



**EXPLORING THE IMPACT OF COVID-19  
ON HIGHER AND TERTIARY EDUCATION -  
A CASE OF GREAT ZIMBABWE UNIVERSITY (GZU)**

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**Abstract:**

This study explored the effects of COVID-19 on higher and tertiary education in Zimbabwe. The outbreak of the coronavirus pandemic (SARS-COV-2) in December 2019 disrupted traditional forms of teaching and learning centred on face-to-face and in-class instruction. Governments enforced social distancing measures characterised by stay-at-home strategies and the closure of schools and other learning facilities. This study discusses the impact of COVID-19 pandemic on higher and tertiary education in Zimbabwe, especially the varied approaches and its pedagogical future. The study explores the challenges and innovations brought out by the pandemic in relation to provision of higher learning at Great Zimbabwe University. The challenges of access to the internet for both lecturers and students, lack of essential learning gadgets such as laptops and smartphones for both students and lecturers, the capacity of the university to keep its learning sites working flawless, the challenges of non-submission and or late submission of assignments by students resulting to the aforementioned challenges and other challenges will be under scope in this study. The study also consider innovations that the university did amidst the pandemic that promoted higher learning. These various interactive forces transformed learning at Great Zimbabwe University. This study is thus an interpretive assessment of the various changes that took place in higher learning institutions.

**Keywords:** impact of COVID-19, higher and tertiary education, Great Zimbabwe University (GZU)

**1. Introduction**

The outbreak of the coronavirus pandemic (SARS-COV-2) in December 2019 disrupted traditional forms of teaching and learning centred on face-to-face and in-class instruction. Governments enforced social distancing measures characterised by stay-at-home

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strategies and the closure of schools and other learning facilities. The global outbreak of the acute respiratory syndrome coronavirus 2 (SARS-COV-2), the virus that causes COVID-19 had devastating effects on human life (Baldwin & di Mauro, 2020). The virus spreads through close contact with infected people and contaminated surfaces. In response, many governments banned face to face teaching, leading to the widespread adoption of remote-based education. Over half a billion of school-going children and youth missed classes due to implemented lockdowns (Wahab, 2020). The forced schools' closure, affected about 4.56 million learners in Zimbabwe who depended on face-to-face and in-class instruction (OCHA, 2020).

The outbreak of pandemics and natural disasters have shown that teaching and learning are not confined to the four walls but have shown how education and technology are intertwined (Wargo, Chellman, Budge, & Davis, 2020). The global education system must adapt to the new norm, moving away from the conventional face-to-face to virtual and online learning amid the COVID-19 pandemic. Educational institutions that had integrated ICTs in their curriculum found it easy to switch to remote-based teaching and learning. This study discusses the impact of COVID-19 pandemic on higher and tertiary education in Zimbabwe, especially the varied approaches and its pedagogical future. COVID-19 has caused learning disruptions, difficulties in social interaction, physical and mental health problems, economic crisis, which have consequences on education and learning behaviours.

Walker, Whitaker and Watson (2020), define COVID-19 as a strain of virus that is caused by a group of bacteria of the respiratory organ that was traced in Wuhan in China in 2019. Government of Zimbabwe (2020), defines COVID-19 as a new strain of coronavirus that is spread through contact with an infected person especially through liquids that come from them. In other words, COVID-19 is a virus that spreads primarily through saliva, discharge, cough and contact with an infected person. Since the discovery of COVID-19, schools at all levels have been closed from March 2019 to August 2020 in Zimbabwe (Government of Zimbabwe, 2020). The quality of education thus have been compromised with writing classes finding it difficult to study online and grasp academic concepts intended to help them sit for their examinations (Mitch, 2019). It is against this background that the researcher was motivated to find out more on the impact of COVID-19 on a higher and tertiary education with a case study of Great Zimbabwe University.

## **2. Statement of the problem**

The outbreak of COVID-19 has brought about various effects on the day to day living of the people. Major imbalances were witnessed in various sectors of socio-economic development of the country. The education sector was not spared from the onslaught, leading to the closure of schools, disruption of learning, introduction of new methods of teaching and learning among other effects. These changes weakened the education system and, in most instances, led to the producing of partially groomed students. Despite the fact that universities and other tertiary institutions deal with mature students

the effects of COVID-19 were unquestionable. Coupled by the incapacitation of lecturing staff, restrictions to physical classes and the socio-economic impact of COVID-19 on households, many dilemmas have been brought about by the pandemic affecting the academic, social, emotional and physical welfare of tertiary schools, their staff and students. It is the assumption of this study that socio-economic policies if well implemented would revamp academic needs of tertiary institutions in the face of COVID-19. Hence the need to explore the impact of COVID-19 on higher and tertiary education.

