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Repositioning Teacher Education in the Digital Era for Promoting Digital Entrepreneurship and Financial Literacy among Adult Learners in Nigeria

Amina Yusuf Abdullahi & Moru Zainaib

Adult and Non- Formal Education, Department Federal College of Education Okene, Kogi State, NIGERIA

Correspondence: *yusuf.amina1906@fceokene.edu.ng*

Highlights:

The digital era has increased demand for digital competencies, entrepreneurial skills, and financial literacy, especially among adult learners. But teacher education in Nigeria has not fully adapted, which limits adult educators' capacity to prepare learners for the digital economy.

The paper examines how teacher education can be repositioned to promote digital entrepreneurship and financial literacy among adult learners.

Key concepts discussed are Digital Era, Teacher Education, Adult Education, Digital Entrepreneurship, and Financial Literacy.

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Abstract: The emergence of the digital era has transformed education, communication, and economic activities globally. This development has increased the demand for digital competencies, entrepreneurial skills, and financial literacy among learners. Particularly adult learners. However, teacher education in Nigeria has not fully adapted to these changes, thereby limiting the capacity of adult educators to effectively prepare learners for participation in the digital economy. This paper examined the repositioning of teacher education in the digital era for promoting digital entrepreneurship and financial literacy among adult learners in Nigeria. The paper discussed key concepts such as digital era, teacher education, adult education, digital entrepreneurship and financial literacy. It also highlighted the role of adult education in empowering learners, challenges facing teacher education, and strategies for improvement. The paper concluded that repositioning teacher education through ICT integration, curriculum reform, and capacity building is essential for effective adult education delivery in the digital age.
Keywords: Teacher Education, Digital Era, Digital Entrepreneurship, Financial Literacy, Adult Learners, Nigeria

Introduction

The world is currently experiencing rapid transformation driven advances in digital technologies such as artificial intelligence, mobile devices, cloud computing, and internet-based communication systems. This development, commonly described as the digital era, has significantly changed how people learn communicate, work, and participate in economic activities, As a result, education systems are increasingly required to adjust their approaches in order to remain relevant and responsive to contemporary societal needs in knowledge-driven economy. Education, particularly teacher education, plays a central role in preparing individuals who will facilitate learning at all levels of education programmes have often been criticized for not adequately reflecting the realities of the digital age. In this regard, Selwyn (2016) argued that digital technologies are reshaping education by influencing how knowledge is accessed, shared, and constructed, thereby requiring a shift in pedagogical approaches and teacher preparation strategies. Similarly, Tapscott (2009) emphasized that the digital revolution has transformed learning environments, making digital competence essential for both teachers and learners. In the digital era, teachers are expected to be competent in using digital technologies to enhance instruction, support learner's engagement,

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and promote meaningful learning experiences. This requires a repositioning of teacher education to include digital literacy, ICT integration, and innovative pedagogical approaches that reflect current global educational practices.

Adult education, as a component of lifelong learning is particularly important in addressing the needs of individuals who are outside the formal school system. It focuses on equipping adult learners with relevant knowledge, skills, and competencies that enhance their personal development, employability, and socioeconomic participation. According to Knowles (1980), adult learners are self-directed, requiring learning approaches that are practical and relevant to real-life situations. In recent year adult education has become increasingly relevant in addressing challenges such as unemployment, poverty, and lack of entrepreneurial skills, which involves the use of digital tools and platforms to create and manage business opportunities. In addition, financial literacy has become essential for enabling individuals to make informed decisions regarding savings, budgeting, investment, and the use of digital financial services in an increasingly digital economy. Despite the importance of these skills, many adult learners in Nigeria skill lack adequate exposure to digital entrepreneurship and financial literacy due to limitations in teacher education programmes. In response to this gap, UNESCO (2022) emphasized the need for teachers to possess ICT competencies and digital pedagogical skills in order to effectively support learning in modern educational environments. Against this background, there is a need to reposition teacher education in the digital era to better respond to contemporary educational and economic realities. Repositioning teacher education involves restructuring curricula, integrating digital technologies, strengthening pedagogical approaches, and equipping educators with the skill required to deliver digital entrepreneurship and financial literacy education effectively. This transformation is essential for enhancing the relevance of adult education and empowering learners for self-reliance, employability, and socioeconomic development. Therefore, this paper examines the repositioning of teacher education in the digital era for promoting digital entrepreneurship and financial literacy among adult learners in Nigeria. It also explores the role of adult education in achieving these objectives, indentifies key challenges, and suggests strategies for improving teacher education in line with the demands of the digital age.

