

Africentric Pedagogy: A Methodical Inclusion of African Aboriginal Knowledge Systems in Cameroon's Formal Education System



Tani Emmanuel Lukong

Department of Educational Psychology, Faculty of Education, University of Buea, Cameroon.

Author's Email:

elukongt@gmail.com

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Abstract

Aim: Developing and promoting a culturally relevant school curriculum in the teaching and learning environment is one step to overcoming systemic inequalities and closing the education achievement gap of learners of African descent. This paper proposes methodological approaches for integrating African Indigenous Knowledge Systems (AIKS) into Cameroon's formal education system to promote cultural relevance and educational equity.

Methods: This paper is conceptual in nature with contextual narrative analysis of empirical literature. This paper was anchored on the Integrated Theoretical Framework and the Developmental Niche Theory.

Results: The issue of education in Africa and Cameroon in particular, has been central to the curriculum development process since independence and reunification to the present. Post-colonial school curricula in Cameroon are mostly dominated by western values, knowledge and pedagogies at the expense of indigenous knowledge and epistemologies. Integrating African indigenous knowledge systems (AIKS) into Cameroon's educational system could improve its relevance. This is due to the holistic, community-based nature and approach of AIKS to education and knowledge production. However, this requires an African indigenous theoretical framework of knowledge to guide the integration process. The framework should also clarify the relevance of African Indigenous languages in knowledge production and share in the era of globalisation.

Conclusion: Researchers have highlighted the need for inclusion of indigenous knowledge systems in formal schooling but there is little literature as to how exactly these systems can be included.

Recommendation: The methodology to include indigenous knowledge systems in schools include but are not limited to: Inclusion as Independent Subjects and inclusion as Instructional and Learning Methods in Mainstream Subjects (e.g., curriculum reform processes, teacher training needs, community involvement). The Role of Elders in Teaching Indigenous Knowledge Systems.

Keywords: *Africentric beliefs, learning process, methodical inclusion, African aboriginal knowledge systems, Cameroon's formal education system*

INTRODUCTION

The basis of understanding the natural and environmental patterns of human development lies in a firm grip on the epistemologies and ontologies that shape a particular group of people. Epistemology is the philosophical study of the nature, origin, and limits of human knowledge. The term is derived from the Greek *epistēmē* ("knowledge") and *logos* ("reason"), and accordingly, the field is sometimes referred to as the theory of knowledge. Ontology comes from two Greek words: *on*, which means "being" and *logia*, which means "study". Therefore, ontology is the "study of being alive and existing" (Wirdze *et al.*, 2011).

In Africa, and for Africans, existence is made of past, present, and future generations as epistemic communities linked together as a community. The individual knowing a person is a community that includes ancestors and future unborn generations. He/she is never an individual. This communality, Millar (2005) calls 'ancestor-centrism'. It is a vital link between the living, the dead, and the yet-unborn, which forms part of the African philosophy of existence and knowing. To maintain this link, taboos, mores, and norms should not be broken or taken for granted. In Dormaa, an Akan-speaking people in western-mid Ghana, land cannot be sold. In the environmental ontology of the Dormaa, the natural environment is more than just biological. It is also spiritual, with the power to guarantee the existence of every member of the community. In this environmental ontology, the land belongs not only to the present generation but to and future ones as well, with equal rights. The Dormaa customary property rights regime and decisions on the natural environment must necessarily uphold this custom to preserve the community. No reality exists without a spiritual inclination. The universe, nature, humans, and spirits are all considered one. In this paper, we examine African perceptions of Epistemology, Ontology (Metaphysics), and cosmology and their implications for learning.

UNDERSTANDING AFRICENTRIC VIEWS ON THE LEARNING PROCESS

Indigenous developmental psychology can promote an understanding of social cognition—how a given people learn and use knowledge. How children are taught or teach themselves to become competent members of their communities varies across cultures. In some societies children learn in schools; in others, they learn from active involvement in the life of families and communities. As African cultures recognize different phases of children's emerging minds, they tacitly wed their participatory curricula to sequences of perceived cognitive capacities. Indigenous beliefs about the learning process within African cultures are that learning is holistic, informal and spiritual. Learning is guided by the social cognitive principles of observation, attention, imitation, modeling, peer mentoring, and guided participation.

Learning is Holistic (Multiple Learning)

In African cultures, learning is not confined to formal schooling but occurs through informal, holistic, and spiritual practices. Children learn through direct participation in social, cultural, and economic activities, guided by principles such as observation, imitation, and peer mentoring. In indigenous African education, all strands of knowledge are interwoven into a common tapestry (Moumouni, 1968), which is learned in a participatory curriculum. This line of thought permits the integration of diverse ethnocultural realities and disparate theoretical threads into a common conceptual system. The embedded knowledge, skills, and values children learn from these curricula are not compartmentalized into this or that activity, knowledge, or skill domain, but are massed together as integral to social interaction, cultural life, economic activities, and daily routines (Nsamenang, 2005). Though aspects of specialization are not completely absent within the African learning process, children were primarily socialized into acquiring without reservation, all those skills that were necessary for

practical adaptation to the local environment and changes in weather and climate. Thus fishing, hunting, farming, cattle rearing, craftwork, etc were learned at mass by children with little or no specialization.

Among the Acholi of Uganda, for example, a boy who was taught to construct a house was also expected to learn related lessons like the geography of the building site the source of water, geology and the location of neighboring villages. He was also expected to possess knowledge of the right types of trees and grass for the construction of walls and for thatching (Ocitti, 1971). Similarly, a child destined to become a fisherman, as already noted, learned not only to catch fish but also to preserve and market it; make and mend nets; manufacture canoes and erect temporary fishing huts. The holistic nature of customary education enabled young people to acquire different skills that made them productive in many ways. A male individual in most non-literate communities could, therefore, embark on a variety of occupations without difficulty. He could work as a builder, farmer, or fisherman while a woman worked as a gardener, housewife and cook, besides being a caretaker and nurse to her children.

Consequently, from an early age, the intertwining of socialization and education fosters not only an ‘interpersonal connectedness’ but also forms a holistic relatedness to "the family and the universe" (Callaghan, 1998). Thus, an African theory visualizes the child not in lonesome individualism, but as connected to the social and emotional ties and obligations of a participant in communities, beginning with the family, kin, and peer group. African social thought does not focus on the autonomous self, but on the individual interpersonal connectedness (Kagitcibasi, 2007). “It is in rootedness in an ongoing human community that the individual comes to see himself or herself as a man or woman” (Menkiti, 1984); African ‘individuality’ is not sovereign but embedded in the psychosocial and emotional matrices of a human community.

Learning is Informal

In principle, children are rarely instructed or prodded into what they learn, but discover it during participation. This depicts cognitive development as the unfolding of the abilities to generate the knowledge and skills with which to responsibly and increasingly engage with the world. Accordingly, the onus to understand the social cognition and intelligent behavior of Africans lies in capturing shared routines and participatory learning, rather than in completing school-based instruments. Thus, participation and peer mentoring are important aspects of the informal learning process embedded in African cultures.

Co-participation in major activities

The operative approach that facilitates growth in intellectual and functional abilities is not instruction but participatory pedagogy. Children, for example, observe but remain reserved and prudent in what they report. They take part in ongoing activities as well as observing and learning from adults. This form of education aims to socialize responsible intelligence through the learner’s active participation in acceptable and valued social and economic activities (Serpell & Jere-Folotiya, 2008). Through such activities, children are apprenticed not only to imbibe useful economic values but also to acquire prosocial and altruistic attitudes and values from the environment (Nsamenang, 2005).

