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Leveraging Online Learning as a Vital Cog to Lifelong Education in Institutions of Higher Learning (IHL) in Manicaland Province

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Abstract:- Online learning is now an essential part of higher education due to the quick development of technology. With a focus on Zimbabwe, this article investigated how educational institutions used online learning to encourage lifelong learning. For working professionals, conventional students and non-traditional students looking to continuously improve their skills, online learning is perfect since it provides flexibility, accessibility, and personalized learning. But gaps like infrastructure, digital literacy, and internet access still exist, especially in underdeveloped nations like Zimbabwe. This study looked at how educational institutions might promote a culture of self-directed learning, improve staff and student digital abilities, and incorporate online learning into their curricula. It also emphasized how partnerships and governmental policies encourage online learning. A pragmatism research philosophy was adopted and backed by mixed research approach in this study. Purposive and stratified sampling techniques were the key sampling techniques utilised in this study. Semi-structured questionnaires were administered to both trainers and students. In-depth interviews were carried out with senior management. The major findings were that there was limited access to internet services and lack of appropriate digital skills among staff and students. At the same time erratic power cuts made online learning not sustainable. It was also observed that the government of Zimbabwe was not quite interested in some qualifications that were totally attained through online learning. However, there were benefits like increased accessibility through online learning as well as getting quality education. One of the conclusions was that institutions of higher learning could make lifelong learning possible by removing obstacles and utilizing technology, which would support both domestic growth and international competitiveness. Blended learning was one of the major recommendations. Online platforms that would use local languages were also recommended as well as introducing low interner tariffs.

Keywords*: Leveraging, Online, Vital Cog, Lifelong education, Institutions of higher learning.*

1. Introduction

Online learning is becoming an essential part of modern education since the swift advancement of technology has changed the face of education. In many educational contexts, online learning is still a relatively recent development. Higher education institutions are beginning to realize how important it is to use online learning to support lifetime learning. According to Nyathi and Sibanda (2023), effective learning and learner satisfaction depends on a seamless e-learning environment. To buttress on to that quotation, online learning as one of the components of e-learning, allows individuals to learn at their pace and at any given time with the use of gadgets such ac cell phones, tablets and laptops to mention but a few. This study was undertaken in Manicaland Province which is situated on the eastern boarder of Zimbabwe. It has different categories of higher learning institutions

made up of universities, teachers' colleges and a polytechnic. The researchers after realising that the colleges in Manicaland were lagging behind in online learning decided to carry out this study at two of the colleges.

2. Problem Statement

Zimbabwe like any other third-world country is lagging behind in online learning as a lifelong learning in tertiary institutions. Issues like ICT infrastructure, digital literacy, and internet access still fall short in Manicaland. Online learning offers a flexible and accessible way to address these challenges, enabling institutions to enhance student engagement, improve learning outcomes, foster lifelong learning and increase access to education. Face-to-face education comes with its own challenges like rigid time schedules, commuting time, costs and limited access to resources outside class. At times these challenges lead to student dropout from colleges. Online learning is packaged with access to global resources and learning anywhere anytime.

3. Research Objectives

The objectives this study were To:

a) explore how institutions can harness online learning to promote lifelong education, focusing on Zimbabwe's context.

b) examine how institutions can integrate online learning into curricula, enhance digital skills among staff and students and foster a culture of autonomous learning in Manicaland.

c) assess the constraints and challenges associated with existing online CPD Models in Manicaland?

4. Significance of the Study

The institutions of higher learning would benefit from the study as it would inform them how they can implement online learning. This study would enlighten tertiary institutions and government in establishing online platforms that would conducive to the Zimbabwean environment. The study also supplement.

5. Delimitations

The study's geographical boundary was two IHL in Manicaland province and focussed on online learning as a cog to lifelong learning or continuous professional development.

6. Limitations

Due to fear of victimisation some participants may have given inaccurate responses. This limitation was overcome by triangulation. Questionnaires were administered to lecturers and interviews were executed with management and human resources staff.