### 3. Literature review

Undoubtedly the spread of COVID-19 across the globe has caused many dilemmas at global in all facets of human lives across the globe. The outbreak of COVID-19 which was originally identified in Wuhan, China in December 2019 (Paules, *et al*, 2020), was declared to be a Public Health Emergency of International Concern by the World Health Organization (WHO) on 30 January 2020 and as a pandemic on 11 March 2020 (Phelan *et al*, 2020). The nature of the pandemic demanded that human movements be reduced and in some cases be stopped in order to contain the spread of the disease. The declaration of COVID-19 as a pandemic was followed by the largest-ever amount of shutdowns/lockdowns worldwide, with more than half of humanity under lockdown as of 3 April 2020 (Sandford, 2020). The implications of the pandemic are far and wide in reaching, and has affected humankind in all facets of life. The discourse of the effects of COVID-19 will remain an evergreen subject that will require continuous research in order to understand how the pandemic has affected the world both negatively and positively. Globally the pandemic has negatively affected economic development with developing nations bearing its most profound economic impact. The pandemic has ushered in a new climate of uncertainty which is fuelling protectionism and playing into nationalist narratives (Yaya *et al.*, 2020). Globally, countries have imposed measures that are aimed at reducing countries' vulnerability to the virus by limiting global trade and flows of people. Such measures include the closure of borders and strict immigration measures. As a result of these impositions there have been major disruptions in Africa's global supply chains with adverse impacts on employment and poverty (*ibid*). The situation was further aggravated by tumbling oil prices and a global decrease in the demand of African non-oil products on the international market. Ordinarily, the agriculture sector which has been the backbone of many African economies could have rescued these countries, however, the imposition of lockdowns has also negatively affected the sector.

COVID-19 outbreak has spread its adverse effects on higher and tertiary education by affecting students' education, lecturers and other staff members at Zimbabwean universities including health, economy, and societal relationship. The measures like social distancing, quarantine, closure of educational institutions taken to reduce the transmission of the disease have impacted students' academic learning to a greater extent. The significant effects of this pandemic have crippled the conventional tertiary education system. Students at the tertiary level have fallen into a massive problem about

their future. This essay shed light on the impacts of COVID-19 pandemic on tertiary level education in Zimbabwe in from the perspectives of teaching approaches and its pedagogical future. It showed that the learning disruptions, difficulties in social interaction, physical and mental health problems, economic crisis, caused by the outbreak of COVID-19, had discrepant consequences on tertiary students' academic education and learning behaviors. This essay also highlights that shifting to online education for continuing tertiary education created stress, anxiety, disappointment due to some unavoidable issues concerning virtual learning strategy.

Students experienced significant educational disruptions as the pandemic interfered with their academic functioning. Since the closure of tertiary-level educational institutions suspended face-to-face teaching-learning sessions, it interrupted the regular flow of academic programs. The delay in re-opening educational institutions can negatively affect their mental state and academic growth. The long-time home quarantine period caused disturbance and deterioration in students' study habits and performance of work, which eventually resulted in the growth of stress and dysfunctional learning behaviors. Major interruptions occurred in students' learning, as many internal and public assessments were postponed or canceled. To diminish the disruptions in tertiary education, a significant shifting of many educational institutions to emergency online learning programs from traditional face-to-face learning programs has been noticed during the COVID-19 situation. They faced challenges in switching to online lectures, adjusting in new online assessment methods and workloads, communicating with teachers, and dealing with many online education issues like unavailability of electronic devices, no internet access, high cost of internet. Even scientific researches held on and educational conferences canceled or moved online, which created barriers for students to networking opportunities for scientific communication and job seeking Nicola et al (2020).

To ensure uninterrupted teaching and learning, schools and other learning institutions sought alternative education delivery from radio broadcasts to online based. The Zimbabwe government declared radio broadcasts as the primary tool to support teaching and learning during the pandemic. The country's contextual dynamics led to the examination and evaluation of the suitability of available technologies to deliver educational content during the COVID-19 lockdown. Sharma (2020) reported that school opening was going will delay further as there were fears that the physical distancing and safety bounds may be broken, thus escalating the transmission of the pandemic. As no cure for COVID-19 is available, remote-based learning will supplement traditional face-to face teaching, which is under threat for the foreseeable future.

An almost universal response to school closures has been the creation of online learning platforms to support teachers, students and their families. However, not all students have the same access to information and communication technologies (ICTs), which also varies greatly across countries (OECD, 2020). While the most vulnerable students might not have access to digital learning resources, some governments and civil society organisations have provided them with computers or tablets as well as internet

access, or have organised teaching through television, phones or radio. A number of countries offer useful insights into some of the most equitable and inclusive solutions to provide access to digital learning resources and effective distance education.

