

ANALYSIS OF ECOPEDEGOGY: LESSONS FROM AFRICAN INDIGENOUS EDUCATION

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Abstract: African indigenous education is a mode of study that was fashioned to propagate and disseminate African economic and socio-cultural practices. This study gyrates on the extent to which this education inculcated ideal environmental consciousness among its recipients. The study analyses philosophical canons of indigenous African education and the role each canon played in sustaining a healthy environment. The method used in this study is analysis as it facilitates easy juxtaposition of philosophical canons of African indigenous education with the tenets of ecopedagogy. The study submits that African education was ecologic. This has been neglected yet it is useful in guaranteeing environmental sustainability. Place-based learning, revision of the curriculum to incorporate ecopedagogy and awareness creation through seminars are the approaches recommended by the study.

Keywords: Ecopedagogy, African Indigenous Education, philosophical canons, metaphysics.

1. INTRODUCTION

1.1. Preliminary

This study comprises of five parts numbered. Part one provides the background to the study and review of literature with regard to ecopedagogy. Part two tasks itself with the problem statement that guides the study. The study methodology employed-analysis- is discussed in part three. Part four incorporates the analysis and actual discussion of the study. The final part, numbered five, comprises of conclusions and the recommendations of the study. A brief history of ecopedagogy and its tenets are also elucidated therein. Indigenous education, as defined by Mushi (2009), is a process of transmitting knowledge, skills, cultural traditions, norms and values among community members successfully from one generation to another. In the African context, indigenous education is defined as the process through which all knowledge that pertains to a community is propagated through successive generations. In this study the word canon is used as a rule or a body of principles generally established as valid and fundamental in a science or art (Flew, 1999). This study upholds the definition of philosophy as propounded by Emmanuel Kant: a way of life according to certain knowledge, knowledge being that which dictates every aspect of life in a community (Maira, Vengi &K'Odhiambo, 2017). Philosophical cannons in education are, therefore, the principals that an education system intends to instill in the recipients to enable them integrate effectively in that particular society.

1.2. Background of study

Eco-pedagogy, according to K'Odhiambo (2017), is the process of enlightening planetary citizens to appreciate and take responsibility for all life on the planet. Grigorov (2012) states that ecopedagogy aims at establishing an ecologically sustainable civilization through reconstruction of education systems as a new pedagogy of rights that unites human rights with the rights of the Earth. Early traces of ecopedagogy are evident in the works of Paulo Freire: Pedagogy of the Oppressed and Pedagogy of Indignation. In the latter, Paulo avers that, the planet earth, is analogical to a living organism

that has been oppressed severely (Grigorov, 2012 and K'Odhiambo, 2017). According to K'Odhiambo (2017), ecopedagogy is an educational paradigm which sprouted from South America in the works of Paulo Freire, Moacir Gadotti, Francisco Gutierrez and Leonardo Boff in 1990s. K'Odhiambo (2017) explains that ecopedagogy is a process that enlightens planetary citizens to care for, respect and be responsible of all life. Omiyefa, Ajayi & Adeyanju (2015) also give an account that is similar to K'Odhiambo's about the beginning of ecopedagogy. They single out the 1992 Second Earth Summit in Brazil's Rio de Janeiro where intellectuals made statements concerning the interrelationship between humanity and earth and the need to come up with a universal education to incorporate ecologic ethics. This summit and the works of Paulo Freire are considered to have contributed much to the development of ecopedagogy as a paradigm in contemporary education.

Omiyefa, Ajayi & Adeyanju (2015) elaborate that ecopedagogy emanated from Freire's critical pedagogy. Freire in his work of 1968: *Education for Critical Consciousness*; avers that critical pedagogy is that type of pedagogy that would liberate the learners from social, political and economic constraints that could curtail their desired progress. Freire insists that learners should be allowed ample time to reflect upon social, political and economic problems and identify various remedial measures. It is from critical pedagogy that Omiyefa, Ajayi & Adeyanju (2015) believe that the concept of ecopedagogy emanated. Critical pedagogy is opposed to neoliberalism and imperialism and advocates for an ecological political vision that is focused on environmental consciousness. Neoliberalism is a 19th-century economic ideology that approves *laissez-faire* economic liberalism policies such as privatization, austerity, deregulation and free trade while imperialism is where a country extends its power by exploiting other territories either through diplomacy or force (Goldstein, 2011). It is the exploitative tendencies therein in neocolonialism and imperialism that have occasioned irresponsible exploitation of natural resources. It can be deduced from Omiyefa, Ajayi & Adeyanju (2015) that ecopedagogy seeks to foster an ecologically political vision and realization of culturally relevant forms of knowledge grounded in normative concepts such as sustainability.

Ecopedagogy as an educational paradigm arose from the human worry over the incessant deterioration of the environment due to the unsustainable exploitation of resources