
FACTORS INFLUENCING E-LEARNING ACCEPTANCE IN TEACHER EDUCATION INSTITUTIONS: STUDENTS' AND LECTURERS' VIEWS

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ABSTRACT

The study focused on evaluating factors influencing e-learning acceptance by students and lecturers at a teacher education institution in Zimbabwe. It is motivated by explanations from Davis' (1989) Technology Acceptance Theory. The study was guided by the pragmatism research philosophy adopted for an intervention factor evaluation. Pragmatism facilitated the application of mixed methods to cater for qualitative and quantitative responses. A sequential research design of document analysis, surveys and interviews parallel to document analysis for benchmarks was applied to capture data. A stratified sample of 213 students from an education institution's three intakes participated in the study. Intake 23 cohort was in their final year of the course, Intake 24 cohort on term seven and Intake 25 cohort was on Teaching Practice Attachment. The quantitative variation in the student population, called for probability stratified random sampling. A purposive sample of six lecturers from the Information and Communication Technology (ICT) department and ten lecturers from various departments in the college were involved in the study. The study established that the major e-learning platform used was WhatsApp. This was lecturer and students' initiative in response to the need for learning from a distance. Factors promoting the dominance of WhatsApp include smartphones availability, its' easy of access by both lecturers and learners. WhatsApp versatility to different uses such as text messages, videos and photographs are key to its acceptance. Factors against other e-learning platform use include: scanty awareness of the application from hearsay, financial challenges for data bundles, poor internet connectivity in Zimbabwe, limited technical supporting culture and at national level, electricity shortages. The study recommends a mixture of face-to face and e-learning. There is need also for awareness campaigns for the existence of more e-learning platforms. Institutions need to support their lectures and students with data bundles to enhance their use of WhatsApp. The nation can install more network transmitters in all areas of Zimbabwe.

Key Words: E-learning, Technology Acceptance Theory, Teacher Education.

1. INTRODUCTION

1.1 Background

Teacher education institutions have the national mandate of developing teachers' transferable skills. These include technology application skills which forced its weight on both lecturers and their students during the Covid-19 era. Covid-19 reduction measures implementation ushered in demands for new methods of teaching in Zimbabwe's tertiary institutions. Specifically the need for keeping a distance enhanced distance learning which was literary imposed by the dictates of the situation.

Technology Acceptance Theory

Theories of Technology acceptance explain the process of human perceptions and attitudes change from operating without to operating with a given technology. The technology utilization stage is the indicator of technology acceptance by users. Technology acceptance theory was a modification of Technology Reasoned Behavior (TRB) and Theory of Technology Planned Behavior (TPB). Momani, Jamous and Hills (2017) summarized the developments and modifications of the Technology Acceptance Theory. Ajzen and Fishbein in 1980 submitted that, the acceptance and use of technology is a reasoned outcome of an individual. They called it the Theory of Reasoned Action (TRA). Ajzen evaluated (TRA) and observed that, the technology application ction is not spontaneous. It is planned and modified into the individual's behavior. In 1985 Ajzen modified the (TRA) to Theory of Planned Behavior (TPB). In a PhD thesis, Davis recognized that, technology itself has a part to play in its acceptance. He Davis (1986) proposed the Technology Acceptance theory as a comprehensive simplification of the explanation of how technology is accepted. The technology acceptance theory suggests that, there are two external inputs which stimulate an individual's acceptance or rejection of technology. These external motivators are: technology's perceived utility value and its practical easy of use. These two factors lead to the development of positive attitudes towards the technology and its' acceptance. They can be enhanced by demonstration workshops in education.

An analysis of the technology acceptance theory in the context of e-learning in Zimbabwe shows that: Lecturers and students can accept the use of e-learning and its' associated elements, when they perceive e-learning's utility value. In the case of Covid -19 era, this was a given. Participants were compelled to use e-learning as a directive from the ministry of higher education. E-learning was an inevitable part of their daily lives and the teaching and learning operations. Technology's perceived utility value was enhanced by the closing out of institutions in response to the national measures of observing social distancing. A top down approach of policy implementation was applied to nurture acceptance of e-learning in educational institutions.

