

Challenges and Opportunities brought about by the COVID-19 Pandemic in Rural-Based Institutions of Higher Education in South Africa

Sakhiseni Joseph Yende* (sakhiseniyende@gmail.com)

Department of Performing Arts, Tshwane University of Technology, South Africa

Nsizwazonke Yende (Nsizwazonke.Yende@ump.ac.za)

Department of Development Studies, University of Mpumalanga, South Africa

Rostislava Pashkevitch (pashkevitchvr@tut.ac.za)

Department of Performing Arts, Tshwane University of Technology, South Africa

Received: January 18, 2023, Manuscript No. jflet-23-87695; **Editor assigned:** January 20, 2023, PreQC No. jflet-23-87695 (PQ); **Reviewed:** February 03, 2023, QC No jflet-23-87695; **Revised:** February 08, 2023, Manuscript No. jflet-23-87695 (R); **Published:** February 15, 2023

Abstract: In higher education, the COVID-19 pandemic has necessitated a dramatic increase in remote teaching and learning worldwide. It has challenged traditional teaching and learning methods to their core. Digital technology has been identified as necessary for remote teaching and learning in higher education contexts, especially in developing countries. However, many institutions in rural areas are faced with difficulties in implementing efficient remote teaching and learning. The study sought to discuss and bring awareness to the challenges and opportunities brought about by the COVID-19 pandemic in rural-based institutions of higher education in South Africa. Due to the restrictions imposed to curb the spread of the pandemic, the study used document analysis as a methodology. The study adopted Colaizzi's phenomenological data analysis method. A thematic analysis was used, framing the study in terms of the following themes

1. Studying without essential resources (devices)
2. Challenges with internet bundles
3. Online teaching and learning engagement.

The paper concludes by affirming that remote teaching and learning have sparked uncertainty about the future of students in rural-based institutions of higher education that do not have the infrastructure for remote teaching and learning.

Keywords: COVID-19; Higher education; Infrastructure; Remote teaching and learning; Rural-based institutions

Introduction

The first outbreak of the COVID-19 pandemic was experienced in Wuhan, China, in late December 2019. On 30 January 2020, the World Health Organization (WHO) declared

COVID-19 a worldwide public health emergency of international concern. On 11 March 2020, the WHO declared the outbreak of the epidemic as a world state disaster which was, and still is, spreading in many countries (Adnan, 2020; Mahaye, 2020; Sahu, 2020).

In South Africa, the first case of COVID-19 was reported on 5 March 2020 after the return of a group of ten people who went to Italy, and soon the COVID-19 task team declared the COVID-19 pandemic a national disaster. As a result, from 27 March 2020, the South African government enforced a national lockdown to mitigate the rapid spread of the disease by reducing the usual forms of social interaction, including face-to-face teaching and learning in the educational sector (Mahaye, 2020).

The outbreak of the COVID-19 virus brutally affected all sectors across the world, including the educational sector, in both developing and developed countries (Adnan, 2020; Mahaye, 2020; Sahu, 2020). The lockdowns brought about by the COVID-19 pandemic have resulted in the suspension of classes and lectures in schools and colleges across the world. The classes and lectures were suspended to flatten the curve of the rapid spread of the pandemic worldwide (Adnan, 2020; Mahaye, 2020; Sahu, 2020). Mahaye (2020) has highlighted that the suspension of classes and lectures disrupted the academic year in many developing countries, and South Africa is no exception.

The lockdown that was implemented by various developing and developed countries has challenged the educational system (Mahaye, 2020). Most European countries have managed to cope with the new situation as many of them already have successful digital teaching methods in place (Adnan, 2020; Mahaye, 2020; Sahu, 2020). Mahaye (2020) highlights that many African countries have been battling to develop digital technology that would generate and curate new course content. In many developing countries, digital technologies are unsuitable and uncomfortable to adopt, as many do not have appropriate infrastructures such as virtual classrooms and reliable internet connectivity (Adnan, 2020; Ortiz, 2020; Toquero, 2020).