Conceptual Clarification

Concept of Digital Era

The digital era refers to period in human development characterized by the widespread use of digital technologies, internet connectivity, and electronic communication systems in all aspects of life, including education, business, governance, and social interaction. It is a stage of technological advancement where information is generated, processed, and shared rapidly through digital platforms, thereby transforming how individuals learn, work, and communicate. According to UNESCO (2023), the digital era is a transformative period driven by information and communication technologies (ICTs), where digital tools shape learning, economic activities, and social interactions globally. This era has significantly altered the way individuals acquire knowledge, conduct business, and interact socially. From an educational perspective, Akinyemi and Ofodu (2021) stated that the digital era involves the application of digital technologies in teaching and learning

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processes to improve access to information, skill acquisition, and learer participation. They maintained that digital technologies have become important tools for promoting modern education and economic empowerment. According to Organization for Economic Co-operation and Development (OECD, 2021), the digital era is characterized by the widespread adoption of digital innovations that influence productivity, entrepreneurship, financial transactions, and lifelong learning opportunities. The organization stressed that digital competence is now essential for economic participation and sustainable development. For teacher education, the digital era necessitates a shift from conventional teaching methods to technology-driven and learner-centered approaches. It also requires educators to develop competencies in digital literacy, online instruction, and the use of emerging technologies to enhance learning outcomes. The digital era is driven by innovations such as mobile devices, artificial intelligence, cloud computing, and social media platforms, which have significantly reshaped human activities and global economic system. According to Tapscott (2009), the digital era is a transformative age in which digital technologies reshape communication, learning, and economic activities through interconnected technological systems. Similarly, Klaus (2016) described the digital era as a phase associated with the Fourth Industrial Revolution where technologies such as artificial intelligence, robotics, and digital communication systems are changing human activities and societal structures. In the educational sector, the digital era has transformed traditional methods of teaching and learning by introducing virtual learning environments, online education, digital instructional materials, and technology-supported communication systems. Selwyn (2016) observed that digital technologies have significantly influenced educational practices by changing how knowledge is produced, accessed, and shared among learners and educators. This transformation has increased the need for educational institutions to integrate digital competencies into teaching and learning processes. Therefore, the digital era can be viewed as a technological driven period in which digital tools and internal-based systems influence education, entrepreneurship, communication, financial activities and societal development. It emphasizes innovation, connectivity, and digital literacy, and the use of technology for personal and national development.

Concept of Teacher Education

Teacher education refers to the structured process of preparing and equipping individuals with the knowledge, skills, attitudes, and competencies required for effective teaching and learning. It encompasses both pre-services and in-service training aimed at improving teachers' professional capacity and instructional effectiveness. According to UNESCO (2016) teacher education plays a crucial role in ensuring quality education by respond to competent educators who can respond to societal needs. Nwabueze, Nnamagu and Nnamchi (2019) defined teacher education as a professional education and training given to teacher for the attainment of attitudes, skills and knowledge that are desirable to make them more efficient and effective in their duties, in accordance with the need of a given society at any point in time. Agwu and Iduma (2016), teacher education is an institutionalized procedure designed for the professional training of those who engage in the business of teaching. It is a major pillar that supports the growth and development of any society as the quality of the education