Perceived easy of use for e-learning was the angle motivating its acceptance at national level in Zimbabwe. This depended on the availability of technology in the institutions. Lectures and students were trained through practical demonstrations. Most educational institutions in Zimbabwe trained their staff in the application of Google class, Google virtual learning platforms and Bigbluebutton. From this stand point, the current study, accepts that, e-learning technology was accepted. Rather than taking it for granted, there is need to evaluate e-learning from participants point of view.

Electronic learning (e-learning) is the transfer of knowledge and skills from the institution to the student through various electronic media. Simamora (2020) regards e-learning as the use of electronic gadgets and devices for instruction to promote learning. It involves use of technological tools such as computers, laptops, ipads and smart phones with appropriate software for the interactive teaching and learning to take place.

Arkorful and Abaidoo, (2014) claim that e-learning is considered as one of the best methods of teaching in higher learning institutions. The merits include these: e-learning is cost effective

because no travelling expenses are incurred by both the lecturer and the students. Both students and lecturers can engage in academic tasks in environments they deem conducive at individual level. Hassles for transport to work are reduced. Yucel (2006) adds that, e-learning platforms provide students with opportunity for cooperation to address problems they encounter. Singh, O'Donoghue and Worton, (2005) inform us that, e-learning techniques and delivery methods offer students access to education than traditional methods which are not very flexible. It is critical then for the current study to evaluate the claimed students' accesses. Maphalala and Adigun, (2021) contributes the advantage that, e-learning facilitates knowledge sharing among learners and instructors regardless of location and distance.

According to Sivalingam and Ajith, (2018), e-learning seem to be the only distance learning tool of the near future. It can be used in industries, for conferences and learners scattered all over, as long as they have the appropriate technology. The distant interaction facility in e-learning rendered it the only solution which include lack of physical contact and allow electronic learning. Shahzad, Hassan, Aremu, Hussain and Lodhi (2020) reports that, in Malaysia the Ministry of Higher Education ordered public school and higher education to close in order to stop the virus from spreading. In Zimbabwe institutions of higher learning closed on 24 March 2020. The COVID 19 pandemic forced teachers and students to abandon face-to-face lessons worldwide. The students and lecturers were forced to stay at their homes. Social gatherings were not allowed as these could fuel the spread of the Covid -19 virus. WHO regulations of social distancing meant that no face-to-face learning activities could e allowed to continue during the pandemic and traditional methods of teaching could not be employed.

Because of its many advantages, e-learning became a very important teaching pedagogy during the COVID 19 pandemic. With the immediate closure of schools and tertiary institutions in Zimbabwe in March 2020 due to the outbreak of COVID 19 pandemic the Ministry of Higher and Tertiary, Innovation, Science and Technology Development and Ministry of Primary and Secondary Education encouraged learning institutions to take e-learning more seriously. Lecturers in teacher education institutions had to use the e-learning platforms to continue training of teachers for a Diploma in Education. Simamora (2020) confirms that higher education lecturers and students had to employ alternative strategies to respond to changing conditions. Boondao, Komlayut and Punnakan, (2009) summarises the shift by saying that, most of the tertiary institutions continue to reshape their educational systems and teaching strategies to continue interacting.

For e-learning to be effective there should be a number of varying platforms which are accessible by both students and their lecturers in the comfort of their homes. These include WhatsApp, Zoom, Skype, Learning Management Systems (LMS), Webex, Google Classroom, Google Meet and Moodle Meet. According to Gorad (2001) WhatsApp is a free multiplatform messaging application which facilitates the making of video and voice calls, send text messages with just a Wi-Fi connection or data bundle. With over 2 billion active users, WhatsApp is especially popular among friends and family members who live in different countries and want to stay in touch. WhatsApp's global popularity is due in a large part to its accessibility, cross-platform functionality, and simple

straightforward features. WhatsApp available on pocket Smartphones can be carried anywhere, thereby making it portable.

Bates and Poole, (2003) appraises Zoom as a useful online platform in the process of e-learning. Zoom is a cloud-based video communications application that allows one to set up virtual video and audio conferencing, webinars, live chats, screen-sharing, and other collaborative capabilities. With Zoom one does not need an account to attend a Zoom meeting. The platform is compatible with Mac, Windows, Linux, iOS, and Android. Nearly anyone can access it. Also, Google Classroom is part of the technology platforms that are being used for learning.

