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Economic and Management Sciences Teachers' Readiness for E-Learning Teaching After the Covid-19 Pandemic in South Africa

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ABSTRACT

During COVID-19, teachers in economic and management sciences were expected to adopt e-learning to continue with their teaching and learning. In this study the researcher employs qualitative research methods. The findings reveal that EMS teachers are prepared to continue making use of e-learning teaching after the Covid-19 pandemic, but they need to be prepared on how to use it especially young teachers. Another result indicated that EMS teaching is influence by technology, but e-learning facilities are lacking in schools. Education officials should offer ongoing e-learning course for EMS teachers. In this study the researcher concludes that, for EMS teachers to be prepared for e-learning, educational administrators must oversee its implementation. Furthermore, the researchers conclude that to enable e-learning, e-learning policies must be developed and implemented throughout all schools, as well as infrastructure.

Keywords: Covid-19 Pandemic; e-learning; Technology Acceptance Model; EMS teachers' and readiness

INTRODUCTION

According to Hussain, Al-Mannai, and Agouni (2020), the availability of educational technology and e-tools learning channels in many institutions of learning has proven to be extremely beneficial in facilitating the emergency transition to online learning and ensuring educational continuity (Aljawarneh, 2020). Although technology was employed in some schools before the COVID-19 pandemic, most schools are now compelled to use it to continue teaching and learning activities, resulting in a major growth in online teaching and learning (Mishra, Gupta & Shree, 2020). The ability of e-learning users to adapt to a new learning environment, utilise new technologies, and engage in self-directed learning is known as e-readiness (Rosen 2014). E-learning is a feature of the twenty-first century, and all institutions throughout the world are seeking for new and more effective ways to deliver education and link learners and other stakeholders more extensively (Raines & Clark 2019). Rosen (2014) supports the idea that the twenty-first century is marked by the widespread influence of technology across all domains, and that, as a result, technology provides an uncompromising alternative type of instruction, particularly in the industrialized world. Similarly, Glenda (2018) stated that e-learning has become an important component of education delivery in the twenty-first century. Glenda (2018) went on to say that the efficiency of e-learning is dependent on a solid network with specific software, a repository for controlling information delivery, and a positive social environment established by online interaction among learners. The advantages of E-learning have long been recognized by Hammond (2013), who stated that technology has altered education institutions over the last two decades. However, Mncube, Olewale, and Hendricks (2019) found that teachers' use of digital tools and resources influenced their use of digital tools and devices for examining curricular content in their classrooms,

indicating their preparedness to adopt e-learning. Similarly, Dagada (2013) found that most teachers do not use digital tools because they do not comprehend the intricate linkages between material, pedagogy, and the technology that must be integrated into curriculum delivery. However, because economic and management sciences school teachers are expected to continue teaching and learning in the same way that other teachers do, and because they lay the groundwork for teaching and learning, it was deemed necessary to investigate their readiness for e-learning teaching after this abrupt shift from face-to-face to e-learning.

RESEARCH QUESTION

The sub-research questions derived from the main question are:

(i) Are Economic and Management Science teachers prepared to implement e-learning in their classroom after the Covid 19 pandemic?

(ii) How does the state of the classroom influence the usage of e-learning in EMS classroom?

