Educating Out-of-School Children in North Western Nigeria through Open Schooling: A Case for Using Mobile Technologies

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ABSTRACT

In today's technologically enabled global culture, open schooling has become one of the recognized delivery modalities for both formal and non-formal education. Furthermore, tablets, mobile phones, and other digital gadgets are now tiny enough to fit in pockets, connecting users to information sources and encouraging learning at any time and from any location suitable for Nigeria's out-of-school children who are ever-increasing due to fragility. Conflict and violence (FCV). This is a review paper which describes the usage of mobile devices in Nigeria's informal education sector. Materials used were from several databases: Google scholar, Web of Science, EBSCO, and ERIC. Major findings pointed out that there were successful ICT integrated projects in several developed countries. The paper made a recommendation for the utilization of mobile technology to boost the effectiveness of Nigeria's open schooling Initiative, for its thirteen million children not attending formal schools.

INTRODUCTION

Education is a worldwide phenomenon that allows human civilizations to acquire the information, skills, and experience required to support their development and survival. As a consequence, education helps individuals grow intellectually, socially, and emotionally, while also providing them with the self-worth, respect, and self-esteem they require to transcend poverty by preparing them for work in all sectors of the economy (Wushishi, 2014). Over 60 years ago, the International Declaration of Human Rights established the right to education for all (Kabir, 2016). Some countries are working together to guarantee that all of their citizens have access to an education. This is consistent with contemporary concepts such as "Education for All (EFA)," "Millennium Development Goals (MDGs)," and "Lifelong Learning" (UNESCO, 2002), all of which emphasize worldwide commitment to providing quality education for all (Kabir, 2016). Indeed, education is a child's right that must be upheld, and children should not be denied this right (UNICEF, 2000).

To make Education for All a reality, the UN convened over 150 country representatives in Jomtien, Thailand, in 1990, and Dakar, Senegal, in 2000, with the goal of providing education to all children. Nigeria was a signatory to the Jomtien Declaration in 1990, and it also has one of the world's worst rates of school dropout, with roughly 10.5 million such children in 2010 (Wushishi, 2014) and more than 13.5 million in 2018 (Agence France Presse, 2018).

The National Policy on Education (NPE) of Nigeria from 2004 (updated in 2013) established a broad policy on lifelong learning. Education is a superior tool for attaining national advancement, according to policy (Federal Republic of Nigeria, 2004). Section 1 subparagraph 5(c) of the Policy proclaims that all persons at all levels have equal access to educational opportunities. Section 18 of Nigeria's 1999 Constitution (FGN, 1999) states that the government shall seek to eliminate illiteracy by providing the following:

1. Free, compulsory, and universal primary education,
2. Free secondary education,
3. Free university education, and
4. Free adult literacy Programme.

According to Section 2(1) of the Universal Basic Education (UBEC) Act 2004, "governments in Nigeria should provide free, compulsory, and universal basic education for every child of primary and junior secondary school age." Clause 2 (2) further specifies that all parents are responsible for making sure that children under their care, finish elementary and secondary school. As a result, through the new Sustainable Development Goals (SDGs), international organizations such as UNESCO, UNICEF, and the World Bank, as well as governments around the world, have made huge commitments that will provide education to Nigerian citizens, thereby eliminating hunger, poverty, and inequalities in accessing quality education (Kabir, 2016). Despite these efforts, Nigeria accounts for 30-40% of the world's total population of children not attending formal education (Kabir, 2016). These statistics show children who are not enrolled in formal schooling due to the fact that North Western Nigeria also has the Almajiri system of education, which is a non-formal education system and which several research papers have called for its integration with formal education (Aghedo & Eke, 2013; Mashema & Kawu, 2013; Muhammad *et al,* 2019) due to the provisions of Section 2 subsections (1) and (2) of the UBEC Act, as highlighted above. Indeed, one of the best ways to achieve this integration and also enhance our educational sector is Distance Learning through low-cost technology. Kabir (2016) has argued that technology, particularly ubiquitous technology such as the mobile phone, is getting more affordable. Kabir and Kadage (2017) had also advocated for the use of mobile technology in educational assistance for Nigerian distance learners.

