Research Article

Hosted & indexed by Sabinet

The Dyke
www.thedyke.msu.ac.zw
https://journals.co.za/loi/dyke

ISSN 1815-9036 (Print)
ISSN 2790-0940 (Online)

Blended teaching and learning in Higher education institutions: Experiences of selected Universities in Zimbabwe

James Munamati[a], Rufaro Mushonga[b], Simbarashe Munamati[c]

[a,b] University of Zimbabwe, Zimbabwe

[c]Reformed Church University, Zimbabwe

ARTICLE HISTORY

Published online, 2024

ABSTRACT

Higher education is experiencing phenomenal changes due to the advancement and use of information communication technology (ICT). Blended teaching and learning are an outcome of an advanced technology-based learning system. The traction of the blended teaching, and learning approach lies in the adaptation of technology-aided learning methods in addition to the existing traditional-based learning. Blended teaching and learning combine face-to-face and online delivery methods that influence students' perceptions of the learning environment and their study experiences, learning outcomes, and ultimately, academic achievement. The study's objective was to explore the experiences of lecturers and students regarding blended teaching, and learning, in higher education institutions in Zimbabwe. A qualitative study was conducted using in-depth interviews with lecturers and Focus Group Discussions (FGDs) with students from selected universities. The study employed snowball sampling to select respondents from lecturers and convenience sampling to select respondents from students. Both In-depth interviews and FGDs were conducted online through WhatsApp, telephone, and Zoom platforms. The study included five public universities in Zimbabwe. The data was analysed using thematic analysis and Nvivo Version 11 software. Findings revealed that poor technology infrastructure including poor internet connectivity, unavailability of computers, and poor technical skills to execute interactive online teaching as the major challenges facing lecturers. The study further noted that students continue to face challenges in accessing personal computers to facilitate blended learning. Despite these barriers, blended learning and teaching is the future of higher education hence the need to ensure that universities have sufficient resources to support the transition. The study recommends the need to align blended teaching and learning with overall institutional goals and priorities.

KEYWORDS: Blended, Teaching and Learning, Higher Education, Institutions, Experiences, Universities, Zimbabwe

CONTACT: James Munamati munamatijam@gmail.com

Introduction

Nearly every aspect of contemporary life has become linked to some form of technology, including in the least developed countries (Gwaka, 2018). The adoption of online education is becoming increasingly commonplace in higher and tertiary education institutions. The 2030 Agenda for Sustainable Development recognises that the spread of information and communication technology (ICTs), and global interconnectedness has great potential to accelerate human progress, bridge the digital divide, and develop knowledge societies. It was noted that ICTs have the potential to accelerate progress across all 17 Sustainable Development Goals (SDGs). It also specifies specific targets for the use of ICTs for sustainable development in education (Goal 4), gender equality (Goal 5), infrastructure (Goal 9 – universal and affordable access to the Internet), and partnerships and means of implementation (Goal 17). In the same vein, the Zimbabwe National Policy for Information and Communication Technology 2016 recognises that, for ICTs to act as an effective catalyst for national development, upgrading and substantial investment in high broadband ICT infrastructure and capacity buildings are a prerequisite.

In developing countries, e-learning is still in its infancy, and early adoption stage, and the countries experience challenges unique to developed countries (Bhuasiri et al., 2012). The uptake, and use of ICTs in Zimbabwe have greatly increased in recent years. This is evidenced by the high growth registered by Zimbabwe's ICT indicators with active mobile penetration reaching 95.4% and Internet penetration surpassing 45%, according to the 2016 Zimbabwe National Policy on Information and Communication Technology. A plethora of studies have been undertaken in higher education institutions to investigate issues regarding online learning and teaching experiences. The newly adopted Education 5.0 model aims to leverage local resources for socio-economic development, with higher education institutions playing a pivotal role in modernising and industrialising the country (Tshili, 2022). This shift, as outlined in the National Development Strategy 1 (NDS1), entails moving away from traditional learning and teaching methods to build an economy driven by knowledge and innovation by 2025, focusing on problem-solving for value creation.

Online teaching is difficult and different from face-to-face teaching which most lecturers have been used to (Smith, Passmore & Faught, 2009; Muzira & Bondai, 2020; Togo & Gandidzanwa, 2021). Online teaching demands, not only

an understanding of the content but also an understanding of how to present the content, and provide a learning environment using technology (Conceição, 2006). Lack of knowledge and skills in e-learning by students and lecturers were cited as posing a challenge to e-learning and teaching (Dzimano & Richard, 2011; Tafangombe & Kaputa, 2011; Muwaniki et al., 2022). Mpofu et al. (2012) noted that the majority of lecturers (97.5%) at a public state university, had not received relevant training, and were, therefore, unprepared to handle online learning pedagogy. This situation posed a major challenge in implementing online teaching.

