# THE ROLE OF INDIGENOUS EDUCATION IN PROMOTING ADULT EDUCATION IN NIGERIA

## Chiamaka, V. Egwuekwe, Bala J. Ogu & Ruphina U. Nwachukwu

Department of Continuing Education and Development Studies Faculty of Education, University of Nigeria, Nsukka

#### Abstract

Indigenous education plays a significant role in the growth of Adult Education in Nigeria. Indigenous education is a lifelong process of learning where by a person progresses through predetermined stages of life of graduation from cradle to grave. The Indigenous education system in Nigeria has been significant in promoting adult education because the types of adult education which are formal, non-formal and informal are culled up from the indigenous knowledge and merged with the western education. The combination of the indigenous education and the western education has brought in a tremendous change in the Nigerian adult education system. This paper therefore has the intent to sufficiently clarify the concept of indigenous knowledge, indigenous education system, adult education and also the relevance of the indigenous education system to the development and growth of adult education in Nigeria. Furthermore, preserving and integrating indigenous education is not only essential for promoting adult learning in Nigeria but also for achieving a more holistic, community-responsive, and sustainable national education system. Acknowledging and embedding indigenous knowledge within adult education practices will foster greater educational relevance, boost learner motivation, and promote cultural continuity, critical factors in achieving lifelong learning goals in Nigeria and across Africa. Amongst the suggestions made, Adult educators are encouraged to reflect regularly on their teaching practice to become aware of areas of instruction in need of indigenous perspectives.

**Keywords:** Adult education, indigenous education, indigenous knowledge, intercultural education

#### Introduction

The integration of indigenous education into adult education frameworks is essential for cultural preservation, self-reliance, and national development. Adult education, defined broadly as organized learning opportunities for adults outside the formal schooling system, is deeply enriched by traditional modes of learning such as storytelling, apprenticeship, herbal medicine, and oral history. These approaches provide learners with context-specific knowledge and problem-solving skills grounded in local realities. Moreover, indigenous knowledge systems offer critical insights into sustainable living, health, agriculture, and resolution—areas practical conflict in which adult learners often seek competence. Indigenous knowledge is significant in the growth of Adult education in Nigeria. Indigenous knowledge refers to the unique local contextual knowledge that originates from the people who are native to a particular place (Dorner & Gorner, 2008). The concept of indigenous knowledge refers to context-specific knowledge, which is developed and embodied within the confines of culture, usually transmitted orally over time and generationally inherited (Ngozwana, 2015). Therefore, indigenous knowledge includes a set of ideas, practices that are peculiar to a particular place which is passed on to generations. Nyiraruhimbi (2012) identified three ways of looking at indigenous knowledge. First, as local science where knowledge is consciously developed over time using local technologies that bring about a significant change in the lives of the indigenous

people, for example, the use of traditional herbs (Moteetee & Van Wyk, 2011). Second, as local practice where knowledge is developed unconsciously over time through trial and error such as arts and craft activities. Finally, the notion of knowledge as local memory, which denotes abstract and memorized knowledge as a result of the socialization process such as folklore.

Indigenous knowledge is characterized as being oral, context-specific, and passed on through generations. Odora-Hoppers (2000) is of the opinion that indigenous knowledge is characterized by its embeddedness in the cultural web and history of a people including their civilization, and forms the backbone of the social, economic, scientific and technological identity of such a people. Indigenous knowledge is embedded in countless communities throughout the world, each with their own local environmental, social, cultural, economic and political contexts. While this knowledge is intrinsically tied to these local conditions, there is potential for specific principles and practices to be transferred between communities. The ability to transfer indigenous knowledge from one person to another makes it a learning process, thus the transferability of indigenous knowledge from one generation to another or from one community to another for enhancing the lives of the people is known as Indigenous Education.