The media is being utilized to distinguish generations. Children who were born from the mid-1990s are among the first to have grown up with digital media as a normal part of daily life, rather than as a novelty. There is an ongoing public discussion on young people and digital media, portraying them as skilled users (Erstad, 2015). Mark Prensky developed one such prominent idea in the mid-1990s. By the publication of multiple articles and the delivery of hundreds of presentations, he popularized and ignited debates regarding the effects of digital media, notably the ubiquity of computers and the internet. According to Prensky, there were two categories of people in the digital age: "digital immigrants" and "digital natives" (Prensky 2001). Other works that supported his arguments included: 'Growing up Digital: The Rise of the Net Generation' (1998) by D. Tapscott which stated the impacts of such generational disparities, with a sequel titled 'Grown up digital' (2008) and a similar book titled 'Born digital' (2008) by J. Palfrey and U. Gasser (Erstad, 2015).

Surprisingly, this argument has resulted in an accepted generational categorisation of media/technology users:

- Baby Boomers (those born between 1946 and 1964): Consume traditional media such as television, radio, periodicals, and newspapers.
- Generation X (those born between 1965 and 1979/80): They still read newspapers and magazines, listen to the radio, and watch television. They are, however, digitally adept, spending approximately seven hours every week using Facebook.
- Millenials (those born between 1981 and 1994/6): Although this generation is quite familiar with mobile devices, 32% will still use a PC to make purchases, and they often have many social media accounts.
- Generation Z: (those born between 1997 and 2012): The average member of Generation Z obtained their first mobile phone at the age of ten. Many of them playing with their parents' smartphones or tablets from a very early age, thus they grew up in a hyper-connected environment where the smartphone was their favorite mode of communication.
- Generation Alpha: (those born between 2012 and 2025): This generation is growing up in homes with

smart speakers and devices everywhere; technology being integral part of their lives. With the arrival of the Covid-19 epidemic, many of them have attended school electronically and are transitioning to online educational platforms such as Khan Academy, Prodigy, Cousera, and IXL. Many had a digital presence before they were born, thanks to their Millennial parents (Thamil-selvi, Bhuvaneswari & Sandra, 2020).

The above substantiates the fact that mobile technology is quite appropriate for the teeming out-of-school youngsters, who all fall under the media/technology classifications of generation Z and generation Alpha. Nonetheless, literature has often observed that it is not only the "Technology Haves" who are proficient in the use of technologies. The above categorisation is a natural phenomenon (Prensky, 2020). A case in point is Dr. Sugata Mitra's "Hole-in-Tree" experiment, in which he fixed a computer in the wall of a Delhi slum neighborhood near his NIIT office in 1999. Within two hours, slum children who had never attended school learned how to use the computer and search the internet. He replicated the experiment in a variety of Indian cities and villages, with the same findings (Adams, 2008; Mitra, 2013).

In fact, whereas open schools have long handled the three vectors of access, quality, and cost in Asia and are immensely popular there, same is not true in Sub-Saharan Africa. Although the importance of Open and Distance education in Nigerian national development has been recognized (NPE, 2013), these institutions remain on the periphery since successive Nigerian administrations chose to create traditional universities and polytechnics over open universities and open polytechnics. Despite the fact that open schooling has the ability to promote the achievement of EFA and attainment of education SDGs mandate, the Nigerian government has yet to construct a single open school.

Furthermore, there has been relatively few researches in the domains of open schooling in Nigeria (Okebukola, 2013; Sarumi & Omazu, 2013; Wushishi, 2014, Okopi & Obera, 2021; Adamu, 2022), whereas literature on Open and Distance education in Nigerian postsecondary institutions is awash with research. To assist in bridging that gap, this study provides an overview of successful mobile learning projects used in out-of-school settings in both developing and developed countries, and as a position paper, calls for the immediate implementation of open schooling in Nigeria as an alternative or complementary pathway for out-of-formal-school children and youth seeking opportunities to continue learning and live a meaningful life.

PROBLEM STATEMENT

Basic education in Nigeria is both free and mandatory for children aged five to fourteen. However, 10.5 million of those youngsters are not enrolled in school, according to the Global Education Monitoring Report (2021). Only 35.6% of preschoolers aged between three years to five years attend early childhood education, and only 61% of children aged six to eleven years are consistent in attending primary school (COL, 2022). The Global Education Monitoring Report (2021), stated that 260 million children, adolescents, and young people were not in school in 2020, according to the UNESCO Institute for Statistics (UIS) (2019) in (COL, 2022). Fifty nine percent were in primary school, 62 million in lower secondary school, and 138 million in upper secondary school (COL, 2022). This represents about a sixth of the world's population in that age bracket (UIS, 2019). According to the research, 75% of children of primary school age who are not yet enrolled, are female (COL, 2022). Another research posited that there are around 400 million youths aged between 12 to 17 globally, who are not enrolled in secondary school (Daniel, 2010).

