An Assessment of the Impact of Online Learning on Higher and Tertiary Education: The Case of Great Zimbabwe University

Ashley T. Chaleka*, Jemitias Mapira (Prof.)

Gary Magadzire School of Agriculture and Engineering, Great Zimbabwe University

***Corresponding author**

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ABSTRACT

This study investigated the impact of online learning at Great Zimbabwe University, focusing on the effectiveness of online platforms, student engagement and satisfaction, as well as challenges experienced during the transition to online education. Using a case study design and a structured questionnaire administered to 130 students, the research provides a detailed analysis of the online learning experience inside the context of Zimbabwean tertiary education. The findings revealed that platforms such as e-Kampus, Google Classroom and Zoom were moderately effective in supporting learning outcomes, with only 52.7% of students rating them as effective or very effective. However, engagement levels were significantly lower than traditional face-to-face classes, with 42.7% of respondents indicating reduced participation in online sessions. Key challenges included poor internet connectivity (reported by 83.2% of students), limited access to devices, and distractions at home, which negatively impacted the learning process. Adding improved internet access, more engagement with teachers, and a blended learning framework to online and in-person interactions are some of the issues which students addressed. Students were extremely positive about improvements they would like to see by way of better internet connectivity, increased interaction with lecturers, and hybrid mode of education (online and face-to- face combinations of learning). The findings suggest that online learning platforms are promising, but for their maximum possible impact, they need to overcome infrastructural constraints and stimulate more interactive and masses engaging learning. These findings provide useful insight into how online learning at Great Zimbabwe University and other institutions based in low-resource settings could be optimised.

Keywords: Online learning, structured questionnaire, learning outcomes, Great Zimbabwe University, blended learning, infrastructural constraints.

INTRODUCTION

The introduction of online learning has become one of the most significant transformations in higher and tertiary education globally. Enabled by rapid developments in information and communication technologies (ICTs), online learning has shifted from a supplementary instructional tool to a central mode of content delivery in many institutions (Allen & Seaman, 2017; Bralić & Divjak, 2018). While this shift has opened new opportunities for flexible, scalable, and inclusive education, it has also highlighted deep disparities in infrastructure, digital literacy, and institutional preparedness—particularly in low-resource settings.

In Sub-Saharan Africa, the integration of online learning into mainstream education has been inconsistent, largely constrained by poor internet infrastructure, limited access to digital devices, and socio-economic inequalities (Naresh & Reddy, 2015; Asongu & Nwachukwu, 2018). Zimbabwe is no exception. Although the government and universities have increasingly embraced digital learning as a strategic priority, numerous challenges hinder its successful implementation. These include unreliable internet connectivity, high data costs, inadequate faculty training, and the digital divide between urban and rural learners (Manungo, 2022; Jaka, 2021).

The COVID-19 pandemic forced institutions to rapidly shift to remote learning modalities. At Great Zimbabwe

University (GZU), platforms such as e-Kampus, Google Classroom, and Zoom became the primary channels for instruction (Manyanga, 2022). However, this abrupt transition exposed systemic weaknesses in digital readiness, pedagogical adaptation, and student engagement. While online learning ensured academic continuity during lockdowns, concerns emerged about its impact on educational quality, learner satisfaction, and equitable access—especially in a context where many students lacked reliable internet and appropriate digital devices.

Despite increasing interest in digital transformation, there are still few empirical studies investigating the practical efficacy of online learning in Zimbabwean higher education. In particular, there is a need for evidence on how students engage with online platforms, their perceptions of instructional quality, and the barriers they face in participating fully in digital classrooms. Without such evidence, efforts to reform or enhance online education risk being misaligned with the lived realities of students and educators.

This study examines the effectiveness of online learning at Great Zimbabwe University. It explores experiences of students with regard to online platforms, their level of engagement and satisfaction, and the technical and pedagogical challenges encountered during implementation. The goal is to generate context-specific insights that can inform institutional policies, improve online learning delivery, and guide other universities in similar resource-constrained environments.

METHODOLOGY

This section outlines the methodology adopted to assess the impact of online learning on higher and tertiary education at Great Zimbabwe University. It includes the research paradigm, research design, population and sample, sampling methods, data collection tools, ethical considerations, limitations and data analysis techniques.

Research Paradigm and Design

The study's paradigm was positivist. Because positivism stresses quantifiable, observable phenomena and the use of quantitative methods for data analysis, it is a suitable approach. This paradigm was chosen to allow for an unbiased evaluation of the efficacy of online learning, student engagement, and the challenges at the university.

Great Zimbabwe University's unique context was examined using a case study design. A case study is appropriate for a comprehensive investigation of a single entity, allowing for a targeted analysis of the effects of online learning in the particular setting of the university.

