

Integrating African Indigenous Knowledge In Nigeria's Formal Education System: It's Potential For Sustainable Development

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ABSTRACT

The paper points up to the fact that the success of any education system and hence sustainable development depends not only on the nature of its aims, but also on its content. Most of the early Western scholars at the time of colonization, assumed that because Africans knew no reading and writing, they had no systems, contents and methods of education to pass on to the young. To such scholars, education in Africa meant Western civilization. The failure to integrate indigenous learning and Western education was partly a deliberate effort to eradicate African education. The introduction of Western institutions by some colonial agencies, especially the Christian missionaries was also calculated to undermine many aspects of African social structures and pave the way for their replacement. The Western assault on traditional knowledge also applied to the replacement of local languages with foreign languages. With achievement of independence for most African countries in the 1960s, little effort was devoted to considering whether the knowledge conveyed in the schools was of relevance for the young nations. The more urgent problems had to do with the expansion of education, with the building of new schools, with government take-over of private schools as well as doing away with racially-segregated schools. Consequently, curriculum reform to reflect the relevance of the African setting did not take place. Western curricula values continued to be reinforced after independence. The current forces of globalisation, which have strong elements of cultural imperialism and aim at the harmonization of attitudes, supposedly, with the emergence of a global culture and the domination in the use of foreign languages in primary schools in Africa provide little or no room for acquisition of African indigenous knowledge. To arrest the current situation, the paper proposes that it is best for Africa to look up to herself for the development of her own curricula and modes of delivery through the examination of methods and techniques of indigenous African knowledge.

INTRODUCTION

A growing number of African educators have been calling for the re-conceptualization of schooling and education to bring about meaningful changes (Abdi and Cleghorn, 2005; Asabere-Ameyaw, Dei and Raheem, 2012). This paper is about integrating local/Indigenous cultural knowledges in African schooling into formal education and its implication for sustainable development in Nigeria. It deals with the importance of local teachings embedded in African proverbs and how such cultural knowledges can be used effectively to teach young learners. Arguably, the utility of local cultural knowledge contained in African knowledge genres has been neglected in educational research (Jegade, 1994; Le Grange, 2007; Ogunniyi, 1988;). Yet, Africa has always been an important source of rich information for knowledge production. Traditional African education has utilized a variety of instructional and pedagogic methods, as well as guides and resources to educate youth (Boateng, 1990). Semali (1999) discussed the dilemmas in integrating Indigenous literacy (e.g., poetry, songs, dreams, life stories, drama and theaters, as well as proverbs) in school curriculum in Tanzania as part of the Tanzania, Education for Self-Reliance (ESR) national efforts to localize the curriculum. Among the obstacles encountered were the lack of political will, over-dependence on international assistance in fiscal planning and policy directives, the use of inappropriate research methods, the absence of an Indigenous African teaching methodology, and the —alienation of African intellectuals from their own culture (Semali, 1993, 1994).

Mwadime's (1999) work called for the deconstruction in African social research, education and educational policy to include Indigenous cultural knowledges teaching in agriculture, health science and the environment. Such educational initiatives will require the development of new teaching methods, research methodology and the documentation and presentation of the Indigenous cultural knowledge in ways to serve the

development needs of African peoples. Similarly, Parrish's (1999) study on the Indigenous post-harvest strategies of local farmers in the Egyptian Western Desert suggests that the existence of safe and well developed pest management cultural resource knowledge of local peoples could be integrated with Western-influenced Agriculture Extension education programs. Alternative ideas and counter perspectives on Indigenous education are not always encouraged in schools. We must begin by developing Indigenous, non- Western concepts and categories for understanding African societies. This requires that we pay particular attention to the production and the social organization of knowledge in Africa, and particularly, to cultural dimensions of schooling, education and sustainable development