A study conducted across sub-Saharan Africa found that the mobile phone had improved learners' academic performance aided by its communicational capabilities (Porter et al., 2015). In Zimbabwe, the proportion of households with at least one household member owning a mobile cellular telephone at home was about 106 percent in 2014 (ZIMSTAT, 2018). Zimbabwe's number of active internet subscriptions increased to over 8 million subscribers during the same period. Smartphone ownership in the country has been growing, and it had reached 60.6 percent by August 2018 (Karombo, 2018; POTRAZ, 2019). About 29.1 percent of the Zimbabwean population has access to the radio (ZIMSTAST, 2018).

COVID-19 had a huge impact on students that came from other countries. According to United Nations Department of Economic and Social Affairs (UNDESA) 2019 seventy percent of all international migrants are below 30 years of age globally and in 2019, 38 million international migrants were below the age of 20 years, epidemics such as COVID-19 are likely to disproportionately affect this population. At the beginning of the pandemic international students were forced to return back home without considering that they may have stipulated visas which give them stipulated timeframes to complete their studies. Moreover, lacking in skills of using technical devices and the unfamiliarity of the use of online class platforms like Zoom, Google Meet, Google classroom, Skype exacerbated the problem.

Students were affected by not having effective learning management systems and other essential equipment in universities. This have reduced the quality of education as most of the teaching approaches require face to face interactions. Lecturers received no or little preparation and training for running online teaching. Universities also lack the special support for their lecturers such as computers, laptops, software, training, unlimited data or Wi-Fi access required by online teaching approaches. Several difficulties are linked to online learning in these areas: maintaining time schedules of online classes, setting times for homework, collecting learning materials due to online access blocking of many libraries, learning lab-based or practical work-based lessons, convincing family members to give them adequate support and take online lessons seriously.

Learning takes place through different perspectives, such as instructivism and constructivism. The instructivist theory upholds that knowledge flows unidirectional from the instructor to the learners who must accept this knowledge without questioning or reasoning (Onyesolu et al., 2013). This paradigm considers the transmission and reception of knowledge as a critical component (Olusegun, 2015). Learners are passive recipients of knowledge who must memorise the information. Learning is predominantly teacher-centered. The teaching approaches centered on this paradigm were hugely affected by the pandemic as online teaching methods make it difficult for the teacher to take upper command.

In the constructivist paradigm, the learner is actively involved in constructing new knowledge and is, therefore, not a passive receiver (Taber, 2006). Learners create new knowledge as they discover further information by analysing old information against new and discarding aspects that have become redundant (Fosnot, 2005). Constructivists believe that learning is collaborative, learner-centered, where learners determine how they learn, by actively constructing knowledge, and that the teacher provides a facilitating role rather than being the sole constructor of knowledge (Olusegun, 2015). Other common learning styles include independent, collaborative, participant and dependent learning (Jose, Berry, & Andrews, 2019). As the world confronts the realities of COVID-19, the Zimbabwean education system should provide learning experiences modelled around the constructivist's perspective. Learners should take charge of their learning in remote learning, as there is little to no monitoring from the teachers.

In a bid to counter the effects of COVID-19 on education, the government of Zimbabwe also took into consideration the use of radios. The installation of a small transistor radio costs less and require little maintenance and could serve the school or a cluster of the schools, including the community. Radio cannot support the student-centered learning styles as noted by Jose *et al.* (2019), except to reinforce teachers-centered learning paradigm. While the use of radio in education is welcome, scholars question its extent and role in the learning process. For example, radios play a complementary role in supporting distance and regular face to face teaching methods. Radio has limitation such as passive and unidirectional access to content, which cannot be played back for content analysis and comprehension (Beukes, 2006). For radio to be interactive, Potter and Naidoo (2006) suggested that there was a need to use radio cassettes and Compact Discs (CDs). Student engagement could be aided through activities such as dividing lessons into segments for learners who can later replay and learn at their own time. Radio ownership and access in Zimbabwe are low, and for radio to succeed, it has to compete with other visual media, which appeal more to learners. McAlister (2009) posited that learners preferred a learning environment that offered multi-sensory engagement, such as multimedia.

Television (TV) could also be used as a teaching and learning medium. In South Africa, the South African Broadcasting Corporation (SABC), through SABC2, and the DSTV through MINDSET channels, has managed to integrate remote learning into its programming. Teachers can effectively present audio-visual content to learners using television to help learners grasp concepts faster (Munene & Mutsotso, 2019). One advantage of using TV for teaching and learning is that it supports audio-vision, enhancing the learning experience. Munene and Mutsotso (2019) underlined that television stimulates sensory senses through audio-visuals, improving teaching and learning. Television broadcasts have the potential to reach a larger audience and support remote learning during the COVID-19 pandemic. However, the chances of remote learning through television in Zimbabwe are limited as the country has one television channel, which cannot support teaching during the lockdown. Again, TV ownership is low, with 40 percent of the households having access to a television (ZIMSTAT, 2018).

