Exploring teaching-learning challenges faced by Zimbabwean university pre-service students during the Covid-19 pandemic

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Abstract

Covid-19 has changed the world order and created a new normal in all facets of life, including formal access to higher education. The closure of universities disconnected students from their everyday on-campus face-to-face teaching and learning practices. The authors explored the challenges Zimbabwean university students faced due to Covid-19 induced lockdown and their implications for education. The qualitative research was based on Obanya's (1987) Panic Approach in which planning and implementation of new untested innovative approaches and strategies were hurriedly implemented. The data were collected using online focus group discussion conducted via WhatsApp group chat platform. Forty (40) Bachelor in Education pre–service (secondary) students participated in the case study of one university as they discussed their lived learning experiences during the pandemic. The study found that students experienced many learning problems during the period. For instance, lecturers posted reading materials to students, but with very little opportunity for meaningful engagement in critical in-depth discussion and individual attention. Given the emergent phenomenon, the study recommends that the university critically reflects and considers how the teaching and learning intervention strategies and encounters through the online platforms could be enhanced to benefit students. In order to make the most of online teaching- learning opportunities, the study further recommends that the university engages in robust capacity building of both lecturers and students on online teaching and learning skills.

Keywords: online teaching and learning, Covid-19, lockdown, pre- service students, Panic Approach, new normal

Introduction and background

Since its outbreak in 2019, Covid-19 has left no sector in any country unscathed (Mohamedbhai, 2020; Cahapay, 2020; Huang, Liu, Tlili, Yang & Wang, 2020). Universally, countries have adopted lockdown measures that restrict population movement in order to minimise the spread of the virus and limit deaths. The restrictive measures on mobility meant that people were generally expected to stay indoors. All businesses regarded as non-essential were closed. The lockdown effects of this health pandemic thus had spill over effects that were also felt in education (UNESCO, 2020).

The lockdown measures to ensure that learning institutions did not become Covid-19 transmission sites affected university education. They caused major disruptions to the traditional teaching and learning modes. For instance, regular on campus interactive physical lecture methods were no longer possible. The most affected were the pre – service students who had come for face-to-face tuition. Pre-service students are secondary school graduates who join the university - based teacher initial preparation programme which connects academic knowledge and practice (Barmore, 2017). Without any teaching experience and financial means, the pre-service students would generally benefit from lecturer-student interaction for professional development.

Universities were forced to reconsider ways to ensure continued access to education in the light of the emerging opportunities and challenges caused by the pandemic (Cahapay, 2020). The pandemic undeniably caught most education systems the world over off-guard and unprepared, especially in developing countries such as Zimbabwe. In Africa and other developing countries, Covid19's most consequential impacts on education have been identified as widening of inequalities and increased inability of most disadvantaged students to pursue their studies (Mukute, Francis, Burt & de Souza, 2020).

Educational responses to the Covid-19 pandemic showed that the disease has stimulated the appetite to develop educational innovations (Mukute et al., 2020). According to de Silva de Alwis (2020) schools and universities around the world switched to online teaching and learning during the Covid-19 pandemic. Online teaching and learning suggest learning experiences in synchronous or asynchronous environments using different devices such as mobile phones and laptops with internet access and thus creating a one stop virtual learning platform (Huang et al., 2020; Vlachopoulos, 2020). In such flexible environments, students can be anywhere but still be able to learn and interact with lecturers and other students without interruption (Huang et al., 2020). In that vein, the closure of the universities led to alternative innovative modes of learning and instruction that enabled students to have continued access to lectures (Sintema, 2020; Eyles, Gibbons & Montebruno, 2020).

 Huang et al. (2020) observed that, according to lecturers, the alternative methods meant posting learning tasks and uploading related reading resources on the WhatsApp and Google Classroom platforms where students could access the resources and read them on their own. Mohamedbhai (2020) demonstrated that it was a fallacy to believe that online teaching and learning could be effective by merely posting lecture notes or having a video or audio

recording of the lecture. To him, generally and sadly so, that was what was happening with online teaching and learning.