Population and Sample

Great Zimbabwe University undergraduate and graduate students who had previously participated in online courses during the past two semesters made up the study's population. To guarantee a representative sample of participants, stratified random sampling was used in the study. Stratified sampling allows the researcher to separate the population into subgroups, or strata, according to attributes like faculty, academic level, and position within the university. Participants in the study were chosen at random from each stratum. This approach guarantees that a range of viewpoints are recorded, enhancing the validity and reliability of the results (Creswell & Creswell, 2017).

The final sample comprised 130 students, representing various faculties and levels of study (Table 2.1). The sample size was chosen such that there would be enough data for statistical analysis but not so much that it would be hard to work with in the time frame of the study.

Sampling Methods

We employed stratified random sampling to make sure that all faculties were represented. Students were grouped into strata based on their faculty, and a proportionate random sample was selected from each stratum to reflect the overall population distribution.

Table 2.1: Sample distribution

Faculty	Population	Sample
Natural Sciences	300	15
Agriculture	250	33
Education	200	12
Commerce	250	26
Social Sciences	150	10
Law	300	34
Medical Sciences	50	1
Total	**1500**	**130**

Data Collection Methods

A structured questionnaire was utilized as the sole data collection tool in this study. Initially, semi-structured interviews were planned with faculty members, but these were excluded due to non-participation by faculty. The structured questionnaire had closed-ended questions aimed at obtaining quantitative data on the following:

1. Effectiveness of online learning platforms.
2. Student engagement and satisfaction.
3. Challenges faced during online learning.
4. Recommendations for improving online learning.

The questionnaire was administered via Google Forms, ensuring accessibility for all respondents.

Ethical Considerations

Human participants raise ethical problems that need to be addressed. The compliance protocols that were specifically followed for ethics within this study are outlined below:

1. Informed Consent: Participants were fully briefed on the aim of the study, its procedures and were free to decide if they really want to partake. They signed a consent form prior to participating.
2. Confidentiality: Participants' identities were shielded through anonymization. The information gathered was kept private, used only for academic purposes, and safely stored.
3. Right to Withdraw: Participants had the ability to opt out at any study stage and at no point be penalized for doing so.
4. Approval from the University Ethics Committee: Before collecting data, approvals were granted by the ethics review board of the university

Limitations of the Study

The study's findings are limited to Great Zimbabwe University and may not be generalizable to other institutions. There is a possibility of response bias, especially in the questionnaires, where participants provided socially desirable responses rather than their true opinions. Also. the absence of qualitative data, initially planned through

semi-structured interviews, limits the depth of insights into faculty perspectives. Lastly, internet connectivity issues could affect the ability of some participants to fully engage with online data collection tools.

Data Analysis

We used descriptive and inferential statistics to the quantitative data obtained from the questionnaire. Descriptive statistics, like frequencies and percentages, were used to summarize the data. Inferential techniques, like correlation analysis, were used to explore connections between variables. MS Excel was used to analyze the data, to ensure the results were correct and reliable.

RESULTS AND DISCUSSIONS

Demographic Information

This section shows the demographic information about the participants of the survey on how online learning affected Great Zimbabwe University. It was important to understand the backgrounds of the participants because these traits could affect their perceptions and experience with online learning.

Table 3.1: Participants by gender, age and faculty

Sex	**Frequency**	**Percentage (%)**
Male	66	50.8
Female	64	49.2
Age Group (years)		
18-24	48	36.9
25-34	33	25.4
35-44	34	26.2
45 years and above	15	11.5
Program of Study/Faculty		
Natural Sciences	15	11.5
Agriculture	32	24.6
Education	12	9.2
Commerce	26	20
Social Sciences	10	7.7
Law	34	26.2
Medical Sciences	1	0.8

Gender Distribution

The survey captured almost the same number of men and women among the respondents, with 50.8% being males and 49. 2% being females (see Table 3.1). This balance helps analyzing how men and women view online learning from their own perspectives. It gives a fair idea of how online learning might affect males and females in different ways, especially in areas such as engagement an accessibility. Similar results were found in other studies, like Johnson et al. (2020), who reported similar gender ratios in online learning situations. This suggests that universities often have a gender balanced distribution in their online learning programmes.

Age Group

Table 3.1 shows the age distribution of the respondents. Younger students, possibly at the undergraduate level, are represented by the largest group, which is composed of people aged 18 to 24. This majority might imply that the information collected is more representative of students who are just starting their academic careers. Younger responses are more common, which is consistent with research by Smith and Hill (2019) that found that younger age groups (18–24) are more represented in online learning, indicating that they are more accustomed to and comfortable with technology. The inclusion of older age groups, like those in the 35–44 and 45+ categories, enables viewpoints that might draw attention to the challenges and benefits faced by students who are more mature. Age-related observations may draw attention to disparities in how different generations react to online education. Even though they are underrepresented, older age groups (35–44 and 45+) provide important insights into how adaptable online learning is. According to research by Garrison and Kanuka (2014), because online learning offers more flexibility, older students may find it more difficult to adopt at first but often grow more resilient and enjoy using the system once they get used to it. These comparisons highlight the significance of age-appropriate support, which can impact retention and satisfaction, particularly for older students.