One notable disadvantage of using TV is that it is not portable and offers little flexibility for today's learners who prefer to learn on the go.

Several studies have concluded that ICTs play a pivotal role in preparing learners for the 21st-century skills, and in developing countries, mobile phones are the most accessible ICT gadgets (Kalogiannakis & Papadakis, 2019; Maphosa, 2020). Digital media supports simple educational websites to learning environments supported by animation, virtual environments and tools that foster student engagement which stimulates cognitive processes and critical thinking. Zhou et al. (2020) contended that digital media breaks time limitations and provide high-quality, non-delayed live interactive classrooms in multi online classes. Digital technologies allow teachers to access substantial resources that augment the teaching material, ensuring that learners access rich, practical and real-time teaching. The conversion to online learning will enable learners to access content 24 hours per day and improves communication with teachers. Digital media can support all the learning styles that were raised by Jose *et al.* (2019) such as independent, collaborative, participant and dependent learning. During the COVID-19 lockdown, students can use digital media to access quality education through different constructivist-based learning styles regardless of location, pace, and time constraints.

The extended school closure will force many learners to drop out of school due to lack of access to educational resources. Reviewed literature shows that today's learners should access resources that enable them to build skills and competencies for participating in the knowledge economy as confident digital citizens. Some significant barriers to online learning were related to the teacher's access to equipment, lack of institutional policies and rationale, financial constraints that hinder access to data, and lack of digital skills to create appropriate content. All these constraints put a huge strain on the various methods of teaching and learning in tertiary institutions. The government and other partners could invest in ICT infrastructure to support remote-based teaching and learning. Educators' training in the use of digital media will also assist in ensuring that learning continues amid natural disasters that interrupt face-to-face learning.

#### **4. Conceptual framework**

The research seeks to dissect the efficacy of the concept of online learning which entails the use of digital gadgets and softwares such as google classroom to replace physical learning. The concept has been adopted by learning institutions to continue providing learning services amidst the restrictive lockdowns that prohibited gatherings and travelling. This concept was also taken aboard to mitigate challenges associated with lack of facilities at learning institutions such as lecture rooms. Pursuant to the adoption of this concept, enrolment in higher learning institutions was notably increased, largely resulting to the substitution of physical learning infrastructure by virtual learning sites that could accommodate more learners. This concept to one end brought positive implications to the delivery of education. However, the concept has weaknesses attached to it. Hence, this research seeks to study the concept at hand with the aid of other research

objective and questions to understand the efficacy of the concept in the face of challenges posed by COVID-19 to higher learning at Great Zimbabwe University.

### **5. The COVID-19 pandemic as a threat to the education system**

The impact of COVID-19 on education has had its most profound impact of less developed countries where the pandemic coupled with poverty resulted in increased school dropouts. The pandemic resulted in the closure of schools a factor that has resulted a number of students to turn to other menial activities that they failed to withdraw from when schools were opened. For instance, USAID (2020) mentioned that in many rural areas learners in primary and secondary schools engaged in artisanal mining and vending and other menial activities which affected their return to school when the lockdown was lifted.

The pandemic posed a threat to the education system where early marriages and teenage pregnancies acquired during COVID-19 induced lockdowns forced mainly girls out of school. Having said this, one can note that a knowledge gap exists on the impact of COVID-19 on higher and tertiary learners. Literature has been generated to cover a number of aspects on the subject of COVID-19 including its impact on the education sector, but much attention has been directed at primary and secondary school learner. In this regard, the lack of adequate scholarship on the impact of COVID-19 on higher and tertiary learners has prompted the researcher to consider this research are.

### **6. Methodology**

The ontological position taken by this study is built on pragmatism. This philosophy was chosen based on its compatibility with mixed methods employed by this research. According to Creswell (2009) in pragmatism what is ultimately important is what works in practice and what promotes social justice. In the case of this research which is concerned with challenges faced by higher and tertiary learners amidst the COVID-19 induced pandemic. Also, the paradigm posits that your research design should be planned and conducted based on what will best help you answer your research questions; the result is pragmatic knowledge. Hence, the research employed the pragmatism philosophy as it best answers to the demands of the research.

This study will use a mixed method approach. The researcher will administer the use of observations as well as interviews. The three will be used effectively in the collection of data which is of purpose in representation of findings since they look at both qualitative and quantitative data. In this study, mixed research (triangulation) method will be adopted where both qualitative and quantitative research methods were used. Flick (2011) describes mixed research methods as a research method with philosophical assumptions as well as methods of inquiry, with its central premise being that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone. This approach was preferred in order



to understand a real-life phenomenon, so that, the study would be able to obtain new, holistic and in-depth understanding, explanations and interpretations about previously unknown respondents' rich experiences of COVID-19 and their effects on higher and tertiary education.