Online teaching, in its true sense, is much more than posting content and setting up tasks. It should be premised on broad-based thinking on what should be taught, learnt and the intended outcomes (Maphosa, Mudzielwana & Netshifhefhe, 2014). In addition, Cole (2004) in Adegbenro and Gumbo (2015), rightly points out that without understanding and preparing how best to use technologies in teaching and learning, instruction and learning may suffer through ineffective use of the technologies. Online teaching and learning should be concerned with the appropriate task design of materials which should be sufficient enough to elicit critical reflection from students.

In order to maximise meaningful interaction and productive engagement with online teaching and learning resources, the designed materials should be well-constructed and comprehensible, considering that pre - service students would be working mostly on their own at home. Unfortunately, lecturers as the instructional designers of these online materials do not follow proper instructional design principles (Brokensha & Greyling, 2015). In order to design effective online teaching and learning resources, Huang et al. (2020: 22) suggested and identified the following, which require prior knowledge, skills and orientation on the part of the lecturers:

- Suitability of content – relevance of learning objectives
- Suitability of difficulty – content should be moderate in difficulty to avoid cognitive overload on students
- Suitability of structure – should be concise and rational which will not confuse students
- Suitability of resource organisation – use of different types of learning resources such as video, audio and texts
  (Huang et al., 2020: 22)

The above should be done so as to ensure that the pre- service students are able to demonstrate on their own, the competencies in accessing, processing and communicating the information, and managing their own learning.

According to Strieikowski (2020) the innovative teaching – learning approaches could have taken several years to implement. However, as a result of the Covid-19 pandemic, whose

administrative regulations changed the status quo overnight, the new innovative approaches were promptly introduced. Further, Strieikowski (2020) noted that while most universities may have had all the tools necessary for online teaching and learning, they had been reluctant to unleash their full potential. Then, they had found themselves being pushed to urgently operationalise the untested online instructional reform options.

For most developing countries like Zimbabwe, internet connectivity in general, and for education purposes in particular, remains a major concern posing a serious threat to online teaching-learning efforts. While many developed economies managed to move to online classes within a few days of the Covid-19 pandemic, and with ease, for most low-income countries it was unfeasible (Selbervik, 2020). To this end, most African universities, Zimbabwe included, do not presently have the capacity for effective online teaching and learning. The online teaching-learning platforms are not yet fully supported with developed infrastructure and trained lecturers. The transition from lecture room instruction to online delivery programmes has not been smooth and easy. This may explain Matsilele's (2021) findings that Zimbabwean universities seemed focused only on two options; WhatsApp and Google Classroom.

In response to the Covid-19 pandemic, the Zimbabwe government developed an Education Sector Covid-19 Response plan (Mukute et al., 2020: 5; Government of Zimbabwe, 2020; UNICEF, 2020 - 2021) anchored on:

- Continued learning through online distance learning;
- Context appropriate support of teachingstaff and learners to prevent both transmission and spread of Covid-19 pandemic, and
- A phased approach to reopening of educational institutions and use of the blended approach to teaching and learning when the pandemic slows down.

To the Zimbabwean universities the Covid-19 situation brought to light a number of challenges related to the provision of pre- service university education and use of innovative teaching and learning techniques (Naciri, Baba, Achbani & Kharbach, 2020). The teaching and learning through trial and error presented a lot of uncertainties to everyone at the universities (Burgess & Sievertsen, 2020). For Zimbabwe too, the educational online solutions can onlybe implemented if lecturers and students have reliable access to technology and resources needed for successful online delivery (Vlachopoulos, 2020; Selbervik, 2020).

The study was therefore motivated by the need to explore the challenges faced by pre - service university students against the expectations of continued learning during the Covid-19 pandemic period.