LITERATURE REVIEW

COVID-19 disrupted worldwide face-to-face teaching and learning, resulting in teaching and learning shifting online and introducing "emergency online learning," according to Marinoni, Van't Land, and Jensen (2020). However, Mukhtar, Javed, Arooj, and Sethi (2020) reported that the expansion of COVID-19 has resulted in the closure of educational institutions around the world, and that this closure has hastened the development of online learning environments to avoid disruptions in learning. The absolute lockout left the schools under investigation little time to set the basis for all teachers to teach and learners to learn remotely. Hew, Jia, Gonda, and Bai (2020) point out, however, that the rapid conversion of modules from traditional face-to-face teaching to online learning had significant drawbacks. It was tough and frustrating for both teachers and learners to create successful online classes in a short amount of time. Hew, Jia, Gonda, and Bai (2020) argue that teachers were sending notes and other teaching and learning materials to parents via email, as well as holding live sessions with learners and recording their own lessons so that learners could listen and study while they were away from the classroom. According to Hew et al., these strategies are not considered as effective by economic and management sciences school instructors since they do not foster active learning, which is necessary in early learning courses. According to Sutterlin (2018), learners require their peers and interaction in the classroom to learn and enjoy their lessons, but with the help of e-learning, they may experience those things through various platforms of technology. It's also worth noting that some of these devices are available in some learners' homes and are being used for non-educational purposes. According to Kiilu & Mue-ma (2012), e-learning is a powerful enabling tool for educational transformation and reform, and many of the productivity increases in developed world economies over the last decade may be linked to the impact of technology to a large extent. If schools want to successfully domesticate e-learning platforms, Dagada (2013) proposed that schools and teachers need to improve their technical pedagogical subject understanding. According to Cloete (2017), teachers' preparation may be achieved by providing the necessary infrastructure and ensuring that the public has access to technology. According to Njagi (2013), heads of state around the world and educational institutions agree that incorporating e-learning into teaching and learning is a vital part of keeping the curriculum relevant and preparing learners for the future. Kaur and Abas (2018) went on to say that as teachers and learners grow more tech-savvy, they are better able to provide critical information to the classroom and provide solutions tailored to the needs of each learning group. According to Amir and Krish

(2012), instructors' readiness for technology education in the twenty-first century should be considered a key component of the twenty-first century, and e-learning links should always be available. Teachers in schools are not a homogeneous group; the various crucial interactions that affect one group may be radically different for another, depending on their histories and e-learning experience. Understanding some of the reasons why teachers do or do not adopt new e-learning techniques is crucial to give appropriate support (Bruggeman 2020). According to Scherer, Sarah, and Howard (2021), teachers' general self-efficacy and attitudes about e-learning are favourably associated to their grasp of e-learning. Carril, Gonzalez-Sanmamed, and Harnandez (2013) confirm that more e-learning teachers have a better knowledge of their pedagogical skills to teach online. Shea (2007) found that teachers with a limited understanding of e-learning struggle with communication and interaction, as well as a lack of expertise with effective online pedagogy and technology. Nguyen, and Huynh (2019), asserts that e-learning saves time for teachers by reducing workload. For example, while composing a test for learners, teachers can access questions that they have banked ahead of time in a learning management system of their choice. Nguyen et al (2019), further stated that e-learning has practical advantages such as "automated and rapid supervision, scoring, and evaluation of learners' learning processes." On the teachers' side, there are benefits to e-learning. The value of online learning and its benefits to both teachers and learners have been studied all over the world (Maphalala, Khumalo & Khumalo, 2021). Technology, according to Harandi (2015), “makes instruction more interesting for learners.” Smith (2013) agrees, stating that online learning allows for better engagement between learners and teachers. As a result, it is thought to have a good impact on student learning. More active learning, enhanced learners' focus and understanding, and visual modeling are all advantages of using technology and e-learning tools in the classroom (Aljawarneh, 2020). Furthermore, according to Hoq (2020), e-learning allows for better course delivery and flexibility for learners, as they can learn anytime, anywhere, regardless of the number of learners. Furthermore, according to Hoq (2020), some of the benefits include the ability for learners to access materials directly on electronic devices, engage in online assessments, and track their progress. Despite the international need to employ technology in teaching and learning, especially in the wake of the covid-19 pandemic, Masonta, Ramoroka, and Lysko (2015) believe that not all countries will be successful in making the transition to online learning.

South Africa is a developing country with its own set of issues when it comes to the use of technology in education. Masonta et al., (2015), argue that there is a lack of digital infrastructure, particularly in rural communities and schools. This type of infrastructure is critical for the delivery of online learning. However, a study by Martin (2019), lack of technology infrastructure isn't the economic and management sciences reason teachers don't use technology in their classrooms. Before technology may be used in the classroom, there are a few problems that must be addressed. Those things are the teacher's knowledge and experience with technology.