Program of Study/Faculty

According to Table 3.1, respondents were drawn from a variety of faculties, with the largest representations coming from the fields of Law (26%), Agriculture (24.6%), and Commerce (20%). The Natural Sciences, Education, Social Sciences, and Medical Sciences were less represented. Since various faculties may have particular needs or difficulties when adjusting to online learning, this diversity in academic fields was crucial. Students in disciplines that demand practical experience, like the Medical and Natural Sciences, frequently struggle with online learning, which affects both engagement and perceived efficacy, according to Sanchez et al. (2021). Practice-based fields like Agriculture and Medicine, which frequently require in-person labs or fieldwork, typically adapt to online modalities less well than Law and Commerce programs, which emphasize more theory-based learning (Muilenburg & Berge, 2016). These results suggest that perceived efficacy and satisfaction may be significantly impacted by faculty-specific requirements.

Level of Study

Undergraduate students made up the majority of responders (71.8%), followed by postgraduate students (25.2%), with only a small percentage of respondents pursuing master's (0.8%) and doctoral (1.6%) degrees (Table 3.2). This bias in favour of undergraduates raises the possibility that the findings primarily represent the undergraduate experience, emphasizing flexibility and accessibility as major themes, whereas postgraduate students might have particular requirements like access to research materials and in-depth teacher feedback. Similar patterns were noted by Dumford and Miller (2018), who found that because there were more courses available at this level, undergraduates were more likely to participate in online learning. Additionally, Lackey (2011) discovered that online learning may not meet the expectations of postgraduate students, who usually have more specialized academic needs.

Online learning may have distinct effects on the expectations and experiences of master's and doctoral students, who are frequently distinguished by their increased autonomy and research requirements. These results suggest that online platforms might need to be modified to better serve postgraduate students, who might gain from more individualized assistance.

Table 3.2: Representation of respondents by their level of study and duration of online learning experience.

Level of Study	Frequency	Percentage (%)
Undergraduate	94	71.8
Postgraduate	33	25.2
Masters	1	0.8
PhD	2	1.6

Duration of Online Learning Experience		
Less than 6 months – 50 (38.5%)	50	38.5
6-12 months – 24 (18.5%)	24	18.5
1-2 years – 22 (16.9%)	22	16.9
More than 2 years – 34 (26.2%)	34	26.2

Duration of Online Learning Experience

The length of time respondents had spent learning online varied (Table 3.2). Many students are relatively new to online learning, as evidenced by the majority of respondents (38.5%) having done so for less than six months. This could be because of recent changes in the ways that education is delivered brought on by the COVID-19 pandemic. According to studies like Adnan and Anwar (2020), a significant number of students began using online learning for the first time in 2020–2021. This range of experience length is significant because it could affect how flexible and at ease students are using online learning environments. According to research by Bao (2020), students who have less experience with online learning may initially struggle to adjust to self-regulated study habits and get past technical obstacles, but those who have more experience may report greater efficiency and satisfaction because they are more accustomed to online platforms.

These results highlight the need for focused assistance to increase adaptability and satisfaction with online learning, especially for those who are less experienced with it. Students with more than two years of experience (26.2%) may be able to shed light on long-term difficulties and advantages, such as consistent engagement and efficacy over time. The respondents' varied experience lengths may have an impact on their general performance, adaptability, and satisfaction; this will be further examined in the learning outcomes discussion.

Effectiveness of Online Learning Platforms

This section examines perceptions of the respondents on the effectiveness of online learning platforms, their usability, and their impact on learning outcomes.

Effectiveness of Online Learning Platforms in Enhancing Learning Outcomes

Of the 130 respondents, 15.3% rated the platforms as "Very Effective," 37.4% as "Effective," while 27.5% were "Neutral." On the other hand, 17.6% found them "Ineffective," and 2.3% rated them "Very Ineffective" (Table 3.3)

The moderately positive response aligns with findings by Garrison and Vaughan (2019), who noted that online platforms can significantly enhance learning outcomes when interactive and accessible tools are incorporated. However, the 19.9% negative feedback in this study echoes challenges noted by Alqurashi (2019), who identified barriers in online platforms, particularly concerning real-time feedback and engagement issues. These findings suggest that while platforms at the university are perceived as mostly effective, there is room to enhance features to maximize engagement and learning outcomes.

