Emergency Online Teaching in Economic and Management Sciences Necessitated by the COVID-19 Pandemic: The Need for Healthy Relations in a Rural Schooling Context

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Abstract. To prevent the spread of the COVID-19 virus, the pandemic has necessitated new ways of teaching that favour online learning. Emergency online teaching (EOT) was adopted to address various challenges, such as a lack of competence in teachers for teaching online using digital learning management systems, shortcomings regarding internet connectivity, and resistance by teachers to using EOT. Relational leadership couched the study, with an emphasis on constructing positive relationships to forge sustainable learning conditions. A Whatsapp group was created to facilitate focus group discussions. The study found that EOT and learning is desirable and doable, even though various challenges need to be overcome, especially in rural schools. Therefore, there is a need for teachers to adjust their subject teaching plans, assessment details and teaching materials, and to adopt new ways of interacting with learners through EOT during the COVID-19 pandemic. The argument of the paper is that, in the context of COVID-19, education stakeholders should invest in healthy relationships to facilitate the adoption of EOT, in order to construct conducive learning conditions in rural contexts.

Keywords: emergency online teaching; teaching and learning; COVID-19; economic and management sciences; rural schools

1. Introduction

The world has been hit by an outbreak of the acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the highly infectious virus that causes COVID-19. At the time of writing this paper, 14,348,858[1] people had contracted the disease,

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[1] This data was provided by World Health Organization on 21 July 2020.

and over half a million people have died (World Health Organization, 2020). In response to the pandemic, many countries have resorted to locking down their citizens, thereby halting the production of economic services and products – also in the Global South (Ebrahim, Ahmed, Gozzer, Schlagenhauf & Memish, 2020). Social distancing, self-isolation, and prohibiting people from gathering in large numbers (Krishnakumar & Rana, 2020) have become the new normal, thus, affecting the education sector too. Consequently, the global COVID-19 pandemic has reconstructed the teaching and learning terrain, causing many schools and teachers around the world to look into how they can continue teaching their learners remotely to compensate for lost face-to-face learning time (Aboderin, 2015; Adedeji, 2011; Afolabi, 2015). Many schools have turned to online learning as an alternative to traditional ways of teaching, and mini-videos, online consultation time and live streaming (Afolabi, 2015; Bir, 2019) have become the new normal. According to Mwakyusa (2016), online learning is defined as the conducting of learning activities across various information and communication technology (ICT) platforms, such as computers, software and the internet. According to Amry (2014), online learning goes beyond the classroom walls, and allows the lecturer and the student to interact in spite of distance and time constraints. While the idea of online learning is good, and seen as a way to save the academic year, many countries are under the mistaken impression that their schools are ready for emergency online teaching (EOT), despite teachers and learners having little or no experience or training in the use of the new mode of learning (Krishnakumar & Rana, 2020).

Sintema (2020) reports that few developing countries are ready to implement online education. Lack of training and experience is exacerbated by inadequate resources to support online teaching and learning. Teachers of economic and management sciences (EMS) experience a variety of challenges in infusing EOT in their teaching (Amadi, 2013). Bradley and Stewart (2002, p. 250) define EOT "as a collective term for a wide range of software, telecommunications and information management techniques, applications and devices, that are used to create, produce, analyze, process, package, distribute, receive, retrieve, store, and transform information". In the context of this paper, EOT refers to EMS teachers using computers and cell phones to share information or to exchange ideas, thereby making human interaction and teaching easier and more convenient.

The problems of using online teaching as an alternative to face-to-face teaching are not unique to South Africa. Countries such as Nigeria faced a similar challenge, even before the outbreak of COVID-19 (Ogunyinka, Okeke & Adedoyin, 2015). In Zimbabwe, as argued by Musarurwa (2016), despite computers being donated to some schools, neither teachers nor learners were capacitated to use computers. African schools, particularly those in rural areas, such as Thabo Mufatsanyana, where this study was based, should increase their use of EOT (Olugbeko & Izu, 2013); perhaps it is a new normal that will continue to be used, even post-COVID-19.

While the government of South Africa has realised the importance of developing EOT for teaching purposes, in practice, little has materialised regarding the provision of EOT technology, especially in rural areas, the capacitation of

