

FOSTERING SUSTAINABLE DEVELOPMENT GOALS FOR FUNCTIONAL EARLY CHILDHOOD EDUCATION IN NIGERIA

¹FASIU BABATUNDE AMODU & ²MOYINOLUWA GRACE OWOJORI

¹Department of Early Childhood Care and Education, School of Early Childhood Care, Primary, Adult and Non-Formal Education, Federal College of Education, Abeokuta

²Department of Arts and Social Science Education, Faculty of Education, Lead City University, Ibadan.
owojori.moyinoluwa@lcu.edu.ng 09037870335 fasiuamodu@gmail.com 07032704830

Abstract

Fostering the Sustainable Development Goals (SDGs) through early childhood education in Nigeria is essential for building a strong foundation for lifelong learning, social development, and sustainable national growth. Early childhood education represents a critical stage in human development where children acquire basic cognitive, social, emotional, and physical skills that shape their future learning and behaviour. Aligning early childhood education with the objectives of Sustainable Development Goal 4, which promotes inclusive and equitable quality education for all, ensures that young learners receive the necessary support to develop foundational literacy, numeracy, creativity, and positive social values. In Nigeria, strengthening early childhood education can significantly contribute to reducing educational inequality, promoting social inclusion, and improving overall learning outcomes. Despite its importance, several challenges continue to hinder the effective integration of SDG principles into early childhood education in Nigeria. These challenges include inadequate funding, insufficient learning facilities, shortage of qualified early childhood educators, and weak policy implementation. Addressing these issues requires increased investment in early childhood education, improvement in learning environments, and continuous professional development for teachers. This paper therefore emphasizes the importance of strengthening early childhood education as a strategic approach to achieving the Sustainable Development Goals and fostering sustainable development in Nigeria.

Keywords: Early Childhood Education, Sustainable Development Goals, Quality Education, Child Development

Introduction

Fostering the Sustainable Development Goals (SDGs) for functional education in Nigeria has become a critical national priority in the face of rapid socio-economic, technological, and environmental changes. Functional education, which emphasizes practical skills, problem-solving abilities, and value orientation, aligns closely with the Sustainable Development Goals commitment to inclusive, equitable, and quality education for all. In Nigeria, the need to reposition the education system toward functionality is driven by persistent challenges such as unemployment, poverty, low skill acquisition, and the mismatch between school outcomes and labour market demands. Integrating Sustainable Development Goals principles into educational planning and delivery, therefore, provides a strategic pathway for equipping learners with the competencies required for sustainable national development.

The concept of functional education goes beyond mere literacy and certification; it focuses on the development of relevant skills that enable individuals to contribute meaningfully to society. This includes vocational competence, digital literacy, entrepreneurial skills, environmental awareness, and civic responsibility. By aligning these components with Sustainable Development Goals targets, particularly those relating to quality education, decent work, reduced inequalities, and sustainable communities, Nigeria can transform its education system into a tool for empowerment and productivity. Such an approach ensures that education is not only theoretical but also responsive to real-life challenges and national development needs.

Despite various educational reforms in Nigeria, the attainment of functional education remains constrained by inadequate funding, poor infrastructure, outdated curricula, insufficient teacher training, and limited

integration of technology in teaching and learning. These challenges hinder the effective domestication of Sustainable Development Goals -driven educational practices in schools and tertiary institutions. Furthermore, disparities in access to education across gender, location, and socio-economic status continue to undermine the goal of inclusive and equitable learning opportunities. Addressing these gaps requires coordinated efforts from government, educational stakeholders, the private sector, and development partners to create an enabling environment for SDG-oriented functional education.

Promoting functional education through the Sustainable Development Goals framework demands curriculum innovation, capacity building for teachers, investment in technical and vocational education, and the adoption of learner-centred pedagogies. It also requires strengthening partnerships between schools and industries to ensure that educational outcomes are relevant to contemporary workforce needs. By embedding sustainability principles into teaching and learning processes, Nigeria can nurture a generation of skilled, self-reliant, and socially responsible citizens. Ultimately, fostering the Sustainable Development Goals for functional education will not only enhance human capital development but also accelerate Nigeria's progress toward inclusive growth, environmental sustainability, and national transformation.

