Sweeping regulations aimed at containing the coronavirus has given unprecedented powers to governments and police in countries worldwide.

**METHODOLOGY**

The study adopted a survey design. Self-prepared questionnaires were administered to 114 respondents that comprised of educators, students, parents and policy makers selected from different Kigali city. Due to the lockdown, the questionnaires were administered online using online survey platform. Secondary data were also generated from newspapers, journals, media and reports during the review of literature. Thereafter, factorial analysis was carried out on the collected data using SPSS.

**RESULTS AND ANALYSIS**

A total of 15 responses were excluded due to mismatched data. The remaining 99 responses gave an overall response rate of 86.8% (Table 1). Of the 99 participants 64 (65%) were males, and 35 (35%) were females. The age of participants ranged from 18 to 52 years (mean ± SD = 24.10 ± 5.93 years). About 52.7% of the participants were aged 18–22 years, 38.5% were aged 23–32 years, 5.7% were aged 33–42 years, and 3.1% were aged 43–52 years. About 55.7% (*n* = 99) of the participants were residents in a city while 44.3% (*n* = 35) the participants were residents in rural areas.

**Table 1: Summary for the respondents' background information**

| | Frequency | Percentage (%) |
|---|---|---|
| **Gender** | | |
| Male | 64 | 65 |
| Female | 35 | 35 |
| Total | 99 | 100 |
| **Education level** | | |
| Primary | 17 | 17 |
| Secondary | 13 | 13 |
| University | 69 | 70 |
| Total | 99 | 100 |
| **Residential area** | | |
| Rural | 11 | 11 |
| Urban | 33 | 33 |
| Not sure | 55 | 56 |
| Total | 99 | 100 |

**Regression analysis**

Model summary is a summary that describes how far the in dependent variables explain the dependent variables that mean the greater R value has the great number the greater independent variables explain with dependent variable. Table 1 provided the R and $R^2$ values. The R value represented the simple correlation and is 0.887 (the "R" Column), which indicated a high degree of correlation. The $R^2$ value (the "R Square" column) indicated how much of the total variation in the dependent variable, Education, can be explained by the independent variables i.e., Research constraints, Dropouts, Limited access to learning facilities, Learning Disruption, prolong study, Job losses, increase student debts, Limited education opportunities, etc. In this case, 75.7% of the dependent variable can be explained by the independent's variables.

**Table 2: Summary for the R value and R Square value with the Std. Error**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .887[a] | .764 | .757 | .2104 |

a. Predictors: (Constant), Research constraints, Dropouts, Limited access to learning facilities, Learning Disruption, prolong study, Job losses, Increase student debt, Limited education opportunities

b. Dependent Variable: Education

The significance value shown in Table 2 was 0.000 which was less than 0.05 thus the model was statistically significance in predicting how COVID-19 pandemic lockdown impacted education in Rwanda. The F critical at 5% level of significance was 35.037. Since F calculated was greater than the F critical (value = 39.475), this showed that the overall model was significant.

**Table 3: ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 120.450 | 5 | 120.450 | 35.037 | .000[b] |
| | Residual | 32.659 | 32 | .573 | | |
| | Total | 153.109 | 37 | | | |

a. Predictors: (Constant), Research constraints, Dropouts, Limited access to learning facilities, Learning Disruption, prolong study, Job losses, Increase student debt, Limited education opportunities

b. Dependent Variable: Education

From Table 2, the Significance value was 0.000 (i.e., p = .000), which was below 0.05 and, therefore, there is a statistically significance of the technology for online education.

**Table 4: Coefficient results**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.033 | .504 | | 2.049 | .041 |
| | Learning Disruption | .078 | .031 | .130 | 2.485 | .013 |
| | Dropouts | .099 | .047 | .130 | 2.124 | .034 |
| | Student Debt | .085 | .044 | .117 | 1.920 | .056 |
| | Limited learning facility | .233 | .053 | .245 | 4.397 | .000 |
| | Limited education opportunities | .078 | .031 | .130 | 2.485 | .013 |
| | Job losses | .099 | .047 | .130 | 2.124 | .034 |
| | Extended period of study | .085 | .044 | .117 | 1.920 | .056 |

a. Dependent Variable: Education

The first column showed the predictor variables (constant, Research constraints, Dropouts, Limited learning facility, Learning Disruption, Prolong study, Job losses, student debt, and Limited education opportunities). The first variable (constant) represents the constant, also referred to the educator efficiency as the Y intercept, the height of the regression line when it crosses the Y axis. In other words, this is the predicted value of COVID-19 impact on education, when all other variables are 0. This coefficient table contains the values for the regression equation for predicting the dependent variable from the independent variable. These are also the values for 95% confidence intervals for the coefficients.

An analysis of the factors loading identifies that the factors are significantly the most barriers to continued education during the COVID-19 pandemic lockdown. From the analysis, the finding confirmed that the ten factors are statistically significant as the communalities values for all of the variables are < 0.05 and that explains the decision to the barriers of education during the COVID-19 lockdown. All factors are influential. Among them, Unavailability and accessibility issues were the most affected. About 70% respondents agreed that Unavailability and accessibility issues hindered continued education amid COVID-19. Similarly, 51% respondents agreed that poor digital skills hindered their engagement in continued educational activities during the COVID-19 pandemic lockdown.