Implementing new online instructional strategies involves support, sustenance and monitoring feedback (Pinar, 2004, in Maphosa et al., 2014). In a study in Zimbabwe, Matsilele (2021) found that the response by higher education demonstrated how universities failed to give support to staff and students, leaving them to carry the financial burden of having online lectures. The unprepared online delivery model was introduced after only two weeks of face to face learning at the universities. The new model exposed universities' lack of essential educational technology, digital literacy, strategy and competencies among both lecturers and students; hence the online instructional organisation presented many challenges.

Problem statement

The Covid-19 pandemic created an educational emergency in the Zimbabwean universities and the world over through lockdown measures meant to contain the spread of the virus. This caused major disruptions to teaching and learning especially to the pre- service students. Zimbabwean universities quickly moved to unfamiliar and untested online teaching – learning platforms which presented a lot of challenges for the pre - service students. The study sought to explore online learning challenges faced by Zimbabwean university B.Ed. pre-service students during the Covid-19 pandemic period.

Research questions

The two research questions the study addresses are:

- What learning challenges are faced by B.Ed. pre-service (secondary) students during the Covid- 19 pandemic lockdown?
- How can these challenges be mitigated?

Theoretical framework

The Panic Approach to instructional implementation informed the study. The Panic Approach is attributed to Obanya's (1987) works as one of the approaches he suggested in curriculum development processes. Obanya (1987) argues that the approach conceptualises the complex and dynamic nature of introducing a new instructional model as urgent and unplanned. There

is no time for the systematic approach to its implementation and subsequent institutionalisation. According to UNESCO – IBE in Sithole (2017), the approach is reactive rather than proactive. It eliminates tasks like wide consultation, situational analysis and thorough preparation for implementation. The approach has been criticised for its poor orientation of implementers, irregular supervision and evaluation, which have the potential of creating more problems than it solves. The Panic Approach, according to Sithole (2017), is caused by a situation where local or international pressures cause rapid decisions to be made to change without prior careful and structured planning. Sithole (2017: 1771), however, observes that the panic approach has the following limitations:

- Lack of thorough and prior planning;
- It is a rushed approach to implementation – no smooth transition from old to new;
- There is lack of relevant resources; and,
- No consultation with stakeholders.
  (Sithole, 2017: 1771)

Notwithstanding these limitations, the approach has been considered as the most suitable in our understanding of how the introduction and implementation of the online teaching and learning in Zimbabwean universities in general has occurred. The study however, employs a case of one particular Zimbabwean university in Masvingo. The emergence of, and devastating disruptive effects of Covid-19 did not allow better preparation and testing of alternative instructional strategies during the indefinite lockdown periods. Secondly, there was no time to pull together resources to enable a smooth shift from the traditional lecture-based face-to-face learning style to online learning. Nor was there enough time or attempts to facilitate online independent self-regulated student learning (Huang et al., 2020).The Panic Approach framework advocates making quick decisions to provide instant solutions although in an unsystematic manner. The university used the available meagre resources to afford implementation kick off.

Research methodology

The research approach upon which this study was premised is qualitative. The approach enabled the researchers to understand the participants' lived experiences, their situations and environments. The approach allowed the researchers to appreciate the multifaceted nature of

the online teaching and learning challenges at universities from selected B.Ed. pre-service (secondary) students who interpreted the events differently (Mack, 2010).

Research design

The study employed an investigative single case study design. The design called for a high degree of in-depth examination, breath, rigour and understanding (Ritchie, Lewis, Nicholls & Ormston, 2014). This enabled the researchers to appreciate the learning challenges that the B.Ed. pre- service (secondary) students faced during the Covid- 19 pandemic period. The case study was informed by the Panic Approach which explains that in emergency situations the introduction of new instructional approaches is done without taking due processes of consultation and resource mobilisation.

The sample

The sample was drawn from a population of one hundred and sixty (160) B.Ed. pre – service (secondary) students at one state university. Forty (40) students volunteered to participate in focus group discussions. The volunteer students were sampled taking into account whether they had reliable smart phones and could afford the data to participate in the WhatsApp group chat discussions.

