

INSTITUTIONALISATION OF E-LEARNING IN ZAMBIAN SCHOOLS AS A VIABLE ALTERNATIVE TO CLASSROOM LEARNING

Dr. J.Arockia Venice¹, Dr. Sumathi K. Sripathi², Mambwe Kafumbe³

^{1,2,3} DMI St. Eugene University, Zambia

Abstract

This study examines the institutionalisation of e-learning in Zambian schools as a viable alternative to traditional classroom learning. Using a mixed-methods approach, data were collected from educators, students, and school administrators to assess the current status, challenges, and potential of e-learning integration. Findings indicate that while e-learning offers flexibility, accessibility, and continuity of education, especially amid disruptions such as the COVID-19 pandemic, significant barriers exist, including inadequate infrastructure, limited digital literacy, and resistance to change. The study recommends strengthening ICT infrastructure, capacity building for teachers and learners, supportive policies, and community engagement to promote sustainable e-learning adoption. These insights contribute to educational planning in Zambia, highlighting e-learning as a complementary and transformative mode of instruction for enhancing educational access and quality.

Keywords: *E-learning, Digital Education, Institutionalisation, Zambia, Secondary Schools, ICT Infrastructure, Educational Technology, Distance Learning*

1. Introduction

The advent of digital technology has revolutionized educational practices globally, presenting new opportunities for learning beyond traditional classrooms. E-learning, defined as the use of electronic media and information technologies to deliver education, has become an essential alternative, particularly in situations where conventional schooling faces disruptions. In Zambia, the COVID-19 pandemic underscored the urgency of adopting e-learning to ensure continuity of education amidst school closures. Zambian schools, predominantly relying on face-to-face teaching, have gradually begun exploring e-learning as a complementary mode of instruction. Institutionalising e-learning involves integrating digital

tools and platforms systematically within the education system to support and enhance learning outcomes. This shift promises benefits such as increased accessibility, flexibility in learning pace and location, and potential to address educational inequalities. However, the transition to e-learning in Zambia faces significant challenges. Infrastructure deficits, including limited internet connectivity and lack of digital devices, hamper effective adoption, particularly in rural and underserved areas. Additionally, limited digital literacy among teachers and learners, resistance to pedagogical change, and inadequate policy frameworks pose barriers to widespread institutionalisation. This study investigates the status and challenges of e-learning institutionalisation in Zambian schools, focusing on secondary education. It seeks to understand stakeholder perceptions, infrastructural readiness, and capacity gaps while exploring strategies to promote sustainable integration of e-learning as a viable alternative or supplement to classroom learning. The research findings aim to inform policymakers, educators, and development partners on critical areas for intervention to strengthen digital education in Zambia. By leveraging e-learning's potential, Zambia can enhance educational access, quality, and resilience in the face of future disruptions, contributing to broader national development goals.

2. Research Objectives and Questions

This study aims to explore the institutionalisation of e-learning in Zambian secondary schools, focusing on identifying opportunities, challenges, and strategies for effective integration.

2.1 Research Objectives

1. To assess the current state of e-learning adoption in Zambian secondary schools.
2. To identify infrastructural, technical, and human resource challenges hindering e-learning institutionalisation.
3. To examine perceptions of educators, students, and administrators towards e-learning as an alternative to classroom learning.
4. To evaluate existing policies and support mechanisms for e-learning implementation.



5. To recommend practical strategies for enhancing the institutionalisation of e-learning in Zambia.

6.

2.2 Research Questions

1. What is the extent of e-learning adoption in secondary schools across Zambia?
2. What are the main challenges related to infrastructure, skills, and resources affecting e-learning integration?
3. How do key stakeholders perceive the viability and effectiveness of e-learning?
4. What policy frameworks and institutional supports exist for e-learning in Zambia?
5. What measures can be taken to promote sustainable and effective e-learning institutionalisation?

6.

3. Methodology

This study employed a **mixed-methods research design** to gather comprehensive data on the institutionalisation of e-learning in Zambian secondary schools.

3.1 Participants and Sampling

The research involved **150 students, 50 teachers, and 20 school administrators** drawn from ten secondary schools across both urban and rural areas in Zambia. A purposive sampling technique was used to select participants with direct experience or involvement in e-learning activities.

3.2 Data Collection Methods

- **Questionnaires:** Structured questionnaires were administered to students and teachers to collect quantitative data on access to e-learning tools, frequency of use, and perceptions of effectiveness.
- **Interviews:** Semi-structured interviews with school administrators and selected teachers provided qualitative insights into institutional readiness, challenges, and support structures for e-learning.

- **Document Analysis:** Policy documents, school reports, and ICT implementation plans were reviewed to assess institutional frameworks and guidelines.