Regardless of worldwide growth and adoption of online learning, African universities are yet to fully maximise this opportunity, as noted by Walimbwa (2008), who observed that lack of skills and sufficient human capacity were the major contributing factors to low online learning implementation in universities in Tanzania, Uganda, and Kenya. In a related study conducted by Makokha and Mutisya (2016), the authors noted that only 32% of the lecturers in Kenya used online teaching as a mode of pedagogy while the rest preferred conventional or traditional mode of pedagogy to online learning. The main reason for this preference was a lack of ICT skills on how to change hard copies or handwritten teaching materials to technology-enabled formats. In a related study, Richard and Dzimano (2011) analysed lecturers' web/Internet competence at the Zimbabwe Open University and found that the majority of the lecturers (55%) were not trained in online teaching and were therefore not competent to handle online courses. Mpofu et al. (2012), in their study on the challenges of virtual and open-distance learning in Zimbabwe, found that the majority of the lecturers (97.5%) had no experience in online education.

Richard and Dzimano (2011) also observed that generally, lecturers at the Zimbabwe Open University lacked basic knowledge of the web/Internet. At the basic level, programmes should be put in place for the capacity building for tutors in Internet/web usage which should be a priority, if the online initiative is to be effective. This finding concurs with the findings by Tafangombe and Kaputa (2015), in their study on the analysis of challenges encountered by students on the e-learning platform at Zimbabwe Open University. The findings of the study showed that open and distance learning students face challenges when accessing the e-platform. Students, lecturers, and even most ICT personnel cannot use the Vista Internet-based programme (Tafangombe & Kaputa, 2015). This is an e-tutoring programme that allows learning to occur between the student and the tutor online. As a mitigatory measure, the study

recommended that all students, lecturers, and key ICT personnel must be trained in the use of e-platforms (Tafangombe & Kaputa, 2015). Thus, effective use of online teaching requires that teaching staff be properly trained in using online teaching as a mode of delivery, yet very few African scholars are familiar with teaching in an online environment. This situation poses a major challenge in introducing distance education on the continent (Makokha & Mutisya, 2016).

Several studies have also reported challenges of access to the Internet and affordability of the gadgets and mobile services faced by students and lecturers (Mupfiga & Zhou, 2017; Muderedzwa & Chilumani, 2017). Mupfiga and Zhou (2017) noted challenges that are faced by both lecturers and students which include access to the Internet, high cost of mobile devices, high broadband costs, WI-FI connectivity, and Internet speed amongst others. The study also noted that most students and lecturers do not have the Internet at home; hence they cannot access their e-learning accounts. This is supported by a related study conducted by Muderedzwa and Chilumani (2017), which aimed to assess the adoption of Google Classroom at the Catholic University in Zimbabwe. The study observed that the most significant challenge experienced by both lecturers and students is Internet connectivity.

Access to the Internet due to the unavailability of electricity is also a challenge faced when conducting e-learning. In their study of challenges of virtual and open distance science teacher education in Zimbabwe, Mpofu et al. (2012) reported electricity challenges that created problems in the integration of ICT tools (Internet among them) into the virtual and open distance learning (VODL) programme. This challenge is most found in rural areas where the availability of electricity is limited (Gwaka, 2018). Power cuts were reported by Mpofu et al. (2012) who reported that the institutions bought generators to curb the problem.

Inability to use the internet is also related to access to ICT gadgets, such as smartphones, computers, and laptops. Findings from a study by Gwaka (2018) show that, while full-time lecturers had access to computers, the majority of the part-time tutors had no computer access. Furthermore, a study on ICT usage in Zimbabwe noted that although many students have access to mobile phones, very few can afford a laptop (Gwaka, 2018). Kangai and Bukaliya (2011) established that only 5% of students in state universities owned or had a computer at home because of the high cost of computers. Furthermore, the study contends that the majority of students as well as part-time lecturers working in rural areas had no access to computers. This study demonstrates that long distance education students in Zimbabwe experience technological

challenges. On the contrary, Mupfiga and Zhou (2017), in a study on enhancing teaching and learning through the use of mobile technologies in Zimbabwean universities, reported higher access to technological devices. The study revealed that the majority of students (81%) and lecturers (54%) have mobile technology devices to use for mobile learning.

Despite the challenges faced by students and lecturers, Mupfiga and Zhou (2017) observed that some mobile learning activities are already happening at universities which include uploading material on the electronic learning platform, downloading learning material, browsing the Internet for research, students' online discussions and access of electronic resources from the universities' e-library, amongst others. The media has reported that Universities in South Africa, such as the University of Johannesburg and the University of Witwatersrand have provided their underprivileged students with laptops and data bundles (Tirivangana, 2019).