This research is inspired by the need to understand the challenges posed by COVID-19 on higher and tertiary education, hence, to achieve this, the research design to be employed in this research is triangulation. Barbour (2001) posits that triangulation is used to address validity of data. Noble and Heale (2019), defines triangulation as an effort to help explore and explain complex human behaviour using a variety of methods to offer a more balanced explanation to readers. Triangulation can enrich a research as it offers a variety of datasets to explain differing aspects of a phenomenon of interest. Denzin (1970) proposed 4 types of triangulation which are data triangulation, investigator triangulation, theory triangulation and methodological triangulation. This research will employ all the four types of triangulation in order to come up with valid, factual and reliable outcome. Regardless of the strengths of triangulation the design has its weaknesses such being time consuming, and, in some cases, there may be times when comparisons of the findings of two sources is inconsistent or conflicting. The researcher will employ strategies that will correct the weaknesses inherent with the design.

Flick (2009) defines a research design as the guide methods and decisions that researches make during their studies and set the logic which they use to interpret their findings. According to Denzin (2011), a research design, is a summary of procedures that researcher use to collect, analyses, interprets and presents their research data. McMillan and Schumar (2009), described a descriptive survey as a plan or strategy of how a researcher intends to collect the research in order to address the research questions.

The study's target population is the total number of individuals who have either a direct or indirect stake in higher and tertiary education at Great Zimbabwe University. The study will not involve every person in the population frame but would target certain individuals from the population. The target population for the study shall be students, lecturers, faculty and department heads and officials from the Ministry of Higher and Tertiary Education.

In this study, random stratified and purposive sampling will be used. Rugonye and Rupande (2016) define stratified sample as a type of random sample, in which the researcher first identifies a set of mutually exclusive categories and then uses a random selection method to select the respondents. Purposive sampling technique is defined as characterised by identifying access points or settings where subjects could more easily be reached, and by selecting knowledgeable subjects (Ibid, 2016). Purposive sampling is a form of non – probability sample in which the subjects selected seemed to meet the study's needs. Purposive sampling entails the researcher selecting particular elements from the population that will be representative or informative about the topic (Bless and Higson, 2000).

The participants will be selected to provide the best information to address the purpose of the research and will be done basing on the judgment to be made from the

researcher's knowledge of the population. Leedy (1997) defines a sample as the selecting of a portion of a population. The research targets a sample of fifty (50) respondents from lecturers, students, health personnel and principals. Students will be selected from name lists or register and lecturers from staff lists at GZU. The same would be done for health officials and principals.

Sample size is the total number of people or elements included in a sample (Yount, 2016). The sample size can be determined using various techniques: probability sampling techniques of such as sample size tables, sampling formula and use of previous sample sizes among others; and use of non-probability sampling techniques especially for small population (Annum, 2015). In this study, the number of people concerned with higher learning at Great Zimbabwe University. The sample size was selected on considering the role of the respondents in higher learning, age of the respondents, their experience in the field, their proximity to issues of COVID-19 and higher learning and their and their contribution towards the addressing challenges associated with COVID-19 in higher learning institution. The sample size for this study will consist of 50 respondents covering all the people who are directly and indirectly linked to higher learning at Great Zimbabwe University.

Interviews allows subject to respond to the questions freely. The researcher directly talks to the subjects. There is liberty to use various questioning techniques quickly. Also, there is room to use the language (whenever) best understood by both the researcher and the subjects to avoid misunderstandings (Cresswell, 2013). In this study, the researcher has room to change the language whenever he discovers that the subjects are facing difficulties in language especially on students for them to answer freely. Interviews allow the researcher to obtain the detailed information about personal feelings, perceptions and opinions. With interviews, sensitive topics which people may feel uncomfortable discussing in a focus group are spelt out.

The research has a target of 50 in-depth interviews which will include lecturers 15, students (25), heads of departments (5), principal (2) and administrators (3). These groups have been targeted for in-depth interviews considering that they are seized with matters of learning and are directly involved in the delivery of learning at the institution. The interview questions will not be structured, and the researcher will go into the interview with the aim of discussing a limited number of topics, sometimes as few as one or two, and frames the questions on the basis of the interviewee's previous response. The researcher will initiate the interview with asking the respondent's views on the challenges posed by COVID-19 on higher learning at Great Zimbabwe University.

The data in this research will be collected using interview and observation. Mouton (2008) defines instrumentation as the process of gathering and measuring information on variables of interest. It also establishes a systematic fashion that enables the research participants to answer the stated research questions. The researcher will observe the state of higher and tertiary learning, COVID-19 preparedness as well as possible challenges. According to McMillan (2013) observation research is a fundamental way of finding data which involve the picking up of data through the use of our senses.

Observation data collection technique is more than just looking or listening but it is more of selective in nature where behavioural and routine patterns of individuals are taken into consideration.

