The Virtual Classroom: Challenges of COVID-19 Pandemic in Accounting Subject Classrooms in the Eastern Cape Province, South Africa

Melikhaya Skhephe
School of Commerce and Social Studies in Education
North-West University
Potchefstroom Campus
Corresponding author:Sikepemk@gmail.com

ABSTRACT

The COVID-19 pandemic issues in South Africa's Eastern Cape area are discussed in the study. The article uses a case study layout as part of its qualitative study approach. To collect the data, semi-structured interviews were used. The selection of the ten accounting teachers was deliberate. The examination of the data was thematic. The article details the difficulties triggered by the COVID-19 pandemic in the Accounting field, including infrastructure, data accessibility and lack of readiness for the virtual classroom. Educators of Accounting subjects are advised by the study not to view their work as routine business. The Network industry should participate with the departments of education to resolve data, connectivity, and convenience challenges so that virtual classroom learning is supported. All educators should be persuaded to participate in numerous types of online seminars after the COVID-19 to develop.

Keywords: *Accounting classroom; challenges; COVID-19; online teaching; teaching and learning*

INTRODUCTION

Dhama, Sharun, Tiwari, Dadar, Malik, Singh, and Chaicumpa (2020) claim that, in 2019 in Wuhan, Hubei Province of China, the Covid-19 strain of coronavirus started as pneumonia of unknown origins and that it has since spread to far too many other nations. In the past few decades, attempts have been made to create vaccines to protect against human coronavirus (CoV) diseases like MERS and SARS, according to Dhama et al. (2020). Despite extensive attempts by WHO and governments to restrict the illness, COVID-19 virus has spread to 188 nations and 25 territories worldwide since its discovery in November 2019 (Anon, 2020a; Anon, 2020b). This is mostly because the virus is extremely contagious. 10,533,779 cases and 512,842 deaths have been documented globally as of 2 July 2020 (World Health Organisation, 2020). As of 2 July 2020 (Anon, 2020), the number of contaminated patients has dramatically increased, with a 7-day turning standard of 210, 209 cases a day. SARS-CoV-2, a highly contagious virus, often spreads by direct human contact, respiratory aerosols, and fomites (Anon, 2020a). Centers for Disease Control and Prevention (CDC) (2020) have established creative methods to stop the increase of the infection, including public seclusion, individual cleanliness, repeated hand cleaning or disinfecting with spirits-established hand-sanitizers, banning all appearance contact of any kind, and disinfecting surfaces These measures can prevent people from becoming infected. Global health emergency status has been given to the pandemic coronavirus epidemic because it has become shocking and disturbing in every way (Dhama et al. 2020). Due to the Fourth Industrial Revolution, there was a call for Bangkok, Thailand to adopt the usage of modern Information Communication Technology facilities in the education and other sectors prior to the COVID-19 outbreak. Some institutions are still having difficulty implementing this call, especially in nations with low resources (Adu et al., 2020). As a result, the breakout of COVID-19 caused enormous confusion at these institutions,

which were forced to abandon face-to-face teaching in support of virtual learning (UNESCO, 2020). South Africa is a growing nation with sluggish growth caused by poverty, unemployment, and illiteracy (Skhephe, 2022). The abrupt transfer to online learning due to the Covid-19 epidemic, which has an impact on students' performance, is one of the side effects of the pandemic in the Accounting classroom. According to Zarret (2020), the COVID-19 epidemic disrupted Accounting instruction because the move to online learning came at a hefty expense. Due to the exorbitant expense, students have missed out on the classroom. However, there have been several difficulties with Accounting education throughout the current crisis that may have an impact on the effectiveness of the results. This covers the evaluation process for students, instructor efficacy, digitizing Accounting education, as well as instructional time and techniques. During the crisis, students in Accounting classes have faced a lot of uncertainty and stress related to their work (Sangster, Greg, Stoner & Flood, 2020). Additionally, throughout the pandemic, Accounting professors had to deal with a lack of institutional support, a lack of knowledge or competency with online learning platforms and tools, worries about the wellbeing of students, and issues linked to technology. Because of this, several schools still struggle to provide modern technology infrastructure and an internet connection, which makes using 4IR tools a challenge. However, some schools are well off when it comes to using 4IR, therefore throughout this time of COVID-19, virtual learning runs almost without a hitch. Considering this context, the author sought to examine the difficulties posed by the COVID-19 pandemic in Accounting classes in South Africa's Eastern Cape.