Sir John Daniel, a long-time supporter of open education, claimed in a paper titled "Education for the Twenty-First Century: Time for Open Schools to Raise Their Game", that the framework for education in the next two decades will highlight three major educational challenges: secondary schooling for girls; teacher shortage; and open education will play a critical role in addressing all of them (Daniel, 2010). The fundamental purpose of an open school system is to provide educational opportunities to young adults,

teenagers, and even children, whose learning needs are not satisfied by traditional public schools. Open schooling also aspires to substantially reduce and eradicate gender, regional, and socioeconomic inequities in education by cooperating with conventional schools (Tahir, 2008). The goal of open schooling in Nigeria is to use the power of open and remote learning to deliver basic education to all Nigerians who are not currently enrolled in school. It is envisaged that this will go a long way toward achieving equity in the basic education sub-sector as a whole, with the ultimate objective of enhancing traditional education by reducing poverty and rising living standards and therefore achieving the EFA and MDGs.

It is surprising that Nigeria is still hesitant to embrace open schooling as a solution to unequal educational opportunity, which disproportionately affects girls, despite open schools' success in other countries, notably India. Open schools, according to Sarumi and Omazu (2013), met the educational requirements of nearly 1.5 million Indian primary and secondary school pupils. The experiences of these pupils were comparable to those of Nigerians who did not have access to secondary education. Many of them, for example, either dropped out of school, came from low-income families, or have reached adult age without ever attending formal schools.

In Nigeria, there is an urgent need for Open schools system due to alarming rates of illiteracy and out-of-school youth. In 2009, 17 nations had over 500,000 out-of-school children, with Sub-Saharan Africa accounting for nine of them. In Nigeria, 37% of primary school-aged children were not enrolled in school 2010 (Luffman, 2012; Dukku, 2020; COL, 2022). Ethiopia was the country with the second-highest number of out-of-school teenagers in the region in 2009 (UNESCO Institute of Statistics, 2009), but Nigeria has already overtaken her. …. According to 2010 UIS data, Nigeria has one of the highest out-of-school rates for primary school children in the world, at 34%. (COL, 2020, p17). Out-of-school children have been associated with a variety of societal vices, including insecurity, terrorism, child abuse, child labor, child neglect, kidnappings, electoral violence, and incessant killings, according to research papers (Aghedo & Eke, 2013; Okugbemi, 2013; Mashema & Kawu, 2013; Muhammad, 2018; Safiyanu & Bugaje, 2020). However, some of these assertions have not been proven.

Mobile learning has become a mainstream component of educational institutions in both developed and developing nations (UNESCO, 2002). Mobile technologies, a subset of ICTs, on the other hand, have the potential to empower educators and students by increasing engagement and communication, introducing new delivery modalities, and rethinking the teaching and learning process (Kabir, 2016). In reality, the much-touted ICT4D program supplies open schools with a suitable technical platform, such as cell phones, to enable technology-enhanced learning. There is also evidence of successful initiatives that integrate such technology into educational programs for out-of-school children and other marginalized populations (Tsinakos, 2013; Ally & Tsinakos, 2014; Kabir & Kadage, 2017; Ally 2019; Muhammad et al, 2019; Yu, Ally & Tsinakos, 2020).

MATERIALS AND METHODS:

Literature Review Process: To achieve a comprehensive examination of the landscape of open schooling and the utilization of mobile technologies in Nigeria's informal education sector, the author conducted a systematic literature review. The following steps were undertaken:

i. **Literature Search**: A thorough search was conducted across various databases, which included Google Scholar, Web of Science, EBSCO, and ERIC. The search aimed to identify relevant studies, reports, and articles related to open schooling globally, mobile learning, projects implementing mobile learning in developed countries and open schoolinitiatives in Nigeria.

ii. **Inclusion and Exclusion Criteria**: Studies included in this review met specific criteria, focusing on those providing insights into the state of education in Nigeria, the challenges faced, and the role of

open schooling using mobile technologies. Articles were excluded if they are not in alignment with the primary objectives of the review.

