

Lecturers and Students' Level of Preparedness on the Use of Online Technologies in the Post-COVID-19 Era: A Case of Three Zimbabwean Universities

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ABSTRACT

This study sought to assess the level of preparedness of lecturers and students in higher education institutions on the use of online and other innovative educational technologies in teaching and learning in the post-COVID-19 pandemic era. Preparedness for this study focused on both structural and psychological preparedness. The outbreak of the COVID-19 pandemic in 2020 led to the adoption of online and other innovative educational technologies for teaching and learning as institutions tried to minimize direct contact with students. The use of online learning in Zimbabwe was, however, not wildly institutionalised in most universities. The study employed the constructivist paradigm, qualitative approach and a phenomenology design. The study was underpinned by the Technology Acceptance Model as propounded by Davis (1989). Three universities in western Zimbabwe were involved in the study. The sample comprised thirty university students and nine university lecturers who were purposively selected. The participants responded to open-ended questionnaires via WhatsApp. All ethical issues, particularly informed consent, the right to anonymity and confidentiality, were guaranteed. The results of the study revealed that lecturers and students' level of preparedness to use online technologies in the post-COVID-19 era was low, although they had positive views about the perceived usefulness of online technologies. It was also revealed that most lecturers did not possess the skills required for online teaching and, therefore, experienced demotivation. Challenges of lack of proper technological gadgets such as computers and laptops/smart phones, WIFI and reliable internet connectivity, were reported in the universities studied. The study recommends the following: that more workshops be done for both lecturers and students on how to effectively use online platforms for teaching and learning; that universities should use a hybrid of teaching methods which consist predominantly of online teaching pedagogies and a bit of traditional face-to-face lectures to ensure a smooth transition to online teaching; and that more studies be carried out to assess the level of preparedness on the use of online technologies in other educational institutions of Zimbabwe and using different groups of participants.

Key Terms: Blended Learning, Innovative Educational Technologies, Institutions of Higher Education, Online Teaching and Learning, Online Platforms, Post-COVID-19 Era, Preparedness.

INTRODUCTION

The World Health Organisation (WHO) reported that COVID-19 was initially reported in Wuhan, Hubei Province in the Peoples' Republic of China in December 2019 (Panganayi, 2020). The outbreak was declared a Public Health Emergency of international concern in January 2020 (Le Maris, 2020). COVID-19 has led to challenging times in every sphere of human life, with the education sector being no exception. By June 2020, the whole world was under lockdown. With all institutions of higher education closed indefinitely, the governments were forced to implement emergency measures to ensure that learning continued (Kecojevic, Basch, Sullivan & Davi, 2020). Institutions of higher education in Zimbabwe were also hard-hit by the pandemic and like all in developing countries, the effects were far-reaching. Zimbabwe officially declared its lockdown on 24 March 2020, forcing institutions of higher education to close prematurely before the end of the first semester (Mahere, 2021; Panganayi, 2020). The lockdown negatively impacted on student learning. Studies (Banker & Vaja, 2020; Beans, Maireva & Muza, 2020; Zinyemba, Nhongo & Zinyemba, 2021) reported that there were major disruptions in teaching and learning in higher education institutions. This led to the adoption of online teaching as a panacea to the problem of lockdown. Although online learning was not a new phenomenon in developed countries, most developing countries, Zimbabwe included, had not widely institutionalised online teaching and that exacerbated the effective uptake of online teaching. Serious challenges in using online teaching were reported in almost all universities across the country and these included poor technological infrastructure,

poor internet connectivity, lack of technological devices by students and inadequate financial support from the government among others (Beans, Maireva & Muza, 2020; Bassert & Arnhold, 2020; Muchemwa, 2021, Moyo-Nyede & Ndoma, 2020). Lack of technological devices and WIFI facilities led most institutions in Zimbabwe to resort to using the informal WhatsApp platform. Gonye and Makaye (2020) reported on the experiences of teaching Masters of Education students using the WhatsApp platform. The study also alluded to the challenges of lack of WIFI and technological devices such as smart phones. A similar study by Makaye and Gonye (2021) showed that university students and lecturers could successfully use WhatsApp as a teaching and learning platform tool. However, the issue of smartphones was cited as a critical enabler because it would allow lecturers and students to communicate remotely at an affordable cost.