As universities in Zimbabwe move towards an Education 5.0 philosophy, it is imperative to embrace and move towards digitalisation in teaching and learning. The adoption and utilisation of online education, particularly as a way of teaching and learning, becomes unavoidable.

Regardless of the various studies conducted on online learning and teaching in Zimbabwe presented in this section, it is imperative to note the differences in context brought about by the Covid-19 pandemic. Thus, this study contends that there is a need to explore the experiences of lecturers and students regarding blended teaching and learning in higher education institutions in Zimbabwe in the post-Covid-19 era. Therefore, the study was guided and sort to identify online platforms utilised in higher education institutions, establish the challenges of blended teaching and learning noting strategies higher education institutions are employing to create opportunities for online teaching and learning.

Methodology

This paper is based on a qualitative approach wherein in-depth interviews and FGDs were used to elicit the experiences of university academic staff and students regarding blended learning and teaching. The unstructured interview guide was developed by the researcher for the In-depth interviews with lecturers, this was done to capture several opinions and descriptive narratives across the five universities in Zimbabwe. A focus group discussion guide was developed to solicit students' perceptions of blended learning and teaching.

Regarding participants, this study employed the snowball sampling method to recruit lecturers from universities. This sampling method allowed chain referrals from the initial subjects and ensured that a wide range of opinions were obtained. The participants were selected using the first researcher's primary known lecturer contacts and network selection. The initial personal contacts were then encouraged to invite individuals with similar backgrounds, and academic staff who were interested in taking part in the interview.

A total of 25 lecturers were recruited and online interviews were done using the WhatsApp and telephone platforms. To recruit students for FGD, the researcher used known lecturer contacts who were asked to invite students from their respective Universities. A total of 50 students were recruited from five public universities in Zimbabwe. Qualitative research does not require the sample size to be predetermined. The sample size is determined by the number required to inform fully all-important elements of the phenomena being studied (Sargent, 2012).

A Zoom link was generated and shared with the students. The researcher facilitated the FGD and was assisted by a Research Assistant who took notes during the online discussions. For in-depth interviews, questions were posted online to lecturers before the interview, and they selected the mode of communication that they preferred. The participants were guaranteed confidentiality and anonymity during the interviews. All interviews and FGD were conducted in English. The audio-taped responses were later transcribed.

The qualitative data analysis software (Nvivo version 11) was used. Data was analysed using thematic analysis (Braun & Clarke, 2006). Research questions developed during the research process guided the analytical framework (Burnard et al., 2008). The researchers interpreted the thematic results, continuously linking them with theoretical ideas and original research findings. Participants were contacted where necessary for clarification or further information.

Results

Online platforms utilised in Higher education institutions.

Both lecturers and students were reluctant to use online platforms which offer virtual classroom experiences such as Zoom, WebEx, Microsoft Teams, and Goggle classroom. Lecturers preferred using WhatsApp and emails as forms of doing online learning as they felt these were cost effective and user friendly to

both students and lecturers. One lecturer gave the following sentiment during an in-depth interview:

> *I initially attempted to utilize Google Classroom, but I discontinued its use upon discovering that certain students were encountering difficulties joining the platform. Additionally, students expressed concerns about the elevated cost of data bundles required to access the Google Classroom platform. Consequently, I opted to employ WhatsApp for delivering audio lectures, sharing learning materials, providing notes, and using email to collect assignments from the students* ***(Lecturer from University 1).***

Engaging in e-learning proved to be costly for both instructors and students due to the high expenses associated with data bundles. In contrast, WhatsApp was reportedly as offering a more affordable alternative and allows the transmission of notes and reading materials. The experience described in the foregoing paragraphs was also supported by one of the students in one of the FGDs who made the following remark with the support of other group discussants:

> *As students, we are encountering difficulties accessing online platforms because of the high costs associated with data. Data expenses are prohibitive, and our parents cannot afford to purchase data for us regularly.*

There were, therefore, challenges of blended teaching and learning in higher education institutions in Zimbabwe.

