Digital Literacy in the Rural Environment of Rivers State, Nigeria

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While literacy can generally be defined as the basic ability to read, write, and also count, digital literacy can be described as the ability to perform all these tasks using electronic means. These means would include modern electronic gadgets, such as mobile phones, tablets, computers, kindle books, and the like. To be digitally literate would therefore require the existence of modern technologies such as internet facilities that would make it possible to access online reading and writing. The rural environment, particularly in developing areas, is usually characterised by a seeming lack of modern amenities and even worse, digital internet networks. Yet, those who live in the rural areas of Rivers State belong to the modern digital era and deserve to be digitally literate. This paper examines the prerequisites for digital literacy and explores how these can be achieved for citizens who inhabit the rural areas of an industrially-nascent state like Rivers State.

Keywords: digital literacy, electronic means, internet networks, rural areas

Introduction

Literacy, commonly defined as the ability to read and write, also includes the ability to understand simple sums (that is, numeracy skills). However, Sarumi (2011) believed that literacy can no longer be seen as the ability to read, write, and compute alone, but it must include adaptation to global information, skills, attitudes, and knowledge. Global information therefore means acquiring information through global means. Today, these global means embrace the modern social media like Facebook, Twitter, WhatsApp, Instagram, and the like. Inability to navigate these applications (commonly called "Apps") translates to digital illiteracy.

To be literate usually entails enrolling in an established learning environment, although one could also learn in a home environment. Literacy can be acquired at any age; hence we have early childhood education and adult literacy programmes. Literacy could also be in any language although many in Nigeria mistake it to be only in English. The fact of achieving literacy in English actually presents a homogeneous and uniform linguistic acquisition as it immediately opens the door to many literate activities: One can read billboards or road signs, or perform a myriad of other tasks that characterise the written world in any part of the country.

Literacy, in a broader sense however, is not only about reading, writing, and counting. Many other forms of literacy, even called new literacies by some, have been identified which can possibly include rural dwellers. The implication is that people who live in rural areas may possess literacies that are unknown to urban dwellers. All that would be required of rural dwellers would be simply to make a little leap to attain digital literacy once they

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are exposed to a digitally-enabling environment. The rural area forms an integral part of the total geographical area that makes up a state. In other words, Rivers State as a geographically defined entity is made up of both its rural and urban components. What therefore obtains in one part can be replicated in the other part with every possibility of getting similar results. Nevertheless, one can however note the differences in terrain and take cognizance of factors that might make attaining digitalization of literacy in one area more challenging than the other.

To do this, we shall first examine the different types of literacy that can be identified as well as the various categories of literacy that can be attained, and then the various possibilities that can be harnessed to achieve digital literacy in the rural areas of Rivers State.

A Typology of Literacy

A closer look at a more global concept of literacy has revealed that traditional definitions of literacy can no longer suffice and many other types of literacy have been identified, one notable type being digital literacy. In this respect, the Canadian Centre for Digital and Media Literacy mentions the following types of literacy:

1. Numerical literacy which is the ability to use basic mathematical skills in everyday life;

2. Health literacy which allows one to understand the health care system, such as medications, communicating with doctors and specialists, getting necessary help, etc.;

3. Financial literacy which means having the knowledge, skills, and confidence to make responsible financial decisions;

4. Media literacy which refers to one's ability to understand the messages relayed on television, radio, news programmes, social media, and more;

5. Cultural literacy which basically means the ability to understand all subtle nuances that come along with living or working in a particular society. It consists of understanding the language, methods, assumptions, and unstated ideas that make up a way to behave and communicate;

6. Digital literacy which is the ability to critically use technology, to navigate through various forms and devices, to understand how technology works, and to be able to creatively and inventively use technology to solve problems.

On his part, Egbe (2019) sees literacy as multidimensional and identifies other types of literacy (or new literacies, as he calls them), such as:

1. Information literacy which refers to a set of skills needed to store, find, retrieve, analyse, and use information;

2. Social media literacy which is the ability to communicate appropriately and to evaluate conversations critically within social media, such as Twitter, Facebook, Youtube, WhatsApp, Telegram, etc.;

3. Computer literacy, the ability and knowledge to effectively use computer and technology;

4. Tool literacy, the ability to use tools to manage, consume, and create information;

5. Visual literacy which is the ability to produce, interpret, and make meaning from information presented in the form of images.

Egbe also identified media literacy and digital literacy in his typology.

In our opinion, recognising these different types of literacy gives us a better perspective of what literacies may be better suited to those living in the rural areas of Rivers State and to a formulation of appropriate strategies to attain them.

It may also be necessary to consider various levels of literacy especially as it concerns the levels required to take full advantage of the various types of literacy that have been identified.