Globally, education is seen as the foundation for all human endeavors, which is linked to an individual's well-being and plays a vital role in human capital development (Kuzminov et al., 2019). Searching for a qualitative and sustainable education has long piqued the curiosity of parents, guardians, and educators. As such, education is viewed as the transmission of a society's valuable ideals and the acquisition of knowledge that assists people in becoming productive members of the society and developing a respect for their cultural heritage (Ampofo, Opoku & Opoku-Manu, 2022). Education is perceived as the first step of sustainable development and a very important move in improving a generation of people to appreciate the importance of sustainability (Zenelaj 2013). In short, full access to quality education at all levels is an indispensable condition for achieving sustainable development, eradication of poverty, gender equality, and women's empowerment, as well as human growth for the attainment of the internationally agreed development goals, including Goal 4, and for the full involvement of both young women and men (UN, 2012).

This implies that a national sustainability plan can be put in place to ensure that all boys and girls complete free, equitable, and quality primary and secondary education leading to relevant and effective learning outcomes. Hence, the repositioning of all-inclusive education can expedite changes in values, worldview and behavior at all levels (UNESCO, 2016). Again, for sustainability in education, lifelong learning is paramount. It facilitates reflective or ethical learning, knowledge and skills acquisition and greater agency to address complete sustainability issues (UNESCO, 2016).

Lifelong learning conceptualizes learning as the lifelong, voluntary and self-motivated quest to knowledge for personal as well as professional reasons. It recognizes that learning is not confined to childhood or the classroom, but takes place throughout life and in a diversity of circumstances. (Ates & Alsai, 2012). The ultimate years of lifelong education is to enable learners to acquire more of the skills required by the knowledge economy as well as more traditional academic skills (Sonia 2012).

The Sustainable Development Goals (SDGs) are a collection of 17 global goals adopted by the United Nations in 2015 that aim to address various social, economic, and environmental challenges by 2030, including poverty, inequality, education and climate change, environmental degradation, peace, and justice (Suleman, 2023). The formal name for the SDGs is: "Transforming our World: The 2030 Agenda for Sustainable Development (Attah et al, 2021). On the other hand, quality education is education that develops the whole person, fostering cognitive, social, emotional and physical well-being, which fosters critical thinking, collaboration, creativity, problem-solving skills and adaptation to new technologies (World Bank, 2023).

In most of the African States like Nigeria, Niger Republic, Chad, Cameroon, and Somalia, as well as many other developing countries, access to quality education is hindered by various factors, including inadequate infrastructure, limited resources, and socio-cultural barriers (UNESCO, 2020). As such, there is no doubt

that educational standards at both primary, secondary and tertiary institutions on the continent are steadily declining (Matthew, 2020). Despite progress in expanding educational access in many African countries, disparities persist, with marginalized communities, including girls, rural populations, and those living in conflict-affected areas, facing significant challenges (UNICEF, 2021). The Government of African societies was among the signatories of the Sustainable Development Goals, specifically goal 4 (Quality Education), in its attempt to provide its people with quality education (Abdulyakeen, 2024).

In Nigeria, different Governments have been making several efforts to ensure access to quality education because of the place of education as a primary agent towards sustainable development and increasing people's capacities to transform their vision for society into reality (Abai, Gibson & Deeza, 2023). It is as a result of the premium placed on education that the Federal Government of Nigeria, in 1969 to organise the first ever National Curriculum Conference in education. As such, 3 achieving the SDGs four is indispensable for the Nigerian State in its attempt to provide its citizens with qualitative education (Chioke et al, 2023; Abdulyakeen and Nurain, 2024).