In the context of South Africa, although there are 26 public universities, eight of them are classified as rural-based institutions because of their historical disadvantages and these are the University of Venda (Limpopo province), University of Limpopo (Limpopo province), the University of Zululand (KwaZulu Natal province), University of Western Cape (Western Cape province), Fort Hare University (Eastern Cape province), Walter Sisulu University (Eastern Cape province), and Sefako Makgatho University (Gauteng province) (Mugovhani, 2011, p. 13).

Since the need for remote teaching was announced in South Africa, many institutions of higher education have been battling to successfully transition to remote teaching and learning (Mahaye, 2020; Mhlanga and Moloi, 2020). The challenges are exacerbated by the fact that many black students are from already marginalised communities in places

such as the rural areas of Eastern Cape, KwaZulu Natal, Mpumalanga, Free State, and North-West.

In South Africa, the suspension of classes led institutions of higher education to reschedule many exams and assessments (Mahaye, 2020; Sahu, 2020). The suspension of classes in South African schools, colleges and universities was done to ensure that the learners and students followed social distancing protocols. The COVID-19 pandemic has had a serious impact on the South African educational system, like in many other developing countries, especially in rural areas (Mahaye, 2020; Mhlanga and Moloi, 2020). COVID-19 pandemic has caused South African universities to devise a new approach to teaching and learning.

One of the crucial things highlighted by the University of Cape Town Vice-Chancellor, Mamokgethi Phakeng in the presentation, *Unleashing the New Global University* (2020), is that, "The pandemic has disrupted higher education international activities and the income on which universities increasingly depend. But the previous model was already problematic, contributing to global warming and benefitting rich universities more than poor".

In agreeing with the statement above, Mahaye (2020) further highlights that there is a pressing need to rethink innovative and effective teaching and learning methods that will be beneficial for developing countries, especially in rural areas.

Mhlanga and Moloi (2020) state that the possibility of a worldwide COVID-19 in the educational system in the near future has become a growing concern for many developing countries that do not have strong digital technology for teaching and learning. Mahaye (2020), who is of a similar view to Mhlanga and Moloi (2020), believes that institutions of higher education have to rethink, restructure, and recreate a pioneering method of e-teaching and e-learning across the educational sector, including schools, colleges and universities. The roll-out of remote teaching and learning in rural institutions requires a rapid transformation of the traditional methods of teaching and learning (Mhlanga and Moloi, 2020). Adnan (2020), Sahu (2020) and Mahaye (2020) caution that the shift from in-person teaching and learning to remote and virtual learning could not happen instantaneously in many developing countries.

Furthermore, Mahaye (2020) shares similar sentiments with others (Adnan, 2020; Mhlanga and Moloi, 2020; Sahu, 2020) when he argues that the pandemic has challenged the educational system of rural-based institutions in developing countries to its core. Toquero (2020) highlights the necessity of developing a fruitful method of e-teaching and e-learning in developing countries to manage and drive successful change in higher education. In the same vein, Toquero (2020) stresses that during the COVID-19 pandemic, it was necessary to consider education anew through the perspectives of

curriculum studies. The present curriculum at the institutions of higher education needs to be adjusted and reconsidered in terms of its approach to content, teaching, and evaluation (Mhlanga and Moloji, 2020; Sahu, 2020). The pandemic has been perceived as a serious threat to the traditional way of teaching and learning worldwide (Adnan, 2020; Ortiz, 2020; Toquero, 2020). Based on the above background, one could argue that there is a pressing need for policymakers and curriculum developers in the South African higher education sector to rethink teaching and learning methods in both urban and rural-based institutions.

The new teaching and learning methods have presented challenges for students, many of whom are from marginalised communities and rural institutions (Mahaye, 2020; Mhlanga and Moloji, 2020). In light of the above, the paper seeks to discuss and bring awareness to the challenges and opportunities raised by the COVID-19 pandemic in rural-based institutions of higher education in South Africa.