Indigenous education is the education developed for a population; it is used and disseminated among them for functionality and the functional aspect of indigenous knowledge which makes a person functional based on experiences which is rooted in the culture of the people. The type of education being practiced all over Africa before the arrival of western education was basically referred to as indigenous education (Umar & Shagari, 2010). Indigenous education may not be restricted to a specific school site; may involve a combination of intellectual and experiential learning; and is often rooted in ethical and spiritual development in a communal context and in skills development needed to maintain a hunter-gatherer, pastoralist or nomadic/semi-nomadic way of life (Shimmel, 2007). Sithole (2007) also argues that documentation is a way to protect indigenous knowledge from exploitation by actors other than its true originators. Indigenous communities are able to 'reclaim and revalue their languages and (traditions), and in so doing, improve the educational success of indigenous students,' thus ensuring their survival as a culture. Indigenous system of education took an unorganized setting, with no classrooms and the curriculum was unstructured.(Umar & Shagari 2010) Indigenous ways of knowing, learning, instructing, teaching, and training is important for ensuring that students and teachers, whether indigenous or non-indigenous, are able to benefit from education in a culturally sensitive manner that draws upon, utilizes, promotes, and enhances awareness of indigenous traditions, beyond the western standard of reading, writing, and arithmetic. The growing recognition and use of indigenous education methods can be a response to the erosion and loss of indigenous knowledge through the processes of colonialism, globalization, and modernity (Grenier, 1998). Ngulube (2002) points out that documentation, apart from serving the purpose of preservation, makes indigenous knowledge easily available to professionals within the education sector. Indigenous education specifically focuses on teaching indigenous knowledge, models, methods, and content within formal or non-formal educational systems. The availability of the indigenous education system to the policy makers and educationists will help in promoting Adult Education in Nigeria.

Adult education programmes in Nigeria makes use of their indigenous knowledge, and enhance the citizen's self-esteem and identity. Adult education has been recognized as a vector of development in that it provides skills needed for the day-to-day activities of

individuals and their communities, and helps to tackle issues of poverty, inequality, underdevelopment, environmental preservation, and sustainability. CONFINTEA V recommended that adult education should be rooted in the principles of intercultural education, intercultural dialogue and participation in decision making without compromising multi-cultural citizenship and improved quality of life (UIE 1997). Adult Education programmes are educational programmes aimed at improving the cognitive, psychomotor and affective domains of people who are recognized by their societies as adults. It permeates all levels of education, and concerns itself with everything that affects the wellbeing of the entire citizens and their societies (Ihejirika, 2012). Adult education is human development-oriented and geared towards making an adult to be more functional and responsible to himself and his society. The Indigenous education system in Nigeria has been significant in promoting adult education because the types of adult education which are formal, non-formal and informal are culled up from the indigenous knowledge and merged with the western education. The combination of the indigenous education and the western education has brought in a tremendous change in the Nigerian adult education system. This paper therefore has the intent to sufficiently clarify the concept of indigenous knowledge, indigenous education system, adult education and also the relevance of the indigenous education system to the development and growth of adult education in Nigeria.

# **Conceptualization Indigenous Knowledge**

Indigenous Knowledge (IK) refers to the systems of understanding, practices, and skills developed by local communities through long-standing interaction with their natural and social environments. It is grounded in the lived experiences of people and shaped by cultural traditions, values, and norms. Indigenous knowledge is typically transmitted orally or through cultural practices, and it plays a critical role in domains such as agriculture, health, education, and environmental management (Battiste, 2013). This knowledge system is dynamic, adaptive, and continually evolving. Contrary to earlier misconceptions that viewed it as static or primitive, recent scholarship emphasizes that IK is a responsive knowledge base, continuously refined through observation, experimentation, and intergenerational learning (McCarter et al., 2014). It is not merely historical; it is a contemporary, context-sensitive framework for problem-solving, especially in rural and resource-dependent communities.

In agricultural systems, for example, indigenous knowledge contributes to food security through practices such as intercropping, seed selection, and pest management that have been validated through generations of use (Altieri & Nicholls, 2017). Similarly, in the field of health, indigenous healing practices including herbal medicine and spiritual therapies remain vital, particularly where access to modern healthcare is limited. The World Health Organization (2022) has acknowledged the relevance of traditional medicine as a complementary health resource, urging governments to preserve and regulate such systems. Despite its utility, IK has been historically marginalized by colonial and postcolonial education systems that privileged Western paradigms. This marginalization has resulted in a disconnect between formal schooling and the cultural realities of indigenous learners, leading to educational disengagement and erosion of local wisdom (Dei & Asgharzadeh, 2020). In response, there is growing advocacy for the decolonization of education through the integration of indigenous perspectives in curricula and teaching practices (Odora-Hoppers, 2019).