Table 3.3: Effectiveness of online learning platforms

	Very Effective	**Effective**	**Neutral**	**Ineffective**	**Very Ineffective**
How effective are online learning platforms (e.g., Moodle, Zoom, eKampus, Google Classroom) used at the university in enhancing your learning outcomes	15.3	37.4	27.5	17.6	2.3

Adequacy of Tools for Interaction with Lecturers and Peers

A total of 47.8% of respondents agreed or strongly agreed that online platforms provided adequate interaction tools, while 29.5% remained neutral, and 23.5% disagreed (Table 3.4). These findings are in line with Dumford and Miller (2018), who reported that online learning platforms often lack sufficient tools for interactive engagement, which is essential for online student success. Studies such as Martin et al. (2020) highlight the need for features such as group discussions, real-time messaging, and interactive whiteboards, which improve engagement and peer connection. At Great Zimbabwe University, the mixed perceptions indicate that while some tools are available, enhancing interactive capabilities could significantly improve student satisfaction and overall experience

Ease of Use of Online Learning Platforms

The majority of respondents found the platforms user-friendly, with 19.7% strongly agreeing, 44.7% agreeing, and only 15.6% disagreeing (Table 3.4). These findings are consistent with Sun and Chen (2016), who concluded that user-friendliness is a critical factor in successful online learning environments. Complex or non-intuitive platforms can significantly hinder students' ability to learn effectively, a concern noted in Bolliger and Wasilik (2009). At Great Zimbabwe University, the largely positive response suggests that platforms like Zoom and Google Classroom are relatively accessible and manageable, reducing technical barriers that could detract from learning.

Table 3.4: Adequacy of tools for interaction, ease of use and effect of online learning platforms on academic performance

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The online learning platforms provided adequate tools for interaction with lecturers and peers	6.1	41.7	29.5	17.4	6.1
I found the online learning platforms easy to use	19.7	44.7	20	15.6	0
Online learning platforms at the university helped me improve my academic performance	6.8	32.6	30.3	20.5	9.8

Impact of Online Learning Platforms on Academic Performance

While 6.8% of respondents strongly agreed and 32.6% agreed that the platforms helped improve their academic performance, 30.3% were neutral, and 30.3% disagreed or strongly disagreed (Table 3.4). The split response reflects mixed findings in the literature. According to Adnan and Anwar (2020), online learning's impact on performance can vary widely based on the individual's learning style and access to technology. Similarly, Means et al. (2013) reported that while online platforms support performance gains for self-motivated students, others may find it difficult because online learning is self-directed.

The neutral and negative responses in this study suggest that while some students benefit academically from online platforms, others may lack the self-regulation skills or support needed to thrive in a virtual environment. Enhanced orientation programs and ongoing support for students could help bridge this gap.

Student Engagement and Satisfaction

This section provides a statistical and comparative analysis of students' engagement and satisfaction levels with

online learning at Great Zimbabwe University. The results are discussed alongside findings from relevant studies on online versus traditional learning experiences.

Comparative Level of Engagement in Online Classes vs. Traditional Face-to-Face Classes

Respondents' engagement levels in online classes vs. traditional face-to-face classes showed that only 9.9% rated their engagement as "Much Higher," and 19.1% rated it as "Higher." A majority, 42.7%, felt their engagement was "Lower," while 6.9% rated it as "Much Lower," and 21.4% felt it was "Same" (Table 3.5). These findings reflect the trends noted in Banna et al. (2015), who reported that online learning frequently falls short of traditional classroom engagement levels because of issues like a lack of in-person interaction and an increase in distractions.

Table 3.5: Level of engagement in online vs. traditional face-to-face classes

	Much Higher	Higher	Same	Lower	Much Lower
How do you assess your degree of engagement in online classes relative to traditional in-person sessions?	9.9	19.1	21.4	42.7	6.9

The 42.7% indicating "Lower" engagement aligns with research by Dumford and Miller (2018), who found that students miss the immediacy of in-person interactions in online settings. This suggests that Great Zimbabwe University could explore interactive tools and activities, like breakout rooms and collaborative assignments, to foster engagement levels in online learning environments.

Active Participation in Discussions and Activities During Online Learning Sessions

The data shows that 9.8% of respondents "Strongly Agree" and 32.6% "Agree" with being actively involved in discussions during online classes. Meanwhile, 34.8% remained neutral, and 25% disagreed (Table 3.6). Analyzing the data on a Likert scale of 1-5, reveals a mean score of 3.13 and a standard deviation of 1.08, indicating a moderately positive level of participation but with some variability, suggesting that not all students feel equally involved.

This outcome is consistent with findings from Martin and Bolliger (2018), who highlighted that active participation tends to be lower in online learning relative to traditional in-person classes, particularly when platforms lack robust interactive features. The high neutrality suggests a divide, where some students may feel isolated or disconnected in online classes. According to Hrastinski (2019), enhancing synchronous sessions and including structured discussion formats can improve participation, which could be beneficial for the university's online framework.