teachers, or the provision of free or cheap data. In South Africa, data is expensive and poor connectivity is a common constraint at rural schools (Dube, 2020; Du Plessis & Mestry, 2019). What we have observed is that, even though there is evidence that more computers are available in schools in South African townships today, problems, such as lack of skills and training needed for computer use, persist. We argue that, for progress to promote learning during the COVID-19 pandemic, there is a need for teachers in rural contexts to adopt online learning with rational, calm, cautious and optimistic attitudes, and without panic. The outbreak is a reminder that we are part of a global community that shares an uncertain future and that no one can meet common challenges alone (Czerniewicz, Trotter & Haupt, 2019). Therefore, teachers need to be capacitated to revise their subject teaching plans, assessment details (Mtetwa, Chabongora, Ndemo & Maturure, 2015) and teaching materials, and to adopt new ways of interacting with students. EOT teaching and classroom teaching differ in terms of methods and skills needed (Keskin, 2019), hence, teachers need to change learning styles, from those suitable for a traditional classroom setup, to virtual learning. Teachers have to adapt to EOT, and fully integrate ever-emerging technology, contents and pedagogies. Using video to simulate human interactions in a classroom is one of the factors that makes video teaching successful. In addition, teachers should take note of issues relating to learners' privacy, their home environment, whether they have access to good-quality Wi-Fi connections at home, their network speed and stability (Basilaia & Kvavadze, 2020), cybersecurity and time differences for students in different regions.

2. The conception of emergency online teaching in the rural context during the COVID-19 crisis

The COVID-19 pandemic presents ambivalence for most schools in rural settings (Cristobal-Fransi, Montegut-Salla, Ferrer-Rosell & Daries, 2020) in terms of the execution of curriculum packages. According to Dieltiens (2008, p. 40), "rural schools certainly have problems particular to them; predicaments which require systemic effort and creative ideas". Despite the trajectories facing them, teachers are expected by the Department of Basic Education to hit the ground running and save the academic year, while the Department ignores the challenges teachers face with regard to online teaching – despite calls by governments that EOT must be carefully designed and planned to facilitate learning (Czerniewicz et al., 2019; Krishnakumar & Rana, 2020). We argue that the threat posed by COVID-19 affects teaching and learning at rural schools worst, yet, there are expectations that learning should continue through EOT. EOT requires a shift of "instructional delivery to an alternate delivery mode due to crisis circumstances" (Du Plessis & Mestry, 2019, p. 9) – though these modes of delivery may continue to be used in schools, even after the COVID-19 pandemic. The primary objective in these "circumstances is not to re-create a robust educational environment but rather to provide access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis" (Hodges, Moore, Locke, Trust, & Bond, 2020, p. 1).

Using EOT provides flexible teaching and learning, which can take place anywhere and at any time (Dube, 2020). We argue that, while the idea of going online seems to be a good one, one that will help teachers to learn about and

implement online teaching, support for teachers is undoubtedly more available at urban than at rural schools. We argue that, in the present COVID-19 crisis, learning facilitators will not be able to offer the same level of support to all teachers, considering a narrow preparation window. Our argument is informed by the understanding that teachers who are near the centre or city often gain better skills than those on the periphery, such as rural teachers, which affects performance at rural schools. Therefore, this paper advises considering the availability of infrastructure or learning devices around EOT that have been set up to support teaching and learning, such as computers/laptops, internet access, and counselling in rural contexts. We argue that EOT is an instructional component of an overall teaching and learning environment, which was specifically designed to support learners, and which, in the spirit of curriculum justice, should also be accessible to rural learners. Ultimately, effective EOT requires an investment in an environment that is geared to provide support to both teachers and learners, an environment that takes the time to identify the needs for rural schools (Vilppu, Södervik, Postareff & Murtonen, 2019).

Therefore, this paper supports the use of EOT during the COVID-19 crisis, but cautions that its implementation should be sensitive to different school contexts, since rural schools struggle with technology infrastructure and capacitation, and cannot, therefore, ensure expanded instructional opportunities. Furthermore, healthy relations between teachers, learners and department officials are essential for the success of learning during the COVID-19 crisis.

3. Relational leadership in the context of COVID-19

We couched this paper in relational leadership, in order to interrogate effective EOT and to enhance curriculum delivery at rural schools during the COVID-19 crisis (Akrama, Leia & Haidera, 2016). We grounded this study in relational leadership because "it shifts attention from leadership, being what leaders do and instead" (Cleary, Du Toit, Scott & Gilson, 2018, p. 11). The theory sees "leadership as an emergent relational accomplishment that seeks to help in the acclimatization of educators in EOT crises and forges alternatives to problem-solving techniques through nonthreatening and in respectful ways" (Moona, Choib & Armstrong, 2018, p. 44). Relational leadership can "contribute to enhancing curriculum processes and reducing unnecessary resistance in executing curriculum packages" (Breedt & Niemandt, 2013, p. 20). Relational leadership offers an "overarching social influence process (a desire to change for the better) through which emergent coordination and change of values, attitudes, behaviours and ideologies construct a conducive milieu" (Cleary et al., 2018, p. 19) for teaching and learning in the time of COVID-19. We chose relational leadership since it is "purposeful and builds commitment towards positive change which is inclusive of people with diverse points of view and empowers those involved in the curriculum implementation process" (Wong, Ramalu & Chuah, 2019, p. 5). Relational leadership "represents the influencing processes wherein school leaders connect people, purpose and practices in order to improve efficiency and effectiveness" of EOT process. Furthermore, relational leadership emphasises the "reciprocal interrelating between workers and managers to make sense of a situation, to determine what is to be done and how to do it" (Karaaslan, 2015, p. 22). Moreover, relational leadership creates the "concept of reciprocal control, a

