Role of Indigenous Languages in Repositioning Nigeria's Education and Healthcare Systems through Indigenous Technology

[1]Boma Hayes Diri
bomsie4jesus@gmail.com

[2]Mbu, Dickson Mbu
mbu2md@yahoo.com; mbu2md@gmail.com

[3]Ibe, Eugene Onyegbule
chstsfsibe@gmail.com
School of Foundation Studies
Rivers State College of Health Science and Management Technology, Oro-Owo, Rumueme, Port Harcourt

Abstract
Language no doubt is creator's benevolence on man and indigenous language is the heart of all knowledge through which man expresses himself intuitively. Research has shown that people are more receptive and expressive of knowledge in their indigenous languages. Also, the potency of indigenous technology in a nation's development cannot be over emphasised particularly in the education and healthcare sectors. Therefore, this paper seeks to articulate the importance of leveraging indigenous language and technology to address existing challenges and maximize opportunities for improvement in these sectors. It exposes the potential transformation of Nigeria's education and healthcare systems through the integration of indigenous language and technology by comprehensively exploring the intersection of indigenous languages, indigenous technology, education, and healthcare in Nigeria. Secondary data and qualitative analysis were adopted for the study. It concluded that the role of indigenous language in repositioning Nigeria's education and healthcare system is rooted in the need to preserve and promote local languages, as well as the recognition of the potentials of indigenous technology to foster positive changes in these critical fields. Therefore, suggested that government and policy makers should emphasize and incorporate indigenous languages and technology into our education and healthcare systems.

Keywords: indigenous-language, repositioning, education, healthcare, indigenous-technology

Introduction
It is no gainsaying that the indigenous languages have the potential to create knowledge, accelerate, and transform Nigeria's education and health sectors narratives, as well as create awareness on national education and healthcare policies, goals, and objectives. Nwadike (2002) cited in Nzeagwu (2018) opined that the indigenous language is the key to the heart of the people, if the key is lost the people's heart is lost but if it is treasured and kept safe, it will unlock the door to untold riches which cannot be guessed out from the other door. Hence, they can serve as potential channels through which education and health information can reach the grassroots, where a significant portion of the nation's population resides. Learning an indigenous language has been linked to improvements in physical and mental health.

        Acknowledging the importance of indigenous language in education and health sectors in Nigeria, the National Policy on Education (NPE) in language was formulated and first adopted in 1977. The revised versions appeared in 1981, 1998, 2004, 2007,2013 and the

most current version was published in 2022. The NPE outlines the objectives and guidelines for language in education across various levels of education in the country. It emphasises the need of mother tongue as the language of instruction at the early stages of education to facilitate effective learning and cognitive development. In the same vein in 2018, the Nigerian Consumer Protection Council (NCPC) acknowledging the importance of indigenous language in health, enacted the patient's bill of rights which stipulates that access to all relevant information including diagnosis, treatment, prognosis and procedures must be provided in a language the patient understands. According to Olajuyin et al. (2022) in recognising the need of indigenous language in medical communication, some scholars have recommended a review of the medical school curricula to incorporate languages other than English language.

Research also affirmed that world's most technologically advanced nations use their mother tongues as medium of instructions, that has helped them advanced technologically. Aziza (1998) cited in Nzeagwu (2018) opined that nations like China, Indonesia, Malaysia, Japan and Singapore revolutionised the educational systems policies on indigenous languages and are now among the world's most developed countries in terms of wealth creation through science and technology. Almost all products from these nationsusually bear their indigenous names e.g. Toshiba, Samsung, Hyundai etc. They also incorporate their indigenous languages alongside English language in their products operational manuals.

The significance of indigenous languages in education and healthcare
Indigenous languages without mincing words play significant roles in the education and healthcare systems in Nigeria because majority of the populace do not have very good command of the English language, being the official language of the country. A lot of terms and expressions may be difficult to express in English language hence the native language becomes the only means of effective communication, also, certain terms and expressions do not have exact English equivalent, how does a patient or pupil communicate those to their healthcare provider or teacher other than through their mother tongue which they are well grounded in. The following are some of their significance.