The Sustainable Development Goals place quality and inclusive education at the centre of national transformation, making functional education a critical pathway for achieving sustainable development in Nigeria. Functional education equips learners with practical skills, values, and competencies needed for self-reliance, productivity, and lifelong learning. However, persistent challenges such as inadequate funding, weak infrastructure, and curriculum gaps continue to limit the effective integration of Sustainable Development Goals principles into the Nigerian education system. Therefore, fostering the Sustainable Development Goals through a functional education framework is essential for promoting human capital development and sustainable national growth.

Sustainable Development

It is simply defined as development now without jeopardizing development in successive generations. It was made popular as a result of great concerns for the pollution of the environment, following the 1972 Stockholm conference on the Human Environment, which led to the establishment of the United Nations Environmental Programme (UNEP) (cited in Adedipe, 2009). The World Rio Declaration on Environment and Development (1992) defines Sustainable Development as; "longterm continuous development of the society aimed at satisfaction of human need at present and in future via rational usage and replenishment of natural resources preserving the air for future generations". Accordingly, Ojo (2015), opines that sustainable development is the "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

Sustainable development is the adoption of business strategies and tactics that meet the needs of the enterprise and enhance the human and natural resources that will be needed in the future. In another dimension, Todaro and Smith (1985; cited in Adebayo, 2020), also assert that sustainable development is the organizing principle for meeting human development goals, whereby the current generations have a moral obligation to provide essential needs for sustainable living conditions to their future generation. It can be defined as a form of development that ensures meeting the aspirations or needs of the present and also ensuring that future generations are secured, by preserving those natural resources and the ecosystem needed for further development. It implies economic growth together with the protection of environmental quality, each reinforcing the other. The objective or focus of Sustainable Development, therefore, is a stable relationship between human activities and the natural world, which does not diminish the prospects for future generations to enjoy a quality of life comparable to that of the present generation. The United Nations' Sustainable Development Goals align with the vision and aspirations of Sustainable development, as outlined later in this paper (Ayobami, 2018).

The Impact of the Sustainable Development Goal 4 in Achieving Quality Education in Nigeria

The Sustainable Development Goal Four (SDG 4) emphasizes ensuring "inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030 (United Nations Department of Economic and Social Affairs, 2015). In line with this assertion, Ayodele (2007), affirms that development cannot take place in human society without education and conversely, no lasting peace and security can be

accomplished with development. This is to imply that for sustainable development goals, precisely Goal 4, to be achieved in a society, both individuals and the state should have access to quality education.

Elujekwute et al (2023), pontificates that education becomes the index for measuring the development capacity of both the individuals and the country, which has become an important social commodity that is desired by all but relatively not affordable by all, either on account of scarce resources or ill-equipped teaching. This perhaps explains why UNESCO (2016) recognises the global momentum of achieving accessible and quality education for children and adults. This awareness has grown steadily and most recently metamorphosed into an objective embraced within the Sustainable Development Goals (SDGs) (United Nations, 2015). Furthermore, Abigail and Felix (2019) argue that to achieve sustainable national development of a state or society, as it may be, there must be a high level of education. This is to say, the knowledge given to the younger generation, which enables them to develop positive attitudes and good attributes, is one of the evidences of quality education in society.

While Amaele (2021) opined that education is the complete development of a child by using adequate techniques and methods in accordance with his or her ability and area of interest, so that he or she will not be left behind and also the child will be able to survive and add to the development of society. In line with the provision of universal basic education, Nigeria has a National Policy on Education that is interested in the pursuit of this laudable goal of quality education (Goal 4). This is in appreciation of the fact that full and unhindered access to quality education is the first necessary step to achieving other development goals, including poverty eradication, gender equality, and women's empowerment, among others (Akogun & Abolade, 2023).

In view of this, Suleiman (2023) suggests that the strategies for enhancing quality assurance in education are as follows: quality of syllabus and curriculum, accreditation council, quality of teachers, discipline of students and teachers and availability of infrastructural facilities through selection of students during admission, good governance, constant supervision, training and development of teachers and constant assessment of quality of works and research. Lawrence et al (2020) emphasize the importance of teacher training and professional development in improving the quality of education in Nigeria. They advocate for investment in teacher education programs and pedagogical reforms aligned with the principles of SDG 4, such as learner-centered approaches and competency-based assessment.