Data Extraction and Synthesis:

i. **Relevant Variables:** Key variables extracted from sampled and selected studies included information on out-of-school rates, gender disparities, global perspectives on education, the success of open schooling in other countries, and the potential impact of mobile learning technologies on open schooling.

ii. **Quality Assessment:** The author did a critical evaluation of the quality of selected studies to ensure the reliability and validity of the information gathered. This process involved assessing the research methodologies, sample sizes, and data analysis methods employed in each study.

Comparative Analysis: To enrich the review with cross-cultural insights, findings from successful open schooling projects using mobile devices were reported. In particular, such projects from some Asian and African countries with similar demography and educational challenges with Nigeria, were used as basis for comparison.

CONCEPTUAL DEFINITION OF OPEN SCHOOLS

Du Vivier (2009) defines Open Schools as "institutions that give education through open and online learning methodologies" at the primary and secondary school levels. An open school, according to Mishra and Hendrickz (2009), uses open and distance learning methods to provide out-of-school adults and children with extended education and training opportunities, with the primary aim of empowering students with skills and knowledge through cutting-edge and excellent distance education programs. According to COL (2020), open schooling consists of "the physical separation of the student from the teacher, as well as the utilization of new teaching methodologies and ICTs to bridge the separation and provide education and training." According to COL (2020), in open learning, learners study specially prepared distance learners' coursewares by self-study, either at work, in their homes, or wherever else, at their convenience, and at times a facilitator may engage them for some learning interaction. The term "open schooling" refers to the system's openness: there are few constraints on student ages, course content, prerequisites, and the amount of courses students must enroll in (Mishra & Hendrickz, 2009).

There are three forms of open education:

a. Complementary open schools: which provide an open version of the conventional national curriculum (e.g., Namibian College of Open Learning [NAMCOL]);

b. Alternative open schools: these provide a different curriculum with an orientation towards vocational programs (for example, National Indian Open School [NIOS]); and

c. Integrated open schools: which serves a large number of students and also act as a clearing house, resource, and laboratory for the country's school system (e.g., Vancouver Learning Network) (Daniel, 2010).

However, in contemporary literature, open schooling has been termed "Open Innovative Schooling." Open Innovative Schooling (OIS) is defined as a supplemental kind of education that offers structured learning opportunities by combining a variety of non-restrictive methodologies based on open and distance education techniques. OIS primarily serves out-of-school children and adolescents, allowing them to complete their education and/or gain job-related skills. Yet, OIS may also provide adult learners with the option to learn at the same level as children (Mishra & Hendrickz, 2009).
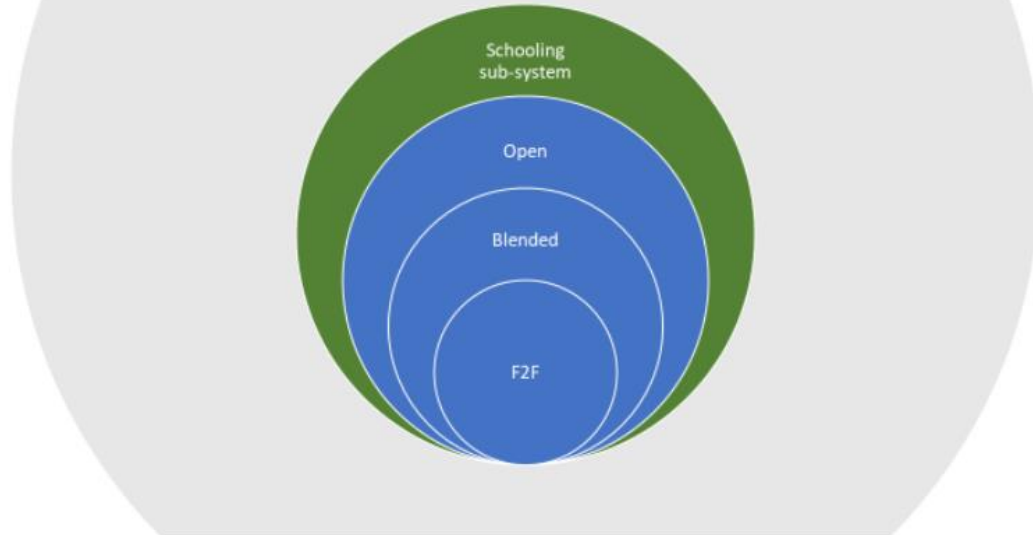
Figure 2: Integrated schooling system