RESEARCH FRAMEWORK

After considering the study's stated goal, the authors of this article determined that the technology acceptance model (TAM) was the best choice for guiding their research. TAM is used to forecast or determine why one person may choose to adopt technology while another does not (Teo 2009). The TAM theory was investigated to gain a better understanding of how instructors react to and think about technology. TAM is a popular theoretical model used by researchers to assess the use and acceptability of technological systems by their intended users (Teo 2009). Many researchers have proved that TAM is a

suitable model for explaining users' attitudes and behavioural intentions to utilize a given technology system over time (Park 2009). If technological systems are not used, according to Davis et al. (1989), they will not serve their aim of improving organizations. Similarly, this research assumes that teachers' readiness for e-learning adoption and use is based on their acceptance of educational technology and awareness of their potential when fully employed. Davis (1989) supports this viewpoint, observing that the potential benefits of technical systems are frequently unrealized due to the intended users' unwillingness to employ them. TAM uses the two variables as the main determinants of the attitude and behavioural intension to use the system (Davis 1989). Users are hesitant to use systems because the users do not believe they will help them improve their jobs or believe they will be difficult to use. As a result, TAM uses the two variables as the main determinants of the attitude and behavioural intension to use the system. TAM may be significant to understand the link between instructors and educational technologies, according to the research presented in this section. Furthermore, Davis et al. (1989) argue that organizations will fail to reap the benefits of technology systems unless the purpose to use them is accomplished. TAM only considers user's vs systems, whereas in this study, users (teachers) must also include other users (learners) who will use part of the systems. The economic and management sciences teachers job is to impact knowledge to learners (Reed 2012), with the goal of achieving learners' excellence in their teaching responsibilities. As a result, this study assumes that, from the standpoint of an economic and management sciences economic and management sciences economic and management sciences school teacher, any intervention to improve any part of the learners' learning should be in the interest of successful knowledge transfer and good academic performance for their learners.

THE RESEARCH APPROACH

This study was underpinned by the interpretive paradigm because it gave us the opportunity to study a phenomenon in depth and as it existed in its natural context (Leedy & Ormrod 2013; Mukherji & Albon 2015). This paradigm was further chosen because it allowed us to interpret the world and/or reality through the perceptions and experiences of the research participants (Thanh & Thanh 2015). In this study, the perceptions, and experiences of the research participants regarding their readiness for e-learning after the Covid-19 pandemic were projected to provide data that would give us an understanding of the problem under study. We intended to construct our understanding from reality via data gathered from individual participants, as Creswell and Creswell (2018) stated that research in the interpretive paradigm depends on the views of the participants. We chose to use the qualitative research approach because the interpretive paradigm interconnects harmoniously with qualitative research methods (Thanh & Thanh 2015). This qualitative research sought rich data to assist us to fully understand the context of the study and the research problem regarding the teacher's readiness for e-learning during Covid-19 in South Africa. Qualitative research facilitated the investigation of teachers' readiness for e-learning by collecting, analysing, and interpreting their comprehensive stories and the visual data to gain insights into the research problem (Nolan, Macfarlane & Cartmel 2013).

As the choice of research design and methodology depends on the research questions (Creswell & Creswell 2018), it was appropriate to use a case study research design using ten economic and management sciences schools in South Africa as research sites. A case study design was used to get the real information from the participants. Yin (2018) stated that in a case study research design, the researcher can study the phenomenon systematically

and understand it deeply in its context. Therefore, a case study design of 10 teachers in their respective classrooms was adopted.

Population and sampling criteria

The population of the study comprised qualified economic and management sciences teachers in South Africa. We used pseudonyms to protect participants' identity and research sites. This sample size was manageable and offered us an opportunity to grasp the meaning that participants give to their experiences, and to understand their behaviour (Daniel 2016; Leedy & Ormrod 2013; Mukherji & Albon 2015).

Purposive sampling was employed to select the six economic and management science teachers.