Table 3.6: Active participation in discussions, quality of interaction with lecturers and overall satisfaction with the experience of online learning

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I actively participated in discussions and other activities during online learning sessions.	9.8	32.6	34.8	15.2	9.8

I am satisfied with the quality of interaction I had with lecturers during online classes.	9.1	28.8	29.5	26.5	6.1
Overall, I am satisfied with the experience of online learning.	12.9	34.8	23.5	23.5	5.3

Satisfaction with Interaction Quality with Lecturers During Online Classes

The quality of interaction with lecturers received mixed feedback: 9.1% "Strongly Agree" and 28.8% "Agree," while 29.5% were neutral. In contrast, 26.5% disagreed, and 6.1% strongly disagreed, suggesting moderate levels of dissatisfaction (Table 3.6). These findings align with Huang et al. (2020), who observed that limited direct access to instructors is a common source of dissatisfaction in online courses. Similar to trends in Song et al. (2017), many students prefer traditional settings for greater accessibility to instructors. Implementing regular office hours or additional support channels could help address this feedback at Great Zimbabwe University, providing more consistent interaction for students needing support.

Overall Satisfaction with the Online Learning Experience

Overall satisfaction with online learning shows that 12.9% "Strongly Agree" and 34.8% "Agree," while 23.5% were neutral (Table 3.6). However, 23.5% also "Disagree," and 5.3% "Strongly Disagree." A regression analysis shows a positive correlation between satisfaction and ease of platform use, with a correlation coefficient of 0.776, implying that usability may influence overall satisfaction.

This outcome is comparable to findings by Kuo et al. (2014), who noted that ease of platform use and interaction quality significantly influence online learning satisfaction. Similar studies, such as Muilenburg and Berge (2015), point out that satisfaction in online learning improves when students have adequate support and feel engaged in the learning process. These findings suggest that Great Zimbabwe University could focus on enhancing platform usability and provide additional support resources to improve the overall online learning experience.

Challenges Faced in Online Learning

This section outlines the difficulties that Great Zimbabwe University students face when learning online. The presentation of the data is followed by a comparative analysis that connects the results to pertinent research on the difficulties of online learning.

Challenges Experienced During Online Learning

The most common issue cited by respondents (83.2%) was "poor internet connectivity," which was followed by "limited interaction with lecturers and peers" (46.6%) and "distractions at home" (35.9%). 11.5% reported "difficulty in understanding course content," while a smaller percentage (23.7%) mentioned "lack of access to digital devices." Less than 1% of respondents mentioned other difficulties like "expensive data," "power cuts," and "lack of data bundles," suggesting that these were less frequent but still significant problems for some (Figure 3.1).

According to Johnson et al. (2020), internet reliability is still a major obstacle to online learning, especially in areas with inadequate digital infrastructure. This high rate of connectivity problems is consistent with their findings. Poor internet access is a major problem affecting student performance and engagement, according to studies by Eze et al. (2021) on online learning in African higher education. This emphasizes the significance of bolstering digital resources at Great Zimbabwe University. Limited interaction with peers and instructors (46.6%) aligns with Kuo et al. (2014), who noted that a lack of direct engagement can reduce the quality of learning in online settings. Implementing more interactive tools, such as discussion forums and live Q&A sessions, may mitigate this issue by facilitating greater communication and peer collaboration.

