REFLECTIONS BY PRE-SERVICE ECONOMIC AND MANAGEMENT SCIENCES TEACHERS ON THEIR EXPERIENCES OF REMOTE LEARNING IN CURRICULUM PRACTICE

Mochina Mphuthi, & Molaodi Tshelane
Central University of Technology (Republic of South Africa)

Abstract

Curriculum reformists were caught off-guard over the past two years by the unforeseen and extreme pressure of the COVID-19 pandemic. This phenomenon threatened to engulf humans in despair. Institutions of higher learning initiated moves to remote learning, as a measure to prevent the spread of the virus while continuing to promote teaching and learning. Scholars were absorbed by grasping the importance and application of a revolution in curriculum reform. The use of remote learning in curriculum practice to improve teaching and learning is a recent initiative in the package of curriculum and pedagogical reforms in South Africa. The aim of this paper is to reflect on adaptive experiences of pre-service economic and management sciences teachers, their ability to adapt curriculum practice to remote learning of this specific curriculum, and pedagogical reform of the use of remote learning in schools. An architecture theory, which draws on the famous quotation of Adolf Loos's parable about "the poor rich man" and whether they really understand the lesson, was used as the main lens for the study. An interpretative phenomenological analysis approach, as a form of critical education science, was employed to generate data. The basic purpose and essence of the IPA approach in a qualitative research study is to examine the life experiences of the research participants and to allow them to narrate the research findings through their lived experiences and critical reflections, thereby deliberately embracing diversity as characterised by the unequal context of South African education. Phenomenological analysis was used to arrive at the following findings. First, higher learning institutions are obligated to create practical learning experiences for pre-service teachers. Second, the phenomenon that resulted in the necessity to embrace remote learning impacted participants academically, socially and psychologically. The paper concludes with the recommendation that the prefigured remote learning for professional teaching practice should be reconfigured.

Keywords: Curriculum practice, phenomenon, pre-service teachers, COVID-19, qualitative research.

1. Introduction and background

Globally, postsecondary institutions and governments are taking various legislative actions to contain the COVID-19 outbreak, including regulating teaching activities (Zhang, 2022). Arguably, in this regard there are ambiguity and disputes regarding curriculum practice and teaching methods, student readiness, teacher workload, and the equity of the education environment (Cairney & Kippin, 2022). As the spread and rate of infection continued to increase, human existence as we know it was threatened (Plümper & Neumayer, 2022).

The phenomenon directed the thinking processes of curriculum reformists and narrowed their decision-making to shifting from traditional teaching and learning to remote learning. The immediate closure of education institutions led to remote teaching and learning being adopted – teacher educators were expected to use available technological tools to ensure learning continuity for pre-service teachers, who were expected to adopt remote learning (Kulikowski, Przytuła & Sułkowski, 2022). However, Zhang (2022) argues that research reported in the literature highlights several flaws of this approach, including inadequate remote teaching infrastructure, teacher inexperience, a knowledge gap, and complex home environments.

Remote learning was the preferred method of teaching and learning during lockdown, though it was unclear how many students had access to electricity, computers and connectivity. Only half the world's population have internet access; in the Commonwealth it ranges from nearly 95% access in rich countries, like Brunei, to less than 15% in developing countries, like Liberia (Marwecki, 2019). Ansu Sonii, the minister of education of Liberia, narrates that their country was inadequately prepared for

remote learning, and they had to use radio broadcasts for lessons – which could, nevertheless, only reach 20% of the intended population (Wiakanty, 2020). A recent survey of Stanford University students determined that, in the time they were forced to rely on technology, 16% of undergraduate students did not have access to the Internet for half of their class sessions (Bates, 2021). Additionally, 60% of low-income undergraduate students do not have a private room where they can study. Therefore, scholars argue that greater effort should be invested in ensuring that the technologies are readily available, accessible, and affordable (Tang, 2022, Matus & Veale, 2022).