7. Theoretical Framework

This research was premised in social Constructivism and Connectivism theories. As highlighted by Picciano (2017), Vygotsky is one of the social constructivism theories 'gurus', who defined learning as the creation of a "zone of proximal development" that includes the student, teacher, and an issue which has to be resolved. In other words, the lecturer creates a social setting where students can put together or build the information needed to solve the challenge. This theory backs up the notion that students actively participate in educational activities to acquire knowledge and skills. A pedagogical cornerstone for interactive conversations that take the place of traditional lecturing in both in-person and online classes is the use of reflective practice by both the teacher and the students.

On the other hand, Simens developed the notion of Connectivism theory, a learning model that recognizes significant changes in the growth, flow, and transformation of knowledge and information due to extensive data communications networks (Picciano 2017). Learning has shifted from private, individualistic activities to group, communal, and even crowd activities through the internet or virtual learning. Massive Open Online Courses (MOOCs) are necessary at this age and time in order to acquire knowledge cheaply and on time. Teaching and learning on he internet reaches a wide range of beneficiaries globally.

8. Review of Related Literature

Related literature was undertaken in order to put the study into appropriate context.

8.1 Why Online Learning

College-level online learning has a stronger body of research. Correspondence courses, in which students received instructional materials by mail, were the beginning of the first organized attempts to carry out virtual training in the 1950s and 1960s (Ceglie, 2020). This system has been adopted bit by bit although more effort is required in order upscale online learning.

The Covid-19 outbreak completely upended both public and private life. educating students during the current predicament. For the past three decades, online teaching and learning has been a hot research area, yet there are currently few institutions of higher learning uptaking online study programs (Hofer et. al 2021).

Instead of being lost, the lessons learnt about online instruction and learning in emergency conditions should be used to future potential emergency scenarios and utilized to advance and enhance digital education in regular times (Ceglie 2020). Virtual learning would steer lifelong learning and learners would acquire their required studies cheaply. Especially by making use of Massive Open Online Courses (MOOCS)

8.2 Lifelong Learning

The need for technology-enabled lifelong learning is growing as societies become more dynamic, socioeconomically complicated, and globally interconnected (Hansen et al., in Lindqvist et. Al., 2024). The concept of lifelong learning has gained significant traction in the twenty-first century, and its significance has grown since the COVID-19 epidemic (Lindqvist et. al., 2023). During the period of COVID-19 it was difficult for learners to attend their lessons physically due to its high contagious characteristics. The percentage of senior persons who want to improve themselves professionally continues to increase. These individuals can make significant contributions to the advancement of society. As a result, it is critical that they have the chance to study in age-appropriate methods and on an equal footing with the younger generation (Yang et. al., 2015). It is necessary to acknowledge, respect, and make use of their skills and abilities.

8.3 ICT Infrastructure and Devices for Online Teaching and LearningL

ICTs are seen as a catalyst for educational change, offering a number of advantages, one of which is the expansion of quality in higher education (HE) (Adarkwah, 2020). Therefore, any educational institution must invest in appropriate ICT gear and software in order to enhance teaching and learning. When an organization switches from F2F to OTL, the demand for ICTs becomes even more pressing. Following the COVID-19 epidemic, HEIs throughout the world have chosen a variety of judgments and steps to address their ICT infrastructure requirements as they migrated online with the help of their governments and business groups. Over 70,000 laptops were distributed to schools in Ghana as a result of the ministry of education's successful implementation of the "one laptop, one student" program. This was a step in the right direction, even though several other measures aimed at increasing students' access to ICTs failed. The ICT for Accelerated Development (ICT4AD) strategy was implemented by the same administration between 2003 and 2009 with the goal of ICT integration and transformation of schools. In an effort to increase the number and quality of ICTs available to students for their academic engagement, this project underwent multiple revisions throughout the years (Adarkwah, 2020). In a similar vein, the British Columbian Ministry of Education included ICTs into instruction for students in grades one through twelve in an attempt to make learning interesting and relevant (Birch and Irvine, 2009).

