Opting for Emergency Remote Teaching During the Covid-19 Pandemic in South Africa: A Reflection

[*]Mafuku Tholaine Matadi and [**]Chinaza Uleanya
*University of Zululand, Kwa Dlangezwa, South Africa
[**]Department of Business Management, University of South Africa, Pretoria, South Africa
Corresponding author: uleanc@unisa.ac.za

ABSTRACT

The COVID-19 pandemic caught many universities unprepared in terms of the need to switch from onsite to online teaching and learning. The study reported on here was intended to provide an academic reflection on the use of emergency remote teaching (ERT). The paper begins by focusing on the conceptual framework underpinning the ERT discourse in response to the current crisis, and then presents a reflection on current academic teaching practices in respect of ERT. A documentary research approach, which consists in reviewing, analysing and examining information, recorded media and texts, was adopted for the study. Two conceptual frameworks, namely management theory and emergency remote teaching environment (ERTE) theory, which provides the platform for the shift from face-to-face to remote teaching, were identified, as were opportunities and obstacles that form part of the ERT framework. The conclusion is reached that the implementation of both theories in ERT enables academics to reflect on what works and what does not work. The study finding suggests that South African higher education institutions need a fall-back plan for dealing with the unexpected, such as the COVID-19 pandemic. Thus, ERT may be a solution in many cases in the future. The study recommends that for successful implementation of ERT, institutions of learning need to continuously do an evaluation of what works and what does not work. Also, lecturers are to have back-up plan(s) where necessary.

Keywords

learning framework, distance learning, COVID-19, emergency remote teaching (ERT), face-to-face

INTRODUCTION

COVID-19 is described an infectious disease caused by the corona virus, named SARS-CoV-2, discovered in Wuhan, China, in December 2019 (Hu, Guo, Zhou & Shi, 2021; Human Rights Watch, 2020). According to the World Health Organisation (WHO) (WHO, 2020), several victims of this disease were stall owners, market employees and customers who frequented the market at Wuhan daily. On the basis of ecological samples taken from the market at Wuhan, Wuhan city has been reported as the source of the pandemic (WHO, 2020). COVID-19 causes a respiratory infection, with symptoms including pneumonia, colds, sneezing and coughing. The virus is transmitted from human to human or human to animal via airborne droplets (Kumar, Malviya & Sharma, 2020). The WHO was concerned at both the alarming rate of the spread and severity of infections and the widespread lack of knowledge and understanding about the disease among people generally (WHO, 2020). In March 2020 the WHO declared that COVID-19 had reached global pandemic proportions and urged governments to take drastic measures to curb the spread of the virus. It is against this background that the South African government declared a state of national

disaster and announced measures to be taken to combat the rapid spread of infections (Matadi, 2020), including placing the entire country under lockdown. These measures have had far-reaching consequences for all spheres of society, such as family, government, the economy, religion, and education. However, for the purpose of the research reported on in this paper, the focus was on education. COVID-19 had an enormous impact on teaching and learning in all countries of the world, leading as it did to the closure of schools, universities, and colleges (Songca, Ndebele & Mbodilai, 2021; Monareng, Ramraj & Mashau 2020). This necessitated a shift from face-to-face instruction to online teaching and learning, the latter offering the benefit of greater flexibility, as one can teach anywhere at any time. However, the rapidity with which this change had to be implemented was extreme. The form of online teaching that several institutions had engaged in before the pandemic was somewhat different from what had to be implemented in response to the pandemic, and in consequence many academics have been forced to engage in emergency remote teaching (ERT) (Hodges, Moore, Locke, Trust, & Bond, 2020). Additionally, the customary form of online learning can be described as instruction delivered through a digital device with the intention of supporting learning (Ferri, Grifoni & Guzzo, 2020). According to Uopeople (2020), it as a method of instruction that takes place over the internet, sometimes called e-learning. Well-organized online learning requires careful instruction and planning, involving the implementation of a systematic model for design and development (Hodges et al, 2020). Nine dimensions that are considered when designing online learning, namely modality, pacing, student–instructor ratio, pedagogy, instructor role online, student role online, online communication synchrony, role of online assessments and source of feedback, are cited in the literature (Barbaral, Bakia & Murphy, 2014; Hodges et al, 2020; Barbourl, Hodges & LaBonte, 2020). ERT, by contrast, is a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances (Hodges et al, 2020). It can be argued that ERT comprises fully remote teaching solutions for instruction that were previously designed for either face-to-face or blended or hybrid courses, and that instruction would probably return to the original arrangement once the crisis has passed – in other words, the aim in ERT is not to redesign a robust educational system, but rather to provide instruction and support that is reliable and available during an emergency or crisis (Hodges et al, 2020). In summary, ERT is a response to crisis or something beyond human control, meant to be temporary, may lack resources, may not have full faculty support, students may not have a choice (Uopeople, 2020). The study under discussion in this paper was conducted to elaborate on the use of ERT during the COVID-19 pandemic. The study was based on documentary research, which consists in reviewing, analysing and examining information, recorded media and texts. This is as supported by Ahmed (2010) who holds the view that documentary research method can be used in different fields such as business, education, medicine, political science, social work, sociology, amongst others. Accordingly, the second part of this study focuses on the conceptual framework underpinning this discourse and an analysis of current practices, while personal reflections in respect of ERT and its associated challenges and opportunities will form the third section.