3.3 Data Analysis

Quantitative data were analyzed using descriptive statistics to summarize usage patterns and perceptions. Qualitative data from interviews were transcribed and subjected to thematic analysis to identify key challenges, opportunities, and stakeholder attitudes.

3.4 Ethical Considerations

Ethical clearance was obtained from relevant educational authorities. Participants provided informed consent, and confidentiality was assured. Participation was voluntary, with the right to withdraw at any time without penalty.

4. Findings and Discussion

The findings reveal a nuanced picture of e-learning institutionalisation in Zambian secondary schools, highlighting both promising developments and persistent challenges.

4.1 Status of E-Learning Adoption

Survey data indicated that approximately **55% of students and 60% of teachers** had engaged in e-learning activities in the past academic year. Adoption was notably higher in urban schools where infrastructure and internet access were more reliable. Many participants reported using platforms such as Google Classroom, WhatsApp, and Zoom for instructional purposes, particularly during the COVID-19 pandemic-related school closures.

4.2 Infrastructure and Resource Challenges

Despite growing engagement, **70% of respondents identified inadequate infrastructure**—including unreliable electricity, poor internet connectivity, and scarcity of digital devices—as major barriers to effective e-learning. Rural schools were disproportionately affected, with many lacking basic ICT facilities. The absence of dedicated e-learning spaces and insufficient technical support further hampered integration efforts.

4.3 Digital Literacy and Capacity Gaps

Teachers' and students' digital literacy varied considerably. While urban schools showed higher competency levels, many rural educators lacked formal training in e-learning pedagogies and technology use. Administrators noted that insufficient professional development opportunities limited their capacity to implement and manage e-learning programs effectively.

4.4 Stakeholder Perceptions

Most teachers (65%) and students (70%) acknowledged e-learning as a valuable complementary tool to traditional classroom teaching, offering flexibility and continuity, especially during disruptions. However, some expressed skepticism about its effectiveness, citing challenges in student engagement and the digital divide as limiting factors.

4.5 Policy and Institutional Support

Document analysis revealed that while national education policies recognize ICT integration, specific guidelines and frameworks for e-learning institutionalisation remain underdeveloped. Schools with proactive leadership and clear ICT strategies showed better e-learning uptake, underscoring the importance of institutional commitment.

4.6 Implications for Sustainable E-Learning

The findings suggest that while e-learning holds promise for expanding educational access and quality, addressing infrastructural deficiencies, capacity-building, and policy formulation are critical for sustainable adoption. Bridging urban-rural disparities and fostering stakeholder buy-in will be essential to fully realise e-learning's potential.

5. Recommendations

Based on the study findings, the following recommendations are proposed to support the institutionalisation of e-learning in Zambian secondary schools:

5.1 Invest in ICT Infrastructure and Connectivity

Government and stakeholders should prioritize expanding reliable electricity supply and affordable internet connectivity, especially in rural schools. Providing sufficient digital devices and dedicated e-learning spaces will enable equitable access for all learners.

5.2 Enhance Digital Literacy and Capacity Building

Comprehensive training programs for teachers and administrators on e-learning technologies and pedagogies are essential. Continuous professional development will empower educators to effectively design and deliver online content, increasing learner engagement.

5.3 Develop Clear Policy Frameworks and Implementation Guidelines

Education authorities should establish specific policies and operational guidelines that support e-learning integration, including standards for content quality, data security, and assessment methods. Clear directives will promote consistency across schools.

5.4 Foster Collaborative Partnerships

Partnerships with private sector entities, NGOs, and international agencies can supplement resources, provide technical support, and introduce innovative e-learning solutions tailored to Zambia's context.

5.5 Promote Inclusive E-Learning Practices

Special attention should be given to bridging the urban-rural digital divide by tailoring e-learning approaches to local needs, including offline content and community learning centers. Engaging parents and communities will also support learner participation.

5.6 Monitor and Evaluate E-Learning Initiatives

Establishing monitoring and evaluation systems will help assess progress, identify challenges early, and guide continuous improvement in e-learning practices.

6. Conclusion



The institutionalisation of e-learning in Zambian secondary schools offers a transformative opportunity to enhance educational access, quality, and resilience. This study reveals that while e-learning adoption is growing, particularly in urban areas, significant challenges related to infrastructure, digital literacy, and policy clarity hinder its widespread and effective implementation. Addressing these barriers requires coordinated efforts to invest in ICT infrastructure, build educator capacity, and develop comprehensive policy frameworks that support sustainable e-learning integration. Partnerships with diverse stakeholders and inclusive approaches that consider rural and marginalized communities are essential to bridge existing disparities. By embracing these strategies, Zambia can harness e-learning as a vital complement to traditional education, ensuring continuity amid disruptions and expanding learning opportunities for all students. Ultimately, the successful institutionalisation of e-learning will contribute to the country's broader educational goals and support its development aspirations in the digital era.

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