Google Classroom is a learning management system (LMS) that aims to simplify creating, distributing, grading assignments and engaging students in learning online or remotely. Google Classroom is a free application designed to help students and teachers communicate, collaborate, organize and manage assignments. These technological platforms benefit users as they enable them to communicate in the comfort of their homes. Users are able to express their own views and opinions, enables learners and students to learn at their own pace, reduce paper work as most of the work is done online. In addition to the above, Garrison and Vaughan (2008) speculate that technology simplifies access to educational resources and improves the learning experiences. These are some of the theoretical claims that this study can verify from empirical evidence.

On the other hand, e-learning poses challenges to both students and their lecturers. According to Boondao, Komlayut and Punnakan (2009) the utilization of e-learning systems in higher education institutions has not always been successful due to many challenges which include connectivity, lack of ICT tools and power supply, low technology supporting culture, lack of knowledge and financial resources. Moodle (2014) stated that the use of e-learning platforms cannot be successful due to financial incapacitation since in developing countries, there will be need for purchasing ICT tools to use; such as smart phones, laptops, Wi-Fi routers and the purchasing of data bundles.

Human capacitation is critical for the success of any technology adoption and adaption intervention, thus the utilization of e-learning platforms required adequate training of all users. Andrew and Bradley (2005) observed that there is lack of appropriate computer skills among students and instructors. In viewing e-learning, Bower and Kamata (2000) alluded to the fact that, there are various criticisms of poor training provided by institutions to academics. In South-East Nigeria, Simamora (2020) found that the use of e-learning in response to COVID 19 was inadequately planned because of infrastructural and technical challenges. Lecturers and students were unfamiliar with e-learning. In Zimbabwe, the need for urgency compelled training to be hurriedly carried out.

In view of these limitations in Zimbabwe, the college held workshops for lecturers on the use of some e-learning platforms. The situation at the college is just an indication that a lot needs to be done for e-learning to be successfully used in teacher education. Guri-Rosenblit (2018) reports that most universities in Israel have not yet addressed digital literacy needs of their academic staff. Guri-Rosenblit (2018: 32) also found that Group 60% of Stanford University students failed to

identify Internet sources and 40% of the academic faculty failed to trace information to its source. Such evidence of institutions implementing interventions that they are inadequately prepared for, calls for this study to evaluate e-learning application at a teacher training institution of education in Zimbabwe.

The use of e-learning platforms may be effective when students are well connected to the internet. As a challenge poor connectivity may be a result of shortage of electrical supplies, shortage of information centers and poor internet connections. Connectivity is an impeding factor which hinders progress between the students and instructors. Although the use of e-learning platforms maybe be effective Andrew and Bradley (2005) say that the use of e-learning platforms in tertiary institutions in developing countries has not always been successful due to lack of infrastructure. In this case infrastructure refers to the construction of information centers, erection of network boosters and provision of free Wi-Fi installation zones at shopping centers, schools, institutions and recreational areas.

A number of solutions were raised in trying to eradicate the challenges and promote the use of technology. According to Chiripasi (2020), Econet come up with an e-learning discounted data bundles response-package for learning institutions to continue with their learning no matter where they are. In tertiary institutions there is desire for change in the way of delivering lectures but due to infrastructure factors the process may be lowered because of poor connectivity.

In tertiary institutions some learners may use e-learning effectively. Others do not have the resources and expect challenges. As the world is growing in the use of technology, more students are believed to have a technology positive perception. Carr (2000) found that tertiary institutions are equipped with computer laboratories, where both students and instructors work in improving their ICT skills, hence making e-learning more effective. Although colleges have the necessary tools and manpower to develop ICT skills to both lecturers and students it is not clear whether these handled e-learning as required.

Statement of the Research problem

There is limited research on the evaluation of the application of e-learning in Zimbabwe. E-learning came as a reactive intervention which was implemented as a contingent measure against the spread of the Covid-19 virus. Although today (2022) the government of Zimbabwe has not yet declared Covid-19 over, students and lecturers have resorted to face-to-face instruction in their different institutions. There is need for an academic evaluation of the implementation of e-learning from participants' for accountability. Institutions must decide to abandon or continue with modifications using empirical evidence from such evaluations.