We interpret development in African social thought “as the acquisition and growth of the physical, cognitive, social, and emotional competencies required to engage fully in family and society” (Nsamenang, 2005). For Rogoff (2003), this type of development is a transformation in the individual brought about by participation in cultural activities. Such mentality primes Africans to guide child development as a process of gradual and systematic social integration.

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Rogoff (2003) affirms this salient reality as she discusses the socio-cultural-historical theory posited by Vygotsky who “argued that children learn to use the tools for thinking provided by culture through their interactions with more skilled partners in the Zone of Proximal Development [ZPD]. In layman's terminology, teachers can only bring learners up to a higher level by first going to where they are and getting them. Peers are considered a part of the "skilled partners" pool as well.

Apprenticeship and peer mentoring

Tacit African theories posit children's innate capacity to be agents of their developmental learning in multi-age peer groups in which parental values and actions prime responsible intelligence by permitting older children to serve as peer mentors (Nsamenang, 2005). When direct parental care and intervention are no longer required (Zempleni-Rabain, 1973), children thrive in peer cultures that emphasize mutual support and learning; they inter-stimulate and mentor each other, disagree and defer to more forceful and competent peers (Nsamenang and Lamb, 1994). Children 'graduate' from one role setting and participative sector of the peer culture to another, steadily maturing toward adulthood. Boys and girls poised to take on the responsibility of adult life are to be evaluated as proficient based on their social, moral, intellectual, and practical prowess within the peer culture.

Peer mentoring is an activity in which novices advance their skills and understanding through participation with more skilled partners in culturally organized activities. The extended value of the apprenticeship model is that it includes "more people than a single expert and a single novice: the apprenticeship system often involves a group of novices (peers) who serve as resources for one another in exploring the new domain and aiding and challenging one another" (Rogoff, 1990). In traditional Africa, the peer group played a pivotal role in the development of this genre of cognition because, from toddlerhood, the child comes more under the purview of the peer culture than of the adult world.

Formal Process of Learning Through Rites of Passage

Taking cognizance of adolescent cognitive behaviors and searching for identity, many cultures deal with these problems differently. African cultures are marked by the traditional support programs for pubertal adolescents in Africa. Societies that still practice initiation ceremonies mark this phase with the so-called puberty rites. This marks the beginning of social probation or internship: an intense social induction, the definitive preparation and training for adulthood. With empirical support from studies carried out in Africa, we shall consider the cognitive importance of puberty rites and how these rites help adolescents to effectively emerge as responsible adults.

Puberty rites

Rites of passage as a functional group process are designed to structure and bring meaning to the various transitional stages of human life. Cognitively, adolescents who successfully pass through these rites of passage must have applied their mental processes of attention, perception, comprehension, memory recollection and recognition. Adolescents emerge from these rites

with enduring cognitive skills of adulthood problem-solving (sexual and marital problems), creativity and responsible decision-making (Adegoke, 2001). There have been several studies on puberty rites, their meaning and their function. They serve to ritualize and clearly demarcate changes in the status of individuals within the culture, provide cultural definitions for individuals that represent ongoing irreversible changes in their lives, and also define cultural expectations for individuals. Most African societies traditionally have their social institutions that recognize the period of adolescence. These institutions train, prepare and initiate male and female adolescents into adulthood. As a result, many African communities have ceremonial rites arranged to support the adolescent in their transition to adulthood (Adegoke, 2001). We shall examine a few examples.

In a study of the Kikuyu community in Kenya, the enormous educational, social, moral and religious value of the initiation rites among the Kikuyu people was pointed out. The Kikuyu youth were not only initiated into the adult status of womanhood but also into an age set of maidens and bachelors. Using a sacred ceremony called *Ngweko*, the parental generation transferred to the youths the responsibility of regulating premarital sex and initiating the process of making selection, with peers as a major source of mutual support and regulation in this process. The *Ngweko* has been described as a viable solution to the problem of premarital sex and mate selection in middle-level societies, especially those who have been maidens and bachelors for a long time. Similar practices have been reported for other societies in Africa, particularly in East and South Africa.

Another example of puberty rites in Africa is the *Ovia-Osese* festival of the Ogori people in Nigeria. Ogori is a small town in Kogi State of Nigeria. Kogi State is located in the transition zone between the southern rain forest and the northern Savannah, and also a confluence of cultures of northern and southern regions of Nigeria. The festival has, in recent years, become a crowd-pulling event and a tourist attraction. *Ovia-Osese* is a maiden festival aimed at initiating maidens into womanhood preparatory to marriage (*Ovia* means bride). The origin, growth and development of the festival are long and windy. Many scholars believe that the festival is as old as the Ogori people themselves. *Ovia-Osese* is the climax of several activities such as fattening, traditional education, and training. Traditionally, *Ovia-Osese* evolved from a simple rite of passage that is meant to be an initiation ceremony of young teenagers to adulthood into a formal training school that lasted one to three years for both sexes, the boys had theirs known as *Igifofi* festival.

From these examples, it is very clear that traditional adolescent rites of passage in Africa are designed to provide a cultural framework for dictating roles and responsibilities of adulthood that will benefit the individual and the sponsoring community. They also serve as effective ways of instilling in adolescents not only knowledge and skills but also the values and motivation needed to foster healthy adult roles. It should also be seen as one of the strengths of traditional African societies that should be revived and reformed in places where they existed as part of the ways to support the transition to adulthood (Adegoke, 2001).

An important area of spiritual learning is found in ritual services, for example, the priesthood, which is a highly respected office in African societies. As a rule, each candidate usually receives a spiritual call to the priesthood before training. Spirit possession usually indicates a call. The training includes instructions in the laws, taboos, dances, songs, and the idiosyncrasies of the divinities, as well as general priestly duties. The initiation also acquires knowledge of herbs and roots and other medicinal values of the environment.

Knowledge of medicinal plants is sometimes acquired through training but most traditional healers inherit their knowledge metaphysically. As friends of the community traditional healers are accessible to everybody and at all times. They are concerned first and foremost with disease, sickness and misfortune which in the African experience are caused by mystical forces. The traditional healer has therefore to diagnose the nature of the disease, discover the cause of the sickness and apply the right treatment, together with a means of preventing its re-occurrence. Here, physical and spiritual methods are applied to assure the sufferer of good health. Furthermore, they protect people from witchcraft and sorcery by supplying charms and other medications.

Diviners form a crucial link between humans and the supernatural. They usually diagnose illness by throwing bones, cards, or stones and consulting the ancestors. Throwing of the bones is sometimes referred to in common parlance as a 'floor X-ray' because the diviner can understand the problem from how the bones fall. Some diviners can enter a trance-like state of altered consciousness that allows them to commune with their ancestors.

In general, African traditional healers' skills are acquired by apprenticeship to an older healer, the experience of certain techniques or conditions, or by a calling by the spirits or the ancestors. The calling can be a dream, a passion, or a feeling. Sometimes the calling makes a person feel sick or brings them ill fortune so that they consult with a traditional healer who tells them that they have been 'called'. People believe that it is the ancestors who decide who should be chosen to become a healer; if the calling is not obeyed, the person remains ill or continues to suffer ill fortune until he or she accepts the calling and enters into an apprenticeship with a more experienced traditional healer or *gobela*.