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determines the quality of the teacher and that subsequently gives rise to the quality of students. Teacher education is therefore expected to function by equipping teachers with the knowledge, skills and competencies that will enable them develop and impact in their students the required positive changes. According to UNESCO (2016) teacher education plays a crucial role in ensuring quality education by respond to competent educators who can respond to societal needs. In the digital era, teacher education extends beyond traditional pedagogical training to include the integration of digital technologies, innovative instructional strategies, and learner-centered approaches. This underscores the need for repositioning teacher education to align with contemporary realities and global best practices. According to Fafunwa (1974), teacher education is essential for producing qualified educators capable of contributing meaningfully to national development through effective teaching and learning. Teacher education includes both pre-services and in-service training aimed at improving teachers' professional competence and adaptability to changing educational realities. In the digital era, teacher education is expected to integrate ICT competencies, digital pedagogy, online instructional methods, and innovative teaching approaches. Ololube (2015) emphasized that modern teacher education must focus on developing teachers' digital competencies to enhance instructional effectiveness in technology-driven learning environments. Therefore, teacher education can be defined as the organized process of training, developing and professionally preparing teachers with the knowledge, pedagogical skills, values, and competencies necessary for effective teaching, classroom management, educational innovation, and lifelong professional growth.

Concept of Adult Education

Adult education refers to organized educational activities designed to meet the learning needs of adults outside the formal school system. It focuses on helping adults acquire, knowledge, practical skills values, and competencies necessary for personal growth, social participation, and economic empowerment. Adekoya (2020) sees adult education as a deliberate effort to provide knowledge, skills, and attitudes necessary for adult learners to adapt to a rapidly changing society. The OECD (2020) defines adult education as a form of lifelong learning intended for personal fulfillment, active citizenship, and employment. Adult education has been viewed as a tool for combating illiteracy, promoting skill acquisition, and encouraging civic participation (Okonkwo & Njoku, 2022). Adult learners are typically characterized by their need for practical, flexible, and experience-based learning. Unlike younger learners, adults often engage in education with specific goals, such as improving their livelihoods, acquiring new skills, or adapting to changing socio-economic conditions. Knowles (1980) explained that adult education emphasizes self-directed learning, experiential learning, and practical application of knowledge to real-life situations. Adult education is an important component of lifelong learning because it provides opportunities for adults to improve their literacy, vocational skills, entrepreneurial abilities, and social awareness. According to Freire (1970), adult education serves as a means of empowering individuals to critically understand their social realities and improve their living conditions. In Nigeria, adult education has increasingly focused on poverty reduction, employability, digital literacy, and community development. in the digital era, adult education has expanded to include

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digital learning, online education, entrepreneurship training, and financial literacy programmes aimed at preparing adult learners for active participation in the modern economy.

Digital entrepreneurship refers to the creation, management, and expansion of business ventures through the use of digital technologies and online platforms. It involves leveraging tools such as social media, e-commerce platforms, mobile applications, and digital marketing strategies to generation income and creates value. Digital entrepreneurship has gained prominence as a result of the rapid growth of the digital economy and the increasing accessibility of digital tools. According to Mohammed et al (2023) regards digital entrepreneurship as the use of digital media and other information and communication technology to accelerate changes in the competitive landscape. According to Elia et al (2020), digital entrepreneurship is creating new value by applying digital technology to the manufacturing process of a product, service or business management. Digital business activity is based on the expenditure of information technology to market, distribute or transform products, which takes place on the Internet. According to Nambisan (2017), digital entrepreneurship combines technological innovation with entrepreneurial activities to create economic opportunities in the digital economy. For adult learners, in particular, digital entrepreneurship provides opportunities for economic empowerment, flexibility, and participation in global markets. In addition, Olojide, Oladipo, and Oyeleye (2019) noted that digital entrepreneurship reduces barriers to entry into business and enables individuals to participate in global markets. Scholar have emphasized that digital entrepreneurship is closely linked to the development of digital skills and financial literacy. The ability to effectively use digital tools, manage online transactions, and make informed financial decisions is essential for success in digital business environments. The OECD (2020) highlighted that digital competence and financial knowledge are critical for entrepreneurial success in the modern economies. For adult learners, it offers flexible and accessible pathway to self-employment and financial independence. In the Nigerian context, digital entrepreneurship has emerged as a viable strategy for addressing and unemployment and promoting economic empowerment among youths and adult learners. With the increasing penetration of mobile technology and internet services, many individuals are now engaging in online businesses such as e-commerce. Digital marketing and freelance services. However, the success of these ventures depends largely on access to relevant skills, training and supportive policies. Therefore, adult education programmes play a critical role in equipping learners with the competencies required for digital entrepreneurship development. Digital entrepreneurship development in the context of this study refers to the process of equipping adult learners with the knowledge, skills, and competencies necessary to create, manage, and grow business ventures through the use of digital technologies. It involves the strategic integration of digital tools, online platforms, and innovative practices facilitated by adult education programmes to empower individuals to participate actively in the digital economy, enhance their economic opportunities, and contribute to national development.