The beginning of the year 2022 witnessed a decline in the cases of COVID-19, but witnessed the new variants of the virus, which led the Zimbabwean government and Ministries of Education to embark on blended learning. This meant that both online and physical platforms were to be used. The use of the online platforms which became the new normal to contain the virus was met with a lot of controversies and challenges as most teachers could not let go their traditional face-to-face way of teaching (Zinyemba et al., 2021; Makaye & Gonye, 2020). This study avers that successful and continued use of online and other innovative educational technologies in the post-pandemic era in higher education is premised on the ability by institutions of higher learning to strike a balance between structural preparedness (resources,

infrastructure, skills) and psychological preparedness (educators' feelings, thoughts and perceptions).

The problem that this study seeks to address is that the adoption of online teaching and learning during the COVID-19 period was an emergency measure which most universities were not prepared for. That being the case, it is likely that both lecturers and students were not prepared to handle this innovation. Moreover, like any other educational innovation, it is likely to alter the way lecturers and students used to operate. This is a problem because research shows that change is notoriously hard to sustain (Thompson, 2007; Mason, 2016), especially when educators' feelings are not considered. This problem would mainly affect lecturers and students who were the main users of online teaching and learning technologies during the COVID-19 pandemic. This problem is of great magnitude, considering that it affected the whole education fraternity, the country as a whole and the world over.

Therefore, this paper aims at assessing the preparedness of lecturers and students to use online and other innovative educational technologies in teaching and learning in the post-pandemic era. To explore this issue further, the following sub-questions were developed:

- 1) What are the lecturers and students' perceptions of online teaching and learning in higher education in the post-pandemic era in western Zimbabwe?
- 2) How prepared are the lecturers and students to continue using online technologies in the post-pandemic period in western Zimbabwe?

- 3) What challenges do lecturers and students in higher education face with online teaching and learning in the post-pandemic era in western Zimbabwe?
- 4) How can the use of online teaching and learning be effectively institutionalised in higher education institutions in the post-pandemic period in western Zimbabwe?

LITERATURE REVIEW

Cranfield, Tick, Venter, Blignaut and Renaud (2021) carried out a comparative study in South African, Welsh and Hungarian universities to assess higher education students' perceptions of online learning during COVID-19. The study revealed significant differences between the participating universities students' experiences. The lecturers and students found the changes imposed by the pandemic challenging because they had to contend with many factors which affected their learning.

Another study by Kundu and Bej (2021) found out that students' overall perception towards e-assessment was of moderate level and this perception varied depending on their gender, academic level and economic condition. The study, therefore, recommended that the extent and depth to which E-learning has made its place among students' minds need to be studied to leverage its full potential to transform students' learning needs. The above literature points to the fact that the perceptions of students and lecturers about online teaching and learning during the pandemic were varied in accordance with the prevailing situation in each country, and there is need to

establish how institutions in Zimbabwe grapple with this.

A study carried out by Konkin, Dronova, Tretyakova, Bermudez-Alekina and Kotenko (2021, p.3) highlighted that “in order to adapt to the new requirements of our time, it is obvious that teachers need to improve their skills not just in the field of computer literacy, but in the field of specific educational platforms and software that allows them to conduct remote and hybrid classes as well as create their own online courses.” Buttressing the idea, Bawane and Spector (2009) averred that online teaching skills and abilities must be identified and prioritized, based on the jobs that educators will actually perform to help assess the readiness of its users. The skills identified include creativity, designing instructional materials and maintaining student interest.

To help lecturers and students embrace online technologies, institutions of higher learning have to play an active role in supporting them. In a study carried out by Beans et al. (2020), it was revealed that institutional support is important because it enables students to access such gadgets as computers and internet facilities, without which online teaching and learning will be impossible. They stated that the provision of infrastructure for online teaching by universities was an investment that was likely to benefit learners during the pandemic and afterwards.

Several challenges were reported in the adoption of online technologies by different universities. Muchemwa (2021) reported challenges such as limited access to internet, limited mobile networks, unreliable electricity supply, and lack of appropriate technological gadgets, lack of technological

know-how, high levels of stress and low performance level in both lecturers and students. The above findings concur with Jamil’s (2020) findings, which reported that universities in developing countries faced serious challenges with information technology infrastructure, internet connectivity, student assessment and quality-assurance in examinations.