Literature Review

Impact of the COVID-19 pandemic on the educational sector worldwide

The outbreak and rapid spread of COVID-19 have adversely affected the educational sector worldwide. The large-scale disruption caused by COVID-19 in many developing countries such as South Africa, Zambia, and Pakistan, among others, caused schools, colleges and universities to close with immediate effect. The COVID-19 pandemic led the educational sector to devise alternative modes of teaching and learning in various colleges and universities around the world (Chick et al., 2020; Mahaye, 2020; Ortiz, 2020; Sahu, 2020). According to Chick et al. (2020), the unprecedented effects of the COVID-19 pandemic outbreak have ushered the educational sector to a new mode of operations. Most developing and developed countries have responded proactively to the COVID-19 pandemic crisis in higher education by devising new methods of teaching and learning (Mahaye, 2020).

In the South African context, universities introduced a new approach to teaching and learning to allow students to continuously have access to lectures and assessments. Remote and online teaching and learning have presented visible barriers to South African institutions of higher education and, in particular, marginalised students within them (Mahaye, 2020; Mhlanga and Moloji, 2020). Henaku (2020) postulates that lecturers are required to attain knowledge and competency in online and remote teaching methods, planning, implementing and assessing students' academic performance. Most lecturers and students, especially first-year students, require online training courses to effectively cope with change over to electronic teaching and learning techniques. Training for both students and lecturers could improve remote and online teaching and learning in South African institutions of higher education (Mahaye, 2020; Henaku, 2020; Mhlanga and Moloji, 2020; Sahu, 2020).

Vulnerable and disadvantaged rural-based institutions in South Africa

From the time when the announcement of the lockdown in South Africa and other parts of the world was declared, there was an immediate suspension of classes in many institutions (Adnan, 2020; Mhlanga and Moloji, 2020; Sahu, 2020; Toquero, 2020). Recent studies highlight that rural institutions have been battling to implement remote teaching and learning, especially to marginalised students (Mhlanga and Moloji, 2020; Sahu, 2020; Toquero, 2020). Rural-based institutions are under resourced to promote successful remote teaching due to, in many cases, their lack of technology and funds (Mhlanga and Moloji 2020; Yende and Yende 2019). Rural-based institutions have been coerced into devising an innovative method that would aid them in continuing with e-teaching and e-learning.

In the case of South Africa, students who are living in vulnerable communities such as rural areas of Eastern Cape, Mpumalanga, KwaZulu Natal, and Limpopo, among other provinces, have found it difficult to study online (Mahaye, 2020; Henaku, 2020). A study by Henaku (2020) demonstrates that despite attempts by universities to promote remote and online teaching and learning, various students experience challenges with internet connectivity, difficulty receiving study material on time, the high cost of internet data bundles, challenges with devices, and disruptions resulting from the performance of household activities. Issues such as recurrent power interruptions, internet connection, internet bundles, and working devices such as laptops and smartphones have disrupted the productivity of remote teaching and learning, especially in rural-based institutions worldwide (Adnan, 2020; Toquero, 2020). It is clear that with rural-based institutions using the traditional way of teaching (face-to-face) and learning have become more vulnerable to the COVID-19 pandemic and other challenges which led to the closure of university sites.

General challenges with distance learning in the South African educational system

Since the suspension of classes in South Africa due to the COVID-19 pandemic, institutions of higher education have been attempting to implement online and distance teaching and learning to ensure that the academic year is not wasted (Mhlanga and Moloji, 2020). Scholars such as Mpungose (2020) have revealed that online and distance teaching and learning were since online and distance teaching and learning does not require the traditional face-to-face communication between instructors and students. This was echoed by Toquero (2020) who acknowledges the advantage of online and distance teaching and learning amid the COVID-19 pandemic, where classes are suspended worldwide. Aftab (2020) and Mahaye (2020) support the appraisal made by Toquero (2020), asserting that the advantage of online and distance teaching and learning is that students can study at their convenience and at suitable times, as they do not have to attend in-person lectures or classes.

Mahaye (2020) states that the officials of higher education should prioritise and support remote teaching and learning in marginalised institutions in South Africa. The COVID-19 pandemic crisis presents various challenges that tend to hinder disadvantaged students in rural-based universities from realising their full potential of e-learning and these challenges include students unable to have access to effective e-learning, infrastructure among other (Mhlanga and Moloji, 2020). The findings of the study by Henaku (2020) demonstrate that students advocate for remote and online teaching and learning to be deferred due to the numerous challenges it presents.