form of control that is not coercive but attempts to coordinate all functions collectively, underpinned by self-control" (White, 2015, p. 22). Moreover, relational leadership enables "participation and collectively creating a sense of direction [as opposed] to control and exercising authority" (Zhang & Yao, 2019, p. 11). Informed by relational leadership, EOT implementation can be a satisfactory journey, which will involve teachers and school administrators travelling together to construct new learning spaces that are not common in rural contexts.

4. Problem statement
The "emergency online teaching (EOT) requires careful thinking about how learners and teachers are equipped for the shift and serious consideration about whether the teaching style is still effective when taken from the classroom and transposed to technological devices" (Basilaia & Kvavadze, 2020, p. 5). Most learners in rural areas lack internet connectivity, laptops at home, and supportive parents (Dube, 2020, p. 8), while teachers lack skills for teaching using technology, and access to resources to support online learning.

5. Research method and design
This qualitative study used focus group discussions to gather data. The groups comprised 10 teachers in Thabo Mofutsanyane district in the Free State province of South Africa. Focus group discussion "is frequently used as a qualitative approach to gain an in-depth understanding of social issues. The method aims to obtain data from a purposely selected group of individuals rather than from a statistically representative sample of a broader population" (Nyumba, Wilson, Derrick & Mukherjee, 2018, p. 1). "[F]ocus group discussions are relevant for this study because it is made of relatively homogeneous groups of participants have the opportunity to stimulate, support and build on each other's ideas on the topic" (Balch & Mertens, 1999, p. 276). For sampling, we used purposive sampling (Onwuegbuzie, 2007), which enables the researcher to locate knowledgeable individuals who can contribute to the study of the phenomenon under discussion. To complement the purposive sampling, the study also used the snowball or chain method to achieve a good representation of the population. Snowballing helps to complement purposeful sampling, and involves interviewees giving the researcher the names other potential interviewees, to enrich the composition of the research team with knowledgeable people (Kirchherr & Charles, 2018). The study comprised 10 participants, each with more than five years teaching experience in rural contexts. This experience was important for providing deeper perspectives of the realities faced by rural teachers, and the alternatives they have used over the years to address crises. Due to the need for social distancing as a measure to contain COVID-19, we created Whatsapp focus group discussions (Reeve & Partridge, 2017). The Whatsapp group provided fast and effective discussions among the participants. The participants responded to two questions: What are the COVID-19 EOT challenges experienced by economic and management sciences teachers in the rural context? How can healthy relations enhance learning in the context of COVID-19? To collect data, the researchers and participants discussed and responded to the research questions for an hour twice a week. The entire research took three weeks to complete. The research adhered

to ethics considerations and was covered under the University of the Free State ethics protocol UFS-HSD2017/0998. The research participants consented to participate in this research, and pseudonyms were used to protect the identities of the participants. The participants were also assured that the data collected would only be used for academic purposes, with the specific aim of enhancing online learning in the context of COVID-19.

6. Data analysis and ethics considerations

For data analysis, the thematic approach proposed by Laws, Harper and Marcus (2003, p. 59) was used. The seven steps of the approach are the following:

    Step 1: Reading and rereading all the collected data;
    Step 2: Drawing up a preliminary list of themes arising from the data;
    Step 3: Rereading the data;
    Step 4: Linking the themes to quotations and notes;
    Step 5: Perusing the categories of themes to interpret them;
    Step 6: Designing a tool to help discern patterns in the data; and
    Step 7: Interpreting the data and deriving meaning.

The data collected through the Whatsapp group discussion was transcribed, coded and arranged into themes that emerged as a response to the research questions (Birt, Scott, Cavers, Campbell, & Walter, 2016; Gunawan, 2015). To ensure that data reflected the views of participants, member checking was done, thus, we returned the themes that had been generated to the participants to verify if they reflect the discussions. Member checking is used to validate, verify, or assess the trustworthiness of qualitative results (Doyle, 2007). Furthermore, member checking is ideal for qualitative research, since it explores whether results resonate with participants' experiences (Birt et al., 2016, p. 1807). During the member checking process, the themes were identified, and these themes will be discussed in detail in the findings section.

7. Findings

The following themes emerged as findings from the data that was analysed: teachers' capacitation for EOT in a rural context, maximising internet connectivity in a rural context, and reducing teachers' resistance to using EOT during the COVID-19 crisis.