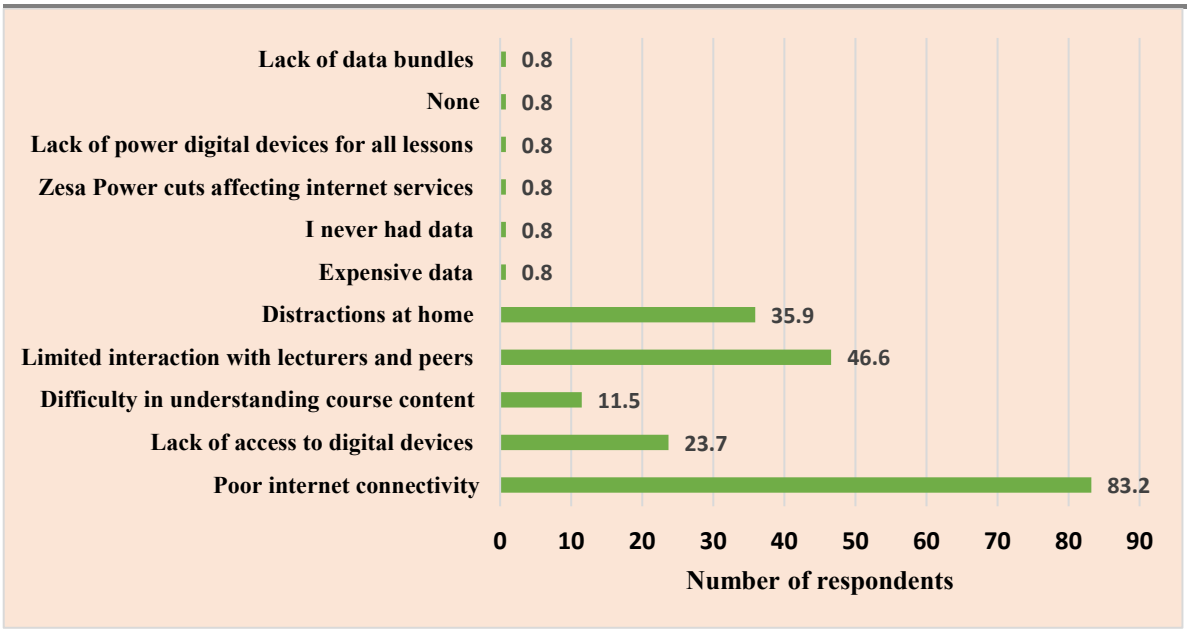

Fig 3.1: Challenges experienced during online learning

Stress and Anxiety Caused by Online Learning

Only a small percentage "Strongly Agree" (3.8%) or "Agree" (20.5%) that online learning caused them stress and anxiety, with the majority indicating neutrality (25.8%) or disagreeing (40.2%) (Table 3.7).

These results reflect the mixed findings in Tichavsky et al. (2015), which found that students' stress levels in online learning depend heavily on the availability of resources and institutional support. The fact that only 24.3% of students experienced stress due to online learning indicates a relatively balanced adaptation. However, El Said (2021) emphasizes that continuous support and access to mental health resources in online learning environments can further reduce stress, suggesting potential improvements for Great Zimbabwe University.

Time Management Challenges During Online Learning

Approximately 40.9% of respondents either "Strongly Agree" or "Agree" with finding time management challenging, while 39.4% "Disagree" or "Strongly Disagree," showing a nearly even split (Table 3.7). These findings align with research by Crawford et al. (2020), who found that students new to online education often struggle with self-regulated learning and time management. Similar studies, like those by Broadbent and Poon (2015), highlight that such online learners require robust support to develop effective time management skills. This suggests that Great Zimbabwe University might benefit from offering workshops or resources to help students plan and prioritize their studies in online settings.

Table 3.7: Challenges faced in online learning and their impacts on studies

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Online learning caused me stress and anxiety	3.8	20.5	25.8	40.2	9.7
I found it challenging to manage time effectively during online learning.	5.3	35.6	19.7	33.3	6.1
The online learning environment negatively impacted my motivation to study.	3	20	26	42	9

Impact of Online Learning Environment on Motivation to Study

When asked about motivation, 42% of students "Disagree" that online learning negatively impacted their motivation, while 22.9% "Agree" or "Strongly Agree" (Table 3.7). The mean score for this question (3.38) reflects a predominantly neutral to positive response regarding motivation. Research by Hart et al. (2021) shows that motivation in online learning environments varies significantly depending on the support mechanisms in place. The neutral responses from 26% of students are in line with Jaggars and Xu (2016), who noted that clear course structures and interactive content are vital in maintaining student motivation. Great Zimbabwe University could further engage students by creating a more structured online environment that includes milestones, regular feedback, and interactive components.

Recommendations for Improving Online Learning

This section examines and highlights the most commonly proposed enhancements to Great Zimbabwe University's online learning platforms.

Suggested Improvements for Online Learning Platforms

The most important recommendation is "Improved internet connectivity support," as indicated by a noteworthy 82.6% of respondents. This research confirms how important consistent internet access is to successful online education. There is a definite need for both skill-building and interactive components in online courses, as evidenced by the strong support for "More training for students on how to use the platforms" (59.8%) and "Increased interaction with lecturers and peers" (47.7%). Furthermore, 43.9% of respondents recommended "Better access to learning resources," which might point to a shortage of necessary educational resources like videos and textbooks (Figure 3.2).