Research Questions

The study sought answers to the following pertinent questions:

1. What e-learning platforms were used by lectures and their students?
2. What factors influence e-learning acceptance in Zimbabwe's education institutions?
3. How can the implementation of e-learning in Teachers' colleges be improved?

Research Objectives

The study intends to:

1. Identify e-learning platforms used by lecturers and students for their learning.
2. Explore factors influencing e-learning acceptance in Zimbabwe's education institutions.
3. Propose e-learning implementation strategies for instructional purposes.

Significance of study

This study is an important intervention in the implementation of national programs in Zimbabwe. It provides feedback from participants, which is usually missing at national level. In addition, the study identifies training needs for both lectures and students on the application of e-learning. Findings can contribute training agenda for lectures' workshops and meetings. More important is the fact that, study findings contribute literature on e-learning in Zimbabwe.

2.STUDY METHODOLOGY

Research Design

The study is evaluating an intervention (e-learning) hence require the application of pragmatism research philosophy. One strength of pragmatism research philosophy is its' application of mixed (qualitative and quantitative) methods. Qualitative research techniques involve the identification and exploration of a number of related variables which allows researchers to stumble on insights. In this study, insights into the nature and contributing factors the success or failure of e-learning can be explored. More important is the merit that, qualitative data can be reported in its narrative form using direct quotations to portray reality.

Quantitative techniques become hand for quantifying the size, distribution and association of variables in the study population. To that end, evaluation of e-learning called for the adoption of pragmatism research philosophy. Mixed methods are employed so that the strength of qualitative methods can cater for the weaknesses of quantitative methods for analysis of participants' responses. The research design was a parallel of document analysis, survey and interviews.

Population and sampling

The population of this study was composed of human and material sources. The human was composed of two categories. Students were on different levels of their teacher education program. Their total was known so probability sampling was required. They were on different levels and considered as strata, hence stratified sampling was applied. Proportional sampling was done from one stratum to another to cater for the quantitative variable. This was followed by simple random sampling within strata to pick individual students.

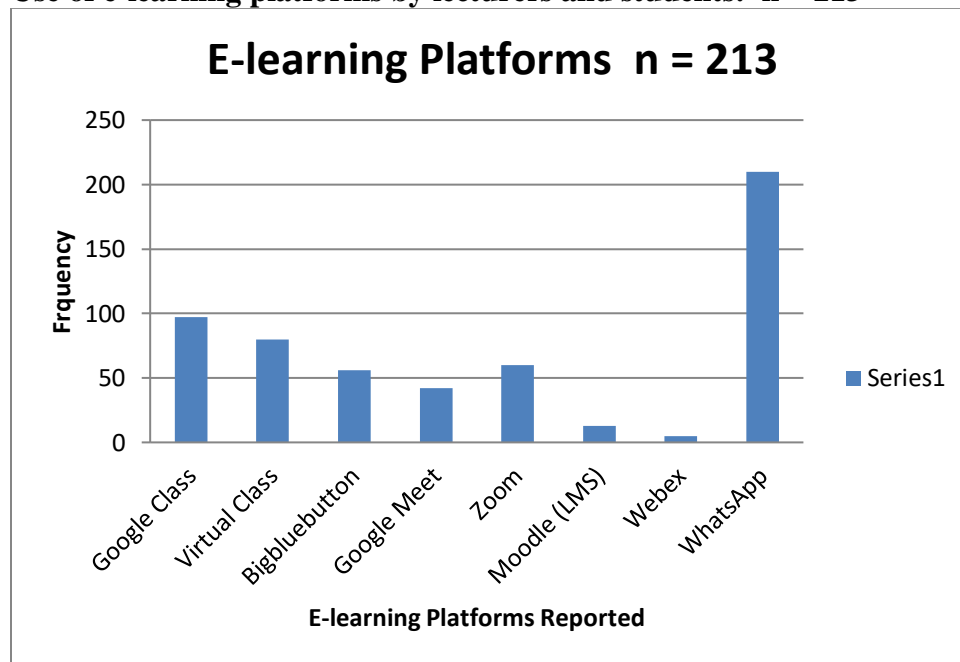
A purposive census sampling was ideal for lectures' and computer lab equipment for e-learning. Their inclusion criterion was being rich sources of experiences in the use of e-learning, available and willing to participate in the study. Students and their lecturers were involved. ICT personnel provide critical technical information on e-learning application. These were few enough for a purposive census sampling method to be applied.