Teachers' capacitation in a rural context for emergency online teaching

Despite various efforts to promote online learning, it appears that rural teachers are left behind compared to urban teachers, which impedes efforts by teachers to integrate EOT in the school curriculum. Groundwork to ensure that teachers are computer literate must be done at the pre-service teacher education level.

Mr Mofokeng (a participant) confessed that,
> "For me using EOT is a great challenge as I am technologically challenged. I didn't grow up having a computer at home; I did not use it during my training of becoming a teacher. So due to the lack of competency I have in EOT, I prefer to use the old method that I know. Because these new things are making my lesson planning harder".

It is apparent from this extract that teachers' lack of competence in operating EOT hinders the infusion of EOT at rural schools for delivering EMS lessons. According to Amadi (2013, p. 10), the "lack of personal access, technical problems, or a lack of teacher competence can lead directly to a lack of teacher confidence".

Mrs Lesiba added,

> "These children are intelligent; they catch fast compared to us technologically challenged old women. They even help us in preparing the lesson after school during the afternoon studies. Slowly but surely we will get there and utilise EOT effectively at our poor school will be of a great transformation".

Mrs Lesiba's words show that teachers need to be capacitated on how to facilitate their lessons online. Capacitation can be successful if teachers are receptive to change and embrace the new way of teaching. Through this, rural teachers can become confident about using EOT effectively in their teaching.

Maximising internet connectivity in a rural context for effective emergency online teaching

The literature found that teachers complained about how difficult it was to gain access to computers (Dube, 2020). Devices remain a serious challenge that hinders the success of online learning. In this regard, Letuka said,

> Mr Moloi: Honourable Sebeko, the materials and resources play a vital role in the implementation and infusion of EOT with the teaching and teaching and I am sure you know that. I as Moloi realize that the motivation and confidence to infuse EOT in the teaching and teaching can only come from having an access to EOT equipment, material or resources.

Other participants added to the discussion:

> Mr Dipadi: Ms Matsikane our situation here in rural places is so sad. It is hard for us to apply for jobs online or at the internet because of the thing on our computers that always says "no internet access" and poor connectivity.
>
> Ms Matsikane: Mr Dipabi I hear you complain about internet and poor connectivity. Can you use a computer?
>
> Mr Dipadi: Khidik! Hell mme waka ke mobe haholo [I am too good]. When I get to towns visiting my step father, where there is internet access I download and download these novels internet and print them out because I read them when I am back at the villages because I get bored.

From the words of the participants, it is evident that the lack of internet connectivity in rural areas compromises the opportunities for effective online teaching. Most rural schools "continue to lag behind compared to urban ones, while (internet) connectivity is quite inferior compared to the availability of computers in all schools and geographic contexts" (Cristobal-Fransi et al., 2020, p. 33).

Reducing teachers' resistance to emergency online teaching during the COVID-19 crisis

The literature found that,

> *"teachers' attitudes and beliefs toward the use of technology in their classroom play a major role in the extent to which they will integrate computers into their classrooms and provide their students opportunities to engage with technology for educational purposes"* (Du Plessis & Mestry, 2019, p. 11).

To this end, the participants reported the following. Miss Moloi said,

> *"in my times I was doing very well at school, I used to write the notes the teachers wrote for us on the chalkboard and study them when I got home… I don't think teachers have to be put under pressure to get EOT training because they know how to teach well using chalk and chalkboards".*

Mrs Morobi added,

> *"The problem I have is that I trained as a teacher long back before the computers were introduced so adjusting to this online thing is rather very difficult. Sometime I feel I should just do nothing and wait for schools to open".*

These comments show that some teachers resist change, because they are attached to the traditional or old ways of teaching and learning. By introducing EOT as a new mechanism of teaching, we realise that humans, including parents and educators, tend to be reluctant to adapt new methods, as they feel comfortable with the traditional habits they have used for many years. Mr Moreki had this to say:

> *"I think this is the reason why they are not showing any interest to use computers for online learning. They think that it is so hard to learn how to use a computer or they might do something wrong and break something."*

There is a need to demystify and reduce fear of using technology that some teachers have. Encouraging teachers to invest more time in interacting with technology and online learning packages can assist in demystifying their fear. According to Tarusikirwa (2016, p. 12), "lack of time is a factor that hinders technology integration in schools". To illustrate this, Mrs Selepe explained:

> *"Time is very precious and should and should be utilized as productive as much as possible. In infusing EOT, time remains jealous. It is going fast, so that leaves our teachers no time to be equipped with needed skills. When we concentrate on the equipping learners and teachers in terms of EOT, we lag behind with regard to the syllabus and department official are always on our case. It is really hard to make provision as nowadays we are compelled to even work on Saturdays. There is really no time to practice and be equipped because the implementation of our curriculum doesn't really make a provision for such activities. Time is not enough".*

Adedeji (2011, p. 45) reports that "participants complained of being burden with teaching load, planning duties and other school work such that they had no time to learn, to keep up with and plan to use new software".