While several studies have zeroed in on challenges and experiences during COVID-19 and possible solutions (Almulla, 2022; Gonye & Makaye, 2021; Mahere, 2021; Kundu & Bej, Jamil, 2020), not much seems to have been studied on the state of preparedness of lecturers, students and institutions in general on how they can go about their teaching and learning during the post-active COVID-19. Studies related to preparedness of educators were concerned about the period of the pandemic (Beans et al. 2020; Muchemwa, 2021; Konkin et al., 2022). Moreover, their orientation of preparedness was biased towards structural preparedness which is based on the instrumental or technical model of implementation, where the primary concern is on how well the innovation was being implemented. The alluded-to studies conceived preparedness in terms of availability of technological infrastructure, resources and skills, and competencies for online teaching. These studies affirmed Shahrabi and Pare’s (2014) postulation that a number of articles define organizational readiness construct by referring merely to its structural attributes, that is, resources and infrastructure. However, this orientation is not aligned with the recommendations proposed by change management researchers who include Weiner (2009), and Holt et al. (2010), cited in Shahrabi and Pare (2014), regarding the consideration of the

psychological dimension of organizational readiness. Therefore, to improve the success rate of any curriculum innovation, it is crucial to assess the level of preparedness of the institution and the users (lecturers and students).

Another study was carried out by Machaba and Bedada (2022) to assess university lecturers' preparedness to use technology in teacher training during COVID-19 in Ethiopia. The study sought to investigate university lecturers' individual preparedness for technological instructions in terms of their knowledge, beliefs and current and historical exposure to this mode of instruction. The results of the study showed that the lecturers were generally able to, and interested in, integrating technology into the teaching process, but that barriers, primarily at the institutional level, hindered them in their attempt to do so.

This study, therefore, interrogates lecturers' and students' both structural and psychological readiness by assessing institutional and psychological factors which may affect higher education institutions in using online and other innovative technologies in the post-pandemic period.

Theoretical Framework

This study is underpinned by the Technology Acceptance Model by Davis (1989). The theory posits that there are two factors that determine whether a computer system will be accepted by its users, and these are: i) perceived usefulness and ii) perceived ease of use. Perceived usefulness focuses on the importance that users attach to the new system, while perceived ease of use focuses on how user-friendly the new system is. The proponents of this theory view these two factors as the major determinants in the

acceptance of an innovation. The theory was first utilized in research in consumer technology adoption and its key feature is its emphasis on the perceptions of the potential user. Its main goal is to explain consumers' attitudes towards the adoption of an innovation. In the context of this study, this theory will be used to understand the preparedness of lecturers and the students, who are the main users of innovative educational technologies in using online and other innovative technologies in the post-pandemic era by focusing on their perceptions and views. By using this theoretical framework, the study attempts to show the importance of striking a balance between structural preparedness and the often-overlooked dimension of preparedness, that is, 'psychological preparedness', by capturing and describing the perceptions of educators and students regarding the use of online technologies. The model holds that perceptions on the usefulness and easiness of the technology can be easily captured qualitatively, hence this study adopted qualitative methodology.

RESEARCH METHODOLOGY

The study adopted the constructivist paradigm whose central endeavor is to understand the subjective world of human experiences (Guba & Lincoln, 1989). The qualitative approach was used to collect diverse and rich data on educators' and students' level of preparedness in using online and other innovative educational technologies in the post-pandemic era. The researchers opted for the phenomenology design because of its close link to the constructivist paradigm as well as the qualitative approach. The advantages of the phenomenological design are that it enables the issue under investigation to be pursued in

depth and pays heed to the participants' experiences, which are expressed through their views and perceptions (Gentles et al., 2015). The design was, therefore, seen as relevant to this study which aimed at assessing the level of preparedness of lecturers and their students to use online technologies in the post-pandemic era. The targeted population of this study consisted of all university lecturers and students in Zimbabwe. Then a sample was drawn. This constituted thirty university students and nine university lecturers who were purposively selected in accordance with the richness of information they possessed. The lecturers chosen were Heads of Departments who were involved in the planning and running of the online teaching programme during the pandemic period and students selected were from disadvantaged backgrounds, for example, peri-urban and rural areas with poor internet connectivity and those from low-income backgrounds who had limited access to technological devices and the internet. Three lecturers and ten students were selected from each university. The selection of a small number of participants was to enable the researchers to make a thorough follow-up on each participant. This would enable the researchers to pursue the issue in-depth. To get through to the participants, the researchers first obtained a clearance and an introductory letter from the Ministry of Higher and Tertiary Education, Science and Technology Development. Thereafter, the contacts of the participants were sought from the university administration and introductory letters were sent to participants via WhatsApp. Open-ended questionnaires administered via WhatsApp were used for both lecturers and students in order to gather rich data. We sought the participants' consent and all ethical issues, particularly informed