Knowledge is Communal

Another principle of African indigenous education was communalism. In African traditional education, all members of the society had things in common and applied the communal spirit to life and work. Children belonged to the community and every community member had a stake in their upbringing. For example, if a child misbehaved while the parents were not present, any other adult community member could discipline and correct him/her on the spot. Clearing, planting and harvesting were done in a group, on a shift basis for example, a group could clear Mr. A's farm on one day and move on to clear Mr. B's farm on the following day. The process was repeated during planting and harvesting seasons and the building of huts. Also, there existed the thrift and credit system whereby individual members of the community contributed fixed amounts in cowries at regular intervals, to be collected by a member of the group at a time. For example, if Mr. A collected the group's contribution at the end of one week, it would be Mr. B's turn to collect at the end of the following week. This was a form of compulsory saving for all adult members of the community, and the money collected in bulk could be used for a worthwhile venture, such as buying farm products for sale in the local market.

AFRICA-FOCUSED EARLY CHILDHOOD PEDAGOGIES AND LOCAL LEARNING MATERIALS

Educational theories such as Montessori and Froebel emphasize the importance of materials that are relatable to the children's environment. In the African context, local materials such as African Blackwood, bamboo, and Mahogany can be used to teach various concepts in arithmetic, offering a connection to the community and cultural heritage. Philosophies of Montessori, for example, require well-designed classrooms with low shelves, four basic learning areas, and places for children to work and learn independently. The materials used do

not have to be imported but made from local materials to which children in local communities can relate. The traditional African setting provides a rich environment that can be creatively designed to ensure that it is child-friendly. The natural outdoor environment provides shade trees and rocky sites where children can sit down to enjoy fantastic stories from the a neighbour, caregiver or teacher. British infant or primary programs have classrooms with a variety of rich learning centres, a cozy reading area with a couch and carpet, and a lively science area that contains pets and plants.

Froebel's 'gift' (Hill, 1908) which includes rods of different shapes, colours and sizes which are used to teach concepts and relationships in arithmetic can also be stimulated through the thoughtful use of materials naturally found in Africa. Different colours of wooden rods of varying lengths can be carefully chosen by teachers to engage children in explorations of arithmetic concepts and relationships among the objects. Examples of naturally coloured woods are: African Blackwood native to Eastern Africa, known as Mozambique Ebony or Senegal Ebony; the African Mahogany with a deep reddish-brown colour called African mahogany, munyama, red mahogany, Cameroon mahogany; the bamboo tree found also in sub-Saharan Africa are green when fresh and brown when dry are useful for making *green schools* and learning materials; and timber with variable colours from pale-yellow to medium-brown. When fresh it is called Iroko in Nigeria. It is universally adopted as Iroko on the international market and is also known as Mvule in East Africa. These are a few examples of woods that can be sourced from the sawmills, local wood shops and bushes. Teachers can use them to teach various lessons in and outside the centres and homes where IECCE is practised.

BENEFITS OF EARLY CHILDHOOD CARE EDUCATION

Early childhood education plays a crucial role in a child's overall development and later education. There is now a strong consensus on the many benefits of early childhood education (Sacks and Brown-Ruzzi, 2005; Karoly, Kilburn and Cannon, 2005; Knowledge Universe, 2010; UNESCO, 2010 and Chicago Longitudinal Study, 2011). Extensive research supports the benefits of early childhood education for children worldwide. These benefits include the following:

Cognitive Gains

Berk (2008) states that the brain develops faster than any other organ of the body during infancy and toddlerhood. The work explains the view of the National Scientific Council on the Developing Child has formulated several principles to explain the science of brain development. One principle state that "genetics determine the when or the timetable for development while experience determines the how or the actual construction of the circuits". Berk explains that during the early years of development, neurons are in place and once they are in place, they rapidly form synapses or connections and release chemicals called neurotransmitters that cross synapses to send messages to other neurons. During the peak period of synaptic growth in any brain area, many surrounding neurons die. However, stimulation determines which neurons will survive and establish new synapses and which will lose their connective fibers through synaptic pruning. Brain researchers have discovered that 90 percent of brain development is completed by the age of three and conscience and personal responsibility are established.

Brain development is activity-dependent, meaning that stimulation of the brain is essential during this sensitive and formative period (the period in which the brain is developing most rapidly). Prolonged early deprivation can disrupt brain growth and interfere with the brain's capacity to manage stress. Appropriate early stimulation also promotes expectant brain growth.

This depends on daily experiences which early childhood developmentally appropriate practices provide for the child. Therefore, a child's exposure to high-quality early childhood facilities does not only increase readiness for formal schooling but also causes positive long-term improvements in the child's school performance and social outcomes. Efforts to support or provide early childhood education will promote growth in cognition, language, motor skills, adaptive skills and social-emotional functioning during these critical years. These will prevent major learning problems, shrink the achievement gap between the advantaged and the disadvantaged children and produce more productive citizens (Reynolds and Ou, 2004). Specifically, the study carried out by Aliyu and Garba (2012) in Nigeria on "the implications of child poverty on the Nigerian economy" revealed that "the well-being of children has a direct link with the present time activities of the child, the government, community, organizations, parents, family members etc". They further posited that fulfilling children's rights and values at an early stage of childhood would certainly transform them to achieve their full potential and to participate actively in society.

Economic Gains

There is a strong consensus among researchers that high-quality early childhood education is an excellent investment for society. Recently, economists have strongly advocated for early childhood education. These experts are supporting the studies that suggest spending money on high-quality early childhood education which can lead to economic wealth in the future. They say that investments in early childhood education easily pay for themselves over time by generating very high rates of return for participants, the public and the government. These experts wrote in their tabloid that "spending money on childhood development programs will yield more return to economic development, that investing in early childhood education is a sound fiscal policy which has huge potential long-term payoffs (Heckman and Masterov, 2004). James Heckman the 2000 Nobel-prize winner in economics argues that if children have a high-quality early childhood education, they will be better able to use higher education and job training later in life¹⁴. One of the research projects to support this view is the study of Head Start graduates in California. The study showed that society receives nearly nine dollars in benefits for every dollar invested in Head Start children. The economic benefits also include: Increased earnings, employment potentials, family stability, decreased welfare dependency, decreased grade repetition, and need for special education (remedial education), and parents, caregivers and families also greatly benefit from the programme.

Social Gains

Front-line experiences have clearly shown that systematic provision of early childhood education helps in the development of children in a variety of ways. These include: Improving socialization, inculcation of healthy habits, stimulation of creative learning processes and enhanced scope for overall personality development. However, some indigenous children, those in rural or difficult-to-reach locations that do not have exposure to quality ECCE are found to be behind from the beginning of their formal schooling. Many may fall further behind by the end of up to two or four years behind by the end of primary education. This does not imply that such children's capacity to learn or the skills, talents and abilities they possess are less than others from urban or industrialized children. The fact remains that indigenous children are coming from a different cultural and social base in which they learn differently. When they begin formal schooling, they enter a domain foreign to them. To make this new experience easy and beneficial to them, an appropriate approach must be adopted.

Serpell (1993) argues that schools should promote economic progress, transmit culture and cultivate children's intellectual and moral development. However, experience has shown that schools do not always achieve a synthesis of these functions because of the conflicting perceptions emanating from post-colonial contexts, the economic and cultural agendas of schooling as it relates to child upbringing and its relationship to their moral and intellectual development. Citing the case of Oceania as in most developing countries, Thaman (2001) explained that while the cultural agenda is rooted in Pacific indigenous cultural traditions, the economic agenda is European-based, informing what teachers and students are supposed to do in school. This situation therefore creates cultural gaps for indigenous children. A realization of this situation should encourage an expanded approach to a preschool programme that promotes cultural inclusion. The approach to preschool should take into account a good understanding of their cultural and social base and build on the strengths that they possess.