Data Collection

Data collection started by seeking permission from the Ministry of Higher and Tertiary Education. This was followed by desk research and document analysis to understand the problem. The main instrument was the questionnaire designed by researchers for the study. It had open ended questions which allow insights on e-learning platform used, experiences and possible solutions. Questionnaires were suitable for both lecturers and students to facilitate the collection of individual information from a literate population. Questionnaires permit anonymity which may result in the collection of honest responses. Bryman (2012) emphasize that, diverse individual responses are captured by questionnaires. Questionnaires were administered by researchers at the institution. After the analysis of questionnaire responses, interview guides were structured to seek clarifications and understanding. Interviews have high response rate. Interpretation of responses is enhanced by observation of non-verbal indicators there by collecting emotions and information behind the words.

3. FINDINGS AND DISCUSSION

Use of e-learning platforms by lecturers and students: n = 213



The graph reveals that, the majority (65%) of lecturers and students resorted to the use of WhatsApp at their own expense. We inferred that, both lecturers and students were keen to use e-learning. They resorted to WhatApp because of the availability and affordability of Smartphones. Easy of application was another variable motivating the use of WhatsApp. It facilitated the formation of groups, communication and exchange of ideas. Sending of pictures and videos assisted students who could not be in the lecture to receive the recordings.

The main challenge was the limited data bundles and availability of network connectivity especially for students who were in the rural schools.

Institutions trained both lecturers and students in the use of Google and Virtual class because these were platforms provided by the institution. We concluded that, when the ICT personnel has limited knowledge of ICT platforms for e-learning, the institution will be limited and blinkered. The graph above shows that more than eight e-learning platforms could be utilized by lecturers and students.

Graph results show that (80%) of the lecturers were able to deliver their service to the students using Whatsapp, as a personal initiative. Then (30%) of the lecturers were able to use Google Classroom and (20%) of the lecturers had Virtual Classroom for their private business because students were not familiar with that platform. Out of ten, only 3 lecturers were able to deliver their services on Google classroom.

From intake 23 students 80% were able to use WhatsApp platforms while 30% used Google classroom. Amongst the Intake 24 students, 16 out of 25 students were able use WhatsApp platforms respectively as compared to only 12 students who were able to use Google classroom. Intake 25, 19 out of 29 students used WhatsApp, while 14 out of 23 students managed to access Google classroom. In addition to the above findings, only two lecturers showed that they tried to make use of the Virtual Classroom platform as they used these platforms previously for their PHDs with international institutions.