Concept of Functional Education

Functional is explained by the Cambridge dictionary as “designed to be practical and useful rather than attractive”. The educational curriculum should be relevant, realistic and comprehensive enough to guide learners based on their interest, capacity, and the needs of the society to produce individuals who have procured the proper aptitudes and mental capacities, physical and social capacities, skills and competences as a gear for the person to live in and add to the general public (Undie, Ugbe and Undie, 2021). Functional education, according to Ayoade and Thota (2023), is an education that puts a country in a position of being able to manufacture raw materials, such as machines and tools needed for the industries. Such a country should also be able to attain food sufficiency for domestic and international consumption. In addition to that, it should be able to discover and produce drugs capable of curing diseases. In other words, functional education is capable of transforming a country's economy, from a consuming one to a manufacturing one.

Ayoade and Thota (2023) opine that functional education seeks to prepare people, especially youth, to be responsible, enterprising individuals who become entrepreneurs or entrepreneurial thinkers who will contribute to economic development and sustainable communities. Musa and Joseph (2018) emphasized that functional education is that which will provide life and occupational skills that will enhance the potential of individuals, thus reinforcing self-sufficiency and improving quality of life. In the same vein, Okeke (2021) defined functional education as education for which there is an anticipated application, which thus assumes that the learner has immediate meaning, transferable into action for their learning activities. Accordingly, a non-functional educational system would lead to a poor national economy, national insecurity, corruption and several other challenges (Abolarin, 2019).

Functional education is very important in that there is an urgent need for all post-basic education schools in Nigeria to comply with the presidential directives to the effect that entrepreneurship is made compulsory for all students of post-basic education in Nigeria, irrespective of their area of specialization. This policy decision was based on government awareness of the crucial role of entrepreneurship education and training in fostering employment generation among the teeming youth, economic growth, and wealth creation.

Some objectives of a functional educational system, as identified in Okeke (2021) and Undie, Ugbe and Undie (2021) are:

- i. The integration of the products of the system into society without alienating them from it.
- ii. To make the products of the system become self-reliant and create employment for other members of the society.
- iii. To serve as a tool for social and cultural stability and economic sufficiency.
- iv. To provide solutions to the social and economic problems of society.
- v. To promote character development, the fulfillment of individual goals through the acquisition of knowledge and skills and the ability for the benefit of society.

Functional literacy is a major component of functional education because it enables individuals to apply reading, writing, and numeracy skills to real-life situations. In this regard, UNESCO (2017) asserts that functional literacy empowers individuals to participate effectively in economic, social, and civic activities. In support of this, Rogers (2016), notes that literacy becomes functional when it is linked to livelihood skills, health awareness and community development. This perspective highlights the role of functional education in promoting lifelong learning and social inclusion.

Functional Education as a Tool for Sustainable Development

Functional education is widely recognised in the literature as education that equips learners with relevant skills and competencies that enable them to contribute effectively to national development. According to Adetuyi and Adeniran (2021), functional literacy as a component of functional education empowers individuals with practical skills and knowledge that enhance their socio-economic participation and contribute to national sustainable development. The authors highlight that women's functional literacy, in particular, improves economic productivity and community participation, enabling them to play a more meaningful role in sustainable development efforts.

Functional education at the secondary level has also been emphasised as critical to building leadership, values, and vocational competencies required for sustainable development. Nsude and Chukwu (2022) note that managing functional secondary education effectively ensures that students acquire relevant knowledge, practical skills and values that contribute to their productivity and national advancement. They argue that functional education must be intentionally managed to contribute to leadership development and a society's sustainable progress. The role of functional education in developing artisans' entrepreneurship competencies has been highlighted as a strategy for sustainability and economic inclusion. Olasinde, Sholagberu and Sanni (2025) shows that functional adult literacy allows artisans to internalise literacy and business skills that enhance their entrepreneurial capacities, improve employability, and respond to changing market demands. Their findings suggest that functional education can reduce unemployment and support sustainable livelihoods in informal sectors.