Figure 1: Integrated OS System components (COL, 2020a)

The following are the most common features of open schools:

- An open admissions policy that accepts students from all regions of the country, regardless of educational experience;
- Multi-level registration;
- Course materials that are easily accessible (self-learning courseware);Personal interaction programmes
- on a regular basis;
- A versatile examination system: Examinations do not have to be administered all at once. Language
- flexibility;
- Phased expansion through the establishment of regional Resource or Study Centers;
- Relevant content and separate study programmes tailored to fit the individual needs of learners. (Mishra and Hendrikz, 2009).

Open schools have pervaded the education sector around the world. According to Mishra and Hendrikz (2009), the first open school program began in Australia in 1914, whereas the first primary school in the United States began accepting students via correspondence education in 1906. In Canada, open schools were established in 1919, while in New Zealand, they were established in 1922. The National Open School (NOS) was established in India in 1989. With over 500,000 students enrolled and over 1000 study centers distributed across its borders, India currently possesses the world's largest open schooling system. Women, girls, members of reserved castes and tribes, rural and urban underprivileged people, unemployed, underemployed, part-time employees, young people, special needs individuals, and adults are among its students (Ambast, 2012). The following are other countries that have open schools with their year of establishment: Bangladesh (1997), Botswana (1998), Indonesia (1979), Namibia (1997), and South Korea (1992) (Mishra & Hendrikz, 2009).

According to published research, Nigeria made the decision to embrace open education as a result of a successful meeting attended by some Nigerian representatives during the Open and Distance Education

(ODE) Conference in July 2004 at Dunedin, New Zealand (Wushishi, 2014). Wushishi (2014) further reported that, with the recognition that Open Schooling (OS) was critical for Nigeria to accomplish both its EFA and SDG targets, a Nigerian delegation joined ODE specialists from Cameroon, Ghana, Sierra Leone, the Gambia, at a Commonwealth of Learning-organized stakeholders meeting which was held in September 2004. Following the September summit, Nigeria and COL initiated a number of joint efforts related to Nigeria's OS project. However, all these OS attempts were made slowly, and not fully implemented.

The OS project in Nigeria officially commenced in February 2020 by the Executive Secretary of the Universal Basic Education Commission (UBEC), with technical assistance from COL (Premium Times, 2020). According to the Executive Secretary of UBEC, Dr. Hamid Bobboyi, the prototype Open Schools Programme (OSP) is primarily meant to mop up Nigeria's teeming population of out-of-school children (Premium Times, 2020). UBEC is already conducting the program's pilot phase in six northern Nigerian states, where the rate of children out-of-formal schooling is highest: Adamawa, Kano, Katsina, Kaduna, Kebbi, and Niger states (Adamu, 2022).

MOBILE TECHNOLOGY FOR OPEN SCHOOLS: A CONVERGENCE

According to estimates, there are over 6 billion mobile subscribers worldwide, with about 75% of them residing in countries that are developing. Currently, around 2.5 billion people worldwide have Internet connectivity, with one-third accessing it solely through mobile devices (Ally and Tsinakos, 2014).

According to a World Bank analysis (Worldbank, 2022), more than 95% of people in low- to middle-income nations have a mobile phone subscription. In Africa, mobile phone use is widespread, spanning all ages and socioeconomic levels. Sub-Saharan Africa's disadvantaged population consumes at an especially high rate (WorldBank, 2022). According to Kabir and Kadage (2017), there were 121,271,218 GSM users in Nigeria in January 2016, but this number is expected to rise to 225,880,193 in January 2023 (NCC, 2023), nearly doubling in just six years.

Many academics consider that the cell phone is the best tool for enhancing mobile learning (Erstad, 2015; Makoe, 2012; Utulu & Alonge, 2012; Osang, Ngole, & Tsuma, 2013; Khaddage, 2016; Masud, 2019). In reality, a mobile phone is an extremely portable and helpful learning tool. Makoe *et al* (2012) concurred, stating that distance learners should be concerned about a lack of touch and limited feedback from facilitators, since these factors might make them hesitant to study on their own and conduct self-evaluations. Using a mobile device for communication between instructors and remote students, on the other hand, provides for both synchronous and asynchronous learning experiences (Makoe et al, 2012).