9. Methodology

A pragmatism philosophy approach was the guiding principle of this study whereby a mixed research paradigm methodology was preferred. For the purpose of understanding a particular situation and be able to create generalizations, pragmatism integrates both qualitative and quantitative designs while embracing the advantages of positivism and interpretivism (Willis, 2007). The concept made it possible for the researchers to make decisions based on what is most effective (practical), which allowed for creative and dynamic approaches to solving the

study's goals. Questionnaires and Interview schedules were employed to gather data and a sample of 77 participants was used. 34,8% were man and 65,2 were ladies.

9.1 Research Design

A case study research design was adopted in which only two tertiary institutions were assessed in Manicaland Province. In order to generalize the results for all higher education institutions in Zimbabwe, the case study comprised a thorough examination of two selected universities. Although case studies are most suited for qualitative research, they can also be applied to quantitative research (McCombes, 2023). The Ministry of Higher and Tertiary Education, Innovation, Science, and Technology Development oversees Institutions of Higher Learning IHL) in Zimbabwe. The ministry creates guidelines that apply to all IHL, resulting in comparable operations and activities.

9.2 Sampling

Stratified and judgemental sampling methods were utilised to choose participants from the two institutions in Manicaland province that had a population of 1800. Stratified sampling was employed to choose 52 students and 20 lecturers. Strata were formed and simple random sampling was used to choose the participants from each stratum to come up with the required participants of 72 and judgemental sampling was adopted to choose 5 participants from management, to come up with a sample size of 77 participants.

Table 1: Sample Size

Participants	**Number of Participants**	**Non response**
Management	5	0
Lecturers	20	2
Students	52	4
Total	**77**	**71**

9.3 Data Collection

72 questionnaires were administered to lecturers and students, of which 4 questionnaires were not returned by lecturers. Five interviews were conducted with management.

10. Data Analysis

Analysis of qualitative data from interviews was executed through interpretive phenomenological analysis. Graphs and tables as well as descriptive statistics were used to interpret quantitative data from questionnaires.

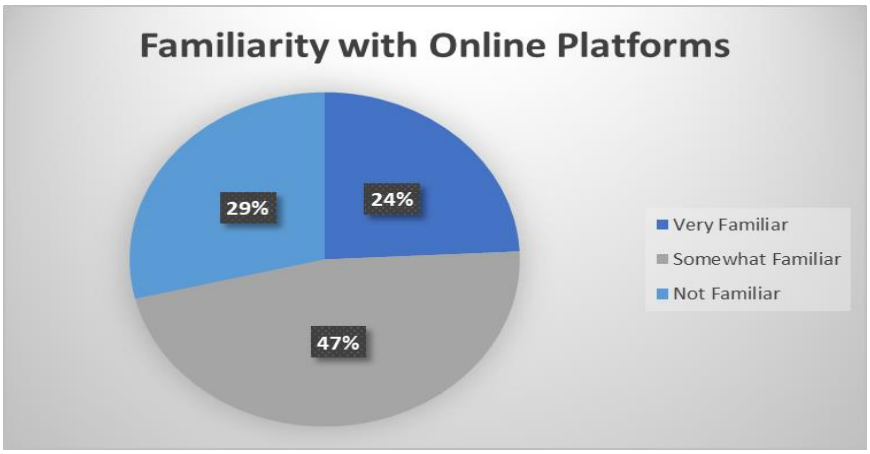
11. Results

After thoroughly scrutinising the data the researchers came up with the results below.

11.1 Participants' Knowledgeability with Online Platforms

Chart 1 below represented participants' knowledgeability with virtual learning platforms. 29% of the participants were not familiar with online platforms, 47% were somewhat familiar with the online platforms and 24% were very familiar with the online platforms.