RESEARCH QUESTION

The focal examination problem being tackled in the study is:

What are the challenges of the COVID-19 pandemic in Accounting Subject Classrooms in the Eastern Cape Province, South Africa?

Sub-research question

- What challenges do Accounting teachers encounter during the COVID-19 pandemic?
- How does the COVID-19 pandemic affect implementation of virtual classrooms in the teaching of Accounting?
- What are the benefits of Accounting virtual classrooms during and after COVID-19 pandemic?

LITERATURE REVIEW

The Virtual Classroom

Virtual learning is described by Gallacher (2015) as an online system that allows teachers to provide learning resources and connect with their pupils online. Rachiva (2018) and Ferriman (2019) concur with Gallacher and add that, because synchronous learning occurs in both, the virtual classroom and traditional face-to-face teaching are closely related. Everyone participates in learning simultaneously in a process known as synchronous learning (Racheva, 2018; Ferriman, 2019). They only vary in approach because a simulated classroom is a collaborative online learning space where professors and students work side by side. Video recorder conferencing, an online whiteboard (for real-time collaboration), instant messaging capabilities, contribution limits, and getaway rooms are frequently used in the simulated classroom learning process (Racheva, 2018). In addition, Moodle and Blackboard are involved (Gallacher, 2015). Students must be introduced to independent learning and the 4IR practice, which are fundamental requirements for this type of learning. The online learning method, which will be

covered in this essay, may provide difficulties for developing nations like South Africa. A virtual learning environment (VLE), corresponding to Loureiro and Bettencourt (2014), is a gathering of teaching and learning resources created to improve pupils' learning skills by integrating computers and the Internet. Since all students were required to have laptops during the lockdown period, the use of online instruction became a common alternative. This is a significant hardship for pupils from low-income families. Even though not all the institutions were prepared for virtual learning, South Africa did not fall behind. Laptops and the internet are mostly used in the learning process with a VLE (Loureiro & Bettencourt, 2014). It is envisioned to improve pupils' learning experiences by encouraging them to take ownership of their education outside of the traditional classroom setting. According to Latif (2016), e-learning is flourishing in the numerical age of education because it allows for richer interaction and engagement between professors and students for successful learning. Teachers can exchange links to internet resources with students, embed YouTube videos, share articles with them, and set up podcasting platforms using a VLE.

Benefits of the virtual classroom

Since the twenty first century is characterised by the quick administering of technology, the area of teaching has no alternative but then, to embrace the virtual classroom if it wants to keep up (Sangrà, Vlachopoulos & Cabrera, 2012). The advantages of using a virtual classroom, according to Sangrà, Vlachopoulos and Cabrera, include the capacity to instantly offer knowledge, everywhere and at any time. Smythe (2012) claims that when the virtual teaching space is used properly, mixed learning can be facilitated. According to Alajmi (2013), all societies are trying to change into e-learning communities on a global scale. Alajmi

states that virtual teaching space can help learners gain the knowledge, skills, and expertise they need to navigate the world's constant change and make a positive impact on society. In a virtual classroom, talent may be produced that will help students enter the global market and enhance their lives, according to Kiilu and Muema (2012). Additionally, Kiilu and Muema note that pupils who study through technology exhibit increased creativity, motivation, and a desire to push their limits. Many students can even go on to become technology designers, which enables them to contribute to the output and productivity of their nation. Keramati, Afshari-Mofrad, and Kamrani (2011) observe that early integration of e-learning into the educational system has led to many technological advancements and gains in many industrialised countries. These advancements are a direct outcome of the usage of innovative technology.

Challenges of Virtual Classrooms during COVID-19

Mehtar, et al. (2020) state that on March 11, 2020, the World Health Organization designated the Coronavirus of 2019 to be an epidemic. Following the declaration, there was discontent, and fear spread, which led to significant changes everywhere. Worldwide, several severe measures were implemented, including complete lockdown, campaigns urging people to stay at home to preserve lives, and travel and movement restrictions (Skhephe & Matashu, 2021). Additionally, all schools in South Africa were instructed to close, and students, instructors, and some non-teaching staff members whose services were not necessary were given the go-ahead to work from home. Due to this approach, all educational institutions were forced to adopt online learning (Adu et al. 2020). The leader of the nation, Mr. Ramaphosa, and education experts emphasised the idea of developing alternate methods of using online teaching and learning and other distance learning methods (Jacob, Abigeal

& Lydia, 2020). For the first time ever in South Africa, face-to-face teaching contact sessions were discontinued in favour of online instruction (Jacob, Abigeal & Lydia, 2020). Due to the socioeconomic circumstances present in South Africa, where most students come from underprivileged families and consequently cannot afford data to access the internet unless provided cost-free, online instruction will never be very effective in this country (Adu et al. 2020).