Financial literacy is a critical component of empowerment in the digital era, as it enables individuals to make informed financial decisions and effectively manage resources. Financial literacy refers to the knowledge, skills, and attitudes required

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making informed and effective financial decisions. It includes understanding basic financial concepts such as budgeting, saving, investment, credit management, and risk assessment. Financial literacy is an understanding of matters relating to money management and its use to improve welfare and business success (Huang et al., 2024). Financial literacy is carried out by adding aspects of financial attitudes and behavior in addition to knowledge, skills, and beliefs about financial institutions, products, and services (Lone & Bhat, 2024). The definition of financial literacy is knowledge, skills, and beliefs, which influence attitudes and behavior to improve the quality of decision-making and financial management in order to achieve welfare. The OECD (2020) defined financial literacy as a combination of awareness, knowledge, skills, attitudes, and behaviors necessary to make sound financial decision. According to Organization for Economic Co-operation and Development (2020), financial literacy involves the knowledge and skills necessary for making sound financial decisions that improve individual. Similarly, Lusardi (2019) highlighted that financial literacy enhances individuals' ability to manage resources effectively, plan for the future, and avoid financial literacy continue to hinder financial inclusion, as reported by the Central Bank of Nigeria (2020) . The World Bank (2020) defines financial literacy as a critical life skill that enables individuals to manage their financial resources effectively and achieve long-term financial stability. Financial literacy is particularly important in the context of entrepreneurship, as it equips individuals with the ability to plan, manage, and sustain business ventures. Without adequate financial knowledge, entrepreneurs may struggle with poor financial decisions, leading to business failure. In Nigeria, low levels of financial literacy have been identified as a major barrier to economic empowerment and poverty reduction (Owolabi & Momoh, 2021). Integrating financial literacy into educational programmes, especially adult education is therefore essential for enhancing individual' capacity to achieve financial independence and economic sustainability. Similarly, EfinA (2021) reported that inadequate financial knowledge remains a major barrier to accessing formal financial services among many Nigerians, particularly adult learners. Therefore, integrating financial literacy into adult education programmes is essential for enhancing economic empowerment and promoting sustainable livelihoods.

Repositioning Teacher in the Digital Era for Adult Education

Repositioning teacher education in the digital era involves the restructuring and transformation of teacher preparation programmes to align with the realities of technological advancement and contemporary educational practices. It requires the integration of digital competencies, innovative pedagogical approaches, and technology-driven instructional strategies into teacher education programmes in order to prepare educators for effective teaching and learning in modern society. According to Selwyn (2016), digital technologies have transformed educational systems by changing how teaching, learning, and knowledge dissemination are carried out, thereby creating the need for educational reforms that support digital learning environments. Teacher education is expected to equip educators with the professional knowledge, teaching skills, and competencies necessary for responding to societal changes and learner's needs. However, the emergence of the digital era has expanded the responsibilities of teachers beyond traditional classroom instruction to

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include digital facilitation, online communication, virtual collaboration and technology-supported learning. Tapscott (2009) observed that the digital revolution has altered learning processes and information access, making digital competence an essential requirement for educators in the 21th century. in the context of adult education repositioning teacher education becomes particularly important because adult learners require practical, flexible, and learner –centered instructional approaches that reflect their experiences and immediate socioeconomic needs. Knowles (1980) emphasized that adult learners are self-directed and problem-centered, requiring instructional methods that are relevant to their real-life situations. Consequently, adult educators must be trained to utilize digital technologies and participatory learning strategies that promote effective adult learning in both formal and non-formal educational settings. The digital era has significantly influenced adult education through the introduction of online learning, virtual classrooms, mobile learning applications, and open educational resources. These innovations have expanded learning opportunities for adults by making education more accessible and flexible. According to UNESCO (2022), teachers in contemporary educational systems require competencies in ICT integration, digital, communication, online facilitation, and information management to effectively support lifelong learning and inclusive education