8. Need for healthy relationships in curriculum implementation during COVID-19

Another finding of the study is that, to ensure the success of curriculum during the COVID-19 pandemic, there is a need for education stakeholders to set aside their differences, and to embrace and invest in ensuring healthy relationships. COVID-19 is now a new normal, which requires people to work collectively with the aim of ensuring that curriculum packages are executed in a way that assists learners, especially those from deprived contexts, like rural schools. With healthy relationships, the study found that teachers, department officials and learners could share useful learning information and ideas about using various gadgets to support learning in times of crisis. Based on this finding, we agree with Komives, Lucas and McMahon (1998, p. 104), who argue that, "when school leaders, curriculum planners and politicians frame relations in respect, there is the possibility of collaboration, reflection, feedback, civil confrontation, community building, and a level of profound understanding called meaning-making". Alsubaie (2016, p. 11) agrees, and states that "teachers and other stakeholders need to create a culture of continuous improvement of relations underpinned by respect, justice, hard work and a desire for the successful execution of curriculum packages". This finding resonates with the study's theoretical framing, which emphasises good relations as the best way to forge curriculum in the context of crisis. This confirms James' (2010, p. 11) argument, that "healthy relations offers an opportunity that allows the containment of emotions, and restrains anger and victimisation", which is necessary for creating conducive learning environments during the COVID-19 crisis.

9. Discussion of findings

The findings discussed above suggest that implementing EOT during COVID-19, while schools are closed because of the pandemic, can be successful if different school contexts (including rural contexts) are considered, and if teachers are capacitated on executing EOT (Dube, 2020; Shenoy, Mahendra & Vijay 2020). To achieve these prerequisites, "there is a need for extensive preparation, adequate time, and ongoing support for teachers to ensure they have the knowledge, skills, and confidence in teaching" with EOT systems (Schaefer, Rahn, Kopp, Fabian & Brown, 2019, p. 2). The likelihood of success lies in the leadership of schools, and whether they offer moral support to teachers who have to adjust to the new normal. By ensuring inclusivity, the department of basic education ensures that rural areas are considered as deprived sites for learning that require more assistance than urban areas. In addition, many rural teachers suffer from a form of digital inequality, as they lack connections and devices for teaching remotely (Mitchell, 2014). Therefore, to avert disaster in rural schools, the government of South Africa must reconsider support given to rural teachers; the support must be given in the spirit of emancipating teachers to adjust to the new working environment. Accordingly, the work required of teachers must be adjusted, to be more reasonable and flexibility with deadlines for assignments (Hodges et al. 2020) in a friendly though professional manner, which takes the new life of many rural teachers into consideration. In essence, the school management team must understand the school context in which EOT has to be executed, and the reasons for teachers' resistance to adapting to the digital space required by EOT, especially

in rural contexts. In the same vein, teachers should be willing to learn new things and to accept change and implement it accordingly. This mutual willingness to change could be made possible by enacting healthy relationships that are buttressed by the adoption of relational leadership.

We remain hopeful that the COVID-19 threat will end someday, and that the skills acquired during the pandemic can continue to be utilised to support effective learning – it is likely, considering future public health and safety concerns, and schools being closed due to public protests and natural disasters, such as wildfires or hurricanes (Vilppu et. al., 2019), and now COVID-19. Thus, learning about EOT must become part of teachers' professional development, so that teachers are equipped to use online teaching and learning, instead of being forced by circumstances to engage in EOT.

10. The way forward on emergency online teaching during the COVID19-crisis

Informed by the foregoing, we conclude that school management teams need to take into consideration relationships with teachers when planning for EOT during the COVID-19 pandemic, so that teachers have clear guidelines and the necessary capacitation when they enter the digital learning space. We argue that framing EOT or, broadly, digital learning spaces, in relational leadership safeguards against teacher anxiety, and victimisation, which could characterise embarking on EOT during the COVID-19 crisis. In addition, as proposed by Mahlomaholo (2013), relational leadership enables education stakeholders to unleash their human power and potential to transform an otherwise transient situation, such as the COVID-19 pandemic, permanently. Rethinking EOT from the lens of relational leadership offers an opportunity for positive change – change that can improve rural school contexts, and which does not intend to expose teachers' lack of preparedness for EOT, but is aimed at emancipating them.