Preservation of culture and identity: Indigenous languages are closely knit to the culture and identity of the indigenous communities. By using these languages in education and healthcare, it helps preserve and promote cultural practices, traditions, knowledge, and values that have been passed down through generations.

Effective communication: Using indigenous languages in education and healthcare ensures effective communication between service providers (teachers, doctors, nurses) and community members. This can lead to better understanding of health issues, improves access to medical services, and enhances learning experiences for learners.

Mental health: For many indigenous people, speaking native language can have a positive impact on their mental well-being. Research has shown that using indigenous languages can help reduce stress levels among community members by fostering a sense of belonging and connectedness.

Improved outcomes: Studies have also shown that incorporating indigenous languages into education can lead to better academic outcomes for learners from these communities. Similarly, utilizing these languages in healthcare settings can improve trust, satisfaction with care, compliance with treatment plans, and overall health outcomes.

Cultural competency: Healthcare providers who understand the language and culture of their patients are better equipped to provide culturally competent care. This includes being

aware of traditional healing practices as well as understanding how cultural beliefs may influence health behaviours.

Overall empowerment: Emphasizing the use of indigenous languages in education empowers the young within these communities by validating linguistic heritage. In healthcare settings, it empowers patients to express themselves more fully when discussing symptoms concerns with their providers.

To sum it all, the significance of incorporating indigenous language into the education and healthcare services lies in its ability to preserve culture while also improving communication effectiveness between healthcare providers, teachers and community members – ultimately leading to better learning and health outcomes for the people.

Indigenous technology in education and healthcare
Cheek (1992) cited in Ojo (2012) asserts that indigenous technology could be regarded as a body of knowledge advanced by a culture that provides methods or means to control the environment, extract resources, produce goods and services and improve the quality of life. Indigenous technology here is viewed as the technological knowledge, skills, and resources that are native to a people created to meet their needs and wants by means of investigating, designing, developing, and evaluating products, processes and services putting into consideration the social and environmental factors. And may also have been passed on from generation to generation.

It can also be referred to as the knowledge, tools, and innovations that have been developed locally and are specific to a people's cultural, social, and environmental context. This can include traditional knowledge systems, practices, arts and crafts that have been passed down through generations within a society. Indigenous technology encompasses a wide range of fields including agriculture, craftsmanship, healthcare, education, and much more.

In Nigeria, indigenous technology can be seen in various aspects of daily life such as traditional farming methods and tools used by farmers across different regions of the country. Artisanal crafts such as pottery making or weaving also reflect indigenous technology. Additionally, traditional medicine practices and herbal remedies are part of Nigeria's indigenous healthcare technology. Overall, indigenous technology in Nigeria represents an important aspect of the country's heritage while also offering practical solutions for contemporary challenges across different fields.

Indigenous technology in education and healthcare refers to the use of locally developed tools, methods, and innovations to address the specific needs and challenges within these sectors. In recent years, there has been a growing recognition of the importance of incorporating indigenous knowledge and technology into education and healthcare practices in Nigeria to address local challenges in a way that is culturally relevant and sustainable.This paper advocates the integration of indigenous technical knowledge into modern practices in areas such as healthcare (e.g., combining traditional medicine with modern healthcare) and education (e.g., using local languages and storytelling methods in teaching).

In education, indigenous technology can include the development of educational materials that are culturally relevant and tailored to local contexts. This could involve using local languages asmedium of instruction to help increase access to education for children who may struggle with learning English as a second language. Another is oral tradition, Nigerian societies have very rich tradition of oral storytelling which can be used as a powerful teaching tool to convey information and values. Also incorporating traditional knowledge systems like herbal medicine, traditional agriculture, other forms of knowledge into the

science and social curriculum, and community participation, that is engaging with parents, caregivers, and local community members can create a more holistic educational experience that is rooted in local tradition and customs. Additionally, efforts can be made to develop e-learning platforms that are accessible to learners especially inremote or underserved areas. E.g. learning management systems (LMS) an online platform that enables educators create and manage courses as wellas monitor learners progress, virtual learning environment (VLEs) web-based platforms that provide an immersive learning using multimedia tools such as videos, simulations, and games,

In healthcare, indigenous technology can play a crucial role in addressing public health challenges. According to Amadi (2010) our medical practitioners treat their patients based on non-indigenous validated documentations by applying foreign clinical procedures, teaching texts and assessment of results which apparently work for the foreigners but may not have been working for us. He claims that the current system is still alien to us and wonders why the indices are improving in the UK and USA but declining steadily in Nigeria; and proposed the need to use what we already have to chart a new course to understand the medical peculiarities of our composition for the development of a sustainable healthcare system that fits into our culture and climate.