consent, the right to anonymity and confidentiality, were guaranteed. The students were all adults and, hence, we sought consent directly from them by requesting them to sign some consent forms. Each participant was asked to indicate his/her willingness to participate in the study and they all consented. We assured participants that all WhatsApp texts were to be deleted after the study and were to be used only for that purpose. Data analysis was done in a series of steps which include the following: raw data in the form of WhatsApp messages were transcribed and organised thematically. Thereafter, the researchers read through the data to make sense of the information. Data were then coded, organized and textually analysed separately. Responses from lecturers and students were triangulated in order to find convergences and divergences. Finally, the data were interpreted by comparing the results with literature reviewed and the theory underpinning the study. For credibility and confirmability of results, members who were the participants were given the opportunity to check on their captured responses. To maintain anonymity and confidentiality, pseudonyms were used wherever names were needed. This includes names of institutions. The researchers avoided familiar participants as this could lead to bias. Therefore, to avoid this bias, the researchers gave the university authorities the inclusion criteria to use and were not involved in selecting participants.

Findings

Data from both students and lecturers were organised under the following themes for analysis:

Lecturers and Students' Perceptions of Online Teaching and Learning

The study sought to capture participants' perceptions of online teaching and learning in the post-pandemic era. Participants perceived online technologies differently, as shown in the responses below:

Dr Moyo of Lundi State University had this to say:

Given the world trends towards the use of technology in education, it is a worthwhile endeavor to continue using online and other innovative educational technologies. This is to keep up with the world trends. Further, institutions of higher education provide quality education to students which will impart skills needed in the world of work and business in the 21st century. However, without the necessary infrastructure and skills for online teaching the benefits of such technologies may not be realized

Concurring with the above response, Student M had this to say:

The use of online technologies is now part and parcel of our day to day activities. I personally perceive online technologies as value-addition to our learning experiences. If we as the youth can spend countless hours on social media platforms like WhatsApp, Tik-tok, twitter and Instagram, why can't we at least give it a try and use these technologies for learning.

Prof. Ncube, a senior lecturer at Gwayi State University responded in the following words:

...the adoption of online technologies in teaching has de-skilled some of us. It has created new roles on the part of the lecturers and therefore demands a new set of skills which some of us do not have. Some of us feel anxious about using these online technologies because we are not used to them. To make matters worse, personally I don't feel like I am teaching when I send work through WhatsApp.

Another student participant, Student X responded as follows:

From my point of view, the use of online technologies is a mixed bag of good and bad. It has its advantages which are undeniable and also disadvantages. Take for instance the fact that online technology broke the physical barrier and made it possible for us to conduct our lessons during the lockdown. On the other hand, the use of online technology favors the elite because without proper gadgets and internet connectivity, one cannot enjoy the benefits of online technologies.

In support of online technology, Student K asserted that:

... I have always heard complaints about the use of online technologies in teaching, I agree they are some challenges working against its adoption but take it this way, even the Vehicle Inspection Depot (V.I.D) has adopted technology; you know the provisional licence is now computerised, so if commuter omnibus drivers are now using technology when sitting for their

provisional licences, why can't we at least try? It's high time we have to change our attitude towards change, embrace it and move forward.

The above responses show that online technology is perceived differently by participants. For some, it is an indispensable part of teaching and learning, while for others, it is a nightmare. Overall, the perceived usefulness was good while its ease of use rated low. Although participants believe in online learning as the ideal platform for teaching and learning, there is a belief that it cannot be used as the sole platform. It needs the face-to-face complement. Moreover, it was established that online teaching and learning has challenges which beset it, such as infrastructure which makes it difficult for institutions of higher learning to fully embrace it.

Preparedness to Use Online Technologies Post-COVID-19 Era

Participants were further interviewed on whether they were prepared to continue using online technologies now that the pandemic has receded. Following are some of the responses we solicited:

Prof. Mizha from Sabi State University had this to say:

... Covid-19 pandemic escalated the need to use online technologies in teaching and learning and we found ourselves having no choice, but to adopt it. Yes! It has been a struggle, with all the challenges in infrastructure coupled by lack of knowledge and skills of using such technologies, I would say, as soon as things get back to normal, I will

gladly go back to traditional face-to-face lectures.