The distinctiveness of this article is that we used relational leadership theory in the EOT space. The article's view is that relationships are essential to ensure success in the teaching and learning of EMS. Again, we make the case that relations should remain framed in collegiality and professionalism, to emancipate education stakeholders in curriculum implementation during and after the COVID-19 crisis. The paper emphasises that school leaders must play a role in "creating relations that capacitate teachers for EOT as well as promote social justice and emancipation to enable teachers to confront new realities with a sense of confidence" (Dube & Jita, 2018, p. 13). In addition, the article departed from common EOT narratives that "teachers cannot effectively implement the EOT, but has argued that when relations are healthy, collaboration and effective implementation are facilitated because teachers feel part of the digital learning space" (Dube & Jita, 2018, p. 12). Finally, the paper exposed how the EOT space can cause anxiety due to unpreparedness, and can create misunderstandings between rural teachers and the school management team in the preparation and execution of EOT.

11. Concluding reflections

In this paper, we highlighted various opportunities for implementing EOT during the COVID-19 crisis. The study reveals that capacitation and support of rural teachers could reduce anxiety and prepare teachers to implement EOT, to safeguard continued teaching during the lockdown period caused by the COVID-19 pandemic. The paper is couched in relational leadership, a theory that emphases the need for good relationships to champion and facilitate curriculum adoption among all stakeholders working together to achieve efficiency in education. The paper was qualitative in nature, with 10 participants being selected using random sampling and snowballing. The study adhered to ethics considerations and hid the identities of the participants, who consented to participate in the study. The main argument is that education stakeholders need to invest in building capacity for EOT in stakeholders at rural schools. By doing so, educators are more likely to cooperate in implementing EOT, as a way to address instructional challenges caused by the COVID-19 pandemic, effectively and efficiently, and to the benefit of teachers and learners in rural contexts.

12. References

Aboderin, O. S. (2015). Challenges and prospects of e-learning at National Open University of Nigeria. *Journal of Education and Learning*, *9*(3), 207–216. https://doi.org/10.11591/edulearn.v9i3.1728

Adedeji, T. (2011). Availability and use of ICT in South-Western Nigeria colleges of education. *African Research Review*, *5*(5), 315–331. https://doi.org/10.4314/afrrev.v5i5.25

Afolabi, A. A. (2015). Availability of online learning tools and the readiness of teachers and students towards it in Adekunle Ajasin University, Akungba-Akoko, Ondo State, Nigeria. *Procedia – Social and Behavioral Sciences, 176*, 610–615. https://doi.org/10.1016/j.sbspro.2015.01.517

Akrama, T., Leia, S., & Haidera, M. J. (2016). The impact of relational leadership on employee innovative work behavior in IT industry of China. *Arab Economic and Business Journal*, *11*, 153–161. http://doi.org/10.1016/j.aebj.2016.06.001

Alsubaie, M. A. (2016). Curriculum development: Teacher involvement in curriculum development. *Journal of Education and Practice, 7*(9), 106–107.

Amadi, M. N. (2013). In-service training and professional development of teachers in Nigeria: Through open and distance education. Bulgarian Comparative Education Society. *Paper presented at the Annual Meeting of the Bulgarian Comparative Education Society*. Plovdiv, Bulgaria, May 14-17, 2013.

Amry, B. A. (2014). The impact of WhatsApp mobile social learning on the achievement and achievement of female students compared with face to face learning in the classroom. *European Scientific Journal, 10*(22), 116-136.

Balch, G. I., & Mertens, D. M. (1999). Focus group design and group dynamics: Lessons from deaf and hard of hearing participants. *American Journal of Evaluation*, *20*(2), 265–277. https://doi.org/10.1177/109821409902000208

Basilaia, G., & Kvavadze, D. (2020). Transition to online education in schools during a SARS-CoV-2 coronavirus (COVID-19) pandemic in Georgia. *Pedagogical Research*, *5*(4), 1–9. https://doi.org/10.29333/pr/7937

Bir, D. D. (2019). Comparison of academic performance of students in online vs traditional engineering course. *European Journal of Open, Distance and e-Learning*, *22*(1), 1-13. https://doi.org/10.2478/eurodl-2019-0001

Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: A tool to enhance trustworthiness or merely a nod to validation. *Qualitative Health Research*, *26*(12), 1802–1811. https://doi.org/10.1177/1049732316654870

Bradley, L., & Stewart, K. (2002). A Delphi study of the drivers and inhibitors of internet banking. *International Journal of Bank Marketing*, *20*(6), 250-260. https://doi.org/10.1108/02652320210446715

Breedt, J. J., & Niemandt, C. J. P. (2013). Relational leadership and the missional church. V*erbum et Ecclesia, 34*(1), 1–9. http://dx.doi.org/10.4102/ve.v34i1.819

Cleary, S., Du Toit, A., Scott, V., & Gilson, L. (2018). Enabling relational leadership in primary healthcare settings: lessons from the DIALHS collaboration. *Health Policy and Planning*, *33*, 65–74. https://doi.org/10.1093/heapol/czx135

Cristobal-Fransi, E., Montegut-Salla, Y., Ferrer-Rosell, B., & Daries, N. (2020). Rural cooperatives in the digital age: An analysis of the Internet presence and degree of maturity of agri-food cooperatives' ecommerce. *Journal of Rural Studies*, *74*, 55–66. https://doi.org/10.1016/j.jrurstud.2019.11.011

Czerniewicz, L., Trotter, H., & Haupt, G. (2019). Online teaching in response to student protests and campus shutdowns: academics' perspectives. *International Journal of Educational Technology in Higher Education*, *16*(1), 43–55. https://doi.org/10.1186/s41239-019-0170-1

Dieltiens, V. (2008). As long as the rain still falls we must cultivate: Africanist challenges to liberal education. *Journal of Education, 45*, 29-42.