CONCEPTUAL FRAMEWORK UNDERPINNING THIS DISCOURSE

As mentioned above, teaching practice has shifted from face-to-face instruction to

ERT, and online learning differs in certain respects from ERT. This points to the value of elaborating on the conceptual framework underpinning the research undertaken. The latter rested on two conceptual frameworks that bear similarities to each other in that they both relate to teaching in times of crisis. The first of these is management theory, as discussed by Mishra, Gupta and Shree (2020), and the second is the emergency remote teaching environment (ERTE) as developed by Whittle, Yan, Tiwari and Williams (2020).

Management theory

Management theory describes the inherent process of any change. This theory encompasses three stages, namely unfreezing, change and refreezing.

Unfreezing

In this process, in the educational context, due to the unforeseen nature of the COVID-19 pandemic, there has been a shift from traditional teaching to ERT. Classes cannot take place as they did before, and social distancing must be maintained. Therefore, online teaching has shifted the organisation and the staff into the unfreezing stage. Unfreezing increases motivation and readiness within the system and among stakeholders (Mishra et al, 2020). In practical terms, lecturers completely changed their way of doing things: they attended quick training on effective online teaching in order to protect themselves as lectures and their students in the context of COVID-19.

Change

During this stage, the institution has two options: either to adopt the online model that has been operational in other institutions, or to create its own model. It can be argued that creating one's own model is time consuming, and therefore that in a crisis an implementable model is always advisable (Mishra et al, 2020). It is for this reason that Tam and El Azar (2020) emphasise that transformation and resilience must be built into the education system. It is always advisable to have a plan. In practical terms, the university at which one of the researchers was lecturing did not develop a new model of teaching and learning online, since Moodle was already being used in combination with face-to-face teaching. The change implemented entailed the use of an upgraded Moodle system as employed by other institutions.

Refreezing

In the wake of the pandemic declared in 2020, online teaching has gained prominence, and will continue to be implemented once COVID-19 no longer poses a threat. This leads us to the *refreezing* stage. According to Mishra et al (2020): Refreezing is inevitable for integrating technology in our teaching–learning process that enables us to teach students with methods in which they would not only feel comfortable but also they can match the demands of technology in 21st century. This suggests that online teaching will continue after the pandemic, and that this paradigm shift will remain permanent.

From the above discussion we can distil the point that management theory is relevant for this reflection, and that when an unforeseen situation arises in the teaching context, we need to think of new ways to reach the originally planned goals. The process and the institution will undergo change to which the faculty and staff members will have to adapt, and in response to which they will need to introduce new approaches or learn from others. The quick solution is to learn from others, specifically institutions that have been teaching online for years. This is followed by the refreezing stage. Should we continue to implement our online teaching methods, we need to make

them convenient and effective for students, and also align them with what society demands.

A framework that is both like management theory and relevant to the study is ERTE, which comprises the stages inquiry, classify, and design.

The ERTE framework

This conceptual framework, developed by Whittle et al (2020), relates to how teachers can plan, and researchers can theorise learning in this developing environment. The ERTE framework comprises three stages, namely inquiry, classify and design.

Inquiry

The teacher who engages in inquiry needs to be aware of what sources are available. The teacher needs to identify factors that might influence students' learning, such as students' home situation, parental involvement and other external factors. This stage also assists the teacher in engaging in self-reflection to identify mistakes and other assumptions made during the first attempt at online learning (Tam & El-Azar, 2020).

Classify

Once the factors have been identified, they are classified as either constants or variables. Factors that are shared by all students and teachers, for example being in possession of a device, classify as constants, whereas factors shared by only some students and teachers, for example students lacking food or access to the internet, classify as variables (Tam & El-Azar, 2020).