Ogbonnaya, Awoniyi and Matabane (2020) and Edem Adzovie and Jibril (2022) found that numerous institutions of higher learning in Ghana were unprepared for the shift to remote teaching and learning. Human capital and material resources were inadequate for remote education to take place adequately. They report that students were not prepared for the transformation to remote learning. According to Edem Adzovie and Jibril (2022), the introduction and implementation of remote learning solutions in Ghana were not particularly successful.

Researchers in Lesotho found that remote learning was considered to be a user-friendly and helpful tool by the majority of students (Matee, Motlohi & Nkiwane, 2022). However, a lack of resources, too few clear instructions from teachers, and a lack of cooperation by some teachers have all been identified as stumbling blocks when it comes to student involvement in remote learning (Anyim, 2021).

Reflection as an action refers individuals' internal processes, which are prompted by external stimuli recognised by individuals (Ansaldo, 2022). Curriculum practice, in this this study, reflected on the gaps in teaching, learning and assessment resulting from the shift to remote learning. Smith, Soderberg, Netchaeva and Okhuysen (2022) report that reflection on experience is a way to assess a problem, or a particular viewpoint that is used to assess a phenomenon. Studying a situation from a particular perspective does not only offer students a new perspective, but also enables them to learn, expand their horizons, and become better equipped for the future.

2. Problem statement

In South Africa, only 10% of households have access to a stable Internet connection; an even greater proportion of households face unstable electricity supply as a result of load shedding applied by electricity generation agencies in South Africa (Tesfamichael, 2022). Furthermore, there is increasing concern in South African institutions of higher learning that, during remote learning, pre-service teachers are getting unwarranted assistance to complete their assessments, which elicits questions about the integrity of the assessment and the validity and quality of the qualifications obtained by pre-service teachers (Cornry, Wernick & Ware, 2022).

The Association of African Universities regularly hosts a platform where tertiary education students participate in focus group and panel discussions about the advantages and disadvantages of remote learning. One of the participants shared their experience of remote learning:

> *I did not learn anything, the lecturer just posted the learning material in the Blackboard platform, and we had to self-study and write assessments, I passed my assessments very well but I did not learn at all, I cannot even remember what the learning was about (AAU, 2021).*

This study, similarly, intended to record the reflection experiences of economic and management sciences pre-service teachers of curriculum practice, how they experienced remote learning for teaching and learning, and how they experienced assessment during their remote learning.

3. Theoretical framework

The study is underpinned by architecture theory as the main framework for the study. architecture theory, which is appropriate for this study because it embrace comprehension and consistent organisation of facts (Plevoets, 2022). Architectural theory is based on the present and the future, and how the future is planned, built or organised. This theory analyses the origins and development of architectural form, style, ideologies, movements, and architects throughout history. The theory of architecture is relevant to this study, because it explains that architecture cannot be taught, and that people can only guide people during the process. Hence, the reflection process by economic management sciences pre-service teachers should be guided by the lecturers, and can be viewed with an architecture lens. The reflection, furthermore, revealed that teachers' experiences continue on a path that will enhance their intention to learn remotely and sustain future learning.

Philosophical approaches to architecture are relatively new, but are rapidly emerging in practice and in education curricula. The architecture theory tradition includes critical commentary on or explanations of architectural works or styles or movements, instructions or guidelines for architectural designs, reflection on the genesis of architectural types and styles, as well as advocacy for a new approach to architecture discipline and practice.

4. Research design and methodology

The study used qualitative research methodology to address the research objectives. The study used the technique of free attitude discussions to generate data, which was provided by economic and management sciences pre-service teachers – six women and six men in their final year of teacher education at one of the 26 institutions of higher learning in South Africa provided insights on their experiences in relation to remote learning. Economic and management sciences teacher education is intended to empower student teachers to teach Grades 8 and 9 learners.

4.1. Data analysis

In this qualitative research study, interpretative phenomenological analysis was employed as a methodology to generate data. In its basic form, interpretative phenomenological analysis is intended to examine the life experiences of participants and allow them to share their lived experiences and critical reflections, in this case, by deliberately embracing diversity in the unequal context of South African education. Phenomenological analysis was used to arrive at the following findings: First, higher learning institutions are obligated to create practical learning experiences for pre-service teachers. Second, the phenomenon that resulted in the necessity to embrace remote learning impacted participants academically, socially and psychologically.