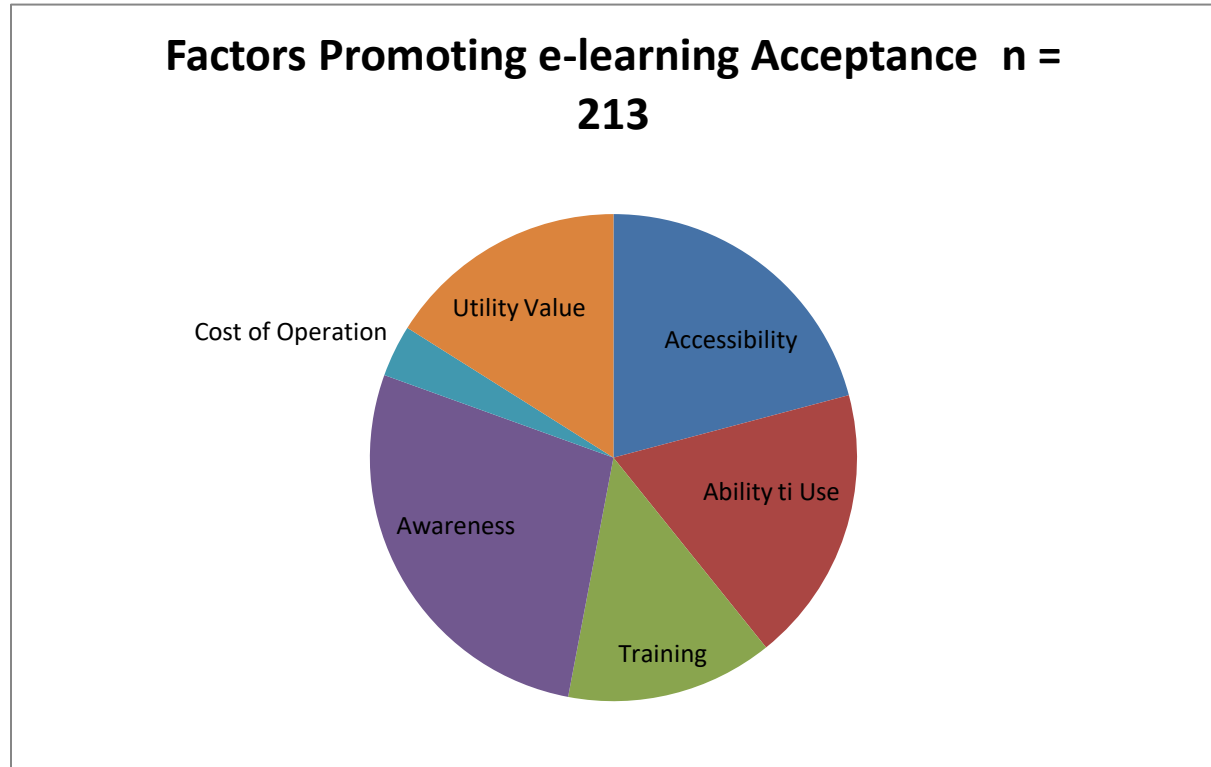
From the 4 groups of participants, the majority (71%) were not familiar with the Zoom and Webex platforms. The ICT lecturer also reported that lecturers in the college were not versatile with e-learning platforms therefore used WhatsApp platform mostly. It was revealed that lecturers tended to avoid other platforms because they were uncomfortable with them and could not access them as readily as they did with WhatsApp.

Findings support Gorad (2011) who purports that, WhatsApp is a free and friendly multi-platform messaging application. It was friendly and familiar to the population involved in the study and had a high acceptance level of e-learning at the institution. Acceptability was enhanced by the use of videos, texts, photographs to portray realities of scenes and voice calls. Voice calls catered for assignment guidance where immediate responses were needed.

According to Garrison and Vaughan, (2005), WhatsApp and Google Classroom are platforms which are globally popular due to their accessibility. Google Classroom had 30% for both lecturers and students who managed to use it for the teaching and learning activities. It was used effectively by a small percentage for creating, distributing, grading assignments and engaging on learning remotely due to its accessibility. Lecturers complained of the low quality of graded assignments. They were based and examined recall of facts.

However, Google Meet had only (25%) of the participants from 53 participants who had the technical knowhow and were familiar with the platform from elsewhere. Findings support Guri-Rosenblit (2018) who found that lack of confidence to utilize advanced technologies by many academics affects the learning/teaching process. Singh, O'Donoghue and Worton, (2005) explains lack of familiarization among staff as being attributed to lack of training or unwillingness/reluctance to embrace technology in teaching and learning. BJEKIĆ a KRNETA and MILOŠEVIĆ, 2010) noted that, technology

acceptance was based on the social constructivist ideas. Technology cannot be readily accepted if lecturers and students did not construct their own knowledge of it.