Connectivity

Academic staff from all five universities expressed that internet connectivity was not a major challenge. One of the Lecturers remarked:

> *Regarding connectivity, the Internet has been consistently fast since I started using my phone to connect at home.* ***(Lecturer from University 3)***
>
> *I don't face any issues with internet connectivity since I have my own WIFI at home, and I cover the costs myself.* ***(Lecturer from University 5)***
>
> *At my university, connectivity is not a problem for me as I reside in the staff quarters. It's a short walk to the office where there is dependable connectivity and a stable power supply.* ***(Lecturer from University 2)***

However, some of the lecturers from other public universities in the country reported erratic internet connectivity. Some academic staff articulated that their failure to connect to the internet to execute online lectures was caused by rugged terrain and remoteness of the area where their students reside. Most

rural areas have poor network connectivity. These two factors interfere with internet connectivity. For instance, one lecturer from University 4 indicated that:

> *I attempted to utilise platforms like Google Classroom and Microsoft Teams, but faced difficulties due to connectivity issues. The challenging terrain in our university's catchment area, particularly the hilly landscape, has proven to be a significant barrier. It's crucial to highlight that many rural areas in [my] province, such as Z and G, experience poor Internet connectivity. Additionally, some regions covered by the university, like M, have challenging hilly landscapes. The effectiveness of online learning is further impeded by the combination of high data costs and the remote and varied terrains of different areas.* ***(Lecturer from University 4)***

The experience described in the foregoing paragraph was also supported by one of the students in one of the FGDs who made the following remark with the support of other group discussants:

> *The area where I reside experiences severe network issues, and there are times when we have no network for calls, let alone Internet connectivity. The network is consistently unreliable. To overcome this challenge, I have to travel to the nearest growth point in J to access stable Internet for online lessons. Unfortunately, this incurs significant expenses as I need to travel to obtain reliable internet access.* ***(Student from University 4)***

The experiences described concurred with one of the students in another FGD who made the following remark:

> *Before delving into Internet connectivity, it's essential to address mobile connectivity. In the area where I reside, there is no network whatsoever, making it impossible for me to receive or make calls. Consequently, participating in online learning from our rural home is not feasible. To overcome this obstacle, I must travel to B, which contradicts the primary purpose of engaging in online learning.* ***(Student from University 5).***

Power Challenges

Power or electricity challenges was one of the themes which emerged from the study. Academic staff from all the five universities expressed concern over extensive power cuts which is being experienced all over the country. One of the Lecturers remarked:

> *There is a serious problem of electricity shortage in the country such that most residential areas including where I am staying rarely get electricity during the day. Normally, we have 12-14 hours of load shedding per day which is almost the whole day. At the university thus where there is rare load shedding but it defeats the purpose of online learning. So, in essence you have to come to the university and conduct online lessons at the university premises (****Lecturer from University 2).***

> *The frequent power outages in the country are beyond imagination. Electricity is often unavailable, posing a significant challenge to online teaching. Additionally, the power cuts sometimes impact Internet connectivity, creating substantial hurdles for online learning* ***(Lecturer from University 1).***

However, some lecturers expressed that they have no issues with power cuts since they already had alternative power supply when there is electricity outage. One of the lecturers remarked:

> *Even though we face occasional power interruptions, our learning remains largely unaffected because the university accommodation we utilize is equipped with backup power. The majority of our students are at the postgraduate level and are employed, making it more convenient to facilitate online learning* ***(Lecturer from University 5).***

The experience described in the foregoing paragraph was also supported by one of the students in one of the Focus Group Discussions who made the following remark with the support of other group discussants:

> *There is no electricity in the country that is known by everybody. In the neighbourhood I came from electricity is always not there. It comes when we are already slept and it's switched off before we wake up. This negatively affects online learning*

Adaptability to online learning

Adaptability was an important theme that also emerged from the study. Participants in this study, particularly lecturers, felt overwhelmed and pressurised to learn how to use online platforms within a short space of time. There was inadequate information and communication technology support from the respective universities to support online teaching and learning. When students encountered any technical problems, the lecturers were not able to assist students since some were also technically handicapped. Some of the lecturers stated:

> *You know, this is a frustrating exercise given the Zimbabwean context. No harmonizing of lecturer and student side. The pedagogy did not change with mobile teaching or learning* ***(Lecturer from University 1).***

> *Shifting to online teaching and learning is not easy. The majority of lecturers are very late adapters of new technology in general (****Lecturer from University 3).***

> *Not one has been trained for this, considering that there are calculations, practical and application courses besides just theoretical courses (****Lecturer from University 5).***

The experience described by lecturers was also supported by one of the students in one of the FGD who made the following remark with the support of other group discussants:

> *There is no technical support during online learning and teaching. When you face a technical problem, you have to find a solution on your own. The lecturers will say I don't know how to help you.* ***(Student from university 3).***

Competency to use online teaching and learning platforms

There was need to find out the level of competency in using online learning platforms. This could be used for future skills in auditing tertiary institutions. The study revealed that elderly lecturers were overwhelmed to learn how to execute online learning which provided an interactive two-way communication by the use of a computer network so that students may benefit from communication with each other and the instructor. Consequently, some respondents in the study resorted to emailing printed notes and sending some reading material through WhatsApp platforms and Gmail. The virtual lectures were a challenge for older lecturers to accomplish. An older lecturer narrated their experience:

> *It's a challenge because the majority of lecturers, especially older Drs and Professors, were taught in the era when there was no technology, so they are not technologically savvy. It's a technological shock, but the young generation of lecturers is comfortable with new technology* ***(Lecturer from University 3)***

The same sentiment was echoed by a Lecturer from University 1:

> *It's important to acknowledge that I lack proficiency in this particular skill or task. I have not had prior experience in performing it, and I have never undergone any training related to its use.*

However, some lecturers proffered that they were very comfortable in using any online platform and were very happy to continue with blended teaching. A lecturer with vast experience in using online learning platform vividly described his competency:

> *I do not have any problems in using online platforms. I have been using these platforms for a long time, such as Google Classroom, Zoom meetings, and Skype meetings. (Lecturer from University 2).*

Student's technological competency and proficiency

In as much as lecturers could be willing to continue with online teaching technological competency among students was important. Lecturers reported

that their youthful students were technologically competent but older students were finding it hard to switch to 100% online learning. Some students found it difficult to easily navigate off the online class interface at some stage during virtual class lecture delivery. In some cases, some lecturers reported that it was difficult to teach courses which required students to have been trained prior, for instance, the use of statistical packages. Below are some of the participants' expressions:

> *For certain students, particularly those who are older, navigating online platforms poses a distinct challenge. The technological shift towards online learning environments can be intimidating for individuals who may not be as familiar or comfortable with digital tools and technologies.* ***(Lecturer from University 4).***

On the contrary students expressed that they were technologically competent and proficient using online platforms. One of the students in one of the FGD made the following remark with the support of other group discussants:

> *As students, we encountered no issues whatsoever in using online platforms for learning. The transition to online education was seamless, and we found the platforms to be user-friendly and effective in facilitating our academic activities. The accessibility and convenience offered by these online tools greatly contributed to our ability to engage with course materials, participate in virtual discussions, and submit assignments without any significant challenges.*

This was supported by another student in one of the FGDs who made the following remark:

> *The ease of navigation and clear instructions provided on the online platforms ensured that we could make the most out of our learning experience. The availability of resources, such as recorded lectures, discussion forums, and digital study materials, allowed us to tailor our learning to suit our individual preferences and schedules.*

Cost of data bundles

Despite the importance of virtual learning in ensuring that lectures are not disturbed, the major challenge, based on the analysis done, was the cost of data. It was noted that cos of data was a cross-cutting factor amongst all selected participants. Cost of data was reported as negatively impacting on the uptake of online teaching by lecturers. This was noted to be a predisposing factor in engaging online teaching by academic staff. The data bundles hampered the execution of online teaching. Some lecturers reported that they had several online classes to teach per week using platforms such as Zoom. Respondents

felt that the universities were supposed to take responsibility for providing data. Some lecturers mentioned that:

> *Data is very expensive to both the lecturer and students, making it difficult to conduct online lessons from home. Even if I manage, most students cannot* ***(Lecturer from University 2).***
>
> *It's too expensive, and the cost of data bundles has increased recently. Additionally, salaries are too low to enable me to fund university-related expenses.* ***(Lecturer from University 5).***
>
> *Cost of data in Zimbabwe is just too high and for one to conduct a Zoom meeting with students or Google class.* ***(Lecturer from University 1)***

The lecturers reported that their universities were not providing them with data bundles for their online teaching. On the other hand, one university made an effort to buy data bundles for its staff, and they continued using the Zoom platforms to carry out their online lectures. As one lecturer said:

> *My university is responsible for all my data costs which I use to perform all my online lectures. I do not need to worry about the cost.* ***(Lecturer from University 3)***

Cost of smartphones and computers

In addition to the cost of data, the academic staff, as well as the students, did not have appropriate hardware/devices that were compatible with online learning. Some of the lecturers shared their experiences:

> *Umm…I do not have the so called smart-phone. I have a simple gadget for basic communication.* ***(Lecturer from University 3).***
>
> *Less than 50% of my students have laptops and this affects the quality of the lecture since most of them use their phones where there is a challenge in sharing presentations, one of my students was supposed to attend a Zoom class but they did not have a computer, so they went out of their house to borrow a computer from a neighbour who was three kilometres away from their family house.* ***(Lecturer from University 4).***
>
> *Some of my students do not have laptops, computers and smart phones with cameras which can be used with online learning platforms.* ***(Lecturer from University 1****).*