Repositioning teacher education for adult education also involves integrating digital pedagogy into teacher preparation programmes. Digital pedagogy refers to the use of digital technologies to enhance teaching and learning processes through interactive, collaborative, and learner-centered instructional methods. Ololube (2015) maintained that effective teacher education in the digital era must focus on developing educators' technological competencies to improve instructional delivery and learner engagement. Furthermore, adult education in the digital era is increasingly linked to digital entrepreneurship and financial literacy because these competencies are essential for economic participation and self-reliance. Adult learners require practical digital skills for online business operations, digital communication, e-commerce, and financial management. Therefore teacher education institutions must prepare adult educators who can effectively teach entrepreneurship and financial literacy using technology-driven instructional approaches. In Nigeria, the repositioning of teacher education for adult education has become necessary due to increasing unemployment, poverty, and the growing demands for digital skills in the labour market. Many adult learners lack the digital competencies required for participation in the modern economy. Adult education remains an important instrument for empowerment, employability, and community development, particularly in developing societies where access to formal education opportunities may be limited. Despite its importance, several challenges continue to hinder the effective repositioning of teacher education in the digital era. These include inadequate ICT infrastructure, insufficient funding, and shortage of digitally competent educators, poor internet connectivity, and resistance to technological change. These challenges affect the ability of teacher educators for contemporary educational realities. Therefore, repositioning teacher education in the digital era require curriculum reform, continuous professional development for educators, investment in ICT infrastructure, and effective integration of digital literacy, entrepreneurship education, and financial

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literacy into teacher preparation programmes. Such reforms are necessary for strengthening adult learners with relevant competencies for lifelong learning economic participation, and sustainable national development

Strategies for Repositioning Teacher Education in the Digital Era.

To address the identified challenges, several strategies are necessary to effectively reposition teacher education for adult education in the digital era.

- There is a need for curriculum reform in teacher education programmes.
- Continuous professional teacher education development and capacity building for teacher educators should be prioritized.
- Government and stakeholders should invest s heavily in digital infrastructure.
- Adult education programmes should be strengthened through the integration of digital entrepreneurship and financial literacy content.
- Policies that promote digital inclusion and lifelong learning should be developed and effectively implemented.

Conclusion

The study has examined the need to reposition teacher education in the digital era as a strategic approach to promoting digital entrepreneurship and financial literacy among adult learners in Nigeria. The rapid transformation of the global economy through digital technologies has made it imperative for education systems to evolve in order to remain relevant and responsive to contemporary demands. Teacher education, as the foundation of educational development, plays critical role in equipping educators with the competencies required to facilitate meaningful learning and skills acquisition. The paper established that digital entrepreneurship and financial literacy are essential tools for economic empowerment, self-reliance, and sustainable development, particularly among adult learners who often seek practical and livelihood-oriented education. However, the current structure of teacher education prorammes in Nigeria has not sufficiently integrated these critical components, thereby limiting the effectiveness of adult education in addressing unemployment and poverty. it was further highlighted that repositioning teacher education through curriculum reform, integration of digital technologies, and adoption of innovative pedagogical approaches can significantly enhance the capacity of educators to deliver relevant and skill-based instruction. Such transformation will not only improve learning outcomes but also empower adult learners to participate actively in the digital economy. In conclusion, a well-restructured and forward-looking teacher education system is essential for bridging the gap between education and economic realities. By equipping educators with digital, entrepreneurial, and financial competencies, Nigeria can harness the potential of adult education as a tool for national development and socio-economic transformation.

Recommendations

- Curriculum Reform: Teacher education curricula should be reviewed and updated to incorporate digital literacy, digital entrepreneurship, and financial literacy as core components of training programmes.
- Capacity Building for Educators: Regular training, workshops, and professional development programmes should be organized to

enhance teachers' digital and entrepreneurial competencies.

- Investment in Digital Infrastructure: Government and relevant stakeholders should provide adequate technological facilities, including internet access, digital devices, and e-learning platforms, to support effective teaching and learning.
- Integration of Practical Teaching Approaches: Teacher education programmes should emphasize experiential learning, problem-based learning, and real-life applications to enhance kill acquisition among adult learners.

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