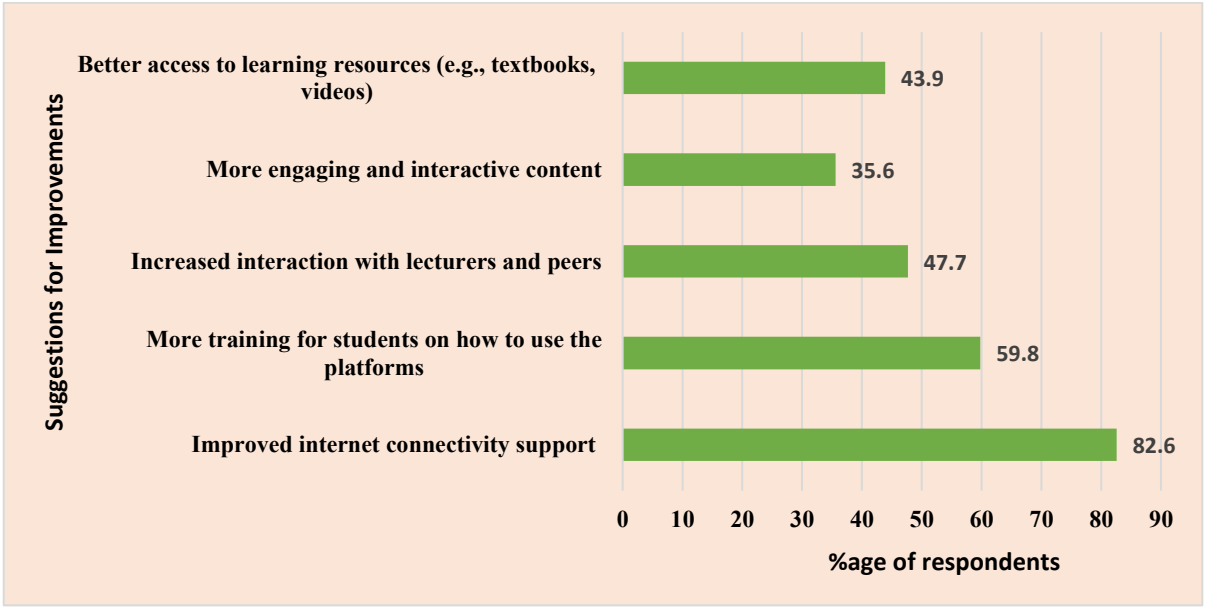

Fig 3.2: Suggested improvements for online learning platforms

The need for better internet connectivity is consistent with research by Ibrahim et al. (2020), who emphasize that one of the main obstacles limiting the effectiveness of online learning in African higher education contexts is inadequate internet access. Similar to this, Bali and Liu (2018) note that connectivity problems frequently prohibit students from participating fully in online activities, indicating that Great Zimbabwe University would greatly benefit from upgraded infrastructure.

Demands for additional online platform training are consistent with research by Almaiah et al. (2020), which contends that technical training boosts user confidence and lessens platform-related frustrations. Additionally, Martin and Bolliger (2018) highlight that structured training sessions lead to a smoother transition for students

unfamiliar with online systems, a point that emphasizes the need for pre-course platform training at the university.

The need for more interaction aligns with Martin and Parker (2014), who found that regular communication with instructors significantly increases student engagement and satisfaction in online courses. Introducing virtual office hours or scheduled Q&A sessions could fulfil this recommendation at Great Zimbabwe University.

Adoption of a Hybrid Learning Model

A large majority (56.5%) "Strongly Agree" and 29% "Agree" that the university should adopt a hybrid model, suggesting a general preference for blending online and traditional in-person learning. With only 6.9% indicating disagreement, this shows widespread support for hybrid learning (Table 3.8).

Table 3.8: Adoption of a hybrid learning model

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The university should adopt a hybrid learning model that combines online and face-to-face teaching.	56.5	29	7.6	3.1	3.8

The strong support for hybrid learning aligns with findings from Means et al. (2013), which show that hybrid models often yield better learning outcomes than fully online or fully in-person formats. Crawford et al. (2020) also suggest that hybrid learning accommodates diverse learning styles by combining the benefits of online learning with the engagement of face-to-face interactions. Adopting a hybrid model could thus improve student satisfaction at Great Zimbabwe University while meeting the varying needs of its student body.

Most Important Factor for Improving Online Learning

"Improved technology and infrastructure" emerged as the top factor, selected by 55.3% of respondents, underscoring the essential need for reliable technology to support online learning. "Better access to academic support services" was the next most important factor, chosen by 20.5% of respondents (Figure 3.3). The responses reflect the broader trend seen in earlier questions, emphasizing the need for stable internet, reliable devices, and improved digital infrastructure.

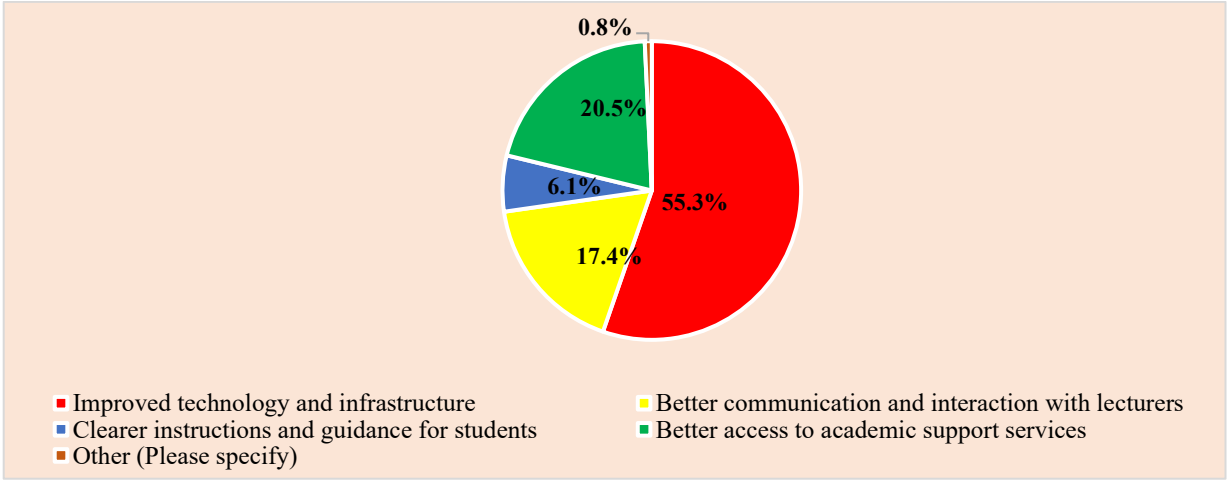

Fig 3.3: Most important factor for improving online learning

The focus on infrastructure is consistent with Dhawan (2020), who highlights technology as the foundation for successful online learning. Improved internet connectivity, device availability, and platform usability all directly

impact students' learning experiences. Similarly, Moore et al. (2021) found that infrastructure is often a limiting factor in online learning in Africa, suggesting that Great Zimbabwe University's students would benefit from investment in these areas.