Some basic underpinning premises must guide the methodology of delivery of the indigenous curriculum developed to meet the needs of indigenous children. Some of these include: (1) Indigenous children live in a wide variety of circumstances in rural and remote communities, with difficult-to-reach community contexts such as riverine, mountainous and others where poverty, unemployment, violence and pestilence exist. Very many live in families that have strong traditions and cultural orientation with little formal education. (2) Early childhood programme for indigenous children may not necessarily be patterned after those in existence in urban or industrial cities but should be community-based that would meet the needs of indigenous children and their families. (3) The programme should be provided within an appropriate cultural context so that a sound foundation can be laid and children would not be alienated from their cultural background.

National Gains

Today's children are tomorrow's elders and leaders. They are everything that every country needs; hence the foresight is in investing in today's children for a healthier nation in the future.

There are much Africa's development partners and international organizations can do to support Africa in its quest for child well-being and quality of child life, as funds and influence largely reside with Development Partners and International Organizations in disproportionate quantities. It is wished that those powers and resources should no longer be used for demonstration but to support Africa's efforts to hear its voices, among others, and to seek its own ECCE way forward. Africa shall find that way through children who understand and appreciate multiple worlds, through young scholars who frame their own contextually sensitive research questions, and through leaders and caregivers who appreciate the riches of the past, as much as the possibilities and uncertainties of the future that anchors on African cultural identities.

WEARING AFRICAN TRADITIONAL METHODS OF EDUCATION TO CONTEXTUALISE TEACHING AND LEARNING IN TODAY'S CLASSROOMS

There is a necessity for contextualization of teaching and learning to strengthen and develop the links between the learning environments of school, home and community. This can be achieved by building on the learner's experience from outside the school and providing supplementary experience within the school programme. This process is enhanced using the different African traditional modes of education, which allow learners to integrate their own learning experiences with the school programme. Agriculture, proverbs, legends, storytelling, indigenous games, health and indigenous science and technology may act as a unifying theme to achieve this.

Curriculum planners consequently need to understand and escalate variations in “local knowledge” by identifying unifying themes, which can provide a direct link to the experience of most, if not all of the learners in a particular area, and can be readily adapted through participative processes to fit each local situation. Examples of countries where an integrated approach to curriculum development has been carried out in Africa and which in some cases have involved the contextualisation of teaching and learning, include Cameroon, Ethiopia and Zambia.

In Cameroon, Bude (1985) observes that primary schools in the Anglophone region have, since the 1960s, attempted to use the local environment for the development of cognitive abilities, and also as the animation centre for community development. In addition to using locally relevant experience, schools have also forged and developed strong links with their local communities by supplying various services, for example, agricultural advice to farmers.

In Ethiopia, the Ethiopian Institute of Curriculum Development and Research (ICDR) described the development and trial of the "general polytechnic curriculum" in 70 pilot primary schools (ICDR 1993). The use of local, agricultural examples to facilitate learning in mathematics illustrates this. This innovation, however, is no longer in operation under present government policy. In another development in Ethiopia there is the Poverty Eradication Action Plan (PEAP) where learners are made to see the world holistically, thus making meaning of their surroundings through appropriate connections (PEAP, 1996). Learning takes place through the introduction of new information that meets the prior knowledge and experiences of the learners. Learners come to school with knowledge from their homes, friends, environments, radio, etc. This knowledge is not necessarily broken up into maths, mother tongue, natural science, social studies, etc. They come with knowledge and experiences that have meaning to them.

Chelu and Mbulwe (1994) describe the Self-Help Action Plan for Education (SHAPE) in Zambia. One of the main aims of the programme is to improve the quality and relevance of education. The programme has tried to improve and strengthen certain types of learning relating science, mathematics and languages more to the local environment; developing a wider variety of skills, e.g. literacy, numeracy as well as practical problem-solving skills, etc. Learners are made to develop individual potentialities, e.g. initiative, responsibility, and creativity; developing positive attitudes, e.g. towards work, local cultural traditions, preservation of natural resources; developing a healthy balance of learning and working to suit individual interests and future needs to achieve quality and relevance.

These examples of contextualization have significant implications for the school curriculum. The school will need to contribute towards deepening or fostering the apprehension of the cultural environment by endorsing its values for the socialization process and thus by integrating cultural manifestations into the learning contents (Bude, 1985). Eisemon (1989) is of the view that the content of agricultural instruction and its articulation with instruction in modern science is particularly important. Also, important is connecting instruction in modern science and modern agriculture to indigenous knowledge systems, building upon the knowledge and skills learners possess from social experience. Duit (1991) opines that, since learning is an active construction process and can only take place based on previously acquired knowledge, learning has to do with constructing similarities between the new and the already known.

Riedmiller and Mades (1991) think that the handling of regular school subjects should be localised, by relating the topics of the separate subject syllabi to the local environment. In this

way, the subject is the point of origin; the environment then functions as a teaching aid to illustrate academic themes and to serve as a practical ground for applying the acquired knowledge and skills. To accomplish the art of utilizing experience as a means of contextualising teaching and learning, there is a need to find ways of supporting teachers, both materially and psychologically, to enable and encourage them to develop new strategies and approaches that will facilitate the use of contextualization in the classroom.

Perhaps the best way to sanctuary traditional education would be to incorporate it into the school curriculum. In teaching any school subject therefore, it is wise to start with the knowledge about the local area, which students are familiar with, and then gradually move to the knowledge about regional, national and global environments. This essentially follows the philosophy of embarking on teaching and learning "from the known to the unknown", which could be adopted if education is to be effective. In most societies, Indigenous people have developed enormous volumes of knowledge over the centuries about different subject matters, especially in the areas of informal and vocational training, which constitute the core of indigenous education in Africa. Under this traditional system, each person in the community is practically trained and prepared for his/her role in society. It is a holistic system, in which storytelling, proverbs and myths also play an important role.

There is a need for the adoption of some of the elements of this system into modern-day educational practice as a strategy for improving quality. For example, it has been established that the indigenous community is a rich source of storytellers. Indigenous stories are therefore a culturally and environmentally rich resource for teaching. To this end, schools could devise strategies of using stories as teaching methods and categorizing them according to a range of themes in different subject areas. In doing this, different schools would need to consult and work together with indigenous people (local elders, parents, nurses, doctors, monks, nuns, priests and other members of the community) by inviting them as guest storytellers or co-teachers to class to tell their stories – or to sing, act, dance, perform puppetry, etc. while developing the curriculum. This would encourage learners to learn from them and to appreciate and respect their knowledge. Such a relationship between young and older generations could help to mitigate the generation gap and help develop intergenerational harmony. Integrating traditional education into the school curriculum allows schools to serve as agencies for passing down cultural knowledge across generations.

While the integration of indigenous knowledge into formal education offers many advantages, attempts to do so may encounter difficulties and challenges like the Outcomes-Based Education (OBE) of South Africa, which stipulates the knowledge, skills, values and/or attitudes that an individual is expected to demonstrate in a given learning situation at the end of each learning process. The teacher's role might have to change from being a transmitter of knowledge to a mediator and facilitator of learning. The expectation for the student would need to change from a passive receiver of knowledge to an autonomous learner, reflective thinker and problem solver, who is actively involved in his/her learning and construction of knowledge. Indigenous knowledge which is increasingly disappearing with the death of older people who are the bearers of such knowledge needs to be collected, documented and made readily available for teachers.