Amadi (2010) further asserts that no two patients of the same racial population are exactly the same, differences exist across inter-racial divides. Medical treatments are often carried out and improved upon based on research findings and the conclusions often drawn by regressions and statistical interpretation of plots of scattered points representing various individuals, according to him. He advises that healthcare practitioners should therefore be cautious because some patients may represent those few points that may have occurred very far from the regression curve and these are the patients that would never get well by applying the conventional (standard-book-advised) procedures or treatments. With the wide range of genetic differences across individuals of different races, the effectiveness of a treatment is expected to be more pronounced among the race applied in the research study. He therefore emphasizes the need for Nigeria to invest reasonably on medical and engineering research (indigenous technology) in order to develop fundamental scientific understanding that would enable us to adjust our practices and procedures to incorporate our racial and environmentally modified physiological factors. These he claims would enhance better clinical outcomes and ensure the updating of our medical and engineering books for teaching and practice. We can then establish the fundamentals of our physiological character upon which we can advance our own medical technology.

We can leverageon traditional medicine practices alongside modern medical approaches. Taking a lead from China where a blend of biomedical and traditional theory and practice can be found at many different levels of their medical practice. According to Siyanbola et al (2021), all medical practitioners have some training in both indigenous and western styles and it is reflected institutionally in the delivery of health care at their hospitals, in varying degrees of integration of diagnosis, explanatory models of disease, therapeutic paths, and drug preparations.They further assert that pharmacology, acupuncture, massage, and the practice of "qi" techniques, are all part of the health care services in the country. These practices are usuallycommunicated to their patients through their indigenous languages. Nigeria is a nation richly endowed with different kinds of herbs, roots and plants that our generations passed used to cure different kinds of ailments and also used to live healthy, no wonder they lived healthier and longer than the present generation. They also had indigenous skills and toolsthey invented to administer treatments. Our traditional/indigenous medicine can likewise be incorporated into our healthcare system through the vehicle of indigenous languages for effective communication with the patients.The traditional medical

practitioners should therefore appropriate standards common to contemporary biomedical knowledge, technology, education, and research. This means standardized drugs doses, re-modification and re-packaging, evaluation of traditional techniques through clinical trials according to modern anatomical knowledge.These will go in no small measure in repositioning our healthcare system to a more robust and vibrant system.

Mobile health technologies can also be incorporated into the healthcare system, this technology uses mobile devices such as smartphones and tablets to provide health care services. Nigeria has one of the rapidly growing mobile phone markets in Africa. It can help to overcome the barriers of distance and accessibility in healthcare delivery. Mobile health technologies such as text message reminder of appointments, telemedicine, health information and mobile clinics could be used to reposition the healthcare system, these could greatly improve access to health care in the underserved areas

Furthermore, community health workers can be of immerse important in this task, according to Ajisegiri et al (2023) they are people who are selected from the local communities and trained to provide basic healthcare services. Training these community health workers who are conversant with local languages, customs and traditions could help fill the gap of shortage of doctors and nurses in many rural areas, this would assist in improvingand breaking barriers to access to health care in these areas.

More so, it is no secret that many Nigerian women prefer to give birth at home with the help of traditional birth attendants. According to Itina (1997) it is important that all obstetricians in developing countries are familiar with the practices of traditional birth attendants in their localities in order to manage properly referrals from them to reduce as much as possible high maternal mortality and morbidity rate associated with its practice. With adequate monitoring, incorporating these attendants into the health care system could improve maternal and child health outcomes and also reduce pressure on the healthcare facilities.

Another technology that can be leveraged on is health education through music and drama, Nigeria has a rich cultural tradition of music and drama; incorporating health education messages into these forms of entertainment could increase awareness and promote health behaviours.