Data collection instruments

The study employed a WhatsApp group-based chat discussion which Boateng (2012) calls a groupthink model. In this case the forty (40) sampled students were organised into four (4) groups. Each group comprised ten (10) students. The focus group chat discussion was used to gain inter-subjective experiences of the B.Ed. pre- service (secondary) students regarding the learning challenges they faced during the Covid-19 pandemic period. During the discussions, there was opportunity for participants to disclose their own experiences of the transition which were supported, discussed and commented on by other group members.

Data collection strategies

The data were collected at the height of the Covid-19 pandemic in Zimbabwe. Then, universities were closed due to lockdown measures which sought to contain the spread of the disease. The only available means of getting data from student participants was to use online methods. The B.Ed. pre-service (secondary) students were organised into four (4) groups of

ten (10) each. The researchers sent questions to the WhatsApp group chat.The intention was to electronically record the students' collective challenges and experiences of learning during the lockdown period. Each WhatsApp focus group contributed their own ideas compiled them into a transcript which was sent online to the researchers. The group discussion was guided by the question; 'What learning challenges are you facing during the Covid-19 pandemic?' The researchers ended up with four (4) written reports from the groups.

Data analysis techniques

The B.Ed. pre-service (secondary)'s written WhatsApp chats on learning challenges they faced during the Covid-19 pandemic period were subjected to a thematic analysis. This was done in order to identify patterns of meaning and emerging themes across the dataset. The idea was to provide answers to the research questions that guided the study (Braun & Clarke, 2012; Maguire & Delahunt, 2017). Braun and Clarke's (2012) six step approach to thematic analysis was used in this study. The six steps are: familiarise with the data; generate initial codes; search for themes; review themes; define and name themes, and write up. These steps guided the researchers to come up with the themes for this study.

Data presentation and discussion of findings

From the data and the subsequent thematic analysis, the following challenges were realised: lack of orientation and training on online teaching and learning, the home environment not conducive for learning, lack of access to key learning resources, unexplained learning materials and mitigation measures.

Lack of orientation and training on online teaching and learning

The following excerpts were extracted from the reports by the groups who participated in the online focus group discussions:

Group 1

> When the University was abruptly closed after only 2 weeks of learning on the 24th of March 2020 due to the pandemic, we were later advised through our portals that we contact our respective lecturers for online Google classroom teaching and learning. We were not oriented on this online learning platform.

Group 2

The University had not seriously introduced us to the Google classroom platform. The majority of us were not familiar with it and it appeared even the lecturers were not because most of them resorted to using WhatsApp groups.

Group 3

Google Classroom was never used during the pandemic because both lecturers and students found it not user-friendly as we did not have knowledge of the platform.

Group 4

We never used Google Classroom at the University. We were only told that it was the platform for teaching and learning during the Covid-19 lockdown periods. There was no orientation.

The study discovered that there was lack of a well-defined, well-organised and generally accepted and explicit strategy to orient students on online teaching and learning. From the excerpts (1, 2 & 4) participants seem to think that the university did not take the view that orientation and training were integrally linked to the success of the online teaching and learning. Apparently, the institutional training strategies remained rushed, fragmented, uncoordinated poorly supported. There was, therefore, no smooth transition from the old to the new as suggested by the Panic Approach (Sithole, 2017). Although learning under these conditions cannot be ruled out there was need for the university to have undertaken a needs analysis, systematic reflection of the existing university conditions and a skills audit as support systems to capacitate students and lecturers, and thus, enhance the credibility and reputation of the online teaching and learning platforms. The above dimensions were not seriously taken into account. It appeared when the university closed, pre – service students and lecturers went away with a superficial understanding of the discourses surrounding the implementation of online teaching and learning.

The university under study, as reflected in the focus group discussion excerpts, did not find time to train its students to acquire the knowledge and skills for them to thrive and effectively function in the current situations and conditions of remote teaching and learning while at home. The migration required an innovative leadership which should have established a two-way communication system that would have enabled pre- service students to navigate through the educational pressure induced by the new virtual learning. That kind of

communication would have enabled the university leadership to be always in touch with the students thereby understanding the challenges they faced.