Internet connectivity challenges

In many schools in impoverished countries, the absence of internet connectivity is a major obstacle (Jacob, Abigeal & Lydia, 2020). The growth of an information society depends on having access to the internet and enough bandwidth (Clement, 2020). According to Clement (2020), insufficient broadband approach is preventing extensive internet use in public schools and other spheres of daily life. However, for access to be effective, it must also be inexpensive for both schools and individuals, and for instructors and pupils to effectively use a variety of platforms, they must develop their digital literacy and other skills. Educators and learners must locate and use regionally relevant materials and content because not all internet content is necessarily appropriate. According to Santos (2016), the internet offers high-quality education in many ways, providing doors to a plethora of knowledge, information, and learning assets, and enhancing users' ability to learn both inside and outside of the classroom. Santos (2016) makes the additional observation that, although learners use online resources to broaden their horizons of knowledge, teachers use them to plan classes. Internet-based interactive teaching techniques enable teachers to focus more on the needs of specific students while fostering group studying (Santos, 2016).

Lack of virtual classroom platforms in South African schools

Due to the pervasive use of Web 2.0 or "soft software," such as Sakai and DrupalEd, Moodle, Blackboard, TurnItIn, and many more, most schools in the United Kingdom are virtual education environments (VLEs) (Beetham & Sharpe, 2007). VLEs are a part of web-based software that gives educators the capability to quickly conduct online searches for certain subjects. Such learning environments typically feature a chat room, an online debate board, daily notices, and online tests with explicit instructions outlining what pupils need to do while completing (and then submitting) such tests (Beetham & Sharpe, 2007). Educators can access and display syllabus-related data through multiple platforms, as well as track their pupils' activity in the VLE (Beetham & Sharpe, 2007). These platforms give access to several integrated resources for both educators and pupils, enabling the former to direct learning while the latter are studying and to choose the most effective methods of teaching and learning a particular subject even before either side enters the classroom (Beetham & Sharpe, 2007). E-learning systems are quickly turning into a crucial component of 21st-century teaching and learning processes, as Pituch and Lee (2006) note.

Technology readiness index (TRI)

Parasuraman and Colby (2015) note that a technology willingness index can be used to assess the effectiveness of technology-based learning (TRI). However, it should be noted that an individual's cardinal skills may affect his or her state of mind. Such an index assesses the amount to which individuals adapt and use technology, mostly based on their state-of-mind readiness, to this persistence, Parasuraman and Colby (2015) define four factors—optimism, innovativeness, discomfort, and insecurity—that each

institution or person must consider before introducing any form of e-learning. These factors are discussed below. In the TRI, Optimism is defined as the presence of a positive mindset, particularly the conviction that, by utilising technology, one may achieve intended goals (Hennessy, Harrison, & Wamakote, 2010). Optimism raises learner engagement levels and can enhance students' outcomes and digital abilities (Partin & Lauderdale, 2013). In the context of the TRI, Innovation is defined as behaviours such as being the first in a cohort to buy technology, demonstrating a commitment to execute and use technology, and constantly seeking out information about new technologies (Falloon, 2013). Thus, an inventive person is one who actively engages with information sources to learn about emerging technologies and the effects they are anticipated to have on society and education. Discomfort, in the setting of the TRI, is in testimony when individuals battle, for example, to comprehend how technology is used (Ifenthaler & Schweinbenz, 2013) and they struggle to adopt such novelties. In this article, the authors sought to establish whether learners experience Discomfort based on being unable to use technology for its educational benefits.

Insecurity is seen because of mistrust based on, for example, concerns about security and privacy Irritation and uncertainty can impact both learners and educators' experiences of technology and reduce the possible value of technology diffusion.

Teachers' roles in supporting the virtual classroom

Virtual learning necessitates the use of the internet both within and outside of the classroom, which may help with the development of strategies for switching from the traditional technique of teaching to more contemporary ones (online). Teachers must take on new roles and duties during this process, some of which may be

shared by multiple people (Fowler & Mayes, 2004). According to Fowler and Mayes, an online course might, for instance, have the following features:

- A teacher who consistently uses the best technologies to produce an engaging curriculum.
- An e-learning instructor who acts as a class assistant and oversees keeping up with the conversation on a daily basis.
- A teacher who is tasked with carrying out administrative duties as well as supervising students' work and offering direction while they engage in practical tasks.
- A neutral moderator who has been invited by the school to evaluate the sincerity of the students' efforts.