Access to ICT tools

Group	ICT Tools	Percentage
Lecturers	7	70%
INTAKE 23	8	80%
INTAKE 24	9	90%
INTAKE 25	8	80%

It can be clearly seen from the table above that a good number of participants had access to ICT tools. The 7 lecturers (70%) had access to ICT tools, thus they had enough ICT tools to use and 30% were not able to use the e-learning platforms because they had no access to ICT tools, which hindered the delivery of lectures. Those who had access to ITC tools, when interviewed about how they afford ICT tools they responded as follows, “toziva phone ndiyo yezerawo redu kwete zvimwe izvi” (we only have knowledge in using cellphones not all other ICT tools). Basing on the results from Intake 23, 80% had enough ICT tools to use and 20% could not afford the tools. In Intake 24, students who had access to ICT tools were 90% and 10 % were not able to receive and participate on lessons from any of the e-learning platforms due to unavailability of ICT tools. From the table above, Intake 25 had 80% of students who had access to ICT tools and received their lessons from e-learning platforms and 20% did not have appropriate ICT tools to receive the lectures. Similarly, Jardani (2020) notes that students spend lots of time on technological devices-

texting, watching and using other applications. Students interact with technology tools daily but not for teaching/learning purposes. The ICT lecturer said that:

‘Students and lecturers do not have machines to access Virtual Platforms, these platforms are beyond the reach of many.’

Table 3 Connectivity and financial resources

Group	WhatsApp	Google Class
Lecturers	8(80%)	3(30%)
INTAKE 23	9(90%)	3(30%)
INTAKE 24	6(60%)	2(20%)
INTAKE 25	7(70%)	4(40%)

Financial resources and connectivity involved the procurement of data bundles to participate on Google Class and WhatsApp platforms. From the investigations done, there were data packages from Econet services which required financial resources. The table was drawn basing only on the two used e-learning platforms (WhatsApp and Gloogle Classroom). The research findings on connectivity and financial resources showed that 80% of the lecturing staff was able to connect and get in touch with students on WhatsApp and 30% managed to connect better on Google Classroom. 90% of Intake 23 was able to use the e-learning platforms as there was better connectivity and managed to afford WhatsApp bundles and data bundles to use for Google Classroom. 60% of Intake 24 students used the e-learning platforms effectively as they were in areas in with good connectivity in their areas. 70% of the Intake 25 students also managed to use the WhatsApp effectively and appeared on daily basis in their day-to-day learning. The ICT lecturer reported that network challenges affected E-Learning and that unwillingness to shift to new ways of teaching and learning were challenges faced by lecturers. The ICT department workshopped lecturers on utilizing Google Classroom during lockdown. They were more comfortable with the traditional ways of doing things. E-learning requires financial resources which could have been inadequate during the COVID 19 pandemic since some bread winners were not working and resources available were utilized to procure foods stuffs. Simamora (2020) found that students had challenges to procure data bundles to connect to internet resulting in low attendance of classes.

Interviews done showed that an average of 76, 7% of students was able to use and communicate on WhatsApp as connectivity was good at any time and everywhere. Google Classroom had about 30% of the lecturers who managed to use it in the delivery of their service to the students. A larger percentage of 40% from the Intake 24 was recorded as they were in areas where network was strong as the application needed strong network coverage which ranges from 3Gig to 4 Gig network. Intake 23 had about 30% of students who appeared in the class in Google Classroom application.

The participants showed that financial resources for using WhatsApp are cheap and affordable. Concerning the use of Google Classroom an average of 30% students were able to connect and get in touch with their tutors due to good connectivity. Muangkeow (2007) revealed that many students lack resources to successfully take part in online learning. Also, Omora et al (2012) say that

economic status affects access to e-learning. During lockdown, lectures moved to online modes in an attempt to complete the academic year though not all students were able to access the internet. Most of the challenges were on the following resources; access to electricity in the household, unstable internet connection and suitable devices like smartphones, laptops or tablets. These resources were likely to dictate the quality learning students received.

This failure to use these e-learning platforms was fueled by poor connectivity and financial resources. According to Bates and Poole (2003), connectivity and financial issues are factors linked to the effective use of e-learning platforms in tertiary institutions. Oroma, Wanga and Ngumbuke (2012) report that infrastructure in developing countries is poor and inadequate. Infrastructure includes power, internet and roads. Also, Jardani (2020) indicates that access to internet is a key factor in e-learning. Without adequate infrastructural resources e-learning will remain a challenge to teaching and learning in teacher education institutions. For LMS to have zero percentage it was failure by the institution to subscribe to the learning platform.