Mobile phones are the finest tool for increasing education in underdeveloped areas, according to Valk, Rashid, and Elder (2010). Mobile phones are currently the most extensively used ICT in developing countries, and their penetration rate is rapidly increasing. Adamu (2022) supported this by stating that the ODL mechanism combined with inexpensive cellphones may be the most effective technique. Indeed, this was one of the Universal Basic Education Commission's (UBEC) priorities in March 2020, when a number of policy discussions with internal and global stakeholders, were held to draft recommendations for the implementation of an after-school program.

Mobile devices are being used by young children to explore and learn in natural ways (touch, repeat, trial and error) (Papadakis & Kalogiannakis, 2017). When used appropriately, touchscreen technology can offer a collaborative experience that closely resembles a child's natural constructivist learning (Papadakis & Orfanakis, 2014). According to Thelma and Adedeji (2020), technological solutions offered by new technologies, for example, adaptive learning technology can provide improved learning experiences at cheap prices while also ensuring personalized learning with reduced teacher contact.

Mishra and Hendrikz (2009), reported five features of mobile devices that offer different educational affordances:

1. Mobility – Because of its small size and low weight, mobile devices are very portable.
2. Interaction with other students – Data sharing and cooperation can occur in both synchronous and asynchronous modes.
3. Context sensitivity: Mobile devices may gather and respond to data that is particular to the context, time, and place in which they are used.
4. Connectivity – Mobile devices can easily connect to other devices, a shared network, or data gathering equipment to establish a shared network.
5. Individuality – Scaffolding for challenging tasks may be tailored to each student.

Mobile devices are often used to distribute little, bite-sized bits of content. Text, music, video, animation, and games are all supported by a variety of mobile devices (Mishra, 2009). Indeed mobile technology can help constructivist learning improve, and it can also advance mastery learning through drill and practice. Informal learning can augment formal education in less advanced countries, such as Brazil and India, by encouraging learning that focuses on cultural identity, life skills, and respect for diversity (Lewin & Charania, 2018).

FOREIGN IMPLEMENTATION

In industrialized countries, there have been numerous reports of Mobile Learning (ML) programmes for out-of-school children or non-formal settings. Godwin-Jones (2017) described many ML experiments in which smartphones were utilized for language acquisition. Among these efforts was the Stanford Mobile Empowering Developers Network, which created "pocket schools" for indigenous children in South America. This project collaborated with TeachAids, a HIV/AIDS education NGO; Adina's Deck, an award-winning education program with focus on internet safety; and SMILE (Stanford Mobile Inquiry-based Learning Environment), a mobile application used in over 20 countries (Godwin-Jones, 2017). All of the initiatives described above were completed for out-of-school children in a non-formal context. Muhammad Ally, a proponent of mobile learning (Ally & Tsinakos, 2017; Ally 2019; Yu et al, 2020), also reported on a Mobile Learning project for lifelong learning titled "The Digital Teacher," in which the teacher's changing role from teaching to facilitating allows him to use digital technology to engage students who were previously left out in the old educational system (Ally M, 2019).

Stocklmayer, Rennie, and Gilbert (2010) described how non-formal students in Australia used video-conferencing to access presentations given by personnel at a scientific center (Lewin & Charania, 2018). The Amrita Rural India Tablet enhanced Education (AmritaRITE, 2016) was motivated by the idea of offering both 'Education for a Living' and 'Education for Life' abilities. AmritaRITE, as an Inclusive Education paradigm, combines traditional school teaching aims with moral, scientific, technological, environmental, and social issues (Nedungadi, Raman, Menon, and Mulki, 2017). Another novel project in India's Bengal region was inspired by the "Hole in the Wall project" of Sugata Mitra (Mitra, 2013). In this project. the researcher developed a Mobile Learning System (MLS) for children roaming the streets of Pakistan, which used a series of "learning" tasks to actively engage and inspire them towards living a safe and beneficial life, without necessarily attending conventional school. Instead of professional teachers, MLS were offered in non-formal settings by trained volunteers who were part of the street children's environment.