Opportunities presented by the COVID-19 pandemic in the educational sector

The unique challenges presented by the COVID-19 pandemic could be a gateway to innovative digital teaching and learning methods. Various scholars highlight that social media platforms such as Facebook, Instagram, Twitter and WhatsApp could be used as platforms for digital teaching and learning, since these platforms are commonly used by thousands of young people in South Africa (Mahaye, 2020; Henaku, 2020; Toquero, 2020). Although the COVID-19 pandemic has challenged South African institutions of higher education, some have managed to cope with these unprecedented times (Mhlanga and Moloji, 2020). It is prudent to note that during the pick of COVID-19 pandemic very limited universities were able to have successful remote and online teaching and learning. These universities include the University of Cape Town, Stellenbosch University, and the University of Witwatersrand among others.

Amid the strict regulations imposed due to the COVID-19 pandemic, one of the crucial things highlighted by the University of Cape Town Deputy Vice-Chancellor of Teaching and Learning, Lis Lange (University of Cape Town, 2020) is that:

“The method of remote teaching and learning has been implemented to ensure that students continue with their studies through a variety of opportunities. The University of Cape Town (UCT) has also bought laptops that have been allocated to students based on financial need and vulnerability.”

In line with this quote, Toquero (2020) highlights that universities should support students with devices to ensure successful remote learning for all students, especially marginalised students. Online teaching and learning require students to access high-speed broadband and digital devices for online learning (Basilaia and Kvavadze, 2020).

Research Methodology

Research paradigm and sampling

In this study, a qualitative research method was employed, whereby a document analysis research design approach was adopted. The document analysis design was chosen because of the nature and the main focus of the study. Due to the restrictions imposed by the government to curb the spread of COVID-19, the

document analysis design was considered suitable for this project. The paper adopted Colaizzi's phenomenological data analysis. Colaizzi's phenomenological data analysis is recognised as a rigorous method that guarantees the trustworthiness, credibility and reliability of its results (Beck, Keddy and Cohen, 1994; Colaizzi, 2005; Krebs, 2006). The findings of the study were interpreted and presented in themes.

Limitations of the study

The study was limited to document analysis. As highlighted earlier, no interviews or questionnaires were conducted as the research is based on content analysis.

Findings

Since the study employed Colaizzi's phenomenological data analysis, the findings were, therefore, presented in themes that developed from research questions of this paper. In this study, three major themes were developed: (1) studying without essential resources (devices), (2) challenges with internet bundles, (3) online teaching and learning engagement. The literature review complements these findings.

Studying without essential resources (devices)

Many scholars have highlighted that in the face of the COVID-19 pandemic, the academic calendar was temporarily suspended from curbing the spread of the COVID-19 (Mahaye, 2020; Mhlanga and Moloji, 2020; Toquero, 2020). In South Africa, as in many other places, online and remote teaching and learning were implemented to ensure that, as far as possible, the academic year continued as planned (Mahaye, 2020; Mhlanga and Moloji, 2020). Online teaching has highlighted grey areas for students who are based in rural areas. While many South African institutions of higher learning sent study materials to students to continue with their studies, Mahaye (2020) claims that many students did not receive the study materials, such as laptops and other learning devices, on time.

Mhlanga and Moloji (2020) state that it is hard for students to study without essential resources, such as accessing the library and working devices, such as laptops. Many students use their phones to type assignments and attend online learning. According to Mahaye (2020) and Mhlanga and Moloji (2020), most students who are from economically poor backgrounds found themselves stuck since they were not able to communicate with their lecturers. In addition, many first-year students were also stuck since they were not fully acquainted with the educational system of their respective institutions (Mahaye, 2020; Mhlanga and Moloji, 2020).