Home environment not conducive to online learning

Below is what some of the students wrote in their focus group discussions regarding homes as online teaching- learning environments:

Group 1& 3

> *-Some students share small rented apartments in high density suburbs and have no space for conducive online studying.*
>
> *- Some of us are parents and breadwinners and the time we are at home we have other responsibilities towards the family and other chores which in most cases interfere with our studies.*
>
> *-There are so many disturbances when you want to be serious with schoolwork*

Group 2 &4

> *-Most homes especially in rural areas where we come from do not have the basic study infrastructure to facilitate online learning like internet connectivity and private rooms to enable one to concentrate. The situation cannot be changed.*

The study found that by insisting on online learning for all, the Zimbabwe government and the university assumed that all home environments were conducive for online teaching and learning. However, from what the participants raised, home learning environments had their own drawbacks. The participants noted that few home environments could qualify for meaningful and self-managing learning. They further complained that some of them stayed either in the high density suburbs where there were a number of families sharing rooms or in the rural areas where the milieu was not very favourable for study prospects. Most homes, as reported by all the four groups, did not meet all the kinds of needs for idyllic learning environments. The students reported that changing a home environment into a learning set up was not easy or even possible.

Results indicate that home environments were not uniform and sometimes did not conform and match standards of the university environment yet they had become the new learning

centres during the Covid-19 pandemic period. It can be inferred that the quality and quantity variables for homes to offer proper learning facilities remained in doubt. The disruptive nature of home environments required students to refine and devise new strategies by analysing what worked and what did not work in order to accommodate their studies in the narrow confines of home environments.

Lack of access to key learning resources

The excerpts from focus group discussions below illustrate that there was lack of access to key resources.

Group 1

> *-The majority of us did not have laptops and smart phones for online teaching and learning and could not afford those gadgets.*

Group 2

> *We have a number of our colleagues who had to defer their studies because they could not afford the laptops, smart phones and data bundles.*

Group 3

> *We hear that some students who were fully paid were given data bundles by the university and some of us who had just registered were not.*

Group 4

> *Getting requisite resources such as laptops and smartphones to enable us to communicate and send assignments has not been easy. The cost of data bundles has not made life easy for most of us.*

One critical area that was neglected, according to pre- service students (Groups 1, 2 & 4), was the question of resources and how these could impact on the new online instructional implementation. Participants noted that in order to overcome most of the challenges experienced by students and achieve the desired online learning goals, pre- service students should have been provided with the means or, alternatively, should have been aided to procure data, smart phones and laptops. That this problem was not adequately addressed could be attributed to the Panic Approach that was used to implement the online learning.

The problem led to a breakdown in communication and questioned the credibility of the process. The situation left a lot of students stranded and some had to defer their studies. All the pre- service students admitted that getting the requisite resources to continue their studies, let alone sustain the costs of online learning, was not easy.

The situation exposed the inequalities that exist among the university student population. It showed that there were insufficient resources that could enable equitable and transitional access to online education for all pre- service students. No wonder Pinar (2004) in Maphosa et al. (2014) asserted that implementing new online instructional strategies involves resources, support, sustenance and monitoring. In the current study, the contextual factors remained teething problems for most of the students. There was no time to put together the resources and no institutional commitment that could ensure a smooth transition that would enable the pre- service students to continue with their studies online. Further, there was a mistaken notion that all students had and could afford the necessary materials and financial resources to learn using online platforms. The success and sustainability of the online teaching and learning model depended on availability of key resources. The situation required an empathetic approach by the university to address the students' challenges.