In the educational research there are various methods and procedures for data analysis. The findings will be presented by use of frequency tables and graphs. The collected data will be organized in line with the research questions and objectives of the research and analysed using triangulation procedures. Data collected through interviews, document analysis and observation will be analysed through thematic and discourse analysis. Self-reflectivity examination will also be used this is when the researcher uses his opinions to discuss or analyse data basing on individual knowledge. This information will be presented in textual method, in which the reader will acquire information through reading the data

## **7. Findings**

### **7.1 The challenges faced by students with regards to the learning process as a result of COVID-19**

The above question was asked by the researcher in order to establish the challenges faced by learners as a result of COVID-19. The responses to this question all pointed to the direction that the discovery and spread of COVID-19 had a negative bearing on university learners. Respondents outlined challenges faced by learners ranging from lack of access to technological gadgets used to conduct online learning, lack of access to internet services, interrupted access to electricity and network services affecting learning and others failing to participate in online learning as a result of other commitments.

The researcher established that the majority of these challenges stemmed from financial challenges that were brought about by the restrictive lockdowns meant to curb the spread of the pandemic. It is essential to note that from the responses offered, the majority of the learners faced challenges in a way mainly related to the new form of learning online.

The researcher established from the responses above that the learners bore the brunt of a change in the learning process from physical to online learning. The process was riddled with challenges that strained learners economically while at the same time not being able to receive the learning, they paid school fees for. The researcher noted that the challenges faced by learners were too huge to be solved by the learners or the institutions as network challenges and closure of economic spaces had a direct impact on the learning at Great Zimbabwe University.

### **7.2 The challenges that are faced by lecturers in delivering lectures during the COVID-19 pandemic**

The researcher asked the above question to establish the challenges faced by lecturers that could affect the delivery of learning as a result of COVID-19. The researcher hypothesised that in low-income countries like Zimbabwe, a pandemic like COVID-19

would have negative implications that are far and wide in reaching, hence in such an environment lecturers were bound to face challenges in delivering their mandate. The responses by the teaching staff interviewed rendered the hypothesis by the researcher a true reflection of what was actually transpiring. The researcher established from the interview responses that the majority of the teaching staff faced similar challenges to those faced by learners. Challenges of poor network connectivity to conduct online learning, lack of the essential electronic gadgets for use in conducting online lectures and financial incapacitation stemming from poor remuneration and closure of spaces for side businesses were major on the list of challenges faced by lecturers in delivering their teaching mandate amidst a COVID-19 pandemic.

One respondent brought in a new angle to the discussion citing that the pandemic disconnected lecturers from the administration staff thereby resulting in some not privy to important aspects of their work. For instance, one lecturer who chose to remain anonymous mentioned that some students asked him about online examination and the challenges attached to it such as the fact that the exam was the same to all the learners and was different to what was on the examination timetable. The lecturer mentioned that in his case he was not able to give a satisfactory response to the learners as he was equally not aware of what was transpiring. One lecturer mentioned that he even sent good luck messages to his students ahead of what was supposed to be the date his examination was going to be written online only to be told by the students that online examinations were cancelled two weeks before his message.

The responses showed that the teaching staff equally faced challenges in delivering the duty and these had a spill over effect on the learners. The researcher established that the challenges faced by lecturers in delivering learning became an eye opener to the government and learning institutions on the need to improve the welfare of the teaching staff. The researcher also established that some of the lecturers faced challenges emanating from their unfamiliarity with electronic gadgets and other learning sites such as Google classroom.

### **7.3 The institutional challenges faced by GZU as a result of COVID-19**

The challenges brought about by COVID-19 on higher learning in Zimbabwe were not a preserve of the learners and the teaching staff only but also affected learning institutions as well. The researcher asked the above question in order to understand the challenges faced by the institution in its mission to deliver learning. The researcher interviewed senior administration staff in order to understand their perspective of the challenges faced by the institution. To this end, the researcher established that some of the challenges that were faced by the teaching staff and the learners was a spill over of the challenges that the institution was facing. For instance, one respondent from administration staff mentioned that the institution faced a challenge in entrenching online learning as the Information and Technology (IT) department constantly faced challenges of network jamming and interrupted service delivery coming emanating from heavy traffic on the websites particularly google classroom and the student's portal. The researcher

established that one of the reasons for the departure from online examinations stemmed from the lack of capacity by the institution's IT department to handle the examinations given the possibilities of hacking and disruptions in service provision.

In the same manner, the institution also faced financial challenges stemming from late payment of school fees by learners and the collapse of the local currency during the COVID-19 era. The research established that the March 2020 semester spanned for 6 months instead of the usual 3 months, the same period when the country experienced inflation that saw the collapse of the local currency against the United States dollar. This trajectory had a negative bearing on the running of the institution considering that the school fees of this semester was pegged on the rates that existed at the beginning of the year thereby rendering the institution almost financially incapacitated by the end of the semester.