Data generation

The study utilised -an interview method of…. This - included the use of videotapes and audio-recordings to collect, store and transcribe data (Creswell & Creswell 2018). The six interviews took place in the classroom context to acquire an in-depth understanding of the situations e-learning readiness within the classroom. Knowledge was generated through interactions with the participating teachers (epistemology) (Creswell & Creswell 2018; Thanh & Thanh 2015). Therefore, the study was successfully carried out in the presence of the participants in the classrooms to explore the economic and management sciences e school's teacher's readiness for e-learning afterCovid-19 pandemic.

Analysis

- qualitative content analysis was utilised as the instrument for…in this study because it facilitated the dissecting of texts and responses of the interviewed participants (Yin 2018). This method was therefore appropriate because school teachers were asked open-ended questions during the interviews. Each one of the six economic and management teachers was interviewed about the readiness for e-learning after the Covid-19 pandemic and effect of classroom conditions in the implementation of e-learning in EMS classroom. As Yin (2018) suggested that it is essential to analyse the case study data immediately after the data generation process is commenced, therefore each of the participants' interviews was analysed separately. We first transcribed the recordings of the interviews and thereafter interpreted the data to be well understood. The Codes and Coding techniques were used to link data back to the research questions and to identify common themes as thematic analysis method was used in this study. This was done by means of reading through the collected data in order to get a sense of what it represents. The researcher has gone line-by-line in the data to get the real meaning. Since data analysis is a continuous process (Creswell & Creswell 2018; Leedy & Ormrod 2013), we continuously analysed data even after the last day of the data collection in the schools. Data presentation involved using extracts taken from the coded data to substantiate research findings. Thereafter, the presentation and interpretation of data were done case by case.

PRESENTATION OF FINDINGS

The examination of the data acquired from the responses to the research questions revealed two themes and categories. Following that, the study's findings are examined in depth under each subject and category discovered, namely: The preparation of EMS teachers for e-learning, as well as the impact of classroom conditions on e-learning.

Economic and Management Science teachers prepared to implement e-learning in their classroom after the Covid 19 pandemic

E-learning became the only realistic option during a period when the

number of Covid-19 cases was growing at an unmanageable rate. However, the Covid-19 has offered a problem for both teachers and learners in navigating teaching in a completely remote setting, making teachers and learners to adjust their entire educational approach to respond to the pandemic's new conditions and adapt to the changing scenario.

Teacher 1 had this to say in this regarding e-learning readiness:

> *"To be honest, I am not ready for any type of online schooling, and I am grateful that these changes occurred when I only have two years till I retire".*

Teacher 3 lamented that there is a serious need to make use of e-learning in the teaching of EMS but since there are no resources to utilise it makes me to unready for this new innovative teaching since I was not prepared on how to use it:

> "*Since I am an EMS teacher in school, I do not believe it is necessary for me to ensure that I am prepared to employ e-learning in my classroom''.*

Teacher 5 had this to say about ensuring that EMS teachers are ready for e-learning:

> *"I am not prepared to teach any technology. However, I'd like to understand more about how e-learning is employed in the classroom. I also feel that if we want to ensure that e-learning is a success, it should begin in the lower grades so that learners and teachers are familiar with how to use technology in their studies".*

Teacher 7 had this to say regarding the teacher's readiness for e-learning

> I was prepared for technology instruction when I first started teaching since I had studied computers during my teacher training, but today I am able to say no.

Teacher 9 noted the need to be e-learning readiness is support of teacher 5 he had the following to say:

> Before I address your question, I'd want to point out that all teachers should be prepared for e-learning because the world is changing. For example, no one knew we'd be having Covid-19, and if we were acclimated to online teaching, it would be simple to continue our work.

Teacher 10 agreed that e-learning needs to be introduced at the earliest grade in schools to enhance learning of EMS:

> *I am ready for e-learning, and I would love it if it could begin in elementary schools since we are serving as a foundation, and I can also state that the learners are ready because they are encouraged to use smart phones and laptops by their parents as early as possible.*

Classroom influence the usage of e-learning in EMS classroom

Only classrooms that are specifically designed to enable technology use can be used for e-learning. When classroom settings are poor, it impedes the smooth operation of teaching and learning, particularly e-learning, which requires technical preparedness and internet access. Learners' education is heavily influenced by classroom environment. When a learner enters into a classroom and notices a significant mess on the teacher's desk and belongings strewn over the floor, the learner may conclude that the teacher isn't very detail-oriented.