Doyle, S. (2007). Member checking with older women: A framework for negotiating meaning. *Health Care for Women International, 8*, 888–908. https://doi.org/10.1080/07399330701615325

Du Plessis, P., & Mestry, R. (2019). Teachers for rural schools – a challenge for South Africa. *South African Journal of Education*, *39*(1), 1-9. https://doi.org/10.15700/saje.v39ns1a1774

Dube, B. (2020). Rural online learning in the context of COVID-19 in South Africa: Evoking an inclusive education approach. *Multidisciplinary Journal of Educational Research*, *10*(2), 135–157.

Dube, B., & Jita, T. (2018). Trajectories of the new curriculum in Zimbabwe. Rethinking rational leadership to reconstruct the contested terrain in curriculum implementation. *Issues in Educational Research 28*(4), 1–18.

Ebrahim, S. H., Ahmed, Q. A., Gozzer, E., Schlagenhauf, P., & Memish, Z. A., (2020). COVID-19 and community mitigation strategies in a pandemic. *BMJ, 2020*(368), 1066. https://doi.org/10.1136/bmj.m1066

Gunawan, J. (2015). Ensuring trustworthiness in qualitative research. *Belitung Nursing Journal*, *1*(1), 4-11. Retrieved from http://belitungraya.org/BRP/index.php/bnj/article/viewFile/4/pdf

Hodges, C., Moore, S., Locke, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. *Educause Review, March 27.* Retrieved from https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning

James, C. (2010). The psychodynamics of educational change. In A. Hargreaves, A. Lieberman, M. Fullan, & D. Hopkins (Eds.), *International handbook of educational change*. London: Springer. https://doi.org/10.1007/978-90-481-2660-6_3

Karaaslan, O. (2015). From "cogito ergo sum" to "vivo ergo sum": Current theoretical trends and changing perspectives in leadership. *Open Journal of Leadership, 4*, 153–163. http://dx.doi.org/10.4236/ojl.2015.44014

Keskin, S. (2019). Factors affecting students' preferences for online and blended learning: Motivational vs. cognitive. *European Journal of Open, Distance and e-Learning*, *2*(2), 72–86. https://doi.org/10.2478/eurodl-2019-0011

Kirchherr J., & Charles, K. (2018). Enhancing the sample diversity of snowball samples: Recommendations from a research project on antidam movements in Southeast Asia. *PLoS ONE, 13*(8), e0201710. https://doi.org/10.1371/journal.pone.0201710

Komives, S. R., Lucas, N., & McMahon, T. R. (1998). *Exploring leadership: For college students who want to make a difference*. London: John Wiley and Sons.

Krishnakumar, B., & Rana. S. (2020). COVID 19 in INDIA: Strategies to combat from combination threat of life and livelihood. *Journal of Microbiology, Immunology and Infection, 53*(3), 389–391. https://doi.org/10.1016/j.jmii.2020.03.024

Laws, S., Harper, C., & Marcus, R. (2003). *Research for development*. Sage.

Loewenson, R., Laurell, A. C., Hogstedt, C., D'Ambruoso, L., & Shroff, Z. (2014). *Participatory action research in health systems: A methods reader*. Harare: TARSC, AHPSR, WHO, IDRC Canada, EQUINET.

Ma, J., Li, C., & Liang, H. (2019). Enhancing students' blended learning experience through embedding metaliteracy. *Education Research International*, 6791058. https://doi.org/10.1155/2019/6791058

Mahlomaholo, S. G. (2013). *Naivety of empiricism versus complexity of bricolage in creating sustainable learning environments.* Proceedings of International Conference of Education, Research and Innovation. 18-20 November 2013, Seville, Spain.

Mitchell, A. (2014). Online courses and online teaching strategies in higher education. *Creative Education*, 5. http://dx.doi.org/10.4236/ce.2014.523225

Moona, Y. J., Choib, M., & Armstrong, D. J. (2018). The impact of relational leadership and social alignment on information security system effectiveness in Korean governmental organizations. *International Journal of Information Management*, *40*, 54–66. https://doi.org/10.1016/j.ijinfomgt.2018.01.001

Mtetwa, D., Chabongora, B., Ndemo, Z., & Maturure, E. (2015). Features of continuous professional development (CPD) of school mathematics teachers in Zimbabwe. *International Journal of Educational Science*, *8*(1–2), 135–147. https://doi.org/10.1080/09751122.2015.11917599

Musarurwa, C. (2016). Teaching with and learning through ICTs in Zimbabwe's teacher education colleges. *US-China Education Review, A 12(2011)*, 1–9.