Mahaye (2020) emphasises that many lecturers have stated that online teaching and learning require high-quality devices that have appropriate apps. Therefore, it is hard to expect students from marginalised communities without access to these tools to submit

assignments on time (Mahaye, 2020; Mhlanga and Moloi, 2020). All South African universities should loan laptops to vulnerable students to ensure that no student is left behind in their studies. Studies found that many students who were not receiving the National Students Financial Aid Scheme (NSFAS) found it difficult to acquire the necessary devices (Mahaye,2020; Mhlanga and Moloi, 2020). Hence, Mahaye (2020), suggests that the Department of Higher Education and Training should have provided laptops to all students under the loan. Although online and remote teaching and learning are acknowledged as successful methods, vulnerable students find it difficult to cope with online learning because of the lack of laptops, mobile phones and other internet devices that prevent access to some recommended websites and apps (Mahaye, 2020; Mhlanga and Moloi, 2020; Toquero, 2020)

Challenges with internet bundles

There has been a serious concern about the distribution of internet bundles for students in many South African institutions of higher education. Internet bundles were a necessary resource for online learning during the lockdown (Mahaye, 2020; Mhlanga and Moloi, 2020). As the internet bundle offers better value for money, students can download lecture videos, participate in a live lecture, or play a lecture video online. The nature of online learning requires a great deal of internet data. Therefore, most students who are from disadvantaged families have found it cumbersome to continue in their studies (Mahaye, 2020; Mhlanga and Moloi, 2020). These challenges have resulted in poor performance in online teaching and learning.

Although data remains an important resource for online learning during stringent lockdown conditions, many lecturers have agreed that South African students from rural areas found it difficult to attend online teaching and learning because of limited internet access in remote areas (Mahaye, 2020). Mhlanga and Moloi (2020) and Abidah et al. (2020) assert that many students from marginalised communities expressed that online learning has been beset with challenges associated with limited access to data and poor internet connectivity.

Teaching first-year in a Foreign Language in higher education during the COVI-19

Even though Foreign Language (English) remains the primary language of teaching and learning in South African higher education, first-year students from rural regions had difficulties with online learning during the COVI-19 pandemic. This was also addressed by Hampel (2003), who claims that learners' anxiety may rise as a result of anonymity in online settings brought on by communication in situations involving foreign languages without verbal or visual cues. When learning a foreign language online rather than in person, the majority of students find it uncomfortable. The following table compare the experience of the online teaching and traditional method of teaching in higher education for first-years (**Table 1**).

Table 1: Foreign Language (English)

Physical teaching		Online learning
1. Students engage more in physical classroom	Foreign Language (English) for students in rural areas	1. Less engagement in online teaching
2. Students are motivated to attend lecture		2. Students feels less motivated to attend online teaching.

Source: Researchers

Upon reflection on the above table, physical teaching has benefit as compared to online teaching, especially when it comes to class attendance and motivation. Physical teaching remains a commendable method of teaching and learning, especially in Foreign Language (English) for students in rural areas.

Online teaching and learning engagement

Most scholars have agreed that many students living in vulnerable places in South Africa find it difficult to cope with online learning (Mahaye, 2020; Mhlanga and Moloji, 2020). Many black students stay in overcrowded households, which makes it difficult for students to be productive. Due to these factors, many students find themselves missing online lectures, which makes it difficult to succeed in their courses (Mahaye, 2020; Henaku, 2020; Sahu, 2020). Self-study places pressure on first-year students who are not accustomed to this approach. Online teaching and learning have brought difficulties for most new students who are not familiar with the use of the internet. Lecturers who conduct online teaching through Skype, Zoom and Google Meet admit that very few students have managed to access these platforms (Mahaye, 2020; Mhlanga and Moloji, 2020).

Toquero (2020) acknowledges that lecturers have stated that many students missed their deadlines and online assessments due to poor network connection, lack of facilities for studying at home and other resources required for online learning. Due to the challenges experienced by the students with online teaching and learning, one can assert that maintaining high-quality assessment results is very challenging. Students from disadvantaged communities struggle with access to various devices, fast internet, and silent learning spaces. Therefore, it is vital to support students from the rural areas of South Africa and ensure that students cope with online learning, especially those in their first year of study (Mahaye, 2020; Mhlanga and Moloji, 2020).