Teacher2 lamented that conditions of the classroom are affording learners with the opportunity to realise their dreams, as a result that he had this to say:

> *Classroom settings have an impact on not only the use of e-learning, but also the entire teaching and learning process. For example, when the classroom promotes learning rather than just technology learning, learners learn more easily. Now, if we compare our own classrooms to what an e-learning classroom requires, we can see that we are still a long way from our goals.*

Teacher 4 noted the need to maintain classrooms so that they can promote any form of learning that meets the needs of the 21st century in support of teacher 2 she had the following to say:

> *Because our classrooms are not well-maintained, no technological learning can take place because of the damage.*

Teacher 5 Did not hesitate to reveal the situation conditions of their classrooms, as a result the teacher had this to say:

> *Because vandalism caused by tugs is the most common cause of damage at our school, I naturally assume that our classrooms will not be able to host anything linked to e-learning.*

Teacher 6 were of the view that if education wants introduce e-learning, classroom maintenance is their key point to resolve first, as a result the teacher made the following comment:

> *If education officials wish to introduce e-learning, they must first improve the classroom settings, as they currently do not meet the requirements for e-learning in South Africa. Our classrooms are not conducive to any type of learning, and it may get even worse if we try to use technology to study.*

Teacher 8 notice the bad conditions of the classrooms in support of teacher 2 she had the following to say:

> *What can you do in a bad classroom? Everything is distracted, even face-to-face learning. No successful e-learning can take place in our current classroom conditions. But I feel terrible for our learners because they want to use these new technologies in their studies, and you will occasionally see a student in the classroom with his or her own smart phone. E-learning will only be implemented in township schools unless economic and management sciences economic and management sciences economic and management sciences school classrooms are renovated to meet the demands of the twenty-first century. For example, my son's children attend multiracial schools where they are introduced to technology as early as possible and even their classrooms support e-learning.*

Teacher 9 confirmed that e-learning implementation requires specialised classroom, which they don't have. The teacher had the following to say:

> *Most schools' classrooms in lower grades do not support any sort of learning; it could get even worse if we now incorporate e-learning. Our classrooms are a farce, and no one bothers him or her about the work that needs to be done to renovate them to accommodate technology teaching.*

Teacher 10 was also unpleased with the classroom status in the entire school. The teacher had the following to say:

> *The department of education in the province has given*

all teachers laptop with data being loaded every month, but due to internal and external challenges our data and laptops are not used in educational manner. For instance, in my classroom there is absolutely nothing I can do to try and make use of my technology, since desk, chairs, window Payne's, chalk boards and cupboard where we use to store classroom textbooks are broken. We need a serious renovation here. But you can be surprised to find out that learners are carrying their own smart phones and if things were fine, were going to make use of the situation that at least these learners, are familiar with the technology.

DISCUSSION OF FINDINGS

Economic and Management Science teachers' readiness for e-learning

The study found school instructors are unprepared for e-learning, which has hampered their ability to comprehend how it is being used for teaching and learning. The findings back up Dagada's (2013) claim that most teachers don't use digital tools because they don't comprehend the intricate links that exist between material, pedagogy, and the technology that needs to be integrated into curriculum delivery. However, the findings contradict Kaur and Abas (2018), who claim that instructors' preparation for e-learning aids their schools in fully designing e-learning strategies and efficiently implementing their technology goals. Instead, our findings suggest that if schools are to successfully domesticate e-learning platforms, they must support teachers in improving their technological pedagogical subject expertise. When teachers lack the necessary knowledge to apply e-learning effectively, the e-learning goals will not be met. According to Kiilu and Mue-ma (2012), "understanding and implementing e-learning is a powerful enabling tool for educational change and reform," and "much of the productivity increases in developed world economies over the past may be linked to the impact of technology to a large extent." These findings contradict Kaur and Abas (2018)'s assertion that instructors' preparation for e-learning aids their schools' comprehensive design of e-learning strategies and effective implementation of technological goals. They go on to say that as teachers and learners grow more tech-savvy, they are better able to provide important information to the classroom and provide solutions that are tailored to the individual needs of each learning group. Furthermore, Davis et al. (1989) highlights the worry that, if the goal to use technological systems is not accomplished, organizations will not enjoy the benefits of those systems. Furthermore, when teachers are not prepared to teach technology, their learners miss out on the potential benefits of technical systems, which are frequently unrealized due to the intended users' unwillingness to use them.