Another participant from the students' side, Student A, buttressed the above view by saying:

... Surely, technology is here to stay and we as the young generation really appreciate it but to be honest, Zimbabwe as a country has not reached that stage where we can rule out the use of face to face lectures in favour of online lessons. As far as this matter is concerned, I think it would be in everyone's best interest to go back to the use of traditional face to face teaching and learning until such a time that our institutions are better equipped to handle this innovation.

The same view was held by Dr. H of Sabi State University who opined that:

Online learning is the way to go but as it stands most universities in less-developed countries like ours have been lagging behind in terms of adopting these online educational technologies and I believe there is no better time than now as they say 'necessity is the mother of invention'. However, online teaching must not replace the conventional face-to-face lectures because they instil a sense of belonging to a community, togetherness and connectedness which can never be achieved through online learning.

Based on the responses from participants, it would appear that the use of online technologies is likely to be shelved soon after the pandemic. This is because students are back on campus and due to the

fact that online teaching has not been institutionalised. This is an affirmation of Mason's (2016) postulation that introducing and maintaining change in educational circles is very complex. This, therefore, points to a low level of preparedness by both lecturers and students to continue using online and other innovative educational technologies in the post-Covid-19 era.

Platforms Used for Online Teaching and Learning

Participants were asked to reveal the platforms they were currently using in teaching. Most participants concurred that they were mainly using WhatsApp. One lecturer, Dr. Gwanzura from Gwayi State University, had this to say:

I rely mostly on WhatsApp to communicate with my students. I just ask the group coordinator to create a WhatsApp group which we use to post presentations and audios for presentations. WhatsApp is the cheapest and most convenient of all platforms particularly for our students who live in rural communities.

A participant from the students, Student L from the same institution, weighed by say:

Most of us don't have proper online gadgets like laptops so we rely heavily on WhatsApp. You just need your data only. You can send your assignment.

It also came out, from one of the lecturers, that although the institutions tried to force lecturers and students to use some formal platforms such as Google Classroom and E-Kampus, very few used these due to

limited and intermittent supply of power and WIFI. As a result of these limitations, lecturers resorted to using their traditional face-to-face mode, then WhatsApp and emails for communication purposes only. The same was true with students; they seemed to prefer WhatsApp to other platforms. Upon further probing, participants revealed that they rarely used online educational technologies for teaching and learning before the COVID-19 lockdown. The responses showed that most participants prefer the traditional face-to-face and hard copy assignments for their teaching and learning, despite the call for blended learning. The relaxation of social distancing that had been enforced during the peak of the COVID-19 period paved the way for most lecturers to resort to the traditional face-to-face teaching and learning. We would not ascertain how they used the WhatsApp platform. Some could use it for communication purposes, for example, relaying information on due dates of assignments, whereas others might use it for both teaching and communication. However, despite the perceived ease of using WhatsApp, lecturers pointed out that the challenge of assessing students using the WhatsApp platform was that not all aspects of a learning programme could be assessed. This, therefore, compromised on quality assurance.

Challenges of Using Online Technologies for Teaching and Learning

Participants were further interviewed on the challenges of adopting online technologies in the post-pandemic era.

The following factors were identified by participants as drawbacks to the effective use of online technologies in the post-

pandemic era: lack of infrastructure for online teaching and learning, the digital divide among students, lack of skills and non-alignment of assessment techniques with online teaching. Some of the responses captured were as follows:

There is poor infrastructure in terms of gadgets and high-speed internet connection. This makes it very difficult for us as well as our students to execute and complete online tasks timeously. Although we are committed to using online and other innovative educational technologies we end up being frustrated and therefore resort to using face-to-face lectures (Mr. Gasva, Reformed Church University).

Another participant, Student T, weighed in and said:

The challenge that I have to contend with is that both my cellphone and laptop are old and the batteries are not functioning well. Therefore, it means if there is no electricity I cannot use these gadgets. To make matters worse, there are severe power cuts almost every day. During the lockdown, I missed many online tutorials and this has disadvantaged me.

The digital divide was cited as another challenge, as shown in the following responses:

In as much as the use of digital technology is seen as a way of enhancing inclusivity, the digital divide among students makes it difficult to achieve this. For instance,

some students do not have access to digital devices and a reliable internet connection at home and this result in them being left behind or the lecturer having to resort to giving lecture notes using the traditional face-to-face method (Mrs. Nhondo, Lundi University).

A similar response was uttered by a student:

The use of online technologies has alienated some of us living in peri-urban areas. I can hardly open or send messages on WhatsApp. I recall one incident when I failed to submit my thesis on time because of the network challenge and this cost me dearly. I could not graduate with my group (Student Y).