Chart 1:

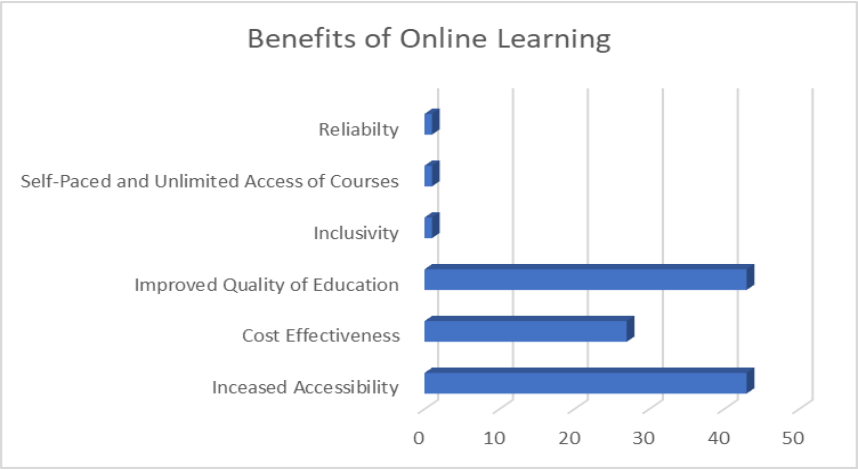


- 80% of the respondents outlined that key feature for an online learning platform for lifelong education in Zimbabwe needed to include user-friendly design, mobile accessibility, multilingual support, interactive tools, diverse content, progress tracking, strong support services, and robust data security.
- Offline functionality, user friendly applications, interactive and social tools were also suggested
- Local content like a Relevant course and resources tailored to Zimbabwean context and needs
- Participant number 10 highlighted that investing in digital infrastructure and developing digital skills in lecturers would be able to impart online learning skills to their students as well as availing capacity building programmes to the students in order for them to become versatile with virtual platforms.
- 59.1% of participants supported online learning to a great extent and 49.9 of the participants were supporting it to some extent.
- 85% of participants highlighted that the data costs were very high and prices of smart phones and laptops needed to revised downwards

11.2 Benefits of Online Learning

The benefits of online learning were represented by a bar graph below.

Chart 2



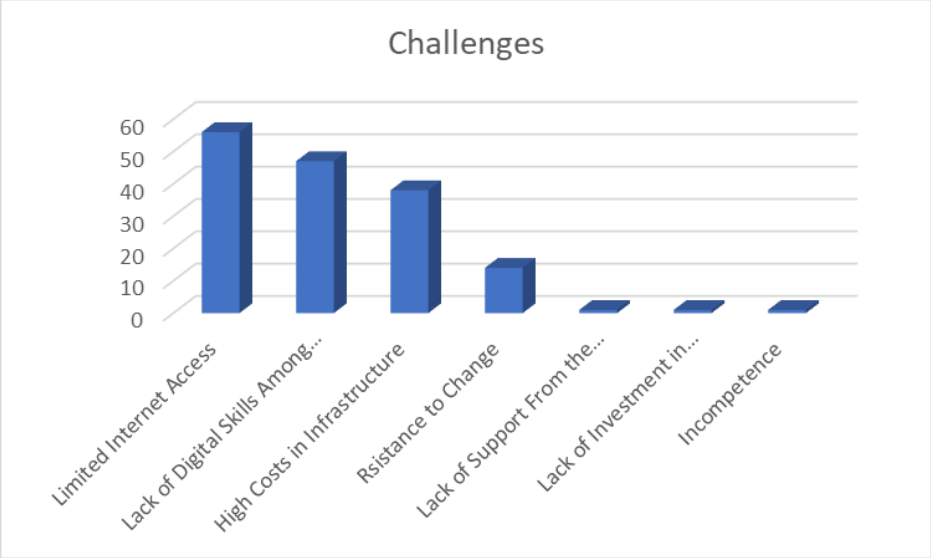
The bar graph above depicted that, out of the 66 respondents 62.2% highlighted that online learning improved quality of learning and increased accessibility and 40% was for cost effectiveness. The other three variables were at 1.5% each.