Analysis

Based on the findings above, one can say that the advent of the COVID-19 pandemic crisis worldwide and its rapid spread led to the closure of most learning institutions. The findings demonstrate that the COVID-19 pandemic has completely changed the traditional way of teaching and learning. The study also found that South African institutions of higher education have implemented online and remote teaching and learning as an alternative way to continue with the academic calendar. Remote teaching and learning in rural-based institutions in South Africa had many challenges as many of these institutions face internet connection and infrastructure issues. Limited access to internet bundles and high cost of data have a negative impact on the effectiveness of online teaching and learning in many South African institutions of higher education. There is strong evidence to suggest that online and remote teaching and learning requires some revision to ensure that marginalised students are catered for so that they have a comparable chance of succeeding with their studies as those who are more privileged. Mhlanga and Moloji (2020) emphasise that South African institutions higher of education should work hard to ensure that adequate resources are effectively distributed to marginalised students.

Although the findings of this study noticed that platforms such as Skype, Zoom and Google Meet are useful for teaching online (Toquero, 2020), social media platforms like Facebook, WhatsApp, Telegram and Instagram, among others, could significantly contribute to a more mobile-friendly and easy to use teaching and learning space, especially for students who are located in rural communities. Since many students use social media platforms, Mulenga and Marbán (2020) highlight that they could be an entryway to digital learning that can transform the more traditional ways of teaching and learning.

Furthermore, empirical evidence from this study has revealed that due to the COVID-19 pandemic, many developing countries such as Ghana, Zambia, Pakistan and South Africa are confronted with increasing challenges in implementing successful online and remote learning due to meagre technology in rural-based institutions and marginalised communities (Mahaye, 2020; Henaku, 2020; Toquero, 2020). The study reported that many lecturers and students from rural-based institutions are battling with online learning as most are not familiar with digital teaching (Toquero, 2020). Due to the prevailing socio-economic conditions many South African communities face, utilising remote and online learning has been so difficult that they have had to extend submission date assignments and postpone assessment dates.

All the issues identified as the main challenges could jeopardise the successful delivery of remote and online teaching and learning in South African institutions of higher

education. Admittedly, failing to resolve these dilemmas will perpetuate the situation at hand.

Discussion

The findings of this study reveal that the COVID-19 pandemic has seriously affected the higher education sector in South Africa. The reason for this is because of the lack of e-learning infrastructure that would assist students in interacting with lecturers remotely. Another reason is that many students from geographically and economically marginalised communities cannot easily access working devices and fast internet. Limited access to data was also highlighted as a major obstacle to online teaching and learning. Many students from rural communities reported that their main barrier to online learning was their working environment, as they share a home, and so they do not have a quiet learning space. The study highlights that poor infrastructure, poor internet connection in rural communities, and challenging study environments could negatively contribute to the effectiveness of online teaching and learning, resulting in poor performance by students (Toquero, 2020). The COVID-19 pandemic continues to reshape higher education around the world. The suspension of lectures in South African institutions also led to a massive migration of students back to their home countries at short notice (Toquero, 2020).

Results also seem to suggest that although the lecturers are well prepared with online teaching and learning, the COVID-19 pandemic has caused stress and trauma to many students that have negatively affected their studies. The implementation of social media platforms such as Facebook, Instagram, Twitter, and WhatsApp aid online learning by reaching a wider range of students (Toquero, 2020).

Undoubtedly, these findings should be heeded by South African institutions of higher education and government. The findings of the study indicate the importance of supporting students from marginalised communities to ensure sustainable online teaching and learning during the COVID-19 era. The results of the study have shown that the COVID-19 pandemic has a significant impact on the institutions of higher education provision in South Africa, especially in rural institutions.

Based on the findings of the study, the study concludes that there is a pressing need for South African institutions of higher education to develop and rethink innovative ways to promote and support remote e-teaching and e-learning, especially for rural institutions and students in rural areas.

Conclusion and Recommendations

Upon reflection on the findings of the study, the paper makes the following eight recommendations:

- The study recommends that South African institutions of higher education should ensure that all students are well supplied with devices for online learning.
- Students should be supported with sufficient internet bundles for internet connectivity.
- All universities should offer short online training for both students and lecturers to familiarise them with remote teaching and learning processes.
- Social media platforms should be used as a remote teaching method to reach a wider range of students.
- After the online lecture, lecturers should also offer content in different mediums such as visual, text, as well as audio, to support students who learn in various ways.
- Universities should communicate with the internet and cellular service providers to offer reasonable and affordable data for online teaching and learning for students.
- Universities should offer accommodation to vulnerable students with stringent protocols that follow the national rules and regulations of the lockdown.
- Universities should also provide follow-up classes and supporting sessions with vulnerable students if possible.