It is important to acknowledge that the politics of curriculum development are complex and few African governments have taken the trouble to overcome sectarian (religious) or ethnic conflicts that hamper such curriculum enterprises. However, for many African governments, this issue is better left alone than confronted despite its advantages. Whatever position may be canvassed by African governments on this important issue, we cannot run away, out of

convenience, from addressing the adoption of some of the elements of the indigenous system into modern-day educational practice as a strategy for improving quality. This should be tackled creatively especially in this increasingly globalised world with its threat to cultural identities. We should seek to understand it, expand our views and practices, and not just discount it in favour of what we have always done before. African governments may have to take the important subject at the policy level, especially at this time when there is a call for an African renaissance and sustainable development. African people should not be intimidated by the argument about the complexity of this challenge but must confront the subject as a priority for survival in this increasingly global world.

Indigenous knowledge systems offer valuable frameworks, guiding principles, and practices that can support sustainable development in Africa. It is therefore essential that traditional knowledge systems in the continent should be incorporated into our educational system as this will foster sustainable development. Arguments in this paper imply that children living in the rural environment are capable of creatively adjusting and readjusting themselves to their relationships with contexts and actors in their social environments.

As social actors, the Nso children in the Northwest Region of Cameroon commonly live in three immediate social groups: with the family (at home), with teachers (in school) and with peers (during play or cultural activities). Through their interactions with these social groups, the children use their oral tradition to create their sense of attachment and socialize themselves with situations in the rural way of life. Such complexities depict rural early adolescents as different from urban children though not on a significant level as indicated by the study where less difference is observable between the social and cultural situations of children across home and school. In other words, children's double responsibility, which is to work and to attend school, characterizes rural children as different from urban childhood because, in the latter, children's involvement in agricultural work is less or non-existent. In other words, the fact that rural children combine play with work makes rural children unique.

Therefore, the inclusion of oral tradition in the formal learning process enables children to connect their local knowledge to their lessons in the classroom and contextualize their learning process which enhances the authenticity of their learning activities. What can be noted from this study is that children's learning objectives and processes are culturally defined; the social and cultural contexts of children characterize what they prioritize learning and how they prefer to learn. In the rural social and cultural context, the cultural complexity and agriculture-based livelihoods demand that children must have a detailed knowledge of their immediate environment and the skills needed for work and life. For example, in the tradition of household labour division that characterizes the rural family, children are expected to be skillful in exercising social roles.

In school, for instance, children are motivated to learn and can easily find meaning when they understand their lessons through their own life experiences and everyday practices which they articulate by performance and interpretation of oral tradition. However, in the Nso context, it seems that school curriculum designers and policymakers as well as teachers are less aware of the power inherent in children's oral tradition and local knowledge to enhance the quality of children's formal and informal learning, which is reflected in school syllabuses. In other words, riddling and storytelling and the context of informal learning have not been well integrated into formal learning. Teachers' efforts and skills to connect children's home context and cultural realities to learning in school and to enable children to relate school lessons to their everyday life, fall far short of rural children's need for meaningful and friendly ways of learning.

Thus, the need to critically reflect on the curriculum and content of formal education by adopting a curriculum that is oriented to local knowledge is urgent. It is necessary to consider the power of oral tradition and children's local knowledge embedded in it to make learning activities meaningful for children and improve the quality of children's formal education. In this regard, three issues are worth considering. The first is further research on how to make the primary school curriculum compatible with children's local knowledge and everyday life.

THEORETICAL FRAMEWORK

An Integrated Theoretical Framework

The theoretical framework is presented below. The framework centres on the individual child, whose development is influenced by both inherited and acquired dispositions. Surrounding this child is the 'developmental niche,' a concept formulated by Super and Harkness (1997). This niche consists of three components: the child's physical and social context, the rearing practices, and the social representations or 'ethnotheories' that caregivers hold.

These are the ideas parents or other caretakers, or indeed all adults have about what they consider to be important in the development of their children (to be illustrated below). The developmental niche is a system in which the parts interact and function in a coordinated fashion. Typically, there is consonance among the elements of the niche, especially under conditions of stability in the society, but sometimes there are also inconsistencies, especially under the impact of social change and acculturation. Moreover, it is an open system where each component is linked with other aspects of the more general environment. The latter is represented in the outer circle of the macro-system, which includes the ecological and socio-historical contexts to which each society adapts both biologically and culturally. The processes that link the phenomena at the group level to those at the individual level are shown in the meso-system. Among these, as educators, we are most interested in the processes of cultural transmission, notably enculturation and socialization.

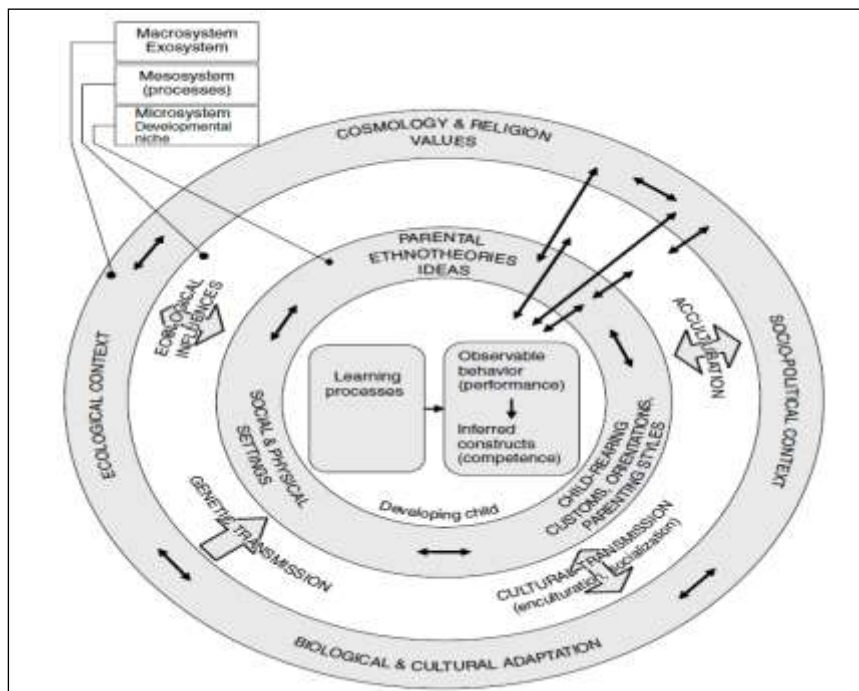


Figure 1: An integrated theoretical framework for (cross-)cultural human development.

Adapted from Dasen (2003).

Many examples mentioned in this handbook can serve as illustrations of this theoretical framework, and in particular of the developmental niche. For example, there are various child-rearing customs and practices: the use of narratives, conversation and storytelling, songs and dance, sayings, riddles and proverbs, or the importance of performing chores and errands, while play and games are mentioned less often. A very important aspect of African child-upbringing, sibling caretaking (Nsamenang; Mweru), illustrates all three components of the developmental niche: this practice provides a particular social setting (contact with peers of different ages more than with adults) and reflects the parental ethnotheory that children can be nurturant and responsible at an early age (Serpell).

The framework points out the importance of situating the child's development and education in a wider macro-context, which contains, for example, the cosmologies, religions and values that prevail in any particular society. These in turn are linked to the particular ethnotheories or social representations that caretakers, teachers and parents tend to share in particular social groups. The Shona, Ndebele, Xhosa and Zulu concept of *Ubuntu* (or equivalent terms) is mentioned in several sections of this book as reflecting compassion, reciprocity, dignity, harmony and humanity in the interest of building and maintaining community, conforming to standards and expectations of significant others, and placing personal desires below needs of the society. It is a moral principle of humanness, that promotes social responsibility and solidarity, sensitivity, selflessness, devotion to duty, and a vision of society founded on justice and equality. *Ubugabo* (being human, accepting responsibilities, respecting promises) and *Umubano* (social relations, belonging to group, solidarity, sharing) mentioned by Gakuba and Passini for Rwanda reflect very similar values, and so does *Omoluwabi* in Yoruba, which are mentioned as a main goal of education, namely to form a complete human person and to be of good character, as shown by the respect of old age, loyalty to parents and local traditions, as well as by honesty, duty, sociability, courage and to be ready to assist and to work.