In adult and non-formal education contexts, incorporating indigenous knowledge not only enhances learning relevance but also promotes cultural identity, community empowerment, and intercultural dialogue. It allows adult learners to engage with content that resonates with their lived realities and validates their knowledge systems (Sithole, 2020). Educators are therefore encouraged to adopt inclusive pedagogies that respect indigenous epistemologies and involve local knowledge custodians in curriculum development and delivery. To preserve indigenous knowledge, it is imperative to adopt ethical and collaborative strategies that respect intellectual property rights, recognize the authority of indigenous knowledge holders, and ensure the sustainability of knowledge systems. Documentation, community engagement, and participatory research are vital steps in safeguarding these valuable resources for future generations. In sum, indigenous knowledge is a powerful tool for community development, cultural continuity, and lifelong learning. Its rightful recognition and integration into educational and development systems can bridge epistemic gaps and support the creation of more inclusive, equitable, and sustainable societies. Thus, the nature of indigenous knowledge is conservative in that valuable traditional knowledge is preserved and dynamic in that knowledge is reconstructed in response to contemporary realities (Lanzano, 2015) But the concepts of tradition and locality have been equally discussed and problematized. Warren (1991) perceives indigenous knowledge as contrasting with the knowledge generated by universities and research institutes. As such, indigenous knowledge is viewed as the local knowledge that is peculiar to the African society, not knowledge from universities and research institutes in Africa. However, Nwagwu (2007) faulted such perception because universities and research institutes in Africa are working closely with African indigenous knowledge systems. Indigenous knowledge has also been called local, folk, or people's knowledge as well as traditional wisdom. Some components of indigenous knowledge are oral, and are passed down from generation to generation through word of mouth and rituals.

The ability of a group of people to grow their indigenous knowledge, according to the World Bank (1997), is as important as their financial resource because indigenous knowledge represents a people's history, crafts and experiences, which can spur improved livelihood. Sarpong (2002) emphasized that knowledge should not be divorced from the cultural context it emanated from because a people's culture shapes a people's consciousness. Contemporary scholarship emphasizes that all knowledge systems are culturally grounded and context-dependent, making it inappropriate to elevate one above another. Each body of knowledge reflects the experiences, histories, and values of the communities that produce it. This epistemological plurality is essential for fostering global equity in education and development. Indigenous knowledge, in particular, should not be viewed as inferior or obsolete but rather as an integral component of the global knowledge ecosystem. As Chilisa (2019) asserts, valuing indigenous epistemologies is fundamental to decolonizing education and ensuring inclusive, respectful engagement with diverse ways of knowing. Therefore, indigenous knowledge should be a respectable part of the global knowledge system. The indigenous knowledge has to be passed from one generation to another; hence a system of education has to be adopted for the transmission of this knowledge. This is how the indigenous education system emanated.

## **Indigenous Education System**

Indigenous education played a significant role in the growth of Adult Education in Nigeria. Indigenous education is a lifelong process of learning where by a person progress through predetermined stages of life of graduation from cradle to grave. Mushi (2009)

defines indigenous education as a process of passing among the tribal members and from one generation to another the inherited knowledge, skills, cultural traditions, norms and values of the tribe Indigenous education is expected to produce an individual who will be honest, respectable, skilled, cooperative and a conformist to the norms and values of the society, afunwa (1974) identified a comprehensive set of goals for African education that center around preparing the child holistically for life within the community. These objectives include the development of physical skills; moral and character formation; intellectual and social competence; vocational training and a positive attitude toward honest labor; respect for elders and authority; cultural appreciation and promotion; and fostering a strong sense of belonging as members of the community. These goals reflect his broader educational philosophy, which advocated integrating indigenous culture, local language, and environment into formal schooling, to nurture well-rounded individuals who contribute meaningfully to both self and society (Fafunwa 2025) Indigenous education forms part of Nigerian heritage and therefore it is inseparable from the peoples way of life. Therefore indigenous education involves the process of imparting the indigenous knowledge, values and practices from one generation to another for addressing issues in the society.