Suchana, an Indian non-governmental organization, set-up an after-school vocational center for under-privilege children in 2013 by adopting and executing the Tata Trusts initiative, "Integrated Approach to Technology in Education" (ITE) (Charania, 2015). Following that, three distant learning centers were constructed, with a mini-bus for transporting charged computers, Internet dongles, solar lights, and books between the three centres (Lewin & Charania, 2018). Stubbé, Badri, Telford, Van der Hulst, and Van Joolingen (2016) detailed a Sudanese research that looked at a gamified version of the Sudanese curriculum for out-of-school children. The researchers concluded that tablet technology, when combined with well-

designed, curriculum-dependent, attractive software, might help reach Sudan's 2.3 million out-of-school children and teach them the principles of arithmetic. Such games might be used to teach fundamental maths to youngsters who do not have access to school (Stubbe et al, 2016). With the assistance of the Commonwealth of Learning (COL), open schooling was also introduced to Technical and Vocational Education and Training (TVET) schools in Ghana to give jobless youth the chance to learn lifetime skills (Tagoe, 2014).

All of the aforementioned reported a range of ongoing mobile programs for out-of-school children in western countries, Asia, and, closer to home, other African countries. But what is the Nigerian story?

Since the official launch of the Open School program in Nigeria in February 2020, the Nigerian Basic Education Agency, UBEC, has collaborated with COL, and it expects to implement a flexible combination of face-to-face, hybrid, online, and broadcast methodologies for the schools (Okopi and Obera, 2021). COL is now training a team of administrators to manage a national OER repository as well as curate and upload new curriculum-based resources. Nigerian Open Schools are planning to use digital OER available on mobile devices to reduce the expense of acquiring and distributing printed resources. To allow students to acquire digital information, a center-based method will be adopted due to high internet fees, uncertain internet connectivity, and inconsistent power supply. Individual and group chats, bulk text messaging, and social media contact through text or voice messages will all be conducted via the cell phone. These activities consume less internet data and reduce the need for face-to-face interaction to a considerable extent.

COL and a group from the University of Nigeria, Nsukka's "Researchers on ICTs in Education in Africa" (RICTHE), are studying the use of motorbike community outreach to encourage youngsters to return to school (COL, 2021).

CONCLUSION

Mobile adoption and penetration can be seen all around Nigeria, where people are increasingly networking in ways that were unthinkable only a few years ago. Learning is now attainable at any time, in any location, and via a variety of media thanks to mobile learning. As previously stated, mobile learning initiatives are extensively employed in open schools in Europe, Australia, North America, Asia, and, most recently, Africa. Nonetheless, with imaginative and inventive modifications, mobile phones may play an essential role in supporting effective learning in open schools, even if they do not completely solve all ICT challenges in these schools, particularly in underdeveloped nations. According to Mishra and Hendrickz (2009), if the potentials of mobile phones are fully leveraged, open schools will undoubtedly become leaders in the field of open education. Therefore, the relevance of educating the digital age is more about creating a place for thought and the development of skill sets to assist learners in participating as citizens in a digital society, rather than simply adopting new technology (Erstad, 2015).

The 2020 Covid-19 pandemic brought to light the vulnerability of out-of-formal-school children in obtaining an education. While the country's educational sector was battling to develop an open school policy, which hitherto did not exist, Adamu (2022) explained that private entrepreneurs took advantage of the opportunity to launch websites which offered secondary school students with open courseware to supplement their studies during the lockdown. This became a necessity due to lack of a formal secondary school distance learning initiative.

It is hoped that the immediate implementation of Open Schooling in Nigeria will provide a platform that will consider all avenues for assisting, supporting, and expanding efforts to significantly increase transition rates from primary to junior secondary school; and to provide basic and post-basic education to unschooled adults, school drop-outs, migrant groups (Almuhajir children in Madrassa schools, children from fishing communities, nomadic herders (Adamu, 2022)), working children and children in remote rural areas (Yasunaga, 2022), the girl-child and women who face discrimination in conventional schools (young

mothers and wives, pregnant students (Yasunaga, 2022)), children with disabilities or those who support parents with disabilities, and children who have been displaced due to natural disasters (Yasunaga, 2022), insurgencies and conflicts.

It is quite apt to say that open schooling via mobile devices will provide all of the aforementioned disadvantaged groups with education, personal development, and enhancement opportunities to obtain the highly desired basic and post-basic education in a flexible and convenient manner, within the new digital culture, in our now diverse, yet interconnected global society.

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DECLARATIONS

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