Dr. Maya from Gwayi State University stated that:

... the most critical challenge facing universities in Zimbabwe is to align online teaching with relevant assessment techniques. The issue of quality assurance in higher education has become a bone of contention throughout the pandemic and post-pandemic period. For example, how do we assess the students who are on teaching practice who must physically teach a class while the lecturer sits and observes the lesson? Indeed, lecture notes may be sent through WhatsApp, but what about assessments, imagine, no in-class tests, no end of term examination, is there any authenticity in the results that our students get?

The challenge of online assessment was further explicated by Marciniak (2018),

who pointed out the danger of assessing online programmes by applying the same modes as the ones applied to traditional educational programmes. He asserted that online education differs from traditional education when it comes to its organization and functioning and, thus, the same quality assessment mechanisms and models should not be applied to both.

Lecturers could not hide the challenge that most of them were not competent and literate to use online technologies and whenever workshops were conducted, they were rushed. One lecturer, Dr. Mutamba said,

I am not computer literate and my age is catching up with me. Even if they try to workshop us, they rush their training and no one actually masters the skills. Some of us were born before technology so we need time to learn unlike the youngsters. What I can use is the email not the Google class or whatever they want us to use. Nooo. I don't think I can do that. It's even difficult to mark on the computer. I can't strain my eyes. Moreover, I don't have a laptop. Mine is an old thing. I used it since 2010.

The responses showed that most challenges experienced by lecturers and students were common to almost all the institutions studied. However, the challenge of lack of skills and online assessment was mainly experienced by lecturers.

Strategies to Deal with Challenges Faced in Online Teaching and Learning

The study further explored strategies for institutionalising online teaching and learning in higher education institutions in the post-pandemic period.

Participants highlighted the urgent need for government and institutional intervention to provide emotional and structural support to both lecturers and students as they transition to online teaching and learning. Most responses pointed out the need for the adoption of blended learning. Below are some of the responses captured from participants:

Prof. Assan from Lundi State University suggested that:

... the government and universities in particular, need to take advantage of the platform set by the pandemic and provide support to both lecturers and students so that the innovations introduced continue to yield positive results even after the pandemic. This can be done through provision of technological gadgets and reliable internet connectivity. Moreover, we need to change our attitude, embrace online technologies in teaching and move with times.

The same view was uttered by Dr. Nyathi from Gwayi State University when she stated that:

In order to yield positive results, the adoption of online technologies in teaching must be coupled with adequate reskilling especially on our part as educators. Institutions should run training for their lecturers and students in blended learning techniques because studies have established that besides their use a safety measure especially during the time of pandemics such as the COVID-19, they provide a variety of teaching/learning strategies which spice the whole teaching/learning

process. I am afraid if lecturers are not re-skilled, we will be a laughing stock in front of our students and without proper skills and expertise the quality of teaching will be compromised.

In support of the above views a student participant, Student C opined that:

... my opinion is that, in order for us students to embrace online teaching, lecturers should use a hybrid format which involves the simultaneous use of traditional and innovative technologies. In this way the two methods will complement each other and ensure a smooth and gradual transition to online teaching and learning.

Another participant, Student K highlighted that:

I believe that the government should play a leading role in ensuring that universities are well-equipped to handle online teaching and learning. It is pointless to expect universities to continue using online technology when the ground has not been prepared.

The above responses highlight the need for the use of the blended format in teaching, change of attitude among educators and students and institutional support (morally and materially).

DISCUSSION OF FINDINGS

This section discusses findings from both lecturers and students on how they have embraced online teaching and learning and their preparedness to continue using online and other innovative technologies in the post-COVID-19 era. The discussion is centred on the main thrust of this study, which is to

assess the level of preparedness of university lecturers and students in using online and other innovative educational technologies in teaching and learning in the post-pandemic era. Preparedness for this study includes both structural and psychological preparedness. The discussion will be done thematically.