Design

Tam and El-Azar (2020) state that in the ERTE framework, teachers design a plan using the constants as a foundation for each aspect of the pedagogy and variables as means of maximizing individual learning. The course design for ERTE rests on the following dimensions: critical learning goals, pedagogy, the student social role, teacher–student ratio, social role of the instructor, building agency, and assessment. Similar dimensions were mentioned above in respect of the design of an online course. However, with regard to the ERTE, within each dimension the teacher needs to take both constants and variables into consideration in order to plan effectively. A detailed discussion of the eight dimensions, constants and variables is not presented here, however.

From the foregoing, the applicability of both frameworks is clear. On the one hand management theory has relevance in order to easily adapt to change, and on the other the ERTE framework has the potential to make possible effective teaching and learning, taking into consideration internal and external factors affecting the teacher and the students.

The section that follows is dedicated to the experiences and self-reflection of one of the researchers. It therefore contains a presentation and discussion of current practice, learning theories, teaching approaches and learning styles as well as the difficulties and opportunities experienced by the researchers in the context of COVID-19.

Current practices and reflection on ERT: difficulties and opportunities

The sudden change has not been easy because there was no plan, neither were there pre-arranged strategies to deal with the unforeseen situation, and the policies of the university at which one of the researchers was lecturing had been developed for face-to-face learning. Nevertheless, the transition was smooth because the university was already using mixed teaching methods in having materials online during the pre-

pandemic period. This bears out the work of Ghazi-Saidi, Criffield, Kracl, Mckelvey, Obasi and Vu (2020), who support a move away from face-to-face teaching and learning in favour of the adoption of online teaching and learning in higher institutions of learning. Prior to the outbreak of the COVID-19 pandemic, the university had encouraged lecturers to use Moodle, as the existing learning management system, to post the lecture slides, study guides and prescribed books. The researcher had been involved in this prior to the COVID-19 pandemic and students were already enrolled on Moodle, though many of them did not make extensive use of it. However, in the situation created by the pandemic, including the lockdown and consequently the transition from onsite to online teaching and learning, it was necessary to encourage students to adapt to the change described as the new normal, while at the same time assuring them that no one would be left behind, in line with the policy of the Department of Higher Education (DHET) of South Africa (SA News, Thursday, April 30, 2020).

The remainder of the paper will cover the learning theories applied, followed by the teaching approach and learning styles, and finally obstacles and opportunities.

Learning theories

Mnisi (2021) and Kay and Kibble (2016) identify the learning theories as behaviourism, social cognitive learning, cognitive learning, constructivism and social constructivism. These theories are briefly discussed below and the one that proved most suitable for the practice of the researchers in the context of the COVID-19 pandemic is identified and discussed in more detail.

Behaviourism

The proponents of behaviourism are Pavlov, Watson, Skinner and Thorndike Speaks, 2019). In terms of this theory, learning is defined by observable increases, decreases or maintenance of identified behaviour (Kay & Kibble, 2016) – that is to say, a behaviour is a response to an external stimulus. As a result, the teacher's role is to introduce stimuli and reinforce students' responses (Quist, 2018). Arguably, these repetitive reinforcement techniques have the capacity to shape behaviour. However, this theory was criticized for failing to take into consideration the internal mental state of the learner (Jagodowski, 2019).

Cognitive learning theory

Piaget is considered the proponent of this theory. According to Kamii (1979, 13) with respect to the psychological aspect, it shows that the relationship between behaviourism and Piaget's theory is not a mutually exclusive one, but a part-whole relationship. This theory focuses on the mastery learning approach, in terms of which students need to demonstrate progressive mastery over fundamental knowledge before proceeding to more complex content. This theory requires a teacher to play an active role in ensuring that the information presented is well organised so as to enable students to learn and easily digest it (Kay & Kibble, 2016).

Social cognitive theory

Bandura (1999) explains that through social cognitive theory people not only use cognition in learning, but also learn from others in a social setting or environment. Bandura terms this observational learning, which is made up of four components:

Attention – what people observe from modelling influences and what they retain

Retention – the active process of transforming and restructuring the information conveyed by modelled events.

Behavioural production – translating symbolic actions into an appropriate course of action.

Motivation – whether one is incentivised to exhibit an acquired behaviour or not (Bandura, 1999).

In terms of this theory, the teacher uses observational and vicarious learning. The teacher selects behaviours that motivate students to perform successfully and warn them about undesirable behaviours that might have a negative effect on their learning process (Kay & Kibble, 2016).