Student response to online learning

Student's availability to online platforms was an important theme that emerged from the study regarding whether they were present during online sessions like Zoom and Google classrooms which were commonly used by lecturers. It was understood as illustrated in the statement below that sometimes student's inaccessibility appeared to be caused by the high cost of data, poor internet

connectivity, and lack of appropriate gadgets. Consequently, some lecturers were forced to abandon such interactive class learning platforms and resorted to sending printed material through email and WhatsApp. The abandonment of these interactive learning platforms was also necessitated by students failing to attend virtual online lessons. In some cases, only a few students were able to be actively involved up to the end of the virtual classroom lesson. Various students' responses were described by the academic staff:

> *Students liked e-learning but lacked training in the use of relevant digital tools and software applications on e-learning.* ***(Lecturer from University 4).***

> *The students' responses were negative, of course, most said that they wanted it but were simply incapacitated.* ***(Student from University 1)***

> *Very convenient, but students complained about the cost of data and lack of respective gadgets such as smart phones and laptops. These challenges reduced virtual lecture attendance to 50% and at times 25% attendance. (Lecturer from University upwards, thill they be able to state the responses to).*

Delayed feedback from students

The negative feelings expressed by lecturers towards online teaching were further mentioned in the findings. Delayed feedback from the students, frustrated some lecturers and it negatively impacted on the smooth running of teaching online. Lecturers expected the students to reply to e-mail messages, WhatsApp or voice note messages promptly. Given that these forms of interactions were found to be popular among students and lecturers in the study. Again, the issue of regular high–quality internet access and cost of data bundles seems to affect the students to speedily give feedback. One lecturer said this:

> *Students were locked up in deprivation and poverty issues. No or limited hardware, poor connectivity and expensive data.* ***(Student from University 5).***

In addition, online teaching was taxing to the lecturers, as there was need to check in with students and make individuals a plan to accommodate those in most difficult situations. One lecturer shared their experience:

> *Some students might not have a safe and quiet working environment, and might be involved in caring for the family and have poor internet access, and might need more time to submit assignments.* ***(Lecturer from University 2).***

Notwithstanding, the students' attitudes towards online learning, a few lecturers felt that they had good opportunities to connect with many students through online teaching with no much pressure as compared to face-to-face learning. Some lecturers had this to say:

> *Online teaching provides excellent opportunities to manage even bigger classes. Physical lectures themselves lack scale, as they force a teacher to divide their attention amongst the students sitting in the classroom.* ***(Lecturer from University 2)***

Contrary to the perspective of some lecturers who view online lectures as a solution for teaching large classes, another school of thought has emerged expressing concerns about preserving traditional face-to-face lecture hall teaching. The lecturers wanted to preserve the status quo and alluded to the fact that online teaching and learning created anti-social students in the long run, if online learning was wholly embraced in tertiary institutions. Some negative sentiments were articulated by lecturers:

> *Microsoft/Zoom/Google will take the time away from actual effective efforts by gifted educators, thereby establishing another broken status quo that is hard to replace? Is there any evidence that video lectures provide enhanced learning? Microsoft is a big company that's great at branding but why do we believe this is the correct tool to provide quality education.* ***(Lecturer from University 2)***

> *The lecturing styles will change and most probably reduce the lecturer-student physical interaction. We will produce an anti-social student, or student with very limited social skills. Too much use of machines will produce more human 'robot'-graduates. But in Africa, we are so poor, and it will take long before this is achieved.* ***(Lecturer from University 1)***

In addition, they felt online teaching isolated students and removed that physical attachment, usually offered in a face-to-face teaching environment. It was reported that it was difficult to monitor student's progress and give an immediate assessment as to whether students understood the concepts taught. Online teaching and learning made it hard, to know if teaching was effectively done. One lecturer expressed their fears:

> *In my experience, this whole debacle has changed the way university teaching will be carried out in the future, we now need to embrace this online way of teaching, but maintain the traditional way of lecturing. Able to control what is happening within the classroom… you do not have control over the online lesson…we cannot discard the traditional way of lecturing that presence in the classroom cannot be replaced.* ***(Lecturer from University 5)***

Lecturers supported online learning as they perceived it to be good for efficiently delivering lectures, especially in the era of education 5.0. It was the way to go in a global village. However, certain conditions were to be met to make online learning feasible in Zimbabwean universities in the long run. The popular recommendation among academic staff was the provision of affordable Internet and affordable laptops to staff and students. Several participants had this to say:

> *The way forward is to provide enough resources for online teaching especially when it comes to internet accessibility. The respective institutions can help in the purchase of data bundles, and computers or provide short and low-interest loan schemes for the installation of internet facilities at staff homes.* ***(Lecturer from University 2)***
>
> *Lecturers should then be adequately resourced with the latest gadgets and allowances for data bundles. University expectations to lecturers should be met by their provision of equipment and internet access.* ***(Lecturer from University 1)***
>
> *A multi-sectoral approach by government, private, and public sectors in the provinces to provide internet packages to facilitate online learning is needed.* ***(Lecturer from University 5)***
>
> *I think the universities or government should subsidize internet data bundles.* ***(Lecturer from University 3)***