#### Adult Education

Adult education is any organized system of learning meant for adults to acquire knowledge and skills for self development and improved standard of living. Jinna & Maikono (2014) defined adult education as any form of learning undertaken by or provided for mature men and women outside the formal school system. The main targets are specifically defined as youth (girls and boys over 15 years of age, but sometime younger) as well as women and men, generally poor or socially disadvantaged. Although literacy continues to be at its heart, adult education also includes "numeracy", problem-solving and life skills, and other knowledge. The notion of adult education is often used interchangeably with other notions such as literacy, adult basic education, lifelong learning, continuing, adult basic end non-formal education among others. The objective of the process of adult education and national development is to get the adults, either as individuals or as a group, to learn and through learning to change their attitude and behaviour. The Federal Republic of Nigeria, FRN (2014) states the objectives of adult education as:

- 1. To provide functional literacy education for adults who have never had the opportunity of any formal education
- 2. To provide functional and remedial education for those young people who prematurely dropped out of the formal school system
- 3. To provide further education for different categories of completers of formal education system in order to improve their basic knowledge and skills
- 4. To provide in-service and on-the-job vocational and professional training for different categories of workers and professionals in order to improve their skills
- 5. To give the adult citizens of the country aesthetic, cultural and civic education for public enlightenment.

All these objectives have one end in view which is to equip the adult with everything he needs for life in order to be relevant to his society by helping to solve some of its problems.

## The Role of Indigenous Education in Promoting Adult Education in Nigeria

Indigenous education is the basis for the foundation of Adult education. (Nyerere, 1967) recalled how the traditional education was relevant to the community life especially learning by doing, and included it in modern education. However, some "organized" educational approaches to preparing children for meaningful cultural life existed throughout Africa and still persist in some Nigerian communities today. Nigeria was home of the highest concentration of pre-colonial states in Africa and had elaborate structures that included adult education where the art of crafting storytelling and the preservation of information relating to the family lineage and was passed from one generation to another the Hausa and the Fulani in the northern Nigeria received Islamic and Arabic influence in education much earlier on and established Islamic centres that became off shoots of civilization in the regions under pre-colonial administration, the Ibo and Yoruba had impressive forms of learning before the advent of colonialism Benin is particularly known for the explosion of artistic creativity following its formation in about throughout its entire history up.

Most of the inhabitants in Nigeria live in rural areas, thus depending directly on natural resources for their livelihood, it can be inferred that indigenous knowledge systems, which relate to such resources are still very much in use and remain important to these communities. As stated by Dei, Hall, and Rosenberg (2002), knowledge cannot be perceived as fixed categories, experiences, and social practices. Wane (2002) reiterates this dynamic nature of indigenous knowledge by noting that indigenous forms of knowledge have accrued over time, which is a critical aspect of cultures. Wane has argued that in the process of learning the old knowledge, new knowledge is discovered and this is what makes indigenous knowledge more dynamic. Therefore, when analyzing various forms of indigenous knowledge in Nigeria, there is need to realize the complexities of its evolution due to its transition, enrichment, and its devaluation and gradual extinction during the colonial era. Indigenous knowledge in Africa is a valuable resource that is disappearing at an alarming rate (Wane, 2000). While many adult educators lament this loss, adult educators also pursue educational initiatives that speed the process. All the while communities in rural Nigeria focus on using their knowledge to ensure community survival into the next generation. Indigenous education has also greatly influenced the need for development of more appropriate problem solving educational curriculum and the promotion of life-long education. Some aspects of indigenous education have continued to feature in policy and practice of adult education and basically indigenous education managed to provide education to all members of the community, although it differed from tribe to tribe. With the coming of western education however indigenous education was seen inadequate to contribute to modern world's demands and the need for new skills. The isolationism of indigenous education was broken up as societies were now introduced into a larger world of modern knowledge and technology.

There has been a rational nature and sophistication of rural people's knowledge and believe that knowledge can be blended with or incorporated into formal scientific knowledge systems. (Ekeke & Dorgu, 2015) If local knowledge and capacities are granted legitimacy within the scientific and development communities, existing research and extension services will pay greater attention to the priorities, needs, and capacities of rural people and, in the end, achieve more effective and lasting results. Indigenous knowledge could contribute to solve existing problems and achieving the intended objectives. Moreover, because indigenous knowledge was generated from the local wisdom and culture, it fits to the local situation natively, and also it is very hard for others to imitate.

Therefore, exploring the dominant factors for sharing, spreading, and transformation of indigenous knowledge is a key theme of vital importance to adult. For adult learners and instructors, the inclusion of these methods into adult education often enhances educational effectiveness by providing an education that adheres to an indigenous person's own inherent perspectives, experiences, language, and customs, thereby making it easier for learners to transition into the realm of adulthood. For foreign adult learners such an education often has the effect of raising awareness of individual and collective traditions surrounding indigenous communities and peoples, thereby promoting greater respect for and appreciation of various cultural realities. In terms of educational content, the inclusion of indigenous knowledge within curricula, instructional materials, and textbooks has largely the same effect on preparing learners for the greater world as other educational systems, such as the Western model. There is value in including indigenous knowledge and education in the public school system (Ejide, 2010).