Constructivism

According to this theory, learning is an individual construction process: learners' knowledge is acquired through observation and interaction with the environment (Kay & Kibble, 2016). It is worth noting that constructivism is related to several learning approaches, such as discovery learning, experiential learning, inquiry-based learning, and problem-based learning (Kay & Kibble, 2016). It can be argued that all these approaches are student-centred; the teacher assumes the role of facilitator, simply providing the necessary tools, and the students construct knowledge. The teacher tries to find out what the learners already know about a particular concept (Jagodowski, 2019).

Social constructivism

This theory considers learning to be the internalisation and adoption of external experience (Kay & Kibble, 2016). According to this theory, tools, symbols, signs and language are all appropriate means that enable learners to develop their knowledge as they engage in learning (Kay& Kibble, 2016). Furthermore, in terms of this theory, knowledge exists on two levels, namely the interpersonal and the intrapersonal, and learners can improve their interpersonal skills only if they acquire or develop intrapersonal skills (Tai, 2019). As a result, the teacher understands that *all learning is social*, and to this end uses both formal and informal resources (Kay & Kibble, 2016).

This paper does not elaborate any further on the learning theories, but does focus on constructivism, since this is the theory that was employed by one of the researchers in teaching and learning during the COVID-19 pandemic, and consequently in the transition from onsite to online practices. Constructivism is employed for this study majorly because according to the theory, people are allowed to construct their own knowledge regardless of the circumstance: peace or crisis. Suffice to state that this theory allowed students to construct their knowledge during the time of crisis, as well as transition from onsite to online.

The basic principle of constructivism is that learners construct new knowledge as they observe and interact with their environment. Most learners have prior knowledge or experience they use to organise or make meaning of new information or experience (Kay & Kibble, 2016).

RESEARCH METHODOLOGY

Qualitative self-reflection method was adopted for this study. This method was adopted following the notion and practices behind it. "Self-reflection or introspection means *self-observation and report of one's thoughts, desires, and feelings. It is a conscious mental process relying on thinking, reasoning, and examining one's own thoughts, feelings, and ideas* (Gläser-Zikuda, 2012, p. 3011)" The two researchers identified with the codes: 'M' and 'U' applied the adopted method on one of the modules which was taught by 'M' during the time of COVID-19 pandemic. A conscious mental process relying on thinking,

reasoning, and examining the thoughts, feelings, and ideas of M towards the selected module and the students was done, especially with the transition from onsite to online. The following were derived and used as a guide for the reflection: Teaching perspective, learning styles, Difficulties and opportunities encountered during ERT. The self-reflection was done while being guided by the constructivism theory adopted for this study. This guided the researchers to construct their own knowledge while arriving at a conclusion. The findings from the reflection are presented in the result and discussion section below.

FINDINGS AND DISCUSSION

One of the researchers coded as 'M' in this case taught Legal Research Methods, a module designed to enable students to effectively conduct research in both the world of legal academia and legal practice. This module provides them with the necessary tools to master research skills as well as the writing skills needed to successfully complete their research proposal. The university at which the researcher was employed at the time of the research had a policy guideline on the research proposal components considered to be the primary tools. In line with the principles of constructivism, the researcher discussed the necessary tools with the students and then encouraged them to conduct independent research. The student-centred approach was used, and students were actively involved and discussed matters among themselves. The researcher fulfilled the role of facilitator and advised students of the components expected within a research proposal. The researcher then explained the content of each component to the students, since learning is a personal construction process (Kay & Kibble, 2016). Students were given an opportunity to formulate their own topics, provided these fell within the ambit of either doctrinal or non-doctrinal research. Doctrinal research is research about law, and non-doctrinal research is known as socio-legal research, which considers the way in which law and legal institutions shape and influence society (Coetsee & Buys, 2018).

Constructivism is associated with learning approaches such as discovery learning, experiential learning, inquiry-based learning and problem-based learning (Mnisi, 2021). Inquiry-based learning was the main learning approach used in teaching Legal Research Methods because students are required to investigate specific topics, inquire into those topics and formulate criticisms and recommendations. This practice is recognised and supported by Mnisi (2021) and was therefore adopted by the researcher.

Teaching perspective

Pratt and Collins (2006) identify transmission, apprenticeship, developmental, nurturing and social reform as different types of teaching perspectives. Not all of these will be discussed here; however, we will touch on developmental learning, as this was the perspective applied in teaching the module Legal Research Methods. Pratt and Collins (2006) explain that to be effective, lecturers must understand how their students think and reason about the content to be taught and learnt. Developing a research proposal is a very complex task, and most of the students enrolled for Legal Research Methods found the development of the proposal to be a difficult undertaking. They were given an activity to complete for each component of the proposal, for example to write a problem statement and explain the components of the problem statement. The aim was to provide them with examples and questions to allow them to construct their own understanding, since the emphasis in research is on applying one's own thinking.