Also, the institution faced a challenge in terms of planning as the dates for physical learning and examinations were constantly affected and shifted as a result the restrictive lockdowns and the World Health Organisation set guidelines.

The responses showed that the institution faced many challenges that affected the normal running of the institution and the delivery of learning to the learners. The institution had the major challenge in terms of planning and implementation of programmes due to the restrictive lockdowns. The responses also showed that the institution suffered greatly from the prolonged semesters resulting in economic challenges.

#### **7.4 Strategies used by students, the teaching staff and the institution dealing with challenges they face as a result of the COVID-19 pandemic**

The above question was asked in order to answer to the research question number 4. The researcher is duty bound to bring to light how learners have responded to the challenges they face as a result of COVID-19. The researcher established that the students had to employ different strategies to avert the challenges posed to them by COVID-19.

The researcher established that learners petitioned the institution to abandon online examination citing the feasibility challenges that the process that it pose. The learners have also employed synergies with the teaching staff that saw them abandoning the use of google classroom in favour of WhatsApp which is cheaper, faster and easily accessible to both learners and lecturers. Also, in some cases students would communicate with lecturers and find a colleague who stays closer to the lecturer's area of residence whom they would send their assignments to and he/she would print and hand deliver to the lecturer. In some cases, students created WhatsApp groups for the purposes of conducting discussions in their examination preparation.

In the same vein, the teaching staff employed different strategies to counter the effects of COVID-19 on the delivery of learning. One of the strategies was to record audio lectures which they would send to students in WhatsApp groups for the purpose of delivering learning. This strategy proved to be effective in delivering lectures as the majority of learners preferred that lecturers explain using word of mouth than through

writing. The strategy was also effective in that the audio recordings would be stored and be utilised at any time by the learners.

Again, the institution employed a raft of strategies to mitigate the challenges posed by COVID-19 on higher learning. These strategies include offering paid up learners and teaching staff NetOne sim cards loaded with data packages. This strategy was meant to mitigate the challenge of learners and lecturers failing to access online learning sites as a result of lack of data packages. In the same manner, the institution employed online and telephonic assessment of students on work related learning. This strategy went a long way in mitigating the spread of the corona virus resulting from reduced physical interaction between the assessors and the learners and work supervisors. Regardless of its flaws, online learning is another strategy that was employed by the institution in order to counter the challenges posed by COVID-19 on higher learning. The strategy greatly promoted access to higher learning during the restrictive lockdowns. The strategy was advantageous in that learners and the teaching staff could interact at any time of the day in the comfort of their homes amidst a pandemic.

To this end the researcher established that the COVID-19 pandemic has the potential to halt higher learning especially in low-income countries like Zimbabwe, however, as a result of the strategies employed by the learners, teaching staff and higher and tertiary institutions there was continued access and delivery of higher learning at Great Zimbabwe University. The researcher established that this continuation is as a result of a team effort by all stakeholder regardless of the vices witnessed along the way.

## **8. Discussion and conclusions**

The data gathered by the researcher shows that to a greater extent the COVID 19 induced pandemic has negatively affected higher and tertiary learning in Zimbabwe. The case study of Great Zimbabwe University used in this research reflect the trajectory in which the majority of higher and tertiary institutions in Zimbabwe found themselves in. The research established that both learners and lecturers faced almost similar challenges that in some cases were as a result of the spill over effect of the weak adaptation strategies that were employed by the institutions. The employment of online learning was the major strategy employed by institution to keep the learning process afloat during the pandemic. The strategy had positive outcomes notwithstanding some of the ubiquitous challenges that it posed to learners and lecturers.

The research also established that the pandemic has provided learning institutions, learners and lecturers a chance to improve on innovation. For instance, the institution started manufacturing hand sanitisers and personal protective equipment which was a new feat at the institution and also a source of finance which at the moment was greatly needed. Also, students in the ICT department came up with innovations that did not only help the institution adapt to the pandemic but the nation at large. For instance, one learner from the institution partnered with another from National

University of Science and Technology to create a software that dictate and distinguish between the usual pneumonia and COVID-19 related respiratory sickness.

The research established that the coming of COVID 19 has brought unprecedented challenges to higher and tertiary learning in Zimbabwe. These challenges are multifaceted and affected different stakeholder in different circumstances and in some cases similar challenges were witnessed in the same fashion with other stakeholders.

The research established that learners faced challenges largely emanating from adapting to the new form of learning that was done online. These challenges include lack access to essential gadgets for use such as laptops and smartphones. In the same fashion a rise in the national inflation as it was influenced by the pandemic subsequently resulted in the rise in prices of internet data packages which made it difficult for students to also access learning amidst the pandemic.