Effect of classrooms condition on e-learning

Even though technology is supposed to be used in the classroom for teaching and learning, the study found that classrooms do not promote any technological learning. This contrasts with Raines and Clark's (2019) conclusions that e-learning are a feature of the twenty-first century, and that all institutions throughout the world are seeking for novel and more effective ways to deliver education and to link learners and other stakeholders more extensively. The efficiency of e-learning, according to Glenda (2018), is dependent on a solid network with specific software, a repository for controlling content delivery, and a good social environment established by online interaction among learners. The findings corroborate Skhephe and Caga's (2019) claim that COVID-19 has altered how instruction is provided, and as a result, the influence of COVID-19 has become critical. With the hope of developing scientifically driven solutions to this

problem, online teaching is an uncompromising choice. Skhephe and Caga also discovered that many African schools have deteriorating infrastructure, overcrowded classrooms, and low educational outcomes. The findings support Amnesty International's report (2020), which claims that classroom circumstances in South Africa do not comply with the country's constitution's right to excellent education. The findings are like those of Skhephe and Caga (2019), who state that since the start of the democratic government, the South African government has made significant progress in ensuring learners' right to education. They also state that access has broadened to the point where almost universal participation exists, even though the number of learners dropping out before completing their basic education has increased. However, Skhephe and Caga- (2019), who claim that the post-1994 administration failed to meet its own domestic and international legal obligations in a few key areas.

CONCLUSION

The basic purpose of any nation-building project is to provide high-quality education. e-learning served as a vital instrument during and after the Covid-19 pandemic, allowing both learners and teachers in their schools to develop their technology abilities to meet the needs of the twenty-first century. The implementation of e-learning, on the other hand, must be done with considerable care. After the Covid-19 outbreak in South Africa, this study investigated instructors' readiness for e-learning. During the Covid-19 epidemic, this study focuses on teacher preparation for e-learning. The researcher concludes in this study that for instructors to be prepared for e-learning, educational administrators must oversee its implementation. Furthermore, the researcher finds that to enable e-learning, e-learning policies must be developed and implemented throughout all schools, as well as infrastructure.

RECOMMENDATIONS

Prior to the Covid-19 epidemic, teaching and learning took done in the classroom with physical touch. Education officials should offer continual e-learning sessions for instructors, according to the study. Furthermore, because e-learning is a component of the twenty-first century, the researcher advises that classrooms be modified to promote it. The researcher also suggests that teaching should include relevant information and methodologies, and that e-learning, which is a feature of the twenty-first century, should be made mandatory. Teachers must notify people in charge of education about what needs to be done to provide high-quality instruction. The researchers also suggest that teachers and learners be given the opportunity to express their concerns about the entire school setting, including the classroom. Finally, before teachers can join their classrooms, they must be properly exposed to all the processes involved to grasp these components.

LIMITATIONS OF THE STUDY

The study was conducted in a small town called Butterworth in the Eastern Cape province of South Africa. Only 10 EMS teachers participated in the study. The researcher would have loved to conduct this study in the entire province but due to finances, only ten teachers where chosen.

CONTRIBUTION OF THE STUDY TO THE BODY OF EXISTING KNOWLEDGE

The study will influence the e-learning policies, as the findings of the study has revealed that EMS teachers are ready for the implementation of the e-learning, but school structures are not presented. The study will also contribute to the re-shaping of the EMS curriculum as it is also influenced by the changes that are happening in the world.

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