THEORETICAL FRAMEWORK

The Connectivism hypothesis is used in the text. The theory known as Connectivism describes how connectivity in classrooms gives students the chance to explore and develop new learning possibilities, as well as for users to exchange information via the Internet. To suggest a wider and more comprehensive structure for learning in today's "open" and "connected" learning environment, which is made possible by interactive Web 2.0 technology, Siemens' (2005) Theory of Connectivism combines elements of cognitivism and constructivism. The core tenet of the connectivism approach is that learning happens not only individually but also in groups that use the internet and engage in peer-to-peer interaction. Learning is made more enjoyable, talents are fostered, and students work at their own pace and on their own schedules without feeling compelled to learn, when connectivity is fully operational and performing at its peak. According to Siemens' idea, the teacher's role in connectivism is to lead students in the classroom by simply responding to any pertinent questions they may have, mostly

leaving the network to support students' learning. Before sharing their knowledge with their classmates in the classroom, pupils are also encouraged to independently research topics online. According to this theory, learning allows people to blend their prior experiences, needs, emotions, and experientially acquired knowledge into the present-day process of learning. This theory was chosen since it allows a community of people to legitimise what they are doing, so knowledge can be spread more quickly through multiple communities. Furthermore, this theory is used to underpin the study since it empowers teachers, by means of shifting the learning responsibilities from the teachers to the learners.

METHODOLOGY

Research paradigm
This article employed interpretivism. It was selected because it used an interview plan and a qualitative method (Creswell, 2014). Interpretivism is linked to subjectivity and many realities, according to Creswell. This paradigm frequently examines problems from the perspective of personal experience (Cohen, Manion & Morrison, 2011). Their results are frequently localised to certain settings and conditions rather than being generalisable to entire populations (Cohen, Manion & Morrison, 2011). Observations, document and narrative analysis, case studies, interviews, and audio-visual sources are all used by interpretivism to collect data. They discuss their results in extended descriptions (Cohen et al. 2011; Creswell, 2014).

Research approach

To define, recognise, and comprehend the human phenomenon, relationships and discourse in this paper, a qualitative research approach was applied. According to Creswell (2014), qualitative research is most helpful in addressing queries about what, why and how of

specific events. By using a range of research techniques, the researcher will be able to develop narrative solutions to the research questions created for this inquiry (Maree, 2015).

Research design

An analysis of case study research was used in the publication. A case study, as explained by Maree (2013), is a form of qualitative evaluation that concentrates on offering a thorough explanation of one or more enquiries.

Sample/sampling techniques

The article's sample included 10 Accounting educators. These educators were specifically chosen for the investigation since they were the sources of the information required. Situated in the Eastern Cape Province of South Africa, they were chosen from among 5 high schools.

Data-collection techniques/Instrument

Semi-structured interviews were performed to gather information from the individuals. Participants were nevertheless contacted by telephone for the interviews because of COVID-19 restrictions. The participants were questioned about their thoughts on the difficulties of using online accounting courses in South Africa during the COVID-19 pandemic.

Ethical Consideration

The author first sought permission from the university at which she was enrolled, followed by the provincial office of the Department of Education for access to the author's target schools.

Data Trustworthiness

Maree (2015) reaffirms that data trustworthiness is a credibility or stakeholder check as well as consistency checking (having another coder use the type

descriptions to discover the content that belongs in those categories, for instance). According to Creswell (2013), trustworthiness refers to conclusions that are eligible for consideration. The research complied with Creswell's (2013) list of the four qualities of qualitative research, which are reliability, confirmability, authentication, and transferability. Here, the author stressed that there was no bias in the data collection process.

Data analysis

Data analysis is the procedure of condensing and analysing the gathered information such that a "narrative" emerges (Kawulich, 2009). Themes derived from the study questions were used to analyse the interviews. Since the interviews were recorded, transcription of the data from the recordings was the initial stage in data analysis. This made it easier for the researcher to engage deeply with the data. The participants' firsthand accounts and written transcriptions were combined.

Ethical considerations

Approval was requested and received from the acting Superintendent General to carry out the research in the Eastern Cape Province. Before they took part, participants had the chance to give informed consent after having been fully told about the details of voluntary participation, informed consent, confidentiality, anonymity, non-maleficence, and the advantage of the investigation to them.