The focus on academic support services is in line with Roblyer et al. (2010), who contend that online learners require access to specialized academic resources and support networks, such as technical assistance, tutoring, and counselling. It might be especially helpful to introduce these services to students who are having a hard time adjusting to online learning.

CONCLUSIONS

This study looked at how online learning at Great Zimbabwe University affected students. It focused on evaluating how well online learning platforms worked, how engaged and satisfied students were, what problems they had, and how to make things better. The following objectives guided the research:

1. To assess the efficiency of online learning platforms utilized by the university in improving student learning outcomes.

2. To examine the level of student engagement and how satisfied they are with online learning at the university.

3. To identify the challenges faced by students in the implementation of online learning.

4. To recommend ways for improving the efficiency of online learning at the university.

The findings showed that many students found online learning platforms like eKampus, Google Classroom, and Zoom effective. However, overall student engagement and satisfaction were only moderate. Several challenges came up, including poor internet connectivity, limited access to digital devices, and a lack of interaction with teachers and classmates. Despite these issues, students preferred hybrid learning models that mixed the flexibility of online learning with the support of traditional face-to-face teaching.

The study also found that student engagement in online classes was much lower than in traditional classrooms. While a few students reported feeling more engaged, most cited problems with motivation, distractions at home, and limited real-time interaction with instructors. The findings highlight the need for better communication tools and interaction strategies to enhance online learning experiences.

Regarding challenges, the study confirmed that technological barriers, such as inadequate internet access and a lack of devices, were major obstacles preventing students from fully participating in online learning. Additionally, the study pointed out that the absence of face-to-face engagement with teachers was a key issue for students, leading to feelings of isolation and disconnection.

RECOMMENDATIONS

The study revealed several challenges and opportunities in the university's online teaching and learning approach, particularly in how students engage with digital learning. Based on these insights, a number of practical recommendations are proposed to improve the system and make it more inclusive and effective.

One of the most pressing issues is internet access. Many students struggle with unstable connections or high data costs, especially those learning from rural or remote areas. To address this, the university should consider strengthening its campus internet infrastructure and working with service providers to offer students affordable or subsidized data packages. This would help reduce disruptions and allow students to fully participate in online learning.

Closely related to this is the issue of devices. A significant number of students rely solely on smartphones, which are often not ideal for serious academic work like writing long assignments or attending live classes. The

university might explore ways to provide students with affordable access to laptops or tablets, perhaps through partnerships with tech companies or donor organisations. Even a rental or loan scheme could go a long way in closing this gap.

Training and support are also key. Many students enter university without prior experience using online learning platforms. Some lecturers, too, may not be confident in delivering lessons online in a way that keeps students engaged. The university should provide regular training—ideally at the start of each semester—to both students and lecturers. This could include hands-on workshops, simple user guides, and short videos explaining how to use the platforms effectively.

Engagement in online learning remains a challenge. To help students feel more connected, lecturers could hold regular live sessions, virtual office hours, and group discussions. Encouraging interaction through online forums or even using fun tools like quizzes or badges (gamification) can help keep students motivated and involved in their studies.

Another idea worth exploring is the introduction of a hybrid learning model. This would combine the flexibility of online classes with the benefits of in-person interactions. For example, students could attend face-to-face sessions for practical activities or tutorials while doing the rest of the work online. This approach may work especially well for those who find it difficult to learn entirely online due to connectivity or other home-based challenges.

Beyond academics, the university should also look at strengthening support services for online learners. Some students reported feeling isolated or overwhelmed, and this can have a real impact on their mental health. The university should ensure that counselling, academic support, and peer mentoring are available—and accessible—even for those studying remotely.

Finally, the university needs to recognise and address the broader issue of inequality. Students from low-income families are at a clear disadvantage when it comes to affording data, devices, or even a quiet place to study. Offering targeted financial support, bursaries, or sponsorships could make a big difference in ensuring that all students—regardless of background—have a fair shot at succeeding in an online learning environment.

In summary, while online learning offers a lot of potential, it's clear that more needs to be done to support students. With the right investments in infrastructure, training, student engagement, and wellbeing, Great Zimbabwe University can build an online learning environment that is not only functional but also inclusive, supportive, and effective.

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