Developmental Niche Theory

The idea of the developmental niche combines the framework for thinking about human development in a cultural context (Super & Harkness, 1986). It can be used to organize information about children's development and to focus investigations for improving the lives of children and families. Although it is not a theory of development in the formal sense, the developmental niche provides a framework for understanding how cultures guide the process of development. Using this framework, is to see how the cultural environments of particular children are organized to see how the culture is presented to the child at any particular time. The term niche is borrowed from biological ecology, where it is used to describe the combination of features of the environment a particular animal, or a species of animals, inhabits. Thus, a pigeon and a robin might live "in the same place" in the sense of dwelling in the same part of a city park. But exactly where they build their nests and from what materials, the kind of food they seek in the surrounding environment, their vulnerability to various predators, all these are distinct.

The particular way they fit into and exploit the same general environment is different, and they, create a distinct niche for themselves. At the centre of the developmental niche, therefore, is a particular child, of a certain sex and age, with certain temperamental and psychological dispositions. By these and other characteristics, this child will inhabit a different cultural "world" than the worlds inhabited by other members of his family and further, the child's world will also change as the child grows and changes. Three major aspects of this child's culture shape his or her life. These three components together make up the developmental niche. The

first component is the physical and social settings of everyday life. This includes such basic facts of social life as what kind of company the child keeps.

In rural Kenya, for example, families are large mothers often have eight or more children with the activities of these people based mainly at home, the baby or young child is likely to have several playmates and caretakers who are siblings. The size and shape of the living space is also an important feature of physical and social settings. By contrast, in the southern part of Holland where many people live in a small geographic area, houses are very compact and the living room also serves as the children's playroom. Typically, if there is a baby or toddler in the house, there will be a playpen located in this room, where he or she can play independently with toys while near other members of the family. Even aspects of life as basic as sleeping and eating schedules are organized by the physical and social settings of daily life.

While Kenyan babies sleep with their mothers and wake to nurse at intervals through the night, for example, Dutch children are put to bed rather early by U.S. standards and learn to stay there until it's time to get up. In contrast, young children in Italy and Spain are often kept up until late at night to participate in family and community events. One cannot get very far in studying the physical and social settings of children in different cultures without realizing that many aspects of children's environments are organized by customary practices, and it is for this reason that we identify customs of child care and child-rearing as the second component of the developmental niche. The use of older siblings as caretakers in rural Kenya, for example, is customary. There are special terms for these child nurses in the native languages of Kenya, and they are expected to care for their young charges in a special way that is different from mothers' care.

This fact points to an important aspect of customs-that they are normative for families and communities. Very often, customs of care are seen by their users as the only reasonable solution to whatever need they address, indeed, the natural way to do things. Customs of care are thus a source of support for parents and other caretakers because they provide ready-made solutions to the myriads of issues that developing children present, from how to protect children from hazards in the environment to how to ensure that they are adequately educated for their future roles in society. But sometimes the function of a custom is less easy to specify because its value is primarily symbolic.

To understand these customs of child care and child upbringing, one needs to take into account cultural traditions related to spirituality and concepts of the person. Although these abstract dimensions of culture are difficult to describe, the study of customs that represent them can provide insights into the cultural ways of thinking that organize the lives of families and children. It is these cultural ways of thinking and feeling, held by parents and other caretakers that we recognize as the third component of the developmental niche, the psychology of the caretakers. Parents cultural belief systems and related emotions underlie the customs of child rearing and validate the organization of physical and social settings of life for children. In cultures where babies and young children customarily sleep close to their parents, for example, parents often feel that to put the child elsewhere even worse, to fail to attend to a child who wakes crying in the night amounts to no less than neglect.

First, the settings, customs, and caretaker psychology, as explained earlier form the immediate micro-environment of the child: they are the developmental niche. The three double-headed arrows represent an important relationship within the niche, that is, the three components influence each other. A variety of forces, psychological and practical, promote a sense of harmony among the three components. Parents do not easily leave their children in settings that

they judge to be dangerous. The customs of child care are generally adapted to the particular physical and social settings, as well as to what is symbolically acceptable to the caretakers. A steady state of complete harmony is rarely achieved, but as the irregular lines separating the components suggest, the points of contact adapt to each other. The larger, single-headed arrows illustrate a second dynamic of the niche, namely that various aspects of the larger human ecology differentially influence the three components of the niche.

The customs carry a particular weight of history and area conservative force such that, other things being equal, many parents will, "without thinking," rear their children with many of the same traditions they grew up with. Economic and demographic changes may rapidly affect the settings of daily life for children. They may spend their day with fewer brothers and sisters, in a daycare centre, or in an urban environment. The psychology of the caretakers may be directly influenced by shifting ideas at the national or community level about the nature of children and their needs, as well as about what skills they will need for the future.

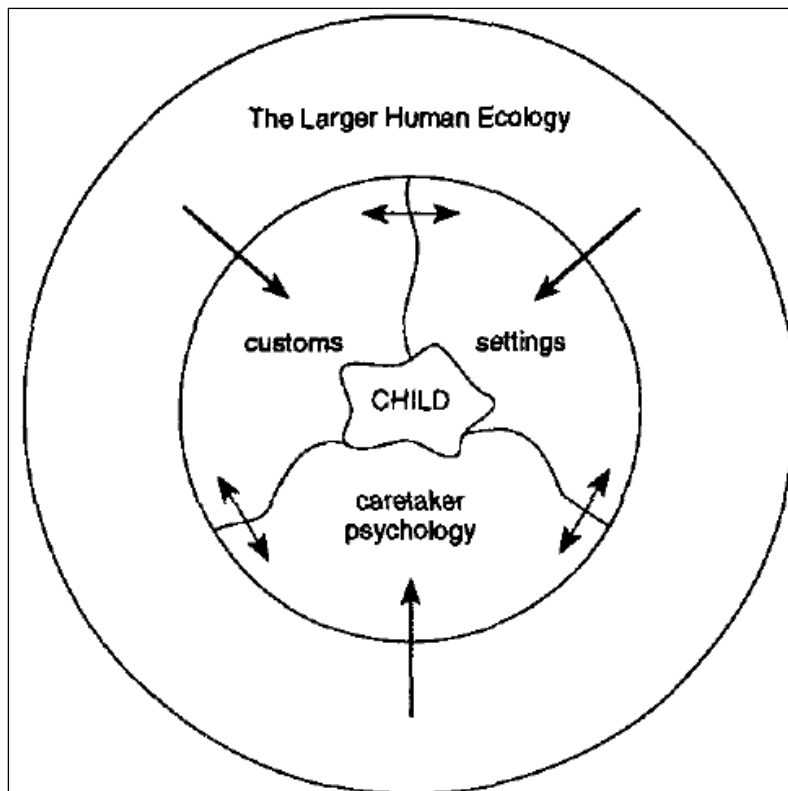


Figure 2: A Schematic Representation of the Development Niche

Source: Super & Harkness, 1986

In summary, there are many ways that changes in the larger society or physical environment can influence the child, but they do not all operate through the same components of the niche. Finally, the developmental niche formulation recognizes the fact that the child and its environment accommodate each other: Their curves are mutually adjusted. Some views of child development emphasize the way child behavior is shaped by the environment, that is, the degree to which children must adapt to the requirements of their family and their culture. But it is also true, as more recent research has shown that parents and caretakers alter their demands and their support in response to the particular temperament and talents of the individual child.