- 95.5% of the respondents supported blended learning whereby face-to-face learning and online learning were used together.
- 91% of participants pointed out a major drawback of load shading.
- 98% of respondents were vying for Massive Open Online Courses (MOOCs), that support free access to high quality educational content. These are flexible and allow learners to learn at their pace.

11.3 Challenges Faced by Institutions in Manicaland Province in Adopting Virtual Learning

In as much as institutions of higher education wanted to adopt online learning and teaching online, participants outlined some challenges that are state in the bar graph below.

Chart 3



The above chart indicated that the participants were mostly affected by limited internet access which was at 84.8%, lack of digital skills among staff, 72.2%, high costs in infrastructure 57.6%, resistance to change 21% and the other variables were at 1.5% each.

12. Major Findings

Objectives directed the study findings in order to put findings in proper perspective. The findings were as follows:

Participants outlined that key features for an online learning platform for lifelong education in Zimbabwe needed to include user-friendly design, mobile accessibility, multilingual support, interactive tools, diverse content, progress tracking, strong support services, and robust data security.

Affordability of internet where there would be an option for a student to download notes whilst he or she is offline was a priority. Generally, participants were interested in online platforms that would be accessible using local languages. The platform features also needed to be user friendly in order for anyone to clearly understand the instructions and how to use the platform.

Government policy needed play a crucial role in promoting online learning for lifelong education in Zimbabwe by providing infrastructure support, including improved internet access and technology resources. Policies ought to also focus on establishing standards for online education, fostering partnerships with educational institutions, and ensuring inclusivity for marginalized groups. Additionally, investing in professional development for educators and creating incentives for innovation in online learning platforms could enhance lifelong learning opportunities across the country.

It was discovered that both lecturers and students lacked adequate knowledge of online platforms. On the other hand both lecturers and students required smart phones for successful online learning. Some outlined that, it was wiser that the government offered loan facilities for them to be able to acquire these gadgets or offer them as a package for training and development.

Power cuts and erratic internet were the major drawbacks to implement virtual learning. Participants suggested blended learning that would encompass face-to-face learning and Massive Open Online courses platforms since most of the courses were free and they could do their studies in their on spare time. It was also outlined highlighted that the government did not accept wholly online qualifications,

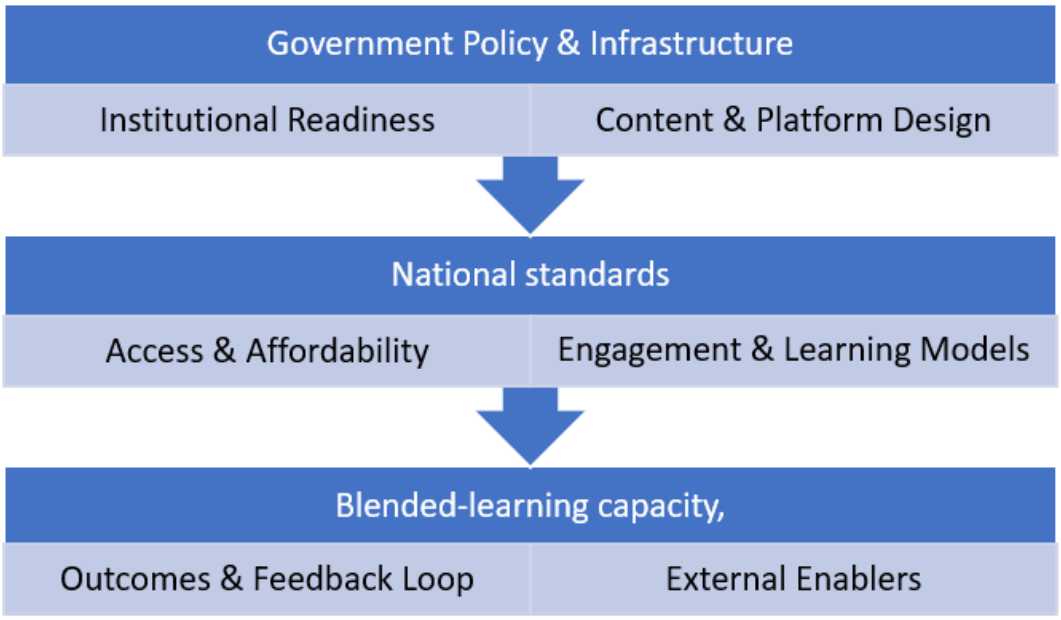
It was also suggested that local content, like relevant courses and resources needed to be tailored to Zimbabwean context and needs as well as supporting the local community for local content creators. Online platforms were required to have the facility to download lessons and tutorials so that learners with limited internet can study offline.