The results showed that students in remote areas faced poor connectivity which affected their appearances on e-learning platforms. For example, students in developing districts where there are no network boosters were disadvantaged in their learning on e-learning platforms. Oroma et al (2012) aver that in developing countries, rural areas have no access to infrastructural resources since they are restricted to urban areas. The findings also pointed out that those financial resources hindered the effectiveness of some e-learning platforms which required monthly subscriptions. Some platforms require subscription by the institutions (Muangkeow, 2007). This may be necessary considering that some of these free platforms give users limited space to store information. For instance, Google drive which work with Google Class provides free space of 15gig, anything above that extra space the users have to pay. Due to economic hardships the institution failed to subscribe and make the use of these e-learning platforms effective. These platforms include Google Meet and Moodle which is characterized with Mac, Windows, Linux, iOS, Android and other software which a student can use wherever without individual monthly subscriptions. The interviews done showed that most of the students had knowledge in navigating their computers and other ICT tools.

Scarcity of resources (ICT tools) also can hinder e-learning effectiveness in learning institutions, (Andrew and Bradley, 2005). The findings from the study showed that 70% of the lecturers had ICT tools (computers) from the college and that was an advantage to them. However, ICT tools had a great impact on the students. 68% of the students had functional gadgets but lack of appropriate software affected the use of e-learning platforms. Some had laptops and smartphones but with outdated software systems which then affected their daily participation on e-learning platforms. To that effect, Jardani (2020) says that students require hardware and software to work smoothly in e-learning. This is crucial because some technology gadgets may not have software that enables teaching and learning to take place. In such circumstances the students may be left out whilst the lecturers continue with those students who have gadgets with appropriate software.

For the problem of poor connectivity network boosters especially NetOne can be installed in remote areas so that they can appear in e-learning platforms. One of the students responded as

“Haahaaa Econet haisi kubata masaisai NetOne iri nani.” (We are facing a serious network problem with Econet so NetOne can be better in its network coverage). Maphalala and Adigun (2021) say that uninterrupted internet services are critical for e-learning. Internet connectivity is a major determinant factor in the success of e-learning. Rural electrification can be a solution to shortage of power supplies in rural areas. Also, information centers which use solar systems can be a solution to power cuts experienced which hinder the effectiveness of e/learning.

To address the problem of financial resources the participants suggested that free WiFi zones could be installed in remote areas as well as in towns so that e-learning will be accessible to everyone at any place because the data bundles are not affordable. Information Community Centres established in many parts of the country; especially rural areas could help to address the challenge. The Also, responsible authorities can source ICT gadgets from donors so that those from poor family backgrounds can benefit and use e-learning effectively.

4. CONCLUSIONS

From the findings of the study, it was concluded that:

- E-learning platforms such as WhatsApp, Google Classroom and Virtual Classroom were utilized by both students and lecturers;
- Some e-learning platforms were not common and popular to both lecturers and students. These include Zoom, Linux, Learning Management Systems, Virtual Classroom, Cisco and Skype. This was caused by lack of knowledge by students and lecturers;
- Factors such as ICT tools, financial resources and connectivity and power supplies are linked to effective use of e-learning platforms and
- WhatsApp was the most user-friendly and popular e-learning platform.

5.RECOMMENDATIONS

The study made the following recommendations for college lecturers, students, college administration and the Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development;

- Lecturers and students to attend workshops and short-term courses for their benefit on the use of technology. They should fight technophobia as the modern world is continuously upgrading to the use of technology so that their work as lecturers becomes easy and interaction with students become more fruitful;
- The introduction of local LMS which uses local area network and does not require any subscription could be used to assist both lecturers and students to familiarize with LMS. Subscriptions can then be done during dire situations like COVID 19 period;
- The college administration should consider to subscribe to e-learning platforms such LMS, and Zoom Meet to ensure that both lecturers and students acquaint themselves with these platforms;
- The Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development to work hand in hand with network providers in the installation of network transmitters in all areas of Zimbabwe. This will act as a panacea of poor connectivity which affected e-learning by the

students. Also, more technological tools can be donated to tertiary institutions to overcome lack of ICT tools in the institutions;

- Installation of network boosters can solve the problem of connectivity and
- Installation of information centers using solar systems can be used as a solution to lack of power supplies in remote areas.

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