Limitations

Finance was a major constraint in this paper because the writer was completely reliant on and utilising their own funds to carry out the study because they were not supported by any financial sponsors. Geographical restrictions were another major barrier because the research was only done in one province and not the whole nation. Although the authors were

willing to travel across the nation to conduct this study and collect data from other regions of the nation, they were not capable of doing so for financial reasons.

Results and Discussion

Coded Information about the participants

In this article, interviews with 10 samples totalling 10 Accounting teachers were conducted. T1 stands for teacher number 1, T2 for teacher number 2, T3 for teacher number 3, etc. The three research questions led to the creation of themes.

Theme 1: Challenges confronted in accounting classrooms during COVID-19 pandemic.

The teachers' responses are listed below. The teachers all concurred that there are difficulties they confront in the accounting classroom during the Covid-19 pandemic since there is no face-to-face instruction because Covid-19 regulations forbid any physical contact.

T1: "To implement Virtual classroom learning is a challenge to me even today. Remember when it comes to teaching, teachers are only aware of face-face method. Now I am expected to quickly shift to online teaching without being properly prepared; that is the big problem. At the same time, I must make sure I am protected from the pandemic and that alone is strenuous to me".

T3: "I doubt if the is any learner who was aware and ready for the virtual classroom as they are also used to face-to-face just like teachers. In that way you must make sure that learners are properly prepared for a virtual classroom; in our case our learners were never prepared for it, and it means it is pointless as a teacher to say let's have virtual classroom while learners don't know anything about it".

T4 "Data accessibility is a big problem in the implementation of a virtual classroom. When issues of data

have been sorted then teachers can start to roll out virtual classroom learning".

T 6: "Student connectivity and data are still hindering online learning in South Africa".

These results support the assertion made by Adu et al. (2020), who claim that, as most students in South Africa originate from underprivileged homes and cannot afford data to access the internet unless provided, online instruction will never be very effective here. As pointed out by Jacob, Abigeal, and Lydia (2020), a significant barrier in many schools in impoverished countries is a lack of internet connectivity. The results go counter to Siemens' (2005) assertions that when connectivity is fully operational and performing at its best, learning is more enjoyable, talents are fostered, and students work at their own pace and in their own time without being pressured to learn. According to Clement (2020), the growth of an information society depends on having access to the internet and sufficient bandwidth. The widespread use of the internet in education and other spheres of life is further hindered by the absence of broadband connectivity. According to Santos (2016), the internet, which is required for the implementation of virtual classrooms, offers high-quality education in many ways. It opens doors to a wealth of knowledge, information, and educational resources and increases users' opportunities to learn both inside and outside of the classroom. Santos (2016) makes the further observation that although learners use online resources to broaden their horizons of knowledge, teachers use them to plan classes. Internet-based interactive teaching techniques enable teachers to focus more on the needs of specific students while fostering group learning (Santos, 2016). Santo's findings concur with Siemens' thesis that the role of the instructor in the classroom should primarily consist of supporting students' learning by responding to important questions they may have.

Theme 2: COVID-19 pandemic impacted the application of virtual classrooms in the teaching of accounting.

The teachers' responses are listed below. All the participants concurred that COVID-19 had an impact on the deployment of virtual learning because neither the virtual classroom nor the pandemic had adequate preparation.

T2 "In my case I was totally unprepared for virtual classroom since I am used to face-to-face, and when the education officials were opting for virtual classrooms, my attentions were only focused on the pandemic since I was so shocked to see many deaths".

T 5: "COVID-19 disturbed me badly to put my focus on how to implement the virtual classroom. I was never so afraid of a virus like the way I was afraid of COVID-19. As a result, I am still not enlightened on how to implement the virtual classroom since the time to learn how to implement it was disturbed by the pandemic".

T 7: "Teaching of Accounting and the implementation of virtual classrooms was disturbed by the arrival of COVID-19. Teaching and learning were disturbed, implementation of new innovative approaches of teaching our learners were all affected. Otherwise, the virtual classroom is the good thing to implement especially in the 4IR".

T 10: To me Corona Virus has deprived us of a chance to learn new pioneering ways of teaching our learners. Remember when you implement new dimensions like virtual learning, you need to prepare both the teachers and the learners so that the online learning can happen smoothly. Now there was not time to do all those things due to the pandemic and everyone was afraid of the pandemic, meaning there was no time to learn about online

learning other than to learn on how to protect yourself from the Virus".