Participants pointed out that the online platforms needed to have features that allowed monitoring of students' attendance and participation in the lessons, so it means the internet facilities were supposed to be upgraded.

13. Contribution to Knowledge

This section articulates a concise, study-grounded contribution to the knowledge body on online learning for lifelong education in Zimbabwe. Building on empirical findings from higher education stakeholders, it presents a simple, integrative model that links policy, infrastructure, platform design, access, and pedagogical engagement. The aim is to provide a practical, theory-informed reference that can guide policymakers, institutions, and developers toward blended, inclusive, and technically resilient online learning ecosystems. The proposed framework emphasizes offline-capable content, mobile accessibility, multilingual support, and affordable access, situating these within a governance and capacity-building lens. By offering a clear, adaptable diagram and its rationale, this section supports evidence-informed decision-making and sets a foundation for subsequent implementation research and policy evaluation.

13.1 Proposed Model: Lifelong Online Education Readiness and Impact (LOER-I) Framework



Source: *Researchers' Creativity and Innovation,2026*

1. Brief Description

The LOER-I Framework conceptualizes how Zimbabwean higher education can integrate online learning for lifelong education by balancing policy/infrastructure, institutional readiness, content design, access, and engagement, with a continuous outcomes-feedback loop and external enablers. It foregrounds blended learning, offline-enabled content, multilingual and mobile-friendly design, and affordable access to address connectivity and device barriers identified in the study.

2. Justification of the Model

The framework justifies its design by integrating key study findings into a coherent, actionable model. First, it consolidates essential platform features (user-friendly interfaces, multilingual support, mobile readiness, offline access, interactive tools, progress tracking, and strong security) with affordability considerations (data costs, device access, and subsidies) and infrastructure realities (internet reach, reliable power, and green-energy backups). By foregrounding these elements, it clarifies how technical and financial conditions converge to enable online lifelong education in Zimbabwe.

Second, the model centres blended learning to address the power and connectivity challenges highlighted by participants. This approach combines the strengths of in-person and online modalities to ensure continuity, resilience, and inclusivity, even in settings with intermittent electricity or bandwidth. It translates policy and infrastructure investments into sustainable, learner-centred delivery.

Third, the justification balances supply-side (policy, standards, infrastructure, partnerships) and demand-side (digital literacy, affordability, motivation) drivers. A continuous Outcomes and Feedback Loop enables data-driven refinements to both practice and policy, ensuring adaptation to real-world constraints and evolving needs rather than one-off solutions.

Fourth, the framework foregrounds equity and inclusion. By emphasizing local languages, mobile-first design, offline options, and affordable access, it seeks to broaden participation among marginalized groups and enhance learning quality for all learners.

Finally, the justification links findings to practical actions, investing in infrastructure, provisioning devices, delivering digital literacy programs, fostering public–private partnerships, and developing Massive Open Online Course (MOOC)/offline-enabled content. This connection supports measurable impact, enabling monitoring, evaluation, and scalable implementation aligned with best practices in digital education.