Learners also faced economic challenges that stemmed from restrictive lockdowns that restricted the conducting of both formal and informal economic activities. Learners who depended on parents and guardians or by themselves for the payment of school fees and did not belong to categories of essential services workers were greatly affected as they were not allowed to engage in economic activities and in some cases, others were laid off from work in order for companies to sustain their expenditure in the wake of the restrictive lockdowns. This challenge affected learners in that some of them could not manage to pay up school fees and register in time resulting in forced deferment. In the same manner, the university distributed sim card loaded with data packages only to paid up learners in order to reduce the burden of buying airtime to attend to online lectures.

The research established that learners devised a plethora of interventions to reduce the burden of COVID-19 on higher and tertiary education. Some of the learners who responded to this research mentioned that they arranged with lecturers to shift from the google classroom platform which demanded expensive internet packages to learning through WhatsApp groups. The learners also mentioned that they would arrange with their colleagues to hand deliver assignment write up to lecturers as the process was coordinated by colleagues who stayed close to lecturers.

The research established that despite the gigantic challenges posed by COVID-19, the majority of students managed to sustain through various interventions they employed including the aforementioned. The research also noted that, regardless of these interventions some learners were ultimately affected and forced to either defer or drop out of school as a result of challenges that aroused from the COVID-19 pandemic.

The research established that lecturers equally faced challenges that were driven by the advent of the COVID-19 pandemic. Some of the major challenges that faced lecturers include following up on learners who did not submit their work timeously. Respondents mentioned that due to various adaptation challenges to online learning by students, submission of work on time became a huge task and lecturers were left with a mammoth task of following up on those who did not submit their work. To counter this challenge lecturers mentioned that they had to give a chance to submit their work physically when they physically attended school for examinations.

Just like learners, lecturers faced connectivity challenges emanating from poor network connections, lack of internet data packages and lack of essential equipment such as laptops and smartphones. This challenge affected the ability of lecturers to deliver online lectures. In order to deal with such challenges, the research established that lecturers had to borrow laptops from family and friends or lobby the institution to provide them with the necessary infrastructure required for conducting online learning. Also, the research established that the pandemic negatively affected lecturers as the link between the administration team and the teaching staff was almost cut resulting in lecturers being not in touch with what was transpiring at the institution. Respondents highlighted that working from home by administration staff coupled with online learning which subjected lecturers to also working from home created this challenge.

The research also established that when the university was opened for physical learning and examinations lecturers were not fully equipped with the necessary personal protective equipment to protect themselves and others from the novel corona virus induced sickness. This has in worst cases resulted in lecturers contracting the virus from other lecturers, learners or other university staff resulting in infections and at worst cases death of lecturers as a result of the disease.

The institution equally faced ubiquitous challenges that include diminishing coffers as a result of inflation coupled with extended semesters. For instance, the March 2020 semester spanned for almost 8 months against the ordinary 3 months semester which was planned for. To this end the institution suffered huge financial burdens which affected the normal running of the institution. In order to deal with this challenge, the university ventured into the manufacturing of hand sanitisers and personal protective equipment that was sold to both learners and other entities and individuals in Zimbabwe. Again, the institution faced a challenge in planning for the normal day to day running of the institution as the restrictive lockdown conditions changed from time to time resulting in the institution inviting learners for face-to-face learning and sending them back home after a few days.

Also, the institution faced challenges with regards to low-capacity levels in terms of conducting online examinations. The research established that the university's IT department was ill equipped to sustain heavy internet traffic on both the google classroom and the student's portal sites. The research established that the sites were in some cases unavailable due to system tripping and jamming. Hence the university failed to provide the much-needed virtual learning as a result of lack of capacity. In order to deal with such vices lecturers and learners arranged virtual classrooms on WhatsApp platforms and ZOOM.

The research also established that the COVID-19 pandemic has offered higher and learning institutions with an opportunity to innovate and adapt to the new conditions. The pandemic has seen these institutions venturing into partnerships with other entities and the government in coming up with innovative ways of dealing with the pandemic.

The occurrence of pandemics like COVID-19 result in vicissitudes in many aspects of life hence higher and tertiary institutions should facilitate the entrenchment of other



forms of learning and begin to migrate from the traditional face to face learning. Higher and tertiary institutions should equip both learners and members of staff with the essential infrastructure to conduct virtual learning. The government should play a critical role in subsidising higher and tertiary learning in order for learners from low-income background to access higher learning during disasters. Governments and higher learning institutions should partner and create innovation hubs at all institutions of higher learning so as to promote innovation and inventions at all institutions. The research also recommend that institutions of higher learning should decentralise and create satellite schools across the country in order to decongest campuses while at the same time allowing for the osmosis of ideas from across the country. The institutions of higher learning should invest heavily in ICT in order to allow for the smooth operation of the institutions amidst disasters.

### **Conflict of Interest Statement**

The author declares no conflicts of interests.

### **About the Author**

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