Integrative models that connect education, industry and government can further enhance the impact of functional education on sustainability outcomes. Oyewole et al. (2025) present a "triple helix" model showing that collaboration among universities, industries and government strengthens employability and sustainable growth through vocational education. Their research indicates that functional education becomes more effective when stakeholders coordinate to align educational programmes with labour market and innovation needs. Empirical evidence also shows that adult literacy programmes with a focus on practical skills contribute to community development and broader sustainable outcomes. Usman and Shehu (2021) demonstrate that leveraging adult literacy education beyond basic literacy promotes economic participation and reduces poverty in communities. Functional adult literacy, therefore, plays a key role in

facilitating sustainable community development by enhancing human capacities and socio-economic engagement

Conclusion

Fostering the Sustainable Development Goals (SDGs) through functional education remains a vital strategy for achieving sustainable national development in Nigeria. Education serves as the foundation for human capital development, social progress, and economic transformation. As highlighted in the study, functional education equips learners with practical knowledge, relevant skills, and positive values that enable them to contribute meaningfully to societal growth. When education is aligned with the principles of the Sustainable Development Goals, particularly SDG 4, which emphasizes inclusive and equitable quality education, it promotes lifelong learning opportunities and prepares individuals to respond effectively to modern socio-economic and environmental challenges.

The review also revealed that despite the recognized importance of functional education in achieving sustainable development, Nigeria continues to face several systemic challenges. Issues such as inadequate funding, poor infrastructure, outdated curricula, insufficient teacher training, and disparities in educational access have limited the effective implementation of SDG-driven educational practices. These barriers not only affect the quality of education but also reduce the capacity of the education system to produce skilled, innovative, and self-reliant citizens. Addressing these challenges requires deliberate policy reforms, stronger institutional support, and sustained investment in the education sector.

Therefore, strengthening functional education within the framework of the Sustainable Development Goals is essential for Nigeria's long-term growth and development. By prioritizing curriculum reform, improving teacher capacity, promoting functional literacy, and fostering collaboration among government, educational institutions, industries, and development partners, the country can build an education system that supports sustainable livelihoods and national transformation. Ultimately, a well-implemented functional education system will empower individuals, enhance productivity, and contribute significantly to the realization of sustainable development in Nigeria.

Recommendations

Increase Government Funding for Education

The government should increase financial investment in the education sector to improve the quality of functional education in Nigeria. Adequate funding will help provide modern learning facilities, instructional materials, and technological resources that support effective teaching and learning. Increased funding will also enable schools and institutions to implement programmes that align with the Sustainable Development Goals, particularly those that promote inclusive and quality education for all learners.

Curriculum Reform to Emphasize Practical Skills

Educational curricula at all levels should be reviewed and updated to reflect the principles of functional education and sustainable development. The curriculum should emphasize practical knowledge, problem-solving abilities, digital literacy, environmental awareness, and life skills that are relevant to contemporary societal needs. This will ensure that learners acquire competencies that enable them to contribute meaningfully to national development.

Continuous Professional Development for Teachers

Teachers play a critical role in achieving the goals of functional education and the Sustainable Development Goals. Therefore, regular training and professional development programmes should be organized to equip teachers with modern pedagogical skills, learner-centered teaching strategies, and the ability to integrate sustainability concepts into classroom instruction.

Improve Educational Infrastructure and Learning Environment

Government and educational stakeholders should invest in the provision of adequate infrastructure such as well-equipped classrooms, laboratories, libraries, and digital learning tools. A conducive learning

environment enhances students' engagement and promotes effective teaching and learning, which is essential for achieving quality and functional education.

Strengthen Partnerships among Educational Stakeholders

There should be stronger collaboration between government agencies, educational institutions, industries, and development partners to support the implementation of functional education programmes. Such partnerships can facilitate resource sharing, innovation, research development, and the alignment of educational outcomes with societal and developmental needs. This collaborative approach will enhance the realization of Sustainable Development Goals in the Nigerian education system.

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