13.2 Core Components and Relationships

This subsection presents seven interlinked building blocks—Policy and Infrastructure, Institutional Readiness, Content and Platform Design, Access and Affordability, Engagement and Learning Models, Outcomes and Feedback Loop, External Enablers—and explains how policy, resources, and partnerships enable implementation, while design choices and models translate them into outcomes.

1. Policy and Infrastructure

At the foundation are national standards, affordable data, reliable internet, and stable power. Public–private partnerships help mobilize resources and catalyze innovation. Together, these create an enabling environment that supports scalable, future-ready online learning.

2. Institutional Readiness

Institutions need capacity to deliver blended learning. This includes practical access to a Learning Management System (LMS) with offline options, staff and student digital literacy, and strong administrative support. Ready institutions can design, deploy, and sustain online components alongside traditional teaching.

3. Content and Platform Design

Learning platforms must be user-friendly and accessible in multiple languages. They should work well on mobile devices, support offline note-taking, and offer interactive tools, progress tracking, and robust data security. Good design reduces barriers and enhances learner engagement.

4. Access and Affordability

Equitable access hinges on device provision (for example, loans), affordable data, and backups powered by green energy. Inclusive strategies ensure that cost or connectivity does not prevent learners from participating.

5. Engagement and Learning Models

Blended delivery combines in-person and online learning to leverage the strengths of both formats. MOOCs, offline-enabled content, micro-credentials, and flexible pacing help learners study on their own terms and mitigate outages or time constraints.

6. Outcomes and Feedback Loop

Key measures include learning quality, accessibility, and cost-effectiveness. A data-driven feedback loop continually informs policy refinements and practice adjustments, ensuring the system adapts to real-world needs.

7. External Enablers

Sustainable progress relies on partnerships with the private sector and NGOs, alignment with accreditation standards, and explicit inclusion of marginalized groups. These factors broaden reach and legitimacy.

14. Discussions

Training institutions in Zimbabwe can effectively integrate online learning by assessing infrastructure and readiness, developing blended learning models, and providing professional development for educators. Leveraging technology, ensuring accessible content, and fostering student engagement are crucial, alongside monitoring progress and promoting digital literacy. Policies supporting online education and addressing equity issues are essential for successful implementation.

There were sentiments from the participants that the government ought to Improve accessibility of internet by providing lower internet tariffs or subsidising data and offer digital literacy programs as well as engaging in public private partnerships. Again it was suggested that the government would help provide computers or resources in training institutions so that online learning can be easier as well as providing unlimited WIFI to all students and lecturers to make it easy for students to research

15. Conclusions

Government policy needed to play a crucial role in promoting online learning for lifelong education in Zimbabwe by providing infrastructure support, including improved internet access and technology resources. Policies ought to focus on establishing standards for online education, fostering partnerships with educational institutions, and ensuring inclusivity for marginalized groups. Additionally, investing in professional development for educators and creating incentives for innovation in online learning platforms can enhance lifelong learning opportunities across the country. Recommendations ought not be on paper but needed to be implemented.

16. Recommendations

a) After thoroughly scrutinising the findings, the researchers came up with the following recommendations: -

b) Blended learning is the way to go that is the government need to develop a framework that integrates online learning fully in existing learning systems. Both face-to-face and online learning would be accommodated.

c) Government and the private sector ought to collaborate in promoting virtual learning for lifelong education in Zimbabwe by providing infrastructure support, improved internet access and technology resources.

d) Government ought to establish Massive Open Online Courses (MOOCs) platforms policy that would offer flexible, accessible and cost-effective learning.

e) Institutions may supply lecturers with online compliant smart phones and laptops as well as multiple broadband internet sources as well as providing data bundles as part of their training packages.

f) Institutions may team up with the private sector to come up with green energy power backup facilities in order to have continuous learning.

g) Information and communication technology experts were supposed to be placed in strategic leadership of management position in order to come up with appropriate decision on the best ways of implementing online learning.

h) Compulsory reskilling of all trainers in ICT skills in all disciplines is ideal for them to develop appropriate content for their specific disciplines and how to use the online platforms.

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