In addition, the child is a rapidly changing person, especially in the early years. Language and social skills develop, personal interests emerge, and the child learns to cope with or avoid, specific features of the niche. The niche, in this sense, also develops in response to the changing child, as well as to the outer influences. Of course, many features remain constant, or at least present challenges that grow in a way parallel to changes in the child. These are the themes that take on particular strength as the child matures, themes that are most deeply woven into the values, motives, and fears of the emerging adult. The theoretical framework of the developmental niche helps to achieve such an understanding through systematic analysis of the culturally constituted components of the child's environment and their relationships with each other, the wider environment, and the child. In this analysis, it is clear that the cultural environment of the child is powerful not only because it is experienced during the formative years of life, but also because it constitutes an interactive system in which the same cultural messages are conveyed through a variety of modalities. Just as in language where the same idea may be communicated through choice of words, grammatical structure and tone of voice.

In cultural environments, the child may learn the same ways of thinking and acting through the physical and social settings of daily life, the customs in which he or she participates, and the expressions of parents' ideas that are conveyed in a variety of ways. Over the span of development, these messages become so internalized that they form the core of our understanding of the world and ourselves. It is in this sense that ethos and psyche-culture and individual psychology are fused in the re-creation and transformation of culture within the individual mind.

For teachers, it is important to know about these various components of the developmental niche and about the overarching values that are linked to prevalent cosmologies and religions. Several of these are quite widespread over Africa, but others may be particular to specific settings or may take on different forms. It is not very difficult to find out about these: one only needs to spend some time observing child-rearing practices and talk to the parents about what they consider to be important for a child's development. When using such ethnographic methods, one should carry out these inquiries in different social settings (for example, there will no doubt be differences between urban and rural contexts), and with as many people as possible (there may be large individual differences), and one should do it with an open mind. This means that one has to take what anthropologists call "cultural relativism" as a basic principle, i.e. one has to make these observations without judging them as good or bad. Teachers may find this difficult because they are used to telling others what to do, they often believe that they know the truth, about what they have to teach. It is indeed difficult to set aside one's own beliefs and values. One way to achieve this is to start by analyzing one's implicit values and ethnotheories.

Teachers and prospective teachers may at first feel overwhelmed by the complexity of such a theoretical framework, and find it too abstract. That is why it is important to try a hands-on approach, to take any one of the components, and start one's reflections and inquiries about it. Take, for example, the physical and social settings component of the developmental niche. You can start with your life history: what were the settings where you grew up? What was there to be experienced and learned? Who was around to be learned from? How does this compare to the settings your pupils experience nowadays? And are these settings homogeneous for all your pupils, or are there large variations in the families they come from? How are these variations likely to influence them in different ways?

You can ask such questions about each of the parts of the framework, and go out and ask questions, observe and find out more if you feel you don't have the answers. You can then start

to think about possible relationships between the components. For example, from what you know about child-rearing practices, how do these fit in with the physical and social settings? And how do these change (or not change) when the settings change? As you familiarise yourself with the framework, it should help you to gain a better understanding of child development in context. The fact that the components are somewhat abstract will prove to be an advantage because you can fill in the abstract concepts with the particular examples that are appropriate in your particular setting. In this way, the very fact that the framework is abstract and theoretical is what increases the likelihood that it will, in fact, fit everywhere. The overall structure remains the same, while the particular content may vary.

WAYS OF INCLUDING INDIGENOUS KNOWLEDGE SYSTEMS IN FORMAL EDUCATION

Current formal school curricula in African often emphasize the importance of conclusions that can be generalised beyond the local context, de-emphasising the importance of localised knowledge. Indigenous Knowledge Systems include; those that are formal (rites of passage, traditional medicine, and religious education), non-formal (artistic works, language, beliefs, values, world views, farming, hunting and fishing) and informal (proverbs, riddles, folktales/folklores, games, songs and dance). According to Battiste & Barman (1995), the most important educational challenge that Africa faces is a way of comparing Eurocentric and Indigenous ways of knowing and including both in contemporary modern education. Many educational researchers have highlighted the need for inclusion of indigenous knowledge systems in formal schooling but there is little literature as to how exactly these systems can be included. This leaves teachers with the will to include, but lack of method of how to include. This section examines the methodology of how to include these indigenous knowledge systems in schools.

Steps Towards Inclusion

Inclusion of Indigenous Knowledge/Systems in School Curricula

Inclusion of African indigenous knowledge and pedagogies in today's school curricula at all levels of the education systems will address relevance and functionality of education (Tchombe, 2009). Current school curricula are dominated by Western ideologies. How can African values be injected into these curricula to make them more context-specific and relevant for Africa? There are two basic ways of integrating IKS into formal school curricula.

Inclusion as Independent Subjects

Curriculum reforms can lead to the introduction of local languages, fine Arts, theatre arts, indigenous music, agriculture, home economics, art, craft, environmental studies, rhymes, cooking, drawing etc, as individual subjects to be studied on their own merits. Best practices can be seen in countries like Tanzania, Kenya and Mozambique where there has been much introduction of the above indigenous subjects in areas of languages, natural sciences and technology, social sciences, business, and aesthetics (Semali and Stambach, 1997; Owuor, 2007; Castiano 2010). These should be done at all levels and sectors of education.

Inclusion as Instructional and Learning Methods in Mainstream Subjects

These forms of partial but sensitive integration include the granting of IKS more value in the school curricula through Africentric textbooks, the use of culturally relevant examples, and the use of cultural assets in the teaching of arts and sciences. Some subjects like History, Geography, Economics, Literature, Philosophy, etc, whose syllabi during the colonial periods were purely Western can now be Africanised to include sections that examine more of African

traditional heritage and how these could be harnessed for economic, social and political development that is contextual and relevant to the African people. Teachers can use instructional methods that are relevant to African children with a focus on discovery, participatory, cooperative and spiritual learning as essential aspects of IKS. Proverbs, riddles, folktales, and games, can be used in schools to develop cognitive, social and personality skills in learners.

The Role of Elders in Teaching Indigenous Knowledge Systems

Elders are described here as respected individuals (other than school teachers) who have amassed a great deal of knowledge, wisdom and experience. Elders are not only individuals considered to be keepers of traditional knowledge, they are recognized as having the capacity to transmit this knowledge to others and play an important role in passing on knowledge to younger generations (Swayze, 2017). Elders can be used by schools to transmit indigenous knowledge to pupils and students, especially in areas where the school teachers are incompetent. Schools often organize career days, when the members of the business world come to visit learners and expose them to various careers and job practicality. This too can be done for the teaching of indigenous knowledge systems and these elders are invited to schools to train children in the acquisition of this knowledge.

Inclusion of Indigenous Languages

Language is an important element in every society. It is not used as a tool for communication, but it is considered a function of cognitive development (Vygotsky, 1978). The integration of IKS in schools cannot be effective without the inclusion of and teaching of African languages in schools. The problem raised by teachers is often the multiplicity of these languages that makes it difficult for inclusion. Which one should be included, and which should not? This problem is pertinent especially in countries like Cameroon with close to 250 ethnic languages. According to Wolff (2006) and Obanya (1999), this problem can be resolved by structuring African languages at the national, regional and local levels, probably based on population demographics. This is demonstrated in a language pyramid, where every language in the country will have its place according to how it is widely used in the country.