Learners of all backgrounds can benefit from being exposed to indigenous education, as it can contribute to reducing racism in the learning environment and increase the sense of community in a diverse group of students. There are a number of sensitive issues about what can be taught (and by whom) that require responsible consideration by adult educators who appreciate the importance of interjecting indigenous perspectives into standard mainstream schools. It is important to refer to indigenous educators and agencies to develop curriculum and teaching strategies while at the same time encouraging activism on behalf of indigenous peoples (Njoku, 1989). One way to bring authentic indigenous experiences into the classroom is to work with community elders. They can help facilitate the incorporation of authentic knowledge and experiences into the classroom. The interrogation on the role of indigenous education systems in promoting the relevance of adult education in Nigeria and Africa at large is based on the argument that although the use of what is considered to be indigenous knowledge in Nigeria goes back to the history of humankind in the continent, its current promotion in adult education and other spheres of community livelihood and development is a recent phenomenon. The relationship of traditional knowledge to matters of power gives the debate and its resolutions strong political overtones and links to issues of human rights, equity, equality and justice (Hall, 2000). The divide may be attacked at a variety of scales and levels including the philosophical, institutional, organizational, programmatic and curricular and the pedagogical. At the philosophical level, Gandhi, Nyerere and FRIERE, among others, regarded the formal education systems of the colonial powers as significant instruments of oppression and formulated their visions and models of education from that basis (Richards, 2000). It is true that good elements of indigenous education has withstood the test of time as well as transformation to meet individual and society needs for today and tomorrow should be preserved and developed.

The aims and principles employed in the indigenous education are still relevant today. No serious adult educator in Nigeria can afford to ignore the principles drawn from indigenous education. The assumption is that there is a certain degree, in which traditional education is still being promoted all over Nigeria in spite of the modifications which have come up as a result of adopting the western style of schooling. The aim is to prepare individuals for communal responsibility and interpersonal relationships as key components of the learning process. Therefore, combining specific skills acquisition with good character has been considered as virtues of being well educated and a well integrated member of the society (Semali, 1999). As such Fafunwa's (1982) axiom that: No study of the history of education in Africa is complete or meaningful without adequate knowledge

of the traditional or indigenous educational system prevalent in Africa prior to the introduction of Islam and Christianity. In Nigeria for example, the African Resource Centre for Indigenous Knowledge located at the University of Ibadan is one of many centres in many universities in Nigeria.

## Challenges of Indigenous education system in Nigeria

There are challenges facing the inculcation of indigenous education to adult education in Nigeria, However, indigenous education system seems to be facing the possibility of going out of use due to changes in the physical and social environment of the African landscape (Worldbank, 2015). Despite it's potential to enhance lifelong learning and national development, indigenous education in Nigeria faces several significant challenges that hinder its effective integration into adult education.

One major issue is the negative perception held by many young Africans toward indigenous knowledge. This generational disconnect has led to a widespread undervaluing of traditional wisdom, with local contributions often recalled using language that evokes disdain rather than respect. Such attitudes stem, in part, from an education system that has long prioritized Western standards and has failed to foster pride in indigenous innovation and practice. Additionally, there is a general lack of awareness about the richness and relevance of indigenous traditions among key stakeholders, including policy planners, educators, and the broader public. This gap in understanding is exacerbated by the lasting influence of foreign Christian missions, the dominance of colonial languages, and the interventions of international aid agencies. Rather than promoting self-reliance, these influences have often encouraged dependency and eroded confidence in local capacities.

Nigeria's formal education system tends to discourage curiosity and critical thinking, instead reinforcing cultures of compliance and rote learning. This stifles innovation and makes it difficult to appreciate or integrate indigenous systems, which are inherently exploratory, experiential, and adaptive. Scientific and technological institutions also rarely support traditional practices, often dismissing their viability despite proven functionality. The pervasive influence of global media further complicates the situation. Western portrayals of progress and development dominate public consciousness, leaving little space for the indigenous worldview. The elite class in Nigeria often reinforces these biases through lifestyles that disregard or even reject local knowledge systems, further distancing indigenous practices from public esteem.