Learning styles

Lecturers need to be creative in using education techniques, and to take cognizance of students' learning needs. It is possible to remember the four learning styles, namely visual, aural, reading and kinaesthetic learning, by means of the mnemonic VARK (Othman & Amiruddin, 2010).

Visual learners learn more through demonstration and description and tend to recall information about what they have seen. *Aural learners* pay more attention to information presented orally during lectures and have good listening skills. Students who favour *reading* learn best through the printed word and may even recall information by reading aloud to themselves. *Kinaesthetic learners* combine experience with practice, and apply touch, movement, and interaction to their environment (Othman & Amiruddin, 2010).

During ERT, in teaching the module Legal Research Methods, the researcher (lecturer) made use of Microsoft Teams. A meeting was scheduled, and invitations sent to students via WhatsApp and e-mail. The lecturer made use of an animated PowerPoint presentation, and screen sharing with students. The meeting (lecture) was recorded, with the attendance register being automatically generated at the end of each session. The video recording, audio recording as well as notes were subsequently posted on Moodle for students to peruse for their further learning. The researcher is of the view that by means of the teaching methods adopted, students who may have experienced visual, aural and reading difficulties were catered for. However, the researcher noted that kinaesthetic learners may well have been left behind due to COVID-19, as they were unable to learn actively by employing their sense of touch, for instance, as it was not possible to set hands-on activities as described by Ghazi-Saidi et al (2020).

The section below focuses on difficulties and opportunities encountered during ERT.

Difficulties and opportunities encountered during ERT

The COVID-19 pandemic as brought with it both difficulties and opportunities. Starting with the opportunities; ERT has proven valuable in allowing teachers and students to keep in touch remotely (Ferri et al, 2020). MS Teams enabled the researcher to engage with students enquiring about their topic formulation. It also offered students a financial saving, in that they have not had to pay for transport to campus, and ERT has given them the opportunity to study anywhere and at any time. This latter observation is supported by the work of Ferri et al (2020) and of Uleanya, Gamede and Uleanya (2019), who found that distance to campus can be an obstacle for students, especially those in rural areas, who must contend with poor road networks and/or a lack of transportation. Mohamed, Khidhir, Nazeer and Vijayan (2020) report that ERT makes it possible for students to receive a detailed explanation of the learning units and outcomes, and to ask questions about specific problems. Moreover, recorded lectures allow students who experience connectivity problems to catch up. However, in addition to the opportunities, there are a number of hurdles, as identified in the literature. Ferri et al (2020) divide these problems into three groups, namely *technological problems, pedagogical problems* and *social problems.* Technological problems relate to access to infrastructure and include possession of devices and internet connection. Many students registered for the module did not have laptops and lacked internet connection. Pedagogical problems relate to a lack of materials in the form of interactive multimedia to keep students motivated. Social problems include not having a suitable

home environment that allows students to focus and study. The lack of a conducive environment to study at home is mentioned by Uleanya and Alex (2021) and by Aristovnik et al (2020). In the same vain, Kerzˇič et al (2021) make a similar point, stating that students' learning during the COVID-19 pandemic was to a certain extent affected by limited access to IT infrastructure at home, with concomitant effects on their computer skills. The implication of the foregoing is that there is need conducive environment to be made available and the opportunities provided by the ERT are to be harnessed by both institutions of learning and lecturers.

CONCLUSION AND RECOMMENDATIONS

This reflection has focused on the use of ERT during the COVID-19 pandemic, as applied in a researcher's own teaching practice. The paper began with some brief information about the COVID-19 pandemic, after which the difference between normal online teaching and ERT was explained, with ERT being identified as a temporary teaching method in times of crisis. The discussion on COVID-19 led to the reason for the transition from onsite to online teaching and learning. This reflection was founded on two conceptual frameworks, namely management theory (unfreezing, change and refreezing) and ERTE theory (inquiry, classify, design). Constructivism was identified as the theory applied by the researchers, with the developmental teaching perspective and VARK teaching styles included in the discussion. The opportunities offered by ERT, such as time management and flexibility were identified, as were the difficulties associated with ERT, such as technological, pedagogical and social problems. The implication of the findings of this study is that there is need for lecturers as well as institutions of learning to identify the opportunities offered by ERT to harness them. To conclude, it is recommended that for successful implementation of ERT, as mentioned in the conceptual framework of the study, it is necessary to evaluate what works and what does not work. Thus, lecturers should always have a back-up plan in case this should be needed.

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