Levels of Literacy

It may be safe to say at this point that, from the foregoing, no one can be said to be totally illiterate. A person can be culturally literate or financially literate or even visually literate without having to use the written word. However, there are levels of literacy that serve as indicators of a person's ability to display and utilise literacy skills. Maddox (2020) enumerated four significant levels of literacy and the literacy output for each level. The levels range from L-1 to L-4:

1. L-1 Functional literacy: A person who has attained this level of literacy is able to read texts like road signs and other semiotic symbols;

2. L-2 Basic literacy: This level of literacy enables a person to read simple literature texts or simple reading material in the language of instruction;

3. L-3 Proficient literacy: A person at this level has the ability to read study-based and non-fictional texts;

4. L-4 Advanced literacy: Someone who has achieved advanced literacy has the ability to read fictional, non-fictional, and analytical works as well as write intelligibly in the language of instruction.

These levels of literacy are actually reminiscent of what is called the Common European Framework of Reference for Languages (CEFRL) or Cadre Européen Commun de Référence pour les Langues (CECRL) in French where levels of proficiency in a foreign language are based on three broad categories or six reference levels:

1. A1, A2: Beginner or elementary user of a language; at this level, users are expected to understand and use familiar everyday expressions;

2. B1, B2: Intermediate or independent user of a language; users are expected to understand and make oral and written inputs on familiar matters encountered regularly in school, work, leisure, etc.;

3. C1, C2: Advanced or proficient user of a foreign language.

Basically, these levels test a speaker's proficiency in the four language competencies of reading, writing, listening, and speaking which reflect four kinds of activities: reception (listening and reading); production (spoken and written); interaction (spoken and written); and mediation (translating and interpreting).

The Rural Environment

What characterises a rural environment? Ferrell and Howley (1991) mentioned certain features of a rural area in their article "Adult Literacy in Rural Areas". According to them, the rural environment is characterised, among others, by: a small population size, a lower cost of living, an aging population, smaller choice when it comes to shopping, medical services, educational services, etc.

One could ask: Are these features applicable to the rural environment in Rivers State? Iyalla-Amadi and Lawal (2015) describes the topography of Rivers State as one with mainland and coastal features; in local parlance, these are said to be upland and riverine. The state itself is divided into 23 local government areas with the state capital bearing the appellation Port Harcourt City Council. Fifteen local government areas (henceforth referred to as LGAs) are in the mainland category and they are: Abual/Odua, Ahoada East, Ahoada West, Eleme, Emohua, Etche, Gokana, Ikwerre, Khana, Obio/Akpor, Ogba/Egbema/Ndoni (partly coastal), Omuma, Oyigbo,

Port Harcourt, and Tai. The coastal category of the state consists of just eight LGAs, namely: Akuku-Toru, Andoni, Asari-Toru, Bonny, Degema, Ogu/Bolo, Okrika, and Opobo/Nkoro. While the mainland areas have vast land mass and some forests, the coastal sites have mangrove swamps, creeks, and large bodies of water (e.g., Bonny LGA).

It is important to note that sometime in 2004 (Iyalla-Amadi, 2016, p. 27), the Rivers State government actually funded a project tagged Rural Women Literacy Project that made it possible for women in the remote parts of the state to be taught how to read and write. An experiment of traditional or conventional literacy has therefore been successfully carried out before now in the state. The challenge to be addressed by this paper is the possibility of introducing the teaching of digital literacy to all citizens residing in the rural areas of Rivers State to make them technologically-compliant in the modern age.

Digital Literacy Skills

The process of learning remains the same whether for rural or urban dwellers. A medium of teaching is required, content to be taught is needed, and those to be taught would have to be present for teaching and learning to take place. The skills required for traditional literacy to take place are also similar. According to Thanh (2018), these include:

1. An awareness of the sounds of language;

2. An awareness of print;

3. The relationship between letters and sound;

4. And also vocabulary, spelling, and comprehension.

However, according to Iyalla-Amadi and Lawal (2015), teaching literacy skills in the rural terrain of Rivers State call for more ingenious ways. For example, some places are only accessible by boat and the marine environment forms part of the teaching content for the teacher. Also, the absence of electrification demands an adjustment in teaching hours for effective and timely learning. A consideration is equally given to traditional market days for fixing of classes.

An interesting point to be mentioned is that while the requirements for traditional literacy are a writing board, pens, exercise books, and conventional books, the requirements for digital literacy are digital means like computers, smartphones, stylus pens, and possibly phone screens.

One could argue that these are features of an industrialised or urbanised environment. But then, some of the local government areas mentioned in the first part of this paper have the presence of some industrial and petrochemical companies (e.g., Bonny, Asari-Toru, Eleme, Ikwerre, Akuku-Toru, Obio/Akpor, Ahoada West, and parts of Degema) and so the standard of living is adequately high for the presence of digital amenities in the communities involved.