Another pressing challenge is the declining respect for traditional therapeutic systems. As modern medicine gains traction, communities increasingly seek immediate relief without regard for long-standing herbal and spiritual practices that emphasize holistic well-being. This shift not only undermines indigenous healing traditions but also contributes to their gradual extinction. The erosion of traditional family structures has also disrupted the intergenerational transmission of indigenous knowledge. With the disappearance of extended families and the rise of nuclear households, vital communication between grandparents and grandchildren, once the primary mode of passing down traditional wisdom; has significantly weakened. Moreover, creative individuals such as traditional healers, artisans, and knowledge custodians often receive little societal recognition or institutional support. There are few incentives to sustain their work, and the lack of intellectual property rights leaves many indigenous innovations unprotected and unrecognized. Compounding this is the absence of historical acknowledgment of indigenous scientific and technological achievements, which has contributed to the continued marginalization of local knowledge systems in Nigeria's

educational discourse. Addressing these challenges requires a concerted effort to revalue indigenous education, embed it within national educational strategies, and create environments that encourage its preservation, innovation, and respectful integration into adult learning programs. Hence, Indigenous education was often despised in order to promote Western forms of knowledge such as natural science. But modern research has demonstrated that indigenous education is neither inferior nor backward as they were derived from centuries of accurate observation and experiments. As such the inculcation of indigenous education into the practice of adult education will portray the nature of the Nigerian culture and achieve an overall human development.

#### Conclusion

Indigenous knowledge forms part of the global knowledge, it has a value and relevance in itself which should be embedded in the Nigerian educational system. The promotion of indigenous methods of education and the inclusion of traditional knowledge also enables those in Western and post-colonial societies to re-evaluate the inherent hierarchy of knowledge systems. A lot of technological breakthroughs in terms of fabrication of metals (automobile spare parts) in the eastern part of Nigeria by young adults who do not have formal educational training attest to the importance of indigenous education. This knowledge can be harnessed and garnished with modern scientific knowledge for technological advancement. The integration of indigenous knowledge systems into the adult educational system will improve its relevance. This is due to the community-based nature and approach of indigenous knowledge to adult education and knowledge production.

## **Suggestions**

The following suggestions were made:

- 1. Adult Educators are recommended to reflect regularly on their teaching practice to become aware of areas of instruction in need of indigenous perspectives.
- 2. Creation of awareness on the need for indigenous education in the adult education curriculum by policy planners and educationists.
- 3. The adoption of adult education system which promotes curiosity and experimental ethics in Nigeria.
- 4. Incorporating the indigenous scientific and technical processes in the adult education methodology.
- 5. The combination of traditional skills, culture and artifacts with the modern skills ,tools and a perspective is highly recommended.
- 6. The adoption of indigenous education system as a basis for teaching and learning in any adult learning environment should be highly encouraged in Nigeria.

## **REFERENCES**

Adekunle, A., & Ibrahim, M. (2024). A re-appraisal of the impacts of colonialism on the traditional practices of selected Nigerian people. *International Journal of Research and Innovation in Social Science (IJRISS)*, 8(5), 312–319. Retrieved from <a href="https://rsisinternational.org/journals/ijriss/articles/a-re-appraisal-of-the-impacts-of-colonialism-on-the-traditional-practices-of-selected-nigerian-people/">https://rsisinternational.org/journals/ijriss/articles/a-re-appraisal-of-the-impacts-of-colonialism-on-the-traditional-practices-of-selected-nigerian-people/</a>

Altieri, M. A., & Nicholls, C. I. (2017). Agroecology: A transdisciplinary, participatory and action-oriented approach. *Agroecology and Sustainable Food Systems*, 41(7), 797–825. https://doi.org/10.1080/21683565.2017.1337271