Unexplained teaching-learning materials

Examples provided below show the responses of participants regarding unexplained teaching-learning materials:

Groups 1, 3 & 4

> *-Lecturers sent us impersonal PDF documents, recorded audio/ voice notes and assignment topics mainly on WhatsApp.*

> *-These notes were never explained creating so many problems for us to interpret yet were supposed to use them to write assignments.*

Group 2

> *-PDF notes were just posted on our WhatsApp groups requiring a lot of data to open; some captured by phone and were not legible.*

> *-We missed the interaction, illustrations and demonstrations by our lecturers and this affected the quality of our assignments*

The study findings above suggest that lecturers used some restricted methods to post online teaching-learning materials for students, mainly downloaded PDF learning materials, voice/audio notes, some hand written notes captured by phone, and assignments. These were sent to students mainly through the WhatsApp platforms without further explanation. The pre- service students noted that this posed a lot of challenges of interpretation and comprehension resulting in compromised quality of coursework assignments. This practice encouraged rote learning which resulted in failure to impart higher order critical evaluation and problem-solving skills. In arguing against the practice, Mohamedbhai (2020) observes that it is a fallacy to believe that online teaching and learning can be effective by merely posting lecture notes or having a video or audio recording of the lecture. To this end, the pre-service students were not assisted to develop more advanced levels of knowledge construction necessary for professional development which they might have gained through face-to-face lectures. From the data (Groups 1, 3 & 4), it appeared the students could have benefitted from further explanation, concrete examples and illustrations to understand better than just reading impersonal notes.

Mitigatory measures

The views of all the B.Ed. pre-service (secondary) students on what they thought could be done to ameliorate the online learning problems are summarised below:

Groups 1, 2, 3 & 4

> *-The University needed to ensure that all students had the gadgets like smart phones and or laptops before implementing online teaching and learning.*

> *-Students needed to be sustainably provided with data during the learning period. And the University could recover costs through fees increases.*

> *-The use of WhatsApp as a teaching - learning platform was most welcome as it was cheaper for most of the students.*

> *-The e- library facility was not accessible. We should have come for face-to-face in small groups which would have made it possible to observe COVID-19 safety measures of social distancing, wearing masks and sanitisation.*

-The University could have liaised with provincial ICT service centres so that students could have been allowed access to internet facilities for study purposes.

- Deadlines for registration should have been flexible enough to allow students to raise fees during the difficult lockdown periods.

The findings showed that there was no deep empathetic connection and relationship among key stakeholders namely the university, lecturers and the pre - service students. The online teaching and learning mode, as a contingency measure, required institutional empathy and student empowerment drive. The selected university, lecturers and pre- service students as critical stakeholders needed to establish relationships grounded on dialogue, shared sense of purpose and active cultivation of shared teaching and learning values. The relationship should have been characterised by listening and understanding, in a meaningful and reciprocal manner.

Conclusion

The study located its contribution within the contemporary concerns of how the Covid-19 pandemic affected teaching and learning of students at a selected university in Zimbabwe. One major conclusion from the study was that 2020 was a particularly different and difficult year for the university, lecturers and pre- service students as they grappled with the inevitable online teaching and learning. However, online learning seemed to have limited impact, was more expensive and could not accommodate all the pre- service students enrolled at the institution. During the Covid-19 turbulent times, the pre- service students were mainly left to their own devices to tackle complex online learning challenges. The situation suggests that there should be active discourses that are driven by how university students could smoothly shift from the traditional face-to-face to online teaching and learning. The Covid-19 pandemic challenged the university to reflect more on the teaching and learning environment, assess the human resources and the skills deficit for effective online instructional implementation.

Recommendations

The study makes the following recommendations:

- Proper planning and implementation of instructional reforms during difficult times should take into account the factors that militate against the delivery of good service to university pre- service students.

- The university should train its lecturers to exhibit knowledge and competencies in the design and application of online teaching and learning materials since Covid-19 has created a new normal.

- The university decision-makers should devise ways of supporting pre- service students with requisite digital resources for them to benefit from remote learning technologies.

- Pre- service students should purchase smartphones and laptops for successful online teaching and learning.

References

Adegbenro, B. J. and Gumbo, T. M. (2015). Exploring the conceptual relationship between teachers' procedural functional knowledge and pedagogical content knowledge. *South African Journal of Higher Education,* 29 (5), 29- 47.