Lecturers and Students' Perceptions of Online Teaching and Learning

Findings revealed that the use of online technologies was perceived differently by participants. The majority of participants had positive perceptions on the usefulness of innovative educational technologies. They viewed this as an opportunity for keeping up with the pace of worldly technological developments, an enabler of inclusivity and an indispensable mode of teaching and learning in the 21st century. The positive perceptions on the perceived usefulness of online technologies may be due to the fact that participants were enlightened on the importance of online technologies in teaching and learning in the post-pandemic era despite the reported challenges. However, a few participants had negative perceptions on the usefulness of innovative educational technologies. They felt that face-to-face lectures were the most ideal platforms where both lecturers and students could interact without such obstacles as poor internet connectivity. Overall, the perceived ease of use was rated low by most participants, particularly the elderly, highlighting that the adoption of online teaching technologies was challenging on their part. Therefore, they perceived online technologies as deskilling and threatening their professional integrity since they could not effectively execute online tasks. The above findings resonate with Davis's (1989) Technology Acceptance Model, which posits that the acceptance of a

computer system is influenced by perceived usefulness of the system and the perceived ease of use. Therefore, although most participants perceived online technologies as important, they observed that they were difficult to use. The perceived challenges (lack of skills and technological gadgets) might impact negatively on the use of online teaching/learning technologies in the post-pandemic era. The negative perceptions by participants about the perceived ease of use of online and other innovative educational technologies reported in this study support previous findings by Cranfield et al. (2021) and Kundu and Bej (2021). The above studies reported that because of the challenges besetting the adoption of online technologies during the pandemic, lecturers exhibited moderate to negative perceptions about online teaching.

Preparedness to Use Online Technologies Post-Covid-19 Era

The responses revealed a low level of preparedness on the use of innovative educational technologies in the post-pandemic era. Participants indicated that they would gladly go back to the traditional face-to-face lectures. The main reason put forward by participants was that the innovation was adopted as an emergency measure during the pandemic. Thus, institutions, lecturers and students were not adequately equipped to handle it. The general feeling was that since students are now back on campus, there was no need to continue using online technologies amidst the challenges that it faces. This indicates that although the majority of participants acknowledge the usefulness of online technologies in teaching and learning, institutional factors such as lack of technological facilities hinders its institutionalisation. This is an affirmation of

Mason's (2016) postulation that introducing and maintaining change in educational circles is very complex. Therefore, there is a need for higher education institutions to come up with strategies that would help both lecturers and students to embrace online and other innovative educational technologies in the post-COVID-19 era.

Platforms Used For Online Teaching and Learning

It was revealed that both lecturers and students preferred the WhatsApp platform to other platforms like Google Classroom and E-Kampus for teaching and learning. Participants highlighted that their preference was based on the affordability and simplicity of WhatsApp when compared to other platforms like Zoom. The responses were reaffirmed by Makaye and Gonye (2021), who found out that WhatsApp is now one of the online platforms used in teaching and learning, especially in developing countries because of its affordability. The study revealed that innovative educational technologies were rarely used before the COVID-19 lockdown. This indicates that the use of online technologies for teaching and learning has not been institutionalized in most universities in Zimbabwe. However, these findings are contrary to the findings by Machaba and Bedada (2022), whose study about the preparedness of lecturers in Ethiopia revealed that an overwhelming majority (90%) of the respondents had used technology in teaching before the COVID-19 era.

Challenges Faced by Lecturers and Students in Using Online Teaching and Learning in the Post-Pandemic Era

The adoption of online and other innovative educational technologies in the

post-COVID-19 era is hampered by challenges, especially in developing countries like Zimbabwe which are lagging behind in terms of technology. As highlighted by the responses solicited from participants in this study, most universities in Zimbabwe are struggling with providing lecturers and students access to reliable internet connectivity and technological gadgets. Participants indicated that some of their gadgets were malfunctioning and internet connectivity was poor. Moreover, some lecturers indicated that they were not computer literate and that the training given was rushed and inadequate. This caused anxiety and discomfort amongst lecturers as they felt inferior to their students. This is an indication that the level of preparedness of university lecturers and students to use online technologies in the post-pandemic era is low, as indicated by Jamil (2020). Another challenge highlighted was that of assessing students using online tools. Lecturers indicated that they experienced challenges in assessing some practical aspects of the course. For example, in assessing students who were on teaching practice during lockdown, the lecturers could not reconcile online assessment criteria with face-to-face assessment modes. The results of this study corroborate Moyo's (2020) findings on policy and quality assurance debates in Eastern Zimbabwe, where one of the participants gave the following response:

... teaching practice is a practical activity and students should be assessed by professionals. It's not all and sundry who is qualified to assess students on teaching practice. The current situation does not permit students to be in the class so we cannot assess documents only and use such information to certify a student

as having successfully completed Teaching Practice. This is an abnormal situation and there is no reason why we should pretend things are normal. We know what should be done to make someone a teacher and surely, trying to cook up marks is NOT one of our options as professionals. So, my thinking is that those that have not been adequately assessed defer to whenever the situation normalises (Moyo, 2020).