5. Findings

5.1. Academic impact of remote learning on economic and management sciences pre-service teachers

The participants agreed that the institution had not prepared them sufficiently for remote learning. As a result, some of them fell behind due to their inability to keep up with the remote attendance of lessons. This is evident from the narratives shared by participants. Students' home environments were not conducive to remote learning, due to space constraints and unstable wi-fi networks. One of the participants reported that he had to climb a mountain and sit on the edge to access the signal needed to attend lessons.

Other students who missed lessons or failed to participate in assessment due to challenges relating to data struggled to reach the lecturers responsible for the modules. A participant said, *"number of times the lecturer will not respond to the emails which was frustrating"*. This lack of communication contributed to anxiety and uncertainty about the future.

Multiple opportunities to write and submit assessments remotely had to be provided, even though repeated attempts could compromise the integrity and quality of assessments. Participants claimed that the quality of teaching was compromised, to the extent that even though a participant had written the tests and passed, they would not be able to transfer the knowledge they had been assessed on to learners. This gap was identified during teaching practice, when pre-service teachers practised teaching in the school environment under the guidance and supervision of the mentor teacher. The students' inability to learn sufficient content created a gap in their ability to impart knowledge to learners.

Lastly, students conceded that remote learning is efficient and effective, and should be carefully planned for as part of hybrid learning in the future. The concerns that need further attention and investigation included unstable Internet connections, expensive and inadequate data provision by the institution, and a home environment that was not conducive for studies.

5.2. Psychological impact of remote learning on economic and management sciences pre-service teachers

The lockdown and restrictions relating to COVID-19 not only affected the academic and social elements of university life, but also the mental wellbeing of university students. Adapting to this new reality has proven to be challenging, for various reasons. This was evident in one of the participants' narration:

I have experienced more stress and anxiety; I think being isolated in your home, although I do have my family with me, but I'm so used to being around friends and that is actually my support system for anxiety

and stress, because those are the people I speak to about my problems. you know in my home we are not free to talk as our parents are unaware of mental health issues.
I come from a rural remote area with low access to network, I was supposed to climb to the edge of the mountain to be able to access network to attend classes and do my assessments.

A briefing by the minister of Higher Education, Science and Innovation, Dr Blade Nzimande, on 14 June 2021, indicated that a study had found that 79% of senior students felt that they needed routine counselling support during remote learning (Nzimande, 2021). In the current study, participants expressed that they were not adequately supported, mentally, to learn in the mist of people dying of COVID-19, and increased domestic violence in families during lockdown. These experiences contributed to some of the participants being diagnosed with depression.

Research indicates that there was an increase in the suicide rate of students during remote learning (Viner, Russell, Saulle, Croker, Stansfield, Packer et al. 2022; Daria & Islam, 2022), which may have resulted from anxiety due to uncertainty about the future. While students from high-income families were supported by their parents, who provided home learning resources, low-income-family parents struggled to work to put bread on the table – learning was the least of the concerns in such households. This inequality of remote learning education in South Africa contributed to mental health issues.

6. Conclusion

Remote learning that uses technology to enhance learning processes is considered successfully integrated when it makes education more effective, efficient and appealing (Aldhafeeri & Alotaibi, 2022).

During lockdown, and after the experience of the pandemic, one thing has become clear: There is a need to find innovative solutions that are appropriate to each different context, to ensure no one is left behind. During planning for the future, the investigation should focus on the three Cs for effective remote learning – connectivity, content and capacity – so that teaching and learning can be accessible to all.

Some universities in South Africa have started discussing how students will write examinations under the new circumstances. There is a need to ascertain who is writing the paper at home, because, during remote learning, secret invigilators are not present. To solve the problem of invigilation, an invigilator app was designed by the learning management system support team to work with facial recognition technology that ensures that it is actually the student who is writing a specific paper at the time. Furthermore, speech detection algorithms work in the background to ensure students are not left behind with their learning process. The app also tracks students' GPS coordinates to make sure students are not with other students when they are involved in assessments. Essentially, the invigilator app ensures that academic standards are maintained during remote learning.

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