Barmore, J. (2017). Pre- service teacher education: Connecting teaching principles to teaching practice. Qualifying paper, Harvard Graduate School of Education, pp 1-45.

Boateng, W. (2012). Evaluating the efficacy of the focus group discussion (FGD) in qualitative social research. *International Journal of Business and Social Science*, 3 (7), 54-57.

Braun, V. and Clarke, V. (2012). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3(2),* 77-101.

Brokensha, S. and Greyling, W. (2015). Dispelling e-myths and pre-emptying disappointment: Instructors' intentions and reality in asynchronous online discussions. *South Africa Journal of Higher Education,* 29(4), 50-76.

Burgess, S. and Sievertsen, H.H. (2020). Schools, skills and learning: The impact of Covid-19 on education. https// voxeu.org/article/impact/covid -19-education (19/06/2020).

De Silva de Alwis, R. (2020). Teamwork helps Zimbabwean pupils shut out of class by Covid-19. *NewsDay*. Harare: Alpha Holdings.

Eyles, A., Gibbons, S. and Montebruno, P. (2020). COVID – 19 school shutdowns: What will they do to our children's education. *Centre for Economic Performance. The London School of Economics and Political Science.* (1) http://cep.Ise.ac.uk (19/06/2020).

Government of Zimbabwe (2020). Standard guidelines for the coordinated prevention and management of the Covid-19 pandemic of all learning institutions of Zimbabwe. Nust.ac.zw/images/covid/covid 19- guidelines-in-learning-institutions-pdf (accessed 6/6/2021).

Huang, R.H., Liu, D.J., Tlili, A., Yang, J.F. and Wang, H.H. (2020). *Handbook on facilitating flexible learning during the educational disruption: The Chinese experience in maintaining undisrupted learning in Covid-19 outbreak.* Beijing: Smart Learning Institute of Beijing Normal University.

Mack, L. (2010). The philosophical underpinnings of educational research. *Polyglossia*, 19, 5 -11.

Maguire, M. and Delahunt, B. (2017). Doing a thematic analysis: A practical, step – by – step guide for learning and teaching scholars. *All Ireland Journal of Teaching and Learning in Higher Education (AISHE - J), 8 (3)*, 3351-3354.

Matsilele, T. (2021). The implications of COVID – 19 on institutions of higher learning: A case of Zimbabwe and South Africa.www.researchgate.net/publications 350430150.(19/06/2021).

Mohamedbhai, G. (2020). COVID – 19: What consequences for higher education? https:// www.universityworldnews.com/post.php?story. (19/06/2020).

Mukute, M., Francis, B., Burt, J. and de Souza, B. (2020). Education in times of Covid-19: Looking for silver linings in southern Africa's education responses. *Southern Africa Journal of Environmental Education*: 36, 1-17.

Naciri, A. Baba, M.A., Achbani, A. and Kharbach, A. (2020). Mobile learning in higher education: Unavoidable alternative during COVID – 19. *Aquademia,* 4(1), 1-2.

Obanya, P. (1987). Patterns of educational reform in Africa. http://collections.infocollections.org/uked/en/d.

Ritchie, J., Lewis, J., Nicholls, C.M. and Ormston, R. (2014). *Qualitative research practice: A guide for social science students and researchers.* London: SAGE.

Selbervik, H.B. (2020). Impacts of school closures on children in developing countries: Can we learn something from the past? *CMI Brief*, (5).

Sithole, E.S.M (2017).Use of the panic approach in the development of curriculum: Perceptions of Bachelor of Education students in an 'issues in curriculum class. *International Journal of Science and Research* (IJSR). 6(9), 1770-1776.

UNICEF (2020 - 2021). Zimbabwe: A chance to learn for every child – Covid- 19 response. http://globalpartnership.org/where -we-work/ Zimbabwe. (Accessed 6/6/2021).

Vlachopoulos, D. (2020). Covid-19: Threat or opportunity for online education? *Higher Learning Research Communication,* 10(1), 16-19.