What are the digital literacy skills required to have a digital education? The best place to source for an answer would be from a digital platform and so we have culled these seven digital literacy skills from www.media.ie. The skills include:

1. Critical thinking: being able to analyse and evaluate information critically by oneself;

2. Online safety skills: having the knowledge to identify potential risks and secure oneself while browsing online;

3. Digital culture: respecting cultural and social rules of the digital community as one shops, banks, and communicates and socialises online;

4. Collaboration and creativity: using technology to carry out collaborative and team work online through our smartphones or other digital devices;

5. Finding information: responsibly searching for information on the internet by guarding against plagiarism and copyright infringements;

6. Communication skills: observing what is called "netiquette" by practising respectful online communication habits that can help curate a safe social media presence;

7. Functional skills: developing practical and functional skills that can facilitate the use of digital devices like smartphones, laptops, tablets, iPads, etc., by learning how to type effectively, how to open and close applications and properly shut down devices.

Digital Literacy in Rural Areas—How Possible?

The question may now be asked: With the apparent sophistication of digital devices and the intricacies of digital technology, how possible will it be to implement digital literacy in our rural areas in Nigeria, particularly in Rivers State which is the focus of our study in this paper? In our opinion, digital literacy is quite attainable in the Nigerian social environment.

First, the website http://nigerianinfopedia.com.ng informs us that Obio/Akpor Local Government Area in Rivers State tops the list of the five richest Local Governments in Nigeria. The others are: Ikeja LGA in Lagos State; Kurmi LGA in Taraba State; Esan Central LGA in Edo State; and Etinan LGA in Akwa Ibom State. Even though this information may be subject to further verification, it is a fact that many local government areas in many Nigerian states produce high internally generated revenues (IGR) and many LGAs in Rivers State certainly fall in this category. The implication is that digital networks, the main component necessary for digital literacy, exist in many of the rural areas under study. By extension, quite a few of the citizens who inhabit the rural areas possess digital devices, such as smartphones, laptops, and iPads. Many of these citizens also possess diesel or petrol generators which they use to power their devices.

The digital life is now a daily fact of our lives, whether urban or rural, and literacy might as well be assured in it. It has been previously established in this paper that there are several forms of literacy, one of which is visual literacy. This then means that the different facets of literacy can be attained in stages and all that is required is to have trainers who will facilitate the acquisition of literacy in potential learners.

Digital Literacy Training for Rural Dwellers

Those who live in the rural environment can be referred to as rural dwellers. All those who live in the city or the developed urban areas become rural dwellers as soon as they relocate to what they may prefer to call "the countryside". They then have to contend with the features of the rural environment they have relocated to. But it is the opinion of this paper that these features do not preclude the existence of internet facilities that can ensure a digital education in rural areas. What is mostly needed is the training of those who inhabit the rural space to critically access digital literacy where they are.

Anyone who owns a digital device in the rural space (village or suburb) is eligible for digital literacy training. There are a number of non-governmental associations like the Reading Association of Nigeria who undertake the training of teachers who can in turn teach others in their locality about how to make effective use of digital technology. There are also websites that can teach or train anyone who is visually or tool literate (according to Egbe, 2019) to become fully literate in using digital skills. Such websites include: DigitalLiteracy.gov, Classroom

Aid, The Futurelab, Creative Commons, Microsoft's Digital Literacy Curriculum, Google's Digital Literacy and Citizenship Curriculum, Commonsense Media, etc.

Conclusions

Being digitally literate is a big plus for all who live in the present century and it is the only way to function maximally as a modern citizen in the world today. The recent COVID-19 pandemic that was witnessed by all has taught everyone that no one can live in isolation. Technology has actually come to the rescue to enable us to continue to function in the event of a global shutdown.

The government of every nation has a responsibility towards all its citizens, whether dwelling in the urban or rural environment. It is therefore the duty of the government to make arrangements for the digital education of all in keeping with the modern climes. As mentioned earlier on in this paper, the government of Rivers State has already taken charge of imparting traditional literacy on the rural womenfolk of the state. In the present age however, the government is hereby enjoined to extend digital literacy training to all citizens whether male or female, urban dweller or rural dweller. Going by the revenue generation capacity of the state and her slogan—Rivers State: The Treasure Base of the Nation, we are strongly of the opinion that digital literacy is possible in the rural environment of Rivers, the coastal and upland nature of the state notwithstanding.

A fitting conclusion would be the reiteration of a functional modern definition of literacy that shows that everyone is *ab initio* literate, and everyone can be taught to be digitally literate:

> Literacy refers not just to manifestations of the abilities of reading, writing, and counting. It extends to the totality of attitudes, knowledge, and practices such as new literacies that enable individuals to develop themselves and also contribute to the development of society. (Onukaogu et al., forthcoming)

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