These results align with those of Adu et al. (2020), who found that COVID-19 had caused a paradigm change in teaching and learning. Siemen (2005), who mentions that students and teachers should look beyond the box and regard teaching and learning as no longer being business as usual, also makes this conclusion. The usage of modern tools like v-drive, Blackboard, the internet, computers, smartphones, and other smart tools, has become essential because they now require a platform to build communication with one another through various social media, such as WhatsApp. We must become acclimatised to replacing face-to-face interaction with any technology that might facilitate successful teaching and learning. Our residences have changed into learning spaces, and our neighbours have changed into consultants (Skhephe, 2020). The results, however, go against Siemn's (2005) assertion that connectivity in classrooms gave students the chance to experiment, generate new learning possibilities, and share information via the Internet because of the fear and restrictions caused by Covid-19. Additionally, Connectivism combines constructivism and cognitivism's elements to provide a larger perspective.

Theme 3: Advantages of simulated accounting classrooms during and after the COVID-19 pandemic

The following statements are the responses from the participants. Members suggested that the virtual classroom comprises new and charming ways of teaching especially now that we are in the 4IR. However, for these benefits to be gained it needs to be implemented in the correct way, rather than the sudden way it was introduced due to COVID-19 and teachers are

required to keep on supporting it even after the COVID-19.

T1: "I can say one of the benefits of the virtual classroom is that teaching, and learning is happening anytime and anywhere and what was something we were not aware of before".

T5: "Through virtual classrooms teaching sessions can be recorded and the recordings can be played later by both the teacher and the learners. That always make the job of learners to be easier since they do not need to take notes instead, they can be sent the recordings and they can learn independently from the recordings".

T8: Virtual classroom is good in the sense that you don't need to be in in front of the learners all the time to teach, you can teach them while you are not at school or record your session and just send them recordings.

T9:" Learners can have a direct access to schoolwork even if they are absent, since wherever they are they can remain online and, in that way, they access everything that was happening in the classroom. Lastly both learners and teachers from other schools can share the teaching slides.

These results unequivocally support Santos (2020) assertion that a virtual classroom has many advantages, including the ability to reach a large audience from the comfort of one's home, effectively communicate with students through chat groups, video meetings, voting, and document sharing, and to compete with developed nations. However, Siemns (2005) makes clear that students are also encouraged to independently research topics online before discussing their findings with their classmates. The results support Beetham and Sharpe's (2007) assertion that virtual classrooms offer learning environments with a chatroom, an online discussion forum, daily reminders, and online exams with clear directions outlining what students need to do while

completing (and afterwards submitting) assignments. Teachers (not just those who teach Accounting as a subject) can access and display syllabus-related data through multiple platforms, as well as track their students' activity in the VLE (Beetham & Sharpe, 2007). These results support Siemens' (2005) claim that connectivity grants users the chance to exchange information via the World Wide Web and gives learners the chance to discover and develop new learning opportunities. Properly executed online connectivity also transfers the responsibility of learning from the teacher to the students.

CONCLUSION

The limitations of using a virtual classroom for Accounting in South Africa's Eastern Cape high schools during the COVID-19 outbreak were discussed in the article. Given that some teach in impoverished locations, teachers in the selected high schools, evident from the samples, are still particularly far behind when it comes to incorporating technology in the teaching of Accounting. There is a great deal of work still to be done, particularly in the towns, townships, and semi-urban schools. Since most learners in these schools come from low-income backgrounds and lack access to technology and the internet, the arrival of the COVID-19 pandemic undoubtedly negatively affected their teaching and learning.

RECOMMENDATION

The article recommends that accounting teachers should stop viewing their jobs as routine business and take individual obligation for their own technological advancement. To ensure that teachers are ready for technology education, Information Technology officials in all the education districts should support online teaching even after the COVID-19 pandemic. Network companies should be urged to work together with the Department of Education to resolve data,

connectivity, and accessibility challenges so that virtual classrooms can be supported. Just as essential to the success of online teaching and learning, it should be made compulsory that all teachers should be required to attend a variety of continuous online seminars, as online teaching tools develop, to deepen their understanding of online education. The Eastern Cape Department of Basic Education needs to set up the essential infrastructure as soon as possible to support online learning and the practical application thereof. Virtual classroom instruction should be demanded by students and parents since it is consistent with the 4IR's objectives and is now the present, not the future, of education worldwide.