Mwakyusa, P. (2016). Impediments of e-learning adoption in higher learning institutions of Tanzania: An empirical review. *Journal of Education and Practice, 7*(30), 152–169.

Nyumba, T. O., Wilson, K., Derrick, C. J., & Mukherjee, N. (2018). The use of focus group discussion methodology: Insights from two decades of application in conservation. *Methods Ecology and Evolution*, *2018*(9), 20–32. https://doi.org/10.1111/2041-210X.12860

Ogunyinka, E. K., Okeke, T. I., & Adedoyin, R. C. (2015). Teacher education and development in Nigeria: An analysis of reforms, challenges and prospects. *Education Journal*, 4(3), 111–122. https://doi.org/10.11648/j.edu.20150403.14

Olugbeko, S. O., & Izu, G. O. (2013). The reality and challenges of e-learning education in Africa: The Nigeria experience. *International Journal of Humanities and Management Sciences (IJHMS)*, *1*(3), 205–209.

Oloruntegbe, K. O., & Collins, K. M. T. (2011). Teachers' involvement, commitment and innovativeness in curriculum development and implementation. *Journal of Emerging Trends in Educational Research and Policy Studies*, *2*(6), 443–449.

Onwuegbuzie, A. J. (2007). A typology of mixed methods: Sampling designs in social science research. *The Qualitative Report, 12*(2), 281–316.

Pei, L., & Wu, H. (2019). Does online learning work better than offline learning in undergraduate medical education? A systematic review and meta-analysis. *Medical Education Online*, *24*(1), 1–13. https://doi.org/10.1080/10872981.2019.1666538

Reeve, M. A., & Partridge, M. (2017). The use of social media to combat research isolation. *Annals of the Entomological Society of America*, *110*(5), 449-456. https://dx.doi.org/10.1093/aesa/sax051

Schaefer, T., Rahn, J., Kopp, T., Fabian, C. M. & Brown, A. (2019). Fostering online learning at the workplace: A scheme to identify and analyse collaboration processes in asynchronous discussions. *British Journal of Educational Technology*, *50*(3), 1354–1367. https://doi.org/10.1111/bjet.12617

Shenoy, V., Mahendra, S., & Vijay, N. (2020). COVID 19 lockdown technology adaption, teaching, learning, students engagement and faculty experience. *Mukt Shabd Journal*, *9*(4), 698–702.

Sklaveniti, C. (2016). Relational leadership theory. In A. Farazmand (Ed.), *Global encyclopaedia of public administration, public policy, and governance*. Springer. Retrieved from: https://www.springer.com/gp/book/9783319209272

Sintema, E. J. (2020). Effect of COVID-19 on the Performance of Grade 12 Students: Implications for STEM Education. *Eurasia Journal of Mathematics, Science and Technology Education, 16*(7), 1–6. https://doi.org/10.29333/ejmste/7893

Sun, A., & Chen, X. (2016). Online education and its effective practice: A research review. *Journal of Information Technology Education: Research*, *15*, 157–190. https://doi.org/10.28945/3502

Tarusikirwa, M. C. (2016). Modelling teacher development through open and distance learning: A Zimbabwean experience. *Universal Journal of Educational Research*, *4*(12), 2706-2715. https://doi.org/10.13189/ujer.2016.041203.

Vilppu, H., Södervik, I., Postareff, L., & Murtonen, M. (2019). The effect of short online pedagogical training on university teachers' interpretations of teaching–learning situations. *Instructional Science*, *47*(1), 679-709. https://doi.org/10.1007/s11251-019-09496-z

White, P. (2015). A missional study of Ghanaian Pentecostal churches' leadership and leadership formation. *HTS Teologiese Studies/Theological Studies*, *71*(3), 1-8. http://dx.doi.org/10.4102/hts.v71i3.2865

Wong, H. C., Ramalu, S. S., & Chuah, F. (2019). An overview of leadership and the emergence of relational leadership. *Journal of Human Resource and Leadership*, *4*(1), 32-43.

World Health Organization. (2020). *WHO coronavirus disease (COVID-19) dashboard*. Retrieved from: https://covid19.who.int/

Zhang, X., & Yao, Z. (2019). Impact of relational leadership on employees' unethical pro organizational behavior: A survey based on tourism companies in four countries. *PLoS ONE, 14*(12), 1–19. https://doi.org/10.1371/journal.pone.0225706