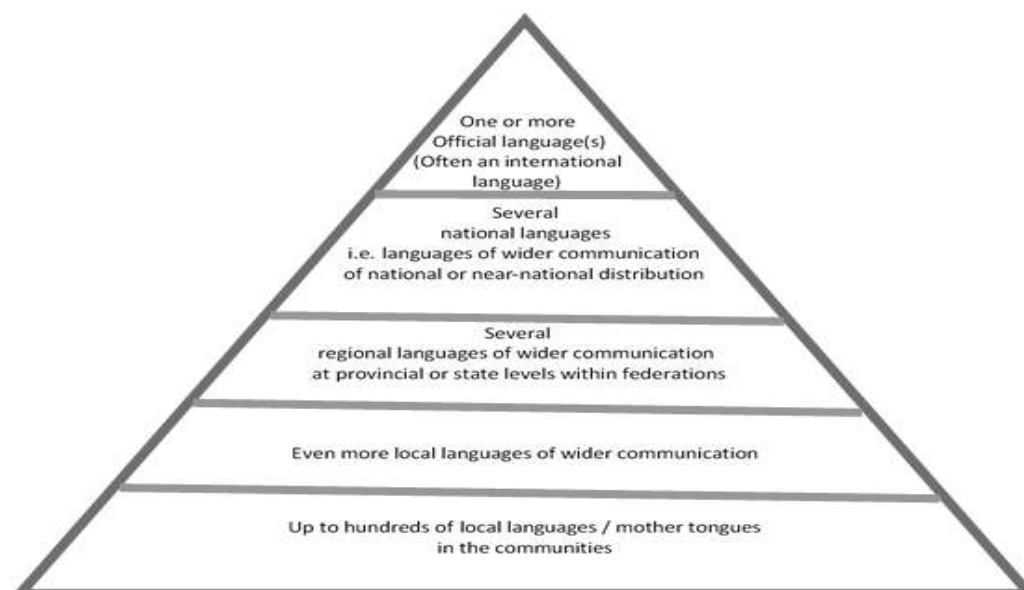


Figure 3: The Pyramid of Language Structure.

Source: Adapted from Wolff, 2006; Obanya, 1999

A GENERATIVE CURRICULUM APPROACH INDICATING DIFFERING TEACHING AND LEARNING STYLES

Traditionally, educators have been observed to insert culture into education instead of inserting education into the culture (Ladson-Billings, 1995). This attempt has had the consequence of isolating minority groups from the system of education practiced. Consequently, researchers in the field of culturally relevant pedagogies have come up with terms such as "culturally appropriate", "culturally congruent", "culturally responsive", and "culturally compatible" (Ladson-Billings, 1995). It is a teaching method that blends a child's experience at home and what they experience at school or in their learning centres; using the language of communication best understood by both teachers and the learner to ensure fruitful and effective learning. According to Gloria, it is a pedagogy that uses culture as a vehicle for learning, and respects and uses the reality, history, and perspectives of students as an integral part of educational practice. This approach seeks to provoke a generative approach to bring together international or other practices with local understandings to see what new approaches might be generated.

Letter and Sight Word Recognition

Alphabet charts in the mother tongue can be used to represent vocabulary from the environment of the child, especially with the older kids preparing for formal schooling. This does *help* (rather than *hinder*) the development of pre-reading skills. They will be able to incorporate the *newly* acquired vocabulary for animals with the words they already know, incorporating them into their existing schemata or systems for organizing their world (Davis 1991:20).

Categorization

This helps young children to identify, name and classify and use new information about different types of animals or objects to develop their vocabulary. It also helps them to create an organizational hierarchy or groups in their mother tongue. It draws upon the rich context of their home experiences. These experiences and the vocabulary linked with them enable the children to look for details, logically interpret what they see and develop their ability to describe what the picture conveys.

Story Sequencing

Pictures from the common process of activities that they are very familiar with are shown to the children. The children look at all the pictures and tell the teacher what they observe. Then, they describe the sequence for carrying out procedures depicted in the pictures they are observing. For instance, pictures of a woman preparing a local dish from maize or yam or cassava as the case may be. Children are able to learn the sequencing of events.

Listening To Sounds (Auditory Discrimination, Placement of Sound in Word, Vowel Length Awareness)

Children, like anyone else, can distinguish the sounds within a word which actually make a difference in the meaning of a word in their own language. If their mother tongue has a given set of vowel systems, the sounds of which can only be learned by hearing it from native speakers. These vowels cannot be learned in colonial languages except in the respective local language.

Grammar and Spelling Exercises

This is the transition from recognition of grammatical elements in words to their use in proper grammar in sentences. Attention to mother tongue grammar does not only facilitate good

writing or comprehension, but it also lays a foundation for second language acquisition at a later stage in the child's learning process.

Creative Writing Development

At the preschool stage, a foundation for creative "writing" can be sequentially developed. It is laid with the development of children's oral expression. Their vocabulary develops along with correct usage of the grammar of their mother tongue. This process continues during formal education at the lower primary levels. As their vocabulary expands, so do their language abilities to compare, contrast, note details, describe and comprehend what they read and hear from people in their communities with whom they interact. As children become exposed to formal education, written expression can be refined and enriched, in such a way that they reflect the subtle nuances, unique beauty, humor, and emotive power of that particular language. This process is further enriched as the children progress through early primary school by exposure to a wide variety of literature such as traditional poetry and songs, proverbs and riddles, folktales, study of cultural phenomena such as the marketplace and seasonal events, and fiction and nonfiction literatures. Comprehension exercises encourage initial readers to reproduce the natural speed, rhythm, and melody of a language, further develop their vocabulary, condition them to expect *meaning* from books and encourage whole word recognition, demonstrating direction, reading fluency, dramatization of stories, oral repetition of whole sentences and phrases, and a meaningful context for isolated words.

Monitoring, Assessment and Evaluation

Record keeping is an essential component in the achievement of quality within early childhood settings whether it is indigenous or non-indigenous. It is standard practice for caregivers and teachers to keep extensive observation records about children in the ECD centres. The goals of record keeping include- accountability requirements, demonstrating the child's growth to parents and families, monitoring the child's learning and involvement in various activities, providing information to key stakeholders and reflecting on the extent to which the goals of the programme are achieved. The assessment tools that can be used to carry out the observation records vary and may include profiles, running records, anecdotal notes, rating scales, checklists, collection of children's work samples, learning stories and others. The areas of the child's development commonly assessed are: Physical health and well-being of the child, social and emotional competency, language and cognitive development skills and general knowledge.

Evaluation is usually through practical tests relevant to the child's experience and level of development in indigenous settings. This aligns with the nature of traditional education which is pragmatic. Evaluation is designed to form a gateway into the life of the community. There is no room for theoretical abstractions. Moreover, there is no basis for comparing one child to another; rather every child is measured against himself or herself. There is no pass or fail but evaluation has one of the goals as indices for scaffolding a child at the zone of proximal development.

CONCLUSION

Despite the serious erosion of Indigenous Knowledge over the decades in many communities in Africa, they are still relevant and appropriate for promoting sustainable development of the continent through her reflective integration into the formal educational setting. African Indigenous Knowledge Systems 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 systems and the propagation of knowledge in the region.

RECOMMENDATIONS

- 1) Indigenous knowledge practices in Cameroon for illustration should be adapted in response to gradual changes in the social and natural environments since indigenous practices are closely intertwined with people's cultural values and passed down from generation to generation.
- 2) Direct communication models in Indigenous Knowledge Systems 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 programmes 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 institutions should explore the role of Indigenous Knowledge Systems 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 which has set up a committee to identify indigenous technologies, and therefore put in place a national policy that would seek to protect and promote indigenous knowledge and technology so as to ease the burden of exchanging indigenous practices among communities.

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