Considering the 'new normal' COVID-19 era, this paper recommends how to reshape and advance online teaching and learning. The paper concludes by affirming that remote teaching and learning have sparked uncertainty about the future for students and rural institutions that do not have a suitable infrastructure. Universities, researchers and experts in higher education require strategic planning to improve online teaching and learning in higher education in the future.

References

1. Abidah, A. (2020). The impact of covid-19 to Indonesian education and its relation to the philosophy of "Merdeka Belajar." *Stud Philos Sci Educ*, 1(1).
2. Adnan, M. (2020). Online learning amid the COVID-19 pandemic: Students perspectives. *J Pedagogical Research*, 1(2), 45-51.
3. Aftab, R. (2020). Coronavirus (COVID-19). *InnovAiT: Educ Insp Gen Pract*, 13(10).
4. Beck, C.T., Keddy, B.A., & Cohen, M.Z. (1994). Reliability and validity issues in phenomenological research. *West J Nurs Res*, 16(3).
5. Chick, R.C. (2020). Using technology to maintain the education of residents during the COVID-19 pandemic. *J Surgical Edu*, 77(4), 729-732.
6. Chick, R.C. (2020). Using technology to maintain the education of residents during the COVID-19 pandemic. *J Surgical Edu*, 77(4), 729-732.
7. Colaizzi, J. (2005). Seclusion and restraint: A historical perspective. *J Psychosoc Nurs Ment Health Serv*, 44(2).

8. Mahaye, E.N. (2020). The impact of COVID-19 pandemic on South African education: Navigating forward the pedagogy of blended learning. *University of Pretoria*.
9. Henaku, E.A. (2020). Covid-19: Online learning experience of college students: The case of Ghana. *Int J Multipdisciplinary Sci Adv Tech*, (1)2, 54–62.
10. Krebs, M. (2006). Service-learning: Motivations for K-12 teachers. *Onl Subm*, 8(27), 31–43.
11. Maxwell, J. (1992). Understanding and validity in qualitative research. *Harv Educ Rev*. 62(3), 279–301.
12. Mhlanga, D., & Moloji, T. (2020). COVID-19 and the digital transformation of education: What are we learning on 4ir in South Africa? *Educ Sci*, 10(7), 180.
13. Mpungose, C.B. (2020). Emergent transition from face-to-face to online learning in a South African university in the context of the coronavirus pandemic. *Humanit Soc Sci Commun* 7, 113.
14. Mugovhani, N.G. (2011). The demise of indigenous African music in South African schools and institutions of higher learning. *Afr Musicol Onl*, 39, 1–22.
15. Mulenga, E.M., & Marbán, J.M. (2020). Is covid-19 the gateway for digital learning in mathematics education? *Contemp Edu Tech*, 12(2).
16. Ortiz, P.A. (2020). Teaching in the time of COVID-19. *Biochem Mol Biol Educ*, 48(3), 201.
17. Sahu, P. (2020). Closure of universities due to Coronavirus disease 2019 (COVID-19): Impact on education and mental health of students and academic staff. *Cureus*, 12(4).
18. Toquero, C.M. (2020). Challenges and opportunities for higher education amid the COVID-19 pandemic: The Philippine context. *Pedagog Res*, 5(4).
19. UNESCO (2020) COVID-19 Educational disruption and response.
20. University of Cape Town (2020). Remote teaching updates for undergraduate students. *University of Cape Town*.
21. World Health Organization (2020) Statement on the meeting of the international health regulations (2005) emergency committee regarding the outbreak of novel Coronavirus (2019-nCoV).

22. Nsizwazonke, E.Y., & Sakhiseni J.Y. (2019). Critical analysis of the impacts of institutional massification in higher education using George Ritzer's theory of McDonaldisation. SAAPAM.