These indigenous technologies and many more have the potential to improve and reposition the healthcare system in Nigeria, especially in the rural communities. Their integration with the modern healthcare practices can help to provide a more comprehensive and accessible healthcare system.

Potential benefits of incorporating indigenous languages and technology into these sectors

Some of these benefits are preservation of cultural knowledge, improved communication and trust, adaptation to local contexts, enhanced access to healthcare and education. Communication is important to the overall patients' wellbeing, by incorporating traditional healing into clinical applicationsthrough the indigenous languages, we are utilizing technology as a concept to support and work towards strong, healthy, and sustainable indigenous and non- indigenous partnerships. Indigenous technology enables us to express our knowledge and values and share our valuable cultural knowledge. The use of indigenous language in repositioning Nigeria's education and healthcare systems through indigenous technology has the potential to provide a solution to the disparity in the health and education outcomes for the people.

Challenges of this synergy

One of the obvious challenges of synergizing the indigenous language and indigenous technology in this task of repositioning is the negative attitude of Nigerians towards indigenous language and indigenous technology. Nigerians have more preference for the English language and western technology to the indigenous. People that speak their native language sometimes are not regarded in high esteem and the native medicine, to some is a taboo. Again, religious biases against cultural or traditional things, that play down on our traditional values constitute serious impediment to the growth of these technologies. Some others are stated below.

Lack of government political will to make and implement policies and programmes that will encourage the use of indigenous language and technology, and also lack of government, individual and group investments to the development of these technologies and languages. Lack of standardizationis robbing our technology of their patronage, there is no appropriate standards common to biomedical knowledge, technology, education and research; no standardized drug doses, modification and packaging. There is also little or no evaluation of the traditional techniques through clinical trials according to modern anatomical practices. There is limited resources such as textbooks to carried out research on these technologies and languages, many of our languages do not have standard orthography.

Lack of openness or sincerity on the part of the custodians of these indigenous know how in teaching or mentoring others. According to Olabiyi (2017)the Global Knowledge Conference (Toronto, June 1997) emphasized the urgent need to learn, preserve, and exchange indigenous technology for a new inclusive approach to the development of indigenous technology, since indigenous technologies constitute an important aspect of a people's culture. They represent the adaptive mechanisms through which people survive in any ecological position they find themselves. If they don't teach or mentor people, when they die that knowledge is lost forever. According to Muhamedbhai (2013) as soon as these long age generation goes away, these knowledge, belief and practice fades away with them. Therefore, they should not be allowed to be under-utilized or die.

Conclusion

The integration of indigenous technology in both education and healthcare through the vehicle of indigenous languages has the potential to improve outcomes by making services more accessible, culturally appropriate, and cost-effective. It also helps preserve traditional knowledge and fosters innovation within our communities therefore must not be relegated to the background. It should be encouraged to grow by incorporating them into our education and healthcare sectors.

Wayforward

➢ The mass media can play important role in the sensitization of the use of indigenous language in the education and healthcare sectors in Nigeria to promote our indigenous technology.

➢ Indigenous languages should be used to write the operational manuals and prescriptions of these products alongside English language. This is toproject, promote and preservethese languages.

➢ A robust language policy should be enforced in our educational system to use the indigenous languages especially in the early educational years. This will make learning easier and application of the indigenous knowledge and technology more productive.

➢ Seminars and sensitization campaigns should always be organized by all levels of government and stakeholders in the education, healthcare and research institutes to use

the indigenous language and indigenous technology in order to preserve our cultural heritage.

➢ People should be encouraged to have mental and social re-orientation about the use of indigenous language in these sectors because no language is superior to the other and any knowledge that is applied and it brings solution to man's needs is worth treasuring.

➢ Government and individuals should invest in researches to develop and up-grade our indigenous technologies to bridge their shortcomings.

➢ Another challenge of indigenous language and technology is the lack of proper documentation, therefore, there should be deliberate efforts to the development and documentation of their teaching and learning aids. This will also serve as a foundation that the future generations would rely on to advance the technologies.

➢ There should also be mores focus on developing healthcare technologies that are locally conditioned, such as mobile health apps for community health workers or telemedicine solutions for rural areas with limited access to healthcare facilities.

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