



**THE ROLE OF TECHNOLOGY IN PLANNING AND MANAGING
ADULT LEARNING INITIATIVES: A CASE STUDY OF THE
UNIVERSITY OF MAIDUGURI CENTRE FOR DISTANCE
LEARNING, BORNO STATE, NIGERIA**

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ABSTRACT

This study Assess the role of technology in planning and managing adult learning initiatives at the University of Maiduguri's Centre for Distance Learning, Borno State, Nigeria. With the increasing demand for flexible and accessible education, technology has become a critical tool for enhancing the delivery and administration of adult education programs. Using a case study approach, this research investigates the technologies currently in use, their effectiveness, and the challenges faced in their implementation. Data was collected through interviews, surveys, and document analysis. The findings reveal that while technology has significantly improved the planning and management of adult learning initiatives, challenges such as inadequate infrastructure, low digital literacy, and funding constraints persist. The study concludes with recommendations for improving technology integration and scaling up successful practices.

Keyword: technology, planning, managing, learning initiatives

Introduction

Adult education plays a pivotal role in addressing societal challenges, such as illiteracy, unemployment, and skills gaps, particularly in developing countries like Nigeria. In Borno State, where access to traditional education is often hindered by insecurity and economic constraints, distance learning has emerged as a viable alternative. The University of Maiduguri Centre for Distance Learning (UMCDL) has been at the forefront of providing adult learning opportunities to individuals in Borno State, Nigeria. With the advent of technology, the centre has leveraged various digital tools to plan and manage its adult learning initiatives. This examines the role of technology in enhancing the planning and management of adult learning programs at (UMCDL). According to UNESCO (2019), technology has revolutionized the way adult learning programs are designed, delivered, and evaluated. At (UMCDL), technology has played a crucial role in planning and managing adult learning initiatives. However, the effective planning and management of these initiatives require innovative approaches, particularly the integration of technology. Technology has transformed the landscape of education globally, enabling flexible learning, efficient administration, and improved learner engagement. For instance, the centre utilizes Learning Management Systems (LMS) such as Moodle to create and manage online courses, track learner progress,

and facilitate communication between instructors and learners (Moodle, 2022). Moreover, technology has enabled (UMCDL) to reach a wider audience, including those in remote and hard-to-reach areas. The centre has leveraged mobile learning (m-learning) to deliver adult learning programs, allowing learners to access course materials and interact with instructors via their mobile devices (Kukulska-Hulme & Shield, 2008). In addition, technology has enhanced the assessment and evaluation of adult learning programs at (UMCDL). The centre uses digital tools such as online quizzes, discussion forums, and peer assessment to evaluate learner performance and provide feedback (Boulos, 2012). However, despite the numerous benefits of technology in planning and managing adult learning initiatives, there are also challenges that need to be addressed. For instance, the lack of reliable internet connectivity and limited access to digital devices can hinder the effective use of technology in adult learning programs (Akinsola, 2017). In conclusion, technology has played a vital role in enhancing the planning and management of adult learning initiatives at (UMCDL). The centre's use of LMS, m-learning, and digital assessment tools has improved the delivery, accessibility, and evaluation of adult learning programs. However, there is a need to address the challenges associated with technology use in adult learning programs to ensure that all learners have equal access to these opportunities. In the context of adult education, technology can address challenges such as limited physical infrastructure, time constraints, and diverse learner needs. Despite its potential, the adoption of technology in adult education in Nigeria faces significant barriers, including inadequate funding, low digital literacy, and unreliable internet connectivity. This study seeks to examine the role of technology in planning and managing adult learning initiatives at the University of Maiduguri's (UMCDL).

Statement of the Problem

The University of Maiduguri Centre for Distance Learning (UMCDL) faces challenges in planning and managing its adult learning initiatives, particularly in reaching and engaging learners in remote and hard-to-reach areas of Borno State, Nigeria. Despite the potential of technology to enhance adult learning, (UMCDL) has not fully leveraged digital tools to support its programs, resulting in, Limited access to adult learning opportunities for marginalized groups, Inefficient management of adult learning programs, leading to poor learner outcomes and Inadequate use of technology to support adult learning, resulting in a lack of engagement and motivation among learners. The potential, the adoption of technology in adult education in Nigeria remains limited, particularly in regions like Borno State, where additional challenges such as poor internet connectivity, low digital literacy, and inadequate funding persist. These barriers hinder the Centre for Distance Learning from fully leveraging technology to enhance its programs. This study aims to investigate the role of technology in planning and managing adult learning initiatives at (UMCDL), with a focus on identifying strategies for improving access, engagement, and outcomes for adult learners in Borno State, Nigeria. Furthermore, there is limited empirical evidence on how technology can be effectively integrated into the planning and management of adult learning initiatives in such contexts. This gap in the literature underscores the need for a focused study on the role of technology in adult education at the University of Maiduguri's Centre for Distance Learning.

Objectives of the Study

1. To identify the technologies currently used in the planning and management of adult learning initiatives at the University of Maiduguri's Centre for Distance Learning.
2. To evaluate how technology enhances the planning and management of adult learning initiatives at the Centre.
3. To analyze the challenges and opportunities in implementing technology for adult learning initiatives at the Centre.

Conceptual Framework:

The conceptual framework for this study is based on the Technology Acceptance Model (TAM) (Davis, 1989).