**Discussion of findings**

The study affirmed the devastating effects of COVID-19 pandemic on education and the various barriers that hinder students and instructors' engagements in online education for continued learning during the COVID-19 lockdown. The results showed that educational activities were badly affected due to the COVID-19 pandemic lockdowns. Some of the identified effects include; learning disruption, limited access to learning facilities such as laboratories, job losses in the education sector,


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increase in students' debts, reduced funding for education, research constraints, and loss of learning interests among learners. The finding is in line with earlier assertion by Onyema et al., (2020), that Coronavirus pandemic created multiple problems for education sector leading to decreased education opportunities for underprivileged learners and those in rural areas.

Also, from the factor analysis, it was found that Poor digital skills, School policies, Digital divide, Poor electricity, Unavailability and accessibility, Network issues, Inadequate facilities, Lack of training, Lack of funding, Resistance to change, etc. were the major barriers for online education during the COVID-19 pandemic school closures. Among them, inadequate facilities appeared to be the highest impediment to online education during the pandemic. More than 70% of the respondents agreed that inadequate facilities such as lack of computer, internet facility, were the major factors that limited their engagement in Online education. Similarly, poor electricity service, unavailability and accessibility issues, network issues, etc. The result of the study shows that Coronavirus disrupted educational activities and tends to reduce educational opportunities for disadvantaged people. It displaced students and teachers and created multiple barriers in teaching and learning. The study indicates that COVID-19 lockdowns have the tendency to increase school debts and pressure on parents and educational institutions. This is in line with the assertion by Ben, Mathew, and Kristen (2010) that school closure can add stressors to students who are already contending **with** challenges associated with urban poverty. The finding recognizes the need for technology in education particularly in times of emergencies. This is in line with an earlier assertion by Onyema (2019), that integration of emerging technologies in education is no longer a choice, but a need for all educators considering the changing learning environment, demands for flexibility in methodology, and the need to enhance creativity and innovations in learning. The study would contribute to the growing knowledge on Coronavirus effect on education sector and the need for technology in education.

**Lessons learnt building on the pros and cons and your observations while undertaking the study**

Out-of-school girls may also migrate to cities in search of work and be confronted by basic income needs and even homelessness, making them vulnerable to sexual exploitation and child trafficking. A recent World Vision analysis of 2,400 micro-entrepreneur clients across eight African countries (DRC, Ghana, Kenya, Malawi, Rwanda, Tanzania, Uganda and Zambia) reveals that 92 per cent of surveyed microfinance clients running small businesses are facing reduced income affecting their loan repayment capacity due to the economic impact of COVID-19. The analysis also found that 80 per cent of women in small businesses and involved in informal trading are members of savings for transformation groups, and they now risk losing both their savings and income-generating activities, with potentially devastating impacts on their children.33 As economic shocks to adolescent girls and their families increase due to COVID-19, so do the risks of sexual exploitation and teenage pregnancy.

According to New times Report on 21st October 2020 at least 550 teenagers from Bugesera District were impregnated up to October this year. In Rwamagana District, 300 teenagers were impregnated from July 2019 to June 2020, of whom 150 teenagers were impregnated during the pandemic. Reports show that in the past eight months when Covid-19 broke out, 424 girls under the age of 18 were impregnated in Northern Province. It is estimated that the numbers could surge following the Covid-19 pandemic impact that left many girls vulnerable to unprotected sexual intercourse.

According to health researcher and reproductive health expert, Dr Aniceth Nzabonimpa, family poverty, child labour, early marriages, delinquency, domestic work, teen pregnancy and unsafe abortion that escalated during the pandemic might

prevent many youths from going back to school if quick intervention isn't done.

A letter from the Bugesera District-based Blue Lakes International School Deputy Principal Bhumika Saxena requesting female students to each produce a pregnancy test certificate as one of the pre-requisites for admission has left many parents and activists reeling with shock.

**CONCLUSION AND RECOMMENDATIONS**

The study established that the Coronavirus pandemic had adverse effects on education. COVID-19 had major effects on school characteristics, including research, academic programmes, Staff professional development and jobs in the academic sector etc. These effects were felt by both educational institutions, educators, students and parents and other stakeholders in education. The study emphasized the need for adoption of technology in education, as a way to curb the effects of Coronavirus and other future pandemics in the education sector. Thus, the study acknowledged that the decision to shut down schools for Coronavirus across the world may be hurtful, but it was sensible considering the rate of spread, and the dangers imposed by COVID-19 pandemic. The unprecedented school closures for Coronavirus remains a lesson and a warning to the entire educational world particularly those who were yet to embrace or adopt emerging learning technologies that support online or remote education. Stakeholders in the education sector have to develop robust strategies to deal with post-Coronavirus era.

The study recommended that:

- COVID-19 was having a negative impact on young people's mental health. We were concerned that, with most young people not currently attending school and many young people not having access to resources and materials with which to learn, there will be a subsequent detrimental effect on both academic attainment and wellbeing.
- The impact of this, particularly on groups who were already disadvantaged, was likely to widen existing inequalities and to contribute to a rise in young people looking for mental health support.
- The COVID-19 crisis was likely to have a long-lasting impact on young people's mental health and the services that support them, including schools and children's services. The Government must consider this throughout its emergency response and policies to recover from the crisis.
- Especially, if the authorities focus on this COVID 19 recovery action plan, it will help protect the education sector in the nation. Therefore, we need to have an attitudinal change towards a more sustainable control of the pandemic situation in our country to enhance continuity of education.

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