The study has established that the above challenges have led some lecturers to revert to the use of the traditional face to face lectures after the pandemic. The challenges are not unique to Zimbabwe but are being faced by many institutions all over the world, particularly in developing countries.

Strategies to Effectively Embrace the Use of Online Teaching and Learning in Higher Education Institutions in the Post-Pandemic Period

Participants revealed that both moral and structural support were key enablers to embracing online technologies in the post-pandemic period. It was also highlighted that institutions should adopt blended learning so as to ensure a smooth transition to online learning. The above views were buttressed by Muchemwa (2021), who advanced the idea that teaching and learning in higher education institutions should be organized in a hybrid (mixed) format, which involves the simultaneous use of traditional and innovative teaching technologies. Therefore, it is important that the universities strive to strike a balance between online technologies and the traditional face-to-face lectures taking advantage of each system.

The study also highlighted the need for re-skilling lecturers to ensure that they have confidence in using online technologies. This was cited as a critical factor in ensuring the continued use of online technologies in the post-pandemic era. The above findings were supported by Konkin et al. (2021), who advised that teachers need to improve their skills in computer literacy and educational platforms that will enable them to conduct remote and hybrid classes. The study also highlighted the need for both lecturers and students to have a positive attitude towards online technologies.

Overall, the foregoing discussion reveals that participants had positive perceptions on the usefulness of online technologies. This might be attributed to the fact that the participants appreciated the importance of online technologies in teaching and learning in today's world. However, most educators exhibited negative perceptions on the ease of use of online technologies. The negative perceptions were mainly because they lacked skills, infrastructure and resources required for online teaching and learning. Change management experts suggest that when psychological readiness in an organization is high, the organization is better able to initiate and sustain a major change (Shahrasbi & Pare, 2014). Overall, the results from this study indicate that the level of preparedness of both lecturers and students to use online and other innovative educational technologies in the post pandemic era is low.

The study, therefore, extends the Technology Acceptance Model by signalling the importance of assessing higher educational institutions' preparedness for innovations by looking at both structural and psychological preparedness.

CONCLUSION

Based on the findings of this study, this paper concludes that both lecturers and students have not yet effectively embraced the use of online and other educational technologies in the post-pandemic period, although they appreciate its importance in teaching and learning. The negative perceptions were linked to the structural challenges faced by almost all universities in Zimbabwe. Although to varying degrees, both lecturers and students experienced some drawbacks in adopting online and other innovative technologies and these included lack of adequate gadgets, limited WIFI services, and limited ICT skills. The study also concludes that both psychological and structural support are equally important in ensuring the continued use of online technologies in the post-COVID-19 era. However, the positive perceptions on the usefulness of online technologies by both lecturers and students were an indication that they acknowledged the value of online technologies in teaching and learning. Lecturers and students preferred to use the WhatsApp platform for communication as well as presentations due to its easiness and affordability. The study further concludes that professional expertise related to the use of online technologies is lacking in some lecturers, especially the elderly ones born before technology, and this poses some challenges on the use of online technologies in the post-pandemic period. Overall, the experiences of both educators and students with regard to the use of online and other innovative pedagogies in the post-pandemic were not impressive. Thus, this paper concludes that despite the moderate level of psychological preparedness (related to perceived usefulness) shown by lecturers and

students, the perceived ease of use and the level of structural preparedness in most Zimbabwean universities is low. This unpreparedness acts as a hindrance to the successful adoption of online teaching and learning in the post-COVID-19 era.

RECOMMENDATIONS

Based on the findings of this study, this paper recommends the following:

The Ministry of Higher and Tertiary Education Science and Technology Development should provide both moral and structural support to improve the level of psychological and structural preparedness for online teaching and learning.

Also, the government should avail funds to universities so they can in turn support their learners by providing up-to-date and adequate infrastructure for online teaching technologies. This might help in bridging the gap created by digital divide amongst universities and students.

Furthermore, the government could rollout and fund professional development in-service courses and workshops to equip lecturers with requisite skills for online teaching.

In addition, lecturers in higher education institutions should use a hybrid of teaching methods which consists predominantly of online teaching pedagogies and a bit of traditional face-to-face lectures to ensure a smooth transition to online teaching.

Finally, more studies need to be carried out to assess the level of preparedness on the use of online technologies in other parts of Zimbabwe and using different groups of participants.

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