Based on the Technology Acceptance Model (TAM) (Davis, 1989), Adult Learning Theory (Andragogy), Social Cognitive Theory (SCT) and Distance Learning Theory (Moore, 1993). The framework illustrates the relationships between technology acceptance, adult learning outcomes, learner engagement, and the moderating effects of demographic characteristics, prior learning experience, and technological literacy. Independent Variables: Technology Acceptance: Perceived usefulness, perceived ease of use, and attitude towards technology, Technology Adoption: Use of Learning Management Systems (LMS), mobile devices, and other digital tools (Rogers, 2003). Dependent Variables: Adult Learning Outcomes: Knowledge acquisition, skills development, and application of learning, Learner Engagement: Participation, motivation, and satisfaction with the learning experience (Kuh, 2009). Moderating Variables: Demographic Characteristics: Age, gender, education level, and occupation (Merriam & Bierema, 2014), Prior Learning Experience: Previous experience with distance learning, technology-enhanced learning, and adult education (Bandura, 1986) and Technological Literacy: Proficiency in using digital tools, LMS, and other technologies (Eshet-Alkalai, 2004). Relationships: Technology acceptance influences adult learning outcomes and learner engagement, Technology adoption moderates the relationship between technology acceptance and adult learning outcomes (Rogers, 2003) and Demographic characteristics, prior learning experience, and technological literacy moderate the relationship between technology acceptance and adult learning outcomes (Merriam & Bierema, 2014). Assumptions: Adult learners are self-directed and motivated, Technology can facilitate learning by providing opportunities for observation, imitation, and reinforcement and Technology acceptance and adoption are critical factors influencing adult learning outcomes and learner engagement (Merriam & Bierema, 2014).

The integration of technology in education has been widely studied, with a focus on its potential to improve access, quality, and efficiency. In the context of adult education, technology enables flexible learning opportunities, personalized instruction, and efficient administration (Smith & Jones, 2020). Distance learning, in particular, has benefited from advancements in Learning Management Systems (LMS), video conferencing tools, and mobile learning platforms (Brown et al., 2019). In Africa, the adoption of technology in education has been uneven, with significant disparities between urban and rural areas (Adewale, 2021). In Nigeria, the use of technology in education is still in its nascent stages, particularly in regions like Borno State, where insecurity and infrastructure deficits pose additional

challenges (Okeke & Eze, 2022). However, studies have shown that technology can bridge the gap in access to education, particularly for adult learners who are often excluded from traditional educational systems (Musa et al., 2021). Despite its potential, the implementation of technology in adult education faces several challenges. These include inadequate infrastructure, low digital literacy among learners and instructors, and limited funding (Olaniran, 2020). Addressing these challenges requires a holistic approach that involves stakeholders at all levels, including government, educational institutions, and the private sector. This study builds on existing literature by focusing on the specific context of the University of Maiduguri's Centre for Distance Learning. It seeks to fill a gap in the literature by providing empirical evidence on the role of technology in planning and managing adult learning initiatives in a resource-constrained setting.

Method of data analysis

This study adopts a qualitative case study approach to assess the role of technology in planning and managing adult learning initiatives at the University of Maiduguri's Centre for Distance Learning. The case study design was chosen because it allows for an in-depth examination of a specific context and provides rich, detailed insights (Yin, 2018). Data collected through semi-structured interviews, surveys, and document analysis. Participants included administrators, instructors, and learners at the Centre. A total of 20 participants were interviewed, and 50 surveys were administered. Documents such as institutional reports, policy guidelines, and course materials were also analyzed to provide additional context. The data was analyzed thematically, with a focus on identifying patterns and themes related to the use of technology, its effectiveness, and the challenges faced. Ethical considerations, such as informed consent and confidentiality, were strictly observed throughout the research process.

Results

The findings reveal that the University of Maiduguri's Centre for Distance Learning utilizes a range of technologies to plan and manage adult learning initiatives. These include:

- Learning Management Systems (LMS): Used for course delivery, assessment, and communication.
- Video Conferencing Tools: Platforms like Zoom and Microsoft Teams facilitate live lectures and interactive sessions.
- Mobile Learning Platforms: Enable learners to access course materials on their smartphones.

Participants reported that these technologies have improved the efficiency of program planning, enhanced learner engagement, and provided greater flexibility for adult learners. However, several challenges were identified, including:

- Inadequate internet connectivity, particularly in rural areas.
- Low digital literacy among learners and instructors.
- Limited funding for the procurement and maintenance of technological tools.

Despite these challenges, the Centre has implemented several successful practices, such as training programs to improve digital literacy and partnerships with private sector organizations to enhance infrastructure.

Discussion

The findings of this study highlight the transformative potential of technology in adult education, particularly in resource-constrained settings. The use of LMS, video conferencing tools, and mobile learning platforms has significantly improved the planning and management of adult learning initiatives at the University of Maiduguri's Centre for Distance Learning. However, the challenges identified underscore the need for a multi-stakeholder approach to address issues such as infrastructure deficits and low digital literacy. The results align with existing literature, which emphasizes the importance of technology in enhancing access to education (Smith & Jones, 2020). However, this study adds to the literature by providing context-specific insights from Borno State, Nigeria. The findings have practical implications for policymakers and administrators, particularly in terms of scaling up successful practices and addressing barriers to technology adoption.

Conclusion

This study has examined the role of technology in planning and managing adult learning initiatives at the University of Maiduguri's Centre for Distance Learning. The findings demonstrate that technology has the potential to transform adult education, but its implementation requires addressing significant challenges. Recommendations include increasing investment in infrastructure, providing training for learners and instructors, and fostering partnerships with the private sector. Future research could explore the long-term impact of technology on learner outcomes and the scalability of successful practices.

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