Other lecturers suggested the following recommendations to make online teaching feasible. They remarked:

> *Develop university-specific online learning platforms that are secure from hacking and plagiarism.* ***(Lecturer from University 2).***
>
> *E-learning is a way to go in future but there is a need to train both staff and students on e-learning and internet providers should improve connectivity.* ***(Lecturer from University 3)***
>
> *Think through the intellectual capacity or copyright issues, risk of materials being copied.* ***(Lecturer from University 4)***

Discussion

The main objective of this was to explore the experiences of lecturers and students regarding blended teaching and learning in higher education institutions in Zimbabwe. Findings revealed various challenges faced by lecturers, including poor technical skills, inadequate Internet connectivity, limited access to computers and laptops, and difficulties in adapting to execute interactive online teaching. Lack of knowledge and skills were cited as challenges hampering e-learning and teaching in universities. Most of the lecturers were used to traditional face-to-face lectures and did not have ample time to be trained on conducting lectures online.

The elderly lecturers were more overwhelmed with online teaching compared to the younger lecturers. Similar challenges of lack of experience or training were also reported in universities in Tanzania, Uganda, and Kenya (Makokha & Mutisya, 2016; Walimbwa, 2008) and Zimbabwe (Tafangombe & Kaputa 2015; Dzimano & Richard, 2011). On the other hand, the universities which could have chipped in to support their staff did not do so, yet they expected the lecturers to conduct online teaching. Technology incompetency was also reported among the students, with older students finding it difficult to work with online learning. The training of lecturers on e-learning is overdue as most universities in the developed world have adopted new alternative teaching methods using ICT.

Zimbabwean universities are trailing behind other countries such as South Africa when it comes to e-learning. Effective online teaching requires the training of lecturers and students in using online teaching and learning as a mode of not just delivery of lectures, but also interactions and discussions.

The study found that the use of online platforms such as Zoom, Microsoft Teams, and Google Classroom was limited due to the costs incurred when using some of these platforms. These interactive platforms are expensive and most of the students, even the lecturers could not afford to use them. Moreover, the universities were not able to provide students with data bundles to access the Internet. Rather, most of the lecturers resorted to using WhatsApp and e-mail considered cost-effective and user-friendly. This was a challenge as most of the students, and some lecturers, could not afford the cost of accessing the Internet due to the economic challenges experienced in the country. Thus, the use of e-learning meant leaving out disadvantaged students.

The majority of lecturers and students faced Internet connectivity challenges. Not all students participated, as some found it difficult to access the Internet, particularly in certain areas, especially rural ones. The unavailability of electricity in most rural areas is a challenge that prevents them from accessing the Internet. This challenge is exacerbated by frequent power cuts in areas that already have electricity. This finding was supported by Mpofu et al. (2012) in their study of challenges in virtual and open-distance learning in Zimbabwe. As a result, some of the students in remote areas were not able to access e-learning. The unavailability of the Internet was also associated with power cuts, a challenge not only faced by academic institutions but by the different sectors of the economy.

The challenge of access to the internet faced by both the students and lecturers could also have been related to the high cost of data bundles. While a few of the universities reportedly made efforts to buy data bundles for their lecturers to conduct online teaching, the majority of the universities could not do the same. The cost of data bundles negatively impacted on the uptake of online teaching by lecturers as most were not able to conduct online teaching because they could not afford data bundles. Students' inaccessibility to the internet was also largely due to poor internet connectivity and lack of appropriate gadgets, such as smartphones, computers and laptops. This is supported by Gwaka (2018) in his study of digital technology in a rural area in Zimbabwe, who reported that, while the youth could afford mobile phones, very few could afford smartphones and laptops.

Some lecturers were forced to abandon their online teaching, and those who continued with the teaching, disadvantaged students who could not afford to. Lessons to address this challenge could be learnt from South African universities which provided laptops and data bundles to the underprivileged students (Tirivangana, 2019; Sosibo, 2021). The universities, with support from the government and the private sector, should be able to provide some of these under-privileged students with computers and data bundles, as had been done in South African universities, such as the University of Johannesburg and Witwatersrand University (Sosibo, 2021).