CONTRIBUTION OF THE STUDY

The article has revealed how the COVID-19 pandemic has affected the teaching of Accounting as a subject being taught in South Africa. The article contributes significantly by revealing useful information related to the teaching of Accounting under the COVID-19 pandemic. The Accounting classroom has changed dramatically, highlighted by the pandemic which suddenly descended on the world. This change in pedagogy is permanent and continuous, and teachers themselves must be re-educated in the ongoing technology revolution. Teachers are obliged to become life-long learners, constantly adapting to new online techniques to blend with physical classrooms where possible and appropriate.

REFERENCES

Alajmi, M. (2013). Faculty members' readiness for e-learning in the colleges of basic education in Kuwait. PhD dissertation. Texas: University of North Texas.

Ampofo, S.Y., Bizimana, B., Mbuthi, J., Ndayambaje, I., Ogeta N., & Orodho, J. A. (2014). Information communication technology

penetration and its impact on education: Lessons of experience from selected African countries of Ghana, Kenya, and Rwanda. Journal of Information Engineering and Applications, 4(2), 84–95.

Adu, K.O., Ngibe, N. P., Adu, O.E. & Duku, N. (2020). Virtual Classroom: Prospects and Challenges of COVID 19 Pandemic in South Africa. Journal of Human Ecology, 72(1-3), 77-87.

Anon, (2020a). Countries where COVID-19 has spread www.worldometers.info. [Online] July 30, 2020. [Cited: July 31, 2020.] https://www.worldometers.info/coronavirus/ countries-where-coronavirus-has-spread/.

Anon, (2020b). Coronavirus Resource Center https://coronavirus.jhu.edu/. [Online] Johns Hopkins University. [Cited: August 05, 2020.] https://coronavirus.jhu.edu/map. html.

Beetham, H., & Sharpe., R. (2007). Rethinking pedagogy for a digital age: Designing and delivering e-learning. Oxford: Routledge.

Centers for Disease Control and Prevention. (2020). Coronavirus Disease 2019 (COVID-19)- Symptoms of Covid-19. Centres for Disease Control and Prevention [Online]. https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html.

Cohen, L., Manion, L., & Morrison., K. (2011). Research Methods in Education. 7th Edition. London: Routledge- Taylor and Francis Group.

Creswell., J.W. (2013). Qualitative Inquiry and Research Design Choosing among Five Approaches. 3rd Edition. Los Angeles, CA: SAGE Publications.

Creswell., J.W. (2014). Research Design: Qualitative, Quantitative, and Mixed Methods Approach. 4th Edition. Los Angeles: SAGE Publications.

Clement, C. (2020). Internet access and education [Online].7(1): 230-258 available: ttps://www.internetsociety.org/doc/internet -education-africa-sdg4

Dhama, K., Sharun, K., Tiwari, R., Dadar, M., Malik, Y. S., Singh, K. P. & Chaicumpa, W. (2020). COVID-19, an emerging coronavirus infection: Advances and prospects in designing and developing vaccines, immunotherapeutic, and therapeutics. Taylor and Francis Public Health Emergency Collection, 1-7. https://doi:10.1080/21645515.2020.1735227

Falloon, G. (2013). Young students using iPads: App design and content influences on their learning pathways. Computers & Education, 68(7), 505–521.

Ferriman, J. (2019). Characteristics of a Virtual Classroom. From <https://www.learndash.com/characteristics of-a-virtual classroom/> (Retrieved on 17 May 2020).

Fowler. C., & Mayes, T. (2014). Mapping theory to practice and practice to tool functionality based on the practitioners' perspective. Available online at http//:www.jisc.ac.uk/uploaded (accessed 30 September 2015).

Gallacher, C. (2015). What is a VLE (Virtual Learning Environment)? From <https://epale.ec.europa.eu/en/blog/what-vle-virtual-learning-environment> (Retrieved on 16 January 2020).

Hennessy, S., Harrison, D. J., & Wamakote, L. (2010). Teacher factors influencing classroom use of ICT in sub-Saharan Africa. Itupale Online

Journal of African Studies, 2(1), 39–54.

Ifenthaler. D., & Schweinbenz, V. (2013). The acceptance of tablet-PCs in classroom instruction: The teachers' perspectives. Computers in Human Behavior, 29(12), 525–534.

Jacob, O. N, Abigeal, I., & Lydia, A. E. (2020). Impact of COVID- 19 on the higher institutions' development in Nigeria. Electronic Research Journal of Social Sciences and Humanities, 2(2), 126-135.