- Angioni, G. (2003). Indigenous knowledge: Subordination and localism. In G. Sanga & G. Ortalli (Eds.), *Nature, knowledge: Ethno science, cognition, and utility*. New York: Oxford.
- Avoseh, M. B. M. (2002). Investigating the world of adult education in Africa. Paper presented at the Adult Education Research Conference, Raleigh, NC. Retrieved from <a href="http://www.edst.educ.ubc.ca/aerc/2002/papers/Avoseh.pdf">http://www.edst.educ.ubc.ca/aerc/2002/papers/Avoseh.pdf</a>
- Battiste, M. (2013). *Decolonizing education: Nourishing the learning spirit*. Saskatoon, Canada: Purich Publishing.
- Chilisa, B. (2019). Decolonizing transdisciplinary research approaches: An African perspective for enhancing knowledge integration in sustainability science. *Sustainability Science*, *14*(6), 1475–1488. <a href="https://doi.org/10.1007/s11625-019-00665-0">https://doi.org/10.1007/s11625-019-00665-0</a>
- Dei, G. J. S. (2020). Indigenous knowledges as vital intellectual traditions for education and development. *Canadian Journal of Development Studies*, 41(1), 8–24. https://doi.org/10.1080/02255189.2020.1726830
- Dei, G. J. S., & Asgharzadeh, A. (2020). Indigenous knowledges and the question of integration: A look at Kenya and Canada. *Canadian Journal of Education*, 43(1), 1–29
- Dei, G. J. S., Hall, B. L., & Rosenberg, D. G. (Eds.). (2002). *Indigenous knowledge in global contexts: Multiple readings of our world*. Toronto, ON: University of Toronto Press.
- Ejide, B. (2010). Innovations in secondary school curriculum: An imperative for an efficient vocational/technical education. In L. O. Ocho (Ed.), *Reforms in Nigerian Education* (pp. 97–124). Enugu: New Generation Books.
- Ekeke, J. T., & Dorgu, E. T. (2015). Curriculum and indigenous education for technological advancement. *British Journal of Education*, *3*(11), 32–33.
- Ellen, R. (1998). Response to Paul Sillitoe, "The development of indigenous knowledge: A new applied anthropology." *Current Anthropology*, 39(2), 238–239.
- Ellen, R., & Harris, H. (1996). Concepts of indigenous environmental knowledge in scientific and development studies literature: A critical assessment. Paper presented at East-West Environmental Linkages Network Workshop 3, Canterbury.
- Emeagwali, G. (2014). Intersections between Africa's indigenous knowledge systems and history. In G. Emeagwali & G. Sefa Dei (Eds.), *African indigenous knowledge and the disciplines* (pp. 1–17). Rotterdam, Netherlands: Sense Publishers.
- Fafunwa, A. B. (1974). *History of education in Nigeria*. London, UK: George Allen & Unwin.
- Fafunwa, A. B., & Aisiku, J. U. (1982). *Education in Africa: A comparative survey*. London: George Allen & Unwin.
- Federal Republic of Nigeria. (2008). *National policy on education* (4th ed.). Lagos: NERDC Press.
- Flavier, J. M., Chambers, R., Pacey, A., & Thrupp, L. A. (1995). The regional program for the promotion of indigenous knowledge in Asia. In D. M. Warren, L. J. Slikkerveer, & D. Brokensha (Eds.), *The cultural dimension of development: Indigenous knowledge systems* (pp. 479–487). London: Intermediate Technology Publications.
- Grenier, L. (1998). Working with indigenous knowledge: A guide for researchers. Ottawa: IDRC.
- Hall, B. L. (2000). Breaking the educational silence: For seven generations, an information legacy of the Royal Commission on Aboriginal Peoples. In G. J. S. Dei, B. L. Hall,

- & D. G. Rosenberg (Eds.), *Indigenous knowledge in global contexts* (pp. 202–212). Toronto: University of Toronto Press. Retrieved from <a href="http://www.worldbank.org/afr/ik/basic.htm">http://www.worldbank.org/afr/ik/basic.htm</a>
- Ihejirika, J. C. (2013). A preview of government efforts in promoting mass literacy in Nigeria: Lessons from adult education historical research. *Journal of Education and Practice*, 4(4), 132–136.
- Jinna, J. Y., & Maikano, P. N. (2014). The role of adult education in national development. *International Letters of Social and Humanistic Sciences*, 32, 35–42.
- Lewis, A., & Naicker, S. (2024). Indigenous knowledge systems and science education: Understanding the differences in epistemology and application. *South African Journal of Science*.
- McCarter, J., Gavin, M. C., Baereleo, S., & Love, M. (2014). The challenges of maintaining indigenous ecological knowledge. *Ecology and Society*, *19*(3), 39. https://doi.org/10.5751/ES-06794-190339
- Moteetee, A., & Van Wyk, B. E. (2011). The medical ethnobotany of Lesotho: A review. *Bothalia*, 41(1), 209–228.
- Ngozwana, N. (2015). Understandings of democracy and citizenship in Lesotho: Implications for civic education (Unpublished doctoral thesis). University of KwaZulu-Natal, South Africa.
- Ngulube, P. (2002). Managing and preserving indigenous knowledge in the knowledge management era: Challenges and opportunities for information professionals. *Information Development*, 18(2), 95–100.
- Njoku, E. A. W. A. (1989). Participation and indigenous knowledge in rural development. *Knowledge: Creation, Diffusion, Utilization, 10*(4), 304–316.
- Nsamenang, A. B. (2005). Educational development and knowledge flow: Local and global forces in human development in Africa. *Higher Education Policy*.
- Nwagwu, W. E. (2007). Creating science and technology information databases for developing and sustaining sub-Saharan Africa's indigenous knowledge. *Journal of Information Science*, 33(6), 737–751.
- Nyerere, J. K. (1975). Education never ends: The 1969 and 1970 New Year's Eve address to the nation. In NAEAT (Ed.), *Adult education and development in Tanzania*. Dares-Salaam.
- Nyerere, J. K. (1979). Education for self-reliance. In H. Hinzen & V. H. Hundsdorfer (Eds.), *Education for liberation and development: The Tanzania experience*. Hamburg and Evans.
- Nyiraruhimbi, A. (2012). Indigenous approaches to maize production and soil management in Msinga, KwaZulu-Natal Province (Unpublished master's thesis). University of KwaZulu-Natal, South Africa.
- Odora-Hoppers, C. A. (2019). *Social justice and indigenous knowledge systems*. Springer. https://doi.org/10.1007/978-3-319-94630-9
- Odora-Hoppers, C. (2001). Indigenous knowledge and the integration of knowledge systems: Towards a conceptual and methodological framework. Pretoria: HSRC.
- Owour, J. A. (2007). Integrating African indigenous knowledge in Kenya's formal education system: The potential for sustainable development (Unpublished master's thesis). University of British Columbia.
- Richards, G. (2001). *Gandhi's philosophy of education*. New Delhi: Oxford University Press.

- Sarpong, P. (2002). *Peoples differ: An approach to inculturation in evangelization*. Accra, Ghana: Sub-Saharan Publishers.
- Semali, L. M. (1999). Community as classroom: Dilemmas of valuing African indigenous literacy. *International Review of Education*, *45*(3), 305–319.
- Sithole, J. (2007). The challenges faced by African libraries and information centres in documenting and preserving indigenous knowledge. *IFLA Journal*, 33(2), 117–123.
- Sithole, J. (2020). Revitalizing indigenous knowledge in postcolonial education. *International Journal of African Renaissance Studies*, 15(1), 50–64. <a href="https://doi.org/10.1080/18186874.2020.1754280">https://doi.org/10.1080/18186874.2020.1754280</a>
- UIE (UNESCO Institute for Education). (1997). *The Hamburg Declaration: The agenda for the future*. Hamburg: UNESCO Institute of Education.
- Ukwuoma, S. (2015). Mixed research: Exploring postgraduate students' perspectives. *International Journal of Novel Research in Education and Learning*, 2(4), 135–141.
- Umar, S., & Shagari, H. M. (2013). Indigenous education: A powerful tool for value promotion in Nigeria. *Mediterranean Journal of Social Sciences*, 4(12), 9–13.
- Von Kotze, A. (2002). Producing knowledge for living. *Studies in Continuing Education*, 24(2), 233–246.
- Wane, N. N. (2000). Indigenous knowledge: Lessons from the elders. *Canadian Journal of Native Education*, 24(2), 134–142.
- Warren, D. M. (1991, May). The role of indigenous knowledge in facilitating the agricultural extension process. Paper presented at the International Workshop on Agricultural Knowledge Systems and the Role of Extension, Bad Boll, Germany.
- Warren, D. M. (1991). *Using indigenous knowledge in agricultural development* (World Bank Discussion Paper No. 127). Washington, DC: World Bank.
- World Bank. (1997). Knowledge and skills for the information age: The first meeting of the Mediterranean Development Forum. Retrieved from <a href="http://www.worldbank.org/html/fpd/technet/mdf/objectiv.htm">http://www.worldbank.org/html/fpd/technet/mdf/objectiv.htm</a>
- World Bank. (2015). *What is indigenous knowledge?* Retrieved from <a href="http://www.worldbank.org/afr/ik/basic.htm">http://www.worldbank.org/afr/ik/basic.htm</a>
- World Health Organization. (2022). *WHO global report on traditional and complementary medicine* 2022. Geneva: WHO Press. https://www.who.int/publications/i/item/9789240062043