Despite the challenges experienced by the lecturers, a few of the lecturers believed that online teaching was good for delivering lectures efficiently and an opportunity to communicate easily with students as compared to face-to-face teaching. Thus, the role of ICT was critical in higher education and learning in Zimbabwe. With some of the lecturers already teaching online, this is the only opportunity for a shift from being wholly dependent on the traditional methods of teaching that lecturers are used to, to a mixture of both face-to-face lectures and online learning in the new ICT era. Support by the university is very critical in effectively using online teaching. The rapid diffusion of the internet has generated a rejuvenated interest and motivation in the role of new information and communication technologies in higher education and learning in Zimbabwe. Thus, some of the challenges experienced can be overcome by universities establishing public-private partnerships to enable effective and quality education and e-learning.

Conclusion

Findings revealed that lecturers in public universities in Zimbabwe face challenges such as poor technical skills, inadequate Internet connectivity, lack of access to laptops and smartphones, and difficulties adapting to execute interactive online teaching. Despite these barriers, online teaching has provided an opportunity to develop new lecturing skills in higher education and learning in Zimbabwe, addressing long-overdue needs.

It is crucial to ensure that universities have sufficient time and resources to make the online transition manageable. The study showed that lecturers must be trained in e-learning to deliver quality lectures professionally. To facilitate this transition, universities were shown to ought to provide free or affordable internet access to both students and staff working from home. Establishing public-private partnerships can play a vital role in providing free or affordable internet services. Furthermore, universities should support students by providing computers, laptops, and data bundles, fostering accessibility to the internet. Collaborations with ICT companies can be instrumental in achieving this goal.

References

Gwaka, L. T. 2018. Digital technologies and youth mobility in rural Zimbabwe. *The Journal of Information Systems in Developing Countries, 84*(3), e12025.

Kangai, C. and Bukaliya, R. 2011. Teacher development through open and distance learning: The case for Zimbabwe. *International Journal on New Trends in Education and their Implications*, 2(4):124-141.

Mpofu, V., Samukange, T., Kusure, L. M., Zinyandu, T. M., Denhere, C., Huggins, N., Sithole, F. 2012. Challenges of virtual and open distance science teacher education in Zimbabwe. *International Review of Research in Open and Distributed Learning*, *13*(1), 207-219.

Makokha, G. and Mutisya, D. 2016. Status of e-Learning in public universities in Kenya. *International Review of Research in Open and Distributed Learning*, *17* (3), 341–359. https://doi.org/10.19173/irrodl.

Muderedzwa, M. and Chilumani, K. 2017. The adoption of Google Classroom at the Catholic University of Zimbabwe. *The Fountain: Journal of Interdisciplinary Studies*, 1(1): 133-147.

Mupfiga, M., Mupfiga, P., and Zhou, T. G. 2017. Enhancing teaching and learning through the use of mobile technologies in Zimbabwean University. *Journal of Systems Integration*, 2, 49-50.

Muwaniki, C., McGrath, S., Manzeke-Kangara, M. G., Wedekind, V. and Chamboko, T. 2022. Curriculum reform in agricultural vocational education and training in Zimbabwe: Implementation challenges and possibilities. *Journal of Vocational, Adult and Continuing Education and Training*, 5(1): 94-115.

Muzira, D. R. and Bondai, B. M. 2020. Perception of educators towards the adoption of education 5.0: A case of a state university in Zimbabwe. *East African Journal of education and social sciences*, *1*(2), 43-53.

Sosibo, Z. L. 2021. Inequalities and marginalisation during Covid-19 lockdown:

Psycho-social effects on underprivileged university students. Creating Effective Teaching and Learning Spaces: Shaping Futures and Envisioning Unity in Diversity and Transformation, 73.

Tafangombe, J. and Kaputa, T. M. 2015. An analysis of challenges encountered by students on the e-learning platform at Zimbabwe Open University. Greener *Journal of Social Sciences*, 5(3):051-064.

Togo, M. and Gandidzanwa, C. P. 2021. The role of Education 5.0 in accelerating the implementation of SDGs and challenges encountered at the University of Zimbabwe. *International Journal of Sustainability on Higher Education*, *22*(7), 1520-1535.

Tshili, N. 2022. Education 5.0 underpins socio-economic development. *The Chronicles*, December 2022.

Tirivangana, A. M. 2019. Education 5.0 and Vision 2030: Reconfiguring Zim University Degrees. *The Patriot*. Available online at:https://www.thepatriot.co.zw/education/education-5-0-and-vision-2030-reconfiguringzim-university-degrees / [Accessed May 4, 2023]

Richard, B. and Dzimano, P.R. 2011. Analysing Lecturers Web/Internet Competence at the Zimbabwe Open University, *International Journal of Social Sciences and Education* 1(4): 223-332.

Walimbwa, M. 2008. *Integrating e learning in teaching and research in upcoming East African Regional Universities*. Paper presented at the meeting CNIE Banff, Alberta, Canada. Retrieved from http://www.slideshare.net/Walimbwa/elearning-in-east-african-universities.