Kawulich, B. (2009). Selecting a research approach: Paradigm, methodology and methods. Burlington VT: Ashgate Publishing

Keramati, A., Afshari-Mofrad, M., & Kamrani, A. (2011). The role of readiness factors in e-learning outcomes: An empirical study. Computers & Education, 57(3),1919–1929.

Kiilu, R., & Muema, E. (2012). An e-learning approach to secondary school education: E-readiness implications in Kenya. Journal of Education and Practice, 3(16),140–150.

Latif, S. (2016). Learning engagement in virtual environment. International Journal of Computer Applications, 51(20), 201-216.

Lim, M. (2020), Educating despite the COVID-19 outbreak: lessons from Singapore, available at: www.timeshighereducation.com/blog/educating-despite-covid-19-outbreak-lessons-singapore

Loureiro, A., & Bettencourt, T. I. (2014). The Use of Virtual Environments as an Extended Classroom-a Case Study with

Adult Learners in Tertiary Education. Procedia Technology, 13: 97- 106. From <https://doi.org/10.1016/j.protcy.2

014.02.013 Get rights and content> (Retrieved on 17 May 2020).

Maree, K. 2015. First Steps in Educational Research. Pretoria: Van Schaik.

Mehtar., S, Preiser., W, Lakhe., N.A., Bousso., A, TamFum., J.M, Kallay., O. Seydi, M., Zumla., A, & Nachega, J. B. (2020). Limiting the Spread of COVID-19 in Africa: One Size Mitigation Strategy Does Not Fit All Countries. The Lancet Global Health. From <https://www.thelancet.com/journals/langlo/article/ PIIS2214-109X(20)30212-6/fulltext> (Retrieved on 29 February 2020).

Parasuraman, A., & Colby, C. L. (2015). An updated and streamlined technology readiness index: TRI 2.0. Journal of Service Research, 18(50), 59–74.

Partin, C.M., & Lauderdale., S. (2013). Increasing student engagement and retention using mobile applications: Smartphones, Skype, and texting technologies. Bingley, UK: Emerald

Pituch, K. A., & Lee, Y. K. (2006). Social factors affecting students' acceptance of e-learning environments in

developing and developed countries: A structural equation modeling approach. Journal of Hospitality and Tourism Technology, 7(9), 200–212.

Rachiva, V. (2018). What is a Virtual Classroom? VEDAMO. From https://www.vedamo.com/knowledge/ what is virtual classroom. (Retrieved on 18 May 2020).

Sangrà, A., Vlachopoulos, D., & Cabrera, N. (2012). Building an inclusive definition of e-learning: An approach to the

conceptual framework. International Review of Research in Open and Distance Learning, 13(2), 146–159.

Sangster, A., Greg Stoner, G., &

Flood, B. (2020). Insights into accounting education in a COVID-19 world. Accounting education. 29(5)431–562 https://doi.org/10.1080/09639284.2020.18

Santos, A. M. (2016). Exploring the e-learning state of art. Electronic Journal of eLearning, 6(25), 70–88.

Siemens, G. (2005). Connectivism: A learning theory for the digital age. International Journal of Instructional Technology and Distance Learning, 2(1),3–15

Smythe, M. (2012). Toward a framework for evaluating blended learning. International Journal of Information and Education Technology, 3(4), 1-16.

Skhephe, M. (2022). The Effect of COVID-19 Pandemic on Accounting Classrooms, South Africa. Journal Penelitian Dan Pengkajian Ilmu Pendidikan: E-Saintika, 6(2), 93–107.

https://doi.org/10.36312/esaintika.v6i2.675

Skhepehe, M. & Matashu, M. (2021). The Use of Technology in Accounting Classrooms During COVID-19 pandemic: What Do Accounting Teachers in the Eastern Cape, South Africa, Have to Say? Research in Social Sciences and Technology, 6(2), 267-278. https://doi.org/10.46303/ressat.2021.30

United Nations Educational and Scientific Cultural Organization (UNESCO). (2020). COVID-19 Educational Disruption and Response. From <https://en.unesco. org/covid19/education response> (Retrieved on 7 May 2020).

Zarret, S. (2020), The impact of coronavirus on education in the accounting profession, CPA practice advisor, available at: www.cpapracticeadvisor.com/accounting-audit/news/21142154/theimpact-of-coronavirus-on-education-in-the-accounting-profession.