CONCEPTUAL CLARIFICATIONS

Indigenous Knowledge

Indigenous knowledge on its part refers to what indigenous people know and do, and what they have known and done for generations – practices that evolved through trial and error and proved flexible enough to cope with change (Melchias, 2001). This definition draws our attention to the colonial racist idea that indigenous knowledge is a monopoly of trials and error while western (modern) knowledge is science characterized by experimentation. Hence, while the former is presumed clogged, concrete, and inaccurate, the latter is painted as intangible, weighty, right, and imbued with universal reasoning. IKS were also developed by experimentations though these experiments were not documented and the knowledge systems were legitimized and fortified under suitable institutional frameworks, culture and practices. They have been passed on to other generations (though discriminatorily) and have enabled indigenous people to survive, manage their natural resources and the ecosystems surrounding them like animals, plants, rivers, seas, natural environment, economic, cultural and political organization. The knowledge of these elements forms a set of interacting units known as the indigenous coping systems. For this study, IKS refers to the set of interactions between the economic, ecological, political, and social, environments within a group or groups with a strong identity, drawing existence from local resources through patterned behaviours that are transmitted from generation to generations to cope with change. These patterns are sustained by micro level institutional arrangements vested with differentiated responsibilities that ensure the group's continuous survival.

Sustainable Development

Sustainable development on its part is a fluid concept that is relatively new in the development discourse. It was first mentioned in the work of Leister Brown (1981), and six years later the Brundtland Commission defined it as "development that meets the needs of the present generation without compromising the ability of future generations to meet theirs" A practical definition of sustainable development should contextually take into consideration issues of cooperation, stakeholder participation, commitment, long, medium and short term effects of current actions, common concerns, inter and intra generational equity, justice, and moderate production and consumption habits. It requires efficient communication, tacit knowledge and its transfer between and within generations, capacity and willingness to act based on the knowledge available. All these are embedded in the coping mechanisms of indigenous peoples of Central Africa. However, they are under threat due to the cruelty of colonialism and other current development interventions. The next section describes the area on which this case study is focused.

Education

Education in a definitional context can generally be thought of as the transmission of values and the accumulated knowledge of a society. Thus, it is essentially a societal instrument for the expansion of human culture. In contrast, knowledge is a state of knowing or understanding gained or retained through experience or study. For the purpose herein, these short definitions

provide a functional seed to the cultivation of an African educational and pedagogical discourse.

NATURE AND FORM OF INDIGENOUS KNOWLEDGE

Although indigenous knowledge systems varied from one society to another, the goals of these systems were often similar. Indigenous learning was essentially an education for living. Its main purpose was to train the youth for adulthood within the society. Emphasis was placed on normative and expressive goals. Normative goals were concerned with the accepted standards and beliefs governing correct behaviour, while expressive goals were concerned with unity and consensus. There were also elements within the system, which encouraged competitiveness in intellectual and practical matters, but these were controlled and subordinated to normative and expressive goals (Erny, 1981).

Indigenous learning in its various forms had a many-sided character intimately intertwined with social life. What was taught was related to the social content in which people were called upon to live. Indigenous education was not only concerned with the systematic socialization of the young generation into norms, beliefs and collective opinions of the wider society, but also placed a very strong emphasis on learning practical skills and the acquisition of knowledge which was useful to the individual and society as a whole. In broad terms, it emphasized social responsibility, job orientation, political participation and spiritual and moral values.

The success of any education system depends not only on the nature of its aims, but also on its content. Indigenous African learning grew out of the immediate environment, whether real or imaginary. From the physical environment children had to learn about weather, landscape and animal as well as insect life. Children had to have knowledge of the important aspects of the environment in order to overcome and exploit them. They had to make proper adjustments to the physical environment by using axes, hoes, spears and other tools, which the experience of the past had helped to evolve. They were taught how to farm, hunt, fish, prepare food, build houses and run a home (Ocitti, 1973).

Indigenous learning also inculcated a religious attitude to life. Religion, which was concerned with morality, gave support to the laws and customs of the community and to its accepted rules of conduct which included; courtesy, generosity and honesty. Religion had much to do with moral and ethical principles, such as conduct of one individual towards another and the relations of the individual to the community. Individuals had to learn when to use or avoid ancestral spirits and other mysterious powers for the sake of their survival. They had to learn to appreciate the ties between the living members of the clan and the dead or ancestral spirits of the invisible world. They therefore, learned about which observances the welfare of the individual, clan and the entire community depended on. (Brown and Hiskett, 1975).

Methods Used In Transmission of Knowledge

Traditional educators applied various methods to convey knowledge. These methods could be broadly divided into informal and formal methods for purposes of easy understanding.

The Informal Methods

The informal methods of instruction included learning through play. In most communities the importance of play was realized. Children were left to their own initiative to make toys with which they played. They made such toys from local materials of their own choices and interests. They moulded them from mud and clay and made use of articles which were of little use to adults (Ocitti, 1973). Children also engaged in make-believe activities which were imitative, imaginative and symbolic. They enjoyed imitating their parents or other grown-ups, and especially those activities in which they themselves would pursue in later years. Boys, for example, imitated activities which were appropriate to their sex. These included; building huts of grass, digging and hunting. Girls, on the other hand, participated in activities of the family and life in the home. They therefore imitated their mothers in such activities as cooking, grinding, fetching water and firewood (Erny, 1981).

Oral literature constituted an important method of instruction. This included, among others, teaching through myths. Myths were tales which effectively described or accounted for natural phenomena and focused on aspects such as gods, death and the origin of humanity, which were beyond the understanding of the human mind. Elders therefore used myths to explain things that were not easily understood. Allied to myths were legends, which were tales, fabricated to account for real events that took place or were believed to have taken place. Like myths or fables, legends sounded like fairy tales, but contained fragments of actual history. They were closer to real life than myths and were real in the sense that they told about people or things that actually existed. Closely related to myths and legends, were folktales. These were concerned with familiar situations or recalled some ancient customs, and they were based primarily on day-to-day happenings. Much of the ethical teachings were given to children through folktales, most of which had happy endings and involved a triumph over difficulties, and virtues, such as communal unity, hard work, conformity, honesty and uprightness were reflected in many of the folktales. By listening to folktales, children learned a lot about human problems, faults and weaknesses. Folktales were also calculated to inculcate morals (Ocitti, 1973). Children also learnt through dance and folk songs. Music formed an integral part of their daily lives. Proverbs were used widely in ordinary conversation. A judicious use of proverbs was usually regarded as a sign of wit. Proverbs were the condensed wisdom of the great ancestors. In a given proverb one or two moral ideas were contained in a single sentence. Most of them referred to different aspects of socio-economic and political life. Traditional learning also involved the use of deterrence or inculcating fear in children. They were made to conform to the morals, customs and standards of behaviour inherent in the clan. Bad habits and undesirable behaviour, such as; disobedience, cruelty, selfishness, bullying, aggressiveness, temper tantrums, theft and telling lies were not usually tolerated. Verbal warnings were used and more often followed by punishment. Children who committed offences might be rebuked, smacked or assigned some piece of work to complete before being allowed to eat. Serious offences and disciplinary problems, however, resulted in severe beating or other forms of inflicting pain on the body. Such punishment was regarded as reformatory. (Kenyatta, 1938).

Other methods of instruction included involving children in productive work. Learning through the medium of work enabled children to acquire the right types of masculine or feminine roles. Children learned by being useful, by doing and working hand-in-hand with adults. This kind of learning, through a number of stages, prepared children for their future roles. What was acquired was the ability to perform various farm or pastoral and domestic tasks.

Formal Methods

More formal methods of instruction involved theoretical and practical inculcation of skills. Learning through apprenticeship, for example, was formal and direct. Parents who wanted their children to acquire some occupational training normally sent them to work with craftsmen, such as; potters, blacksmiths and basket-makers. The same was true with hereditary occupations. For example, a herbalist would instruct his child from time to time about the uses of medicines until he/she became knowledgeable and proficient in practice. Formal instructions were also given through constant corrections and warnings to children. These concerned some aspects of domestic work, herding cattle, cultivation, fishing and folklore. Children were taught the every-day customs and manners of eating, greeting and how to behave with relatives and important people, as well as parental and marital obligations.

Among some ethnic groups, more formal instruction took the form of succeeding stages of initiation from one status to another. The most prominent initiation practices were those associated with circumcision in puberty. This test was regarded as the point of passage into full membership of the community. It was deliberately made an emotional and painful experience, sometimes covering a period of many months, which was engraved forever on the personality of the initiates. Without circumcision a person could not be regarded as a full member of the ethnic group or have rights of property. Circumcision was normally accompanied with formal lessons. They took the form of lessons, songs and tests by the instructor. Questions were asked in the form of riddles for the initiate to interpret their meaning. Such questions dealt with issues pertaining to the protection of the homestead against enemies, committing adultery and many others. In some communities, this involved making tools, such as bows and arrows and staging mock fights (Wagner, 1949).

From the above description, indigenous knowledge had a philosophical bearing which included communalism or group cohesion in which parents sought to bring up their children within the community for their own welfare and that of the wider community. Children were brought up by socialization as opposed to individualization. This was done deliberately to strengthen the organic unity of the clan. Freedom of the individual was completely subordinated to the interests of the clan or tribe and cooperation was preferred to competition. There was also the ideology of preparationism in which children were prepared to become useful members of the household, village, clan and tribe. Children were brought up to be versed in their future roles. The philosophy of functionalism was based on the fact that indigenous knowledge was strictly utilitarian as an immediate induction into society and a preparation for adulthood. Children were engaged in participatory education through learning by doing. Education was therefore an integrated experience, where children learnt by being useful to adults and engaging in productive work.. Traditional knowledge had also strong elements of perennialism in that it focused mainly on the transmission of a heritage from one generation to another. It aimed at ensuring continuity and being the instrument by which their civilization was perpetuated. Above all, traditional knowledge involved the principle of holism which meant multiple learning without room for early specialisation.

Indigenous Knowledge and Education

Indigenous African education and knowledge has generally been understood as a simplistic process of socialization involving the preparation of children for work in the home, the village and within a select ethnic domain. Thus, most contemporary discussions on indigenous African education rest in the shadow of Western globalization ideas about structural adjustment, etc.; and congruently it is projected as a stagnant, limited, and inoperative paradigm which pushes some to conclude that any serious discussion about the indigenous transmission of values and its accumulated knowledge in Africa is a waste of time. However, via an African centered synthesis one can begin to appreciate the particulars of indigenous ways of knowing and their epistemologies. For example, in examining indigenous African education and knowledge closely, we see that it involves understanding education as: a means to an end; social responsibility; spiral and moral values; participation in ceremonies, rituals; imitation; recitation; demonstration; sport; epic; poetry; reasoning; riddles; praise; songs; story-telling; proverbs, folktales; word games; puzzles; tongue-twisters; dance; music; plant biology; environmental education, and other education centered activity that can be acknowledged and examined.

Some of the particulars of African culture and knowledge production that would otherwise educate the populous remain hidden, unless a pro-active community of scholars rescue it, and give it new meaning and significance. For example, Opatá (1998) in his study of Igbo culture added new light on the tradition of presenting the kola nut in Nigeria via the Igbo, hence the indigenous and modern aspects of African education and knowledge unite to explain a particular culture in Ibo society, the exchange of the kola nut (Oji) representing: (1) goodwill between friends, (2) a formal signal of the beginning of a meeting, (3) greeting a visitor in peace, (4) respect between a younger person and an elder, and (5) most importantly, the *itako oji onu* (Ligbo) process of breaking the kola nut and sharing it to represent an instrument of reconciliation (Opatá 1998). Instructively this information and similar data outlines a dynamic for a true African education that embody

lessons of "...mutual respect for the opinions of others, lessons of deference to elders, lessons about the importance of dialogue, lessons about conflict negotiation, the spirit of tolerance and forgiveness, and the spirit to face the future with an open mind" that can become a way to involve parents in the curriculum, and establish new lines of communication between schooling and indigenous knowledge (Opata 1998).

Recommendations

Despite the serious erosion of IAK over the decades in many communities in Africa, they are still relevant and appropriate for promoting sustainable development of the continent. AIKS is far from being anachronistic in the contemporary world; these knowledge systems have much to offer policymakers, environmental managers, administrators, and stakeholders in the development of African information system and dissemination of knowledge in the region.

1. Indigenous knowledge practices in Nigeria for instance should be adapted in response to gradual changes in the social and natural environments, since indigenous practices are closely interwoven with people's cultural values and passed down from generation to generation.
2. Direct communication models in IAK should be refined through official government policies and legislations in African countries to help preserve value skills, technologies, artifacts and problem solving strategies among the local communities, especially the poor.
3. Learning from indigenous knowledge can improve understanding of local conditions; therefore concerted efforts should be made by information managers to understand indigenous knowledge which can increase responsiveness to clients by building on local experiences, judgments and practices to impact development programme and make them cost - effective in delivery.
4. Indigenous approaches to development should be improved upon by information practitioners to create a sense of ownership that may have a longer lasting impact on relations between the local population and the local administration, giving the former a means of monitoring the actions of the latter.
5. Since indigenous knowledge can provide a building block for the empowerment of the poor, governments and her institutions should explore the role of IKS in helping to share direct communication within and across communities. The development community can learn a lot about the local conditions that affect those communities.
6. Other Africa countries should emulate South Africa who has set up a committee to identify indigenous technologies, and therefore put in place a national policy which would seek to protect and promote indigenous knowledge and technology so as to ease the burden of exchanging indigenous practices among communities.

Conclusion

In conclusion, the culture and knowledge systems of indigenous people and their institutions provide useful frameworks, ideas, guiding principles, procedures and practices that can serve as a foundation for effective endogenous development options for restoring social, economic, and environment resilience in many parts of Africa and the developing world in general. It is therefore essential that traditional knowledge systems in the continent should be incorporated into our educational system as this will foster sustainable development .

Referenes

- Abdi, A. and Alie Cleghorn. (eds) (2005). *Issues in African Education: Sociological Perspectives*. New York: Palgrave Macmillan
- Asabere-Ameyaw, A; George J. Sefa Dei and Kola Raheem (2012) [eds.]. *Contemporary Issues in African Science Education*. Sense Publishers.
- Brown, G. N. and Hiskett, M. (eds.) 1975, *Conflict and Harmony in Education in Tropical Africa*, London: George Allen and Unwin.
- Boateng, F. (1990). —African Traditional Education: A Tool for Intergenerational Communication In. Molefi K. Asante & Kariam W. Asante (eds.), *African Culture: The Rhythms of Unity*. Trenton: African World Press.pp. 109-122.
- DeGraft-Johnson, J. (1954). *African Glory: The Story of Vanished Negro Civilizations*. New York: Walker and Company.
- Erny, P. 1981, Translated by G. J. Wanjohi, *The Child and his Environment in Black Africa: An Essay on Traditional Education*, Nairobi: Oxford University Press
- Jackson, J. (1980). *Introduction to African Civilizations*. Secaucus, NJ: Citadel Press.

- Jegade, O. (1994). African Cultural Perspectives and the Teaching of Science. IN J. Solomon & G. Aikennhead (Eds). STS education: International perspectives on Reform (pp.120-130). New York: Teachers College Press.
- Kenyatta, J. 1938, Facing Mount Kenya: The Tribal Life of the Kikuyu, London: Secker and Warburg.
- Le Grange, L. (2007). Integrating Western and Indigenous knowledge systems: the basis for effective science education in South Africa? *International Review of Education*. 53, 577-591.
- Melchias, G. 2001. Biodiversity and Conservation. Enfield: Science Publishers, Inc
- Mwadime, R. K. N. (1999). Indigenous Knowledge Systems for an Alternative Culture in Science: The Role of Nutritionists in Africa. In L.M. Semali & J.L. Kincheloe (Eds.). *What is Indigenous Knowledge? : Voices from the Academy* (pp. 243-268). New York & London: Falmer Press.
- Ocitti, J. P. 1973, African Indigenous Education as Practised by the Acholi of Uganda, Nairobi: East African Literature Bureau.
- Ogunniyi, M. (1988). Adapting Western Science to Traditional African Culture. *International Journal of Science Education* 10(1), 1-9
- Opata, D. (1989). *Essays on Igbo World View*. Nsukka [Nigeria]: AP Express Publishers [in association with Auto-Century Publishing Company Limited, Enugu, Nigeria].
- Parrish, A. M. (1999). Agricultural Extension Education and the Transfer of Knowledge in an Egyptian Oasis. In L.M. Semali & J.L. Kincheloe (Eds.). *What is Indigenous Knowledge? : Voices from the Academy* (pp. 269-284). New York & London: Falmer Press
- Raum, C.F. 1965, *Chagga Childhood*, London: Oxford University Press.
- Semali, L. (1999) "Community as a Classroom: Dilemmas of Valuing African Indigenous Literacy in Education" in *International Review of Education*, 45 (3-4), 305-319.
- Semali, L. (1994). *The Social and Political Context of Literacy Education for Pastoral Societies and other Marginalized Transient Societies*. Eric Family Literacy Files. Bloomington: Indiana University.
- Wagner, G. 1949, *The Bantu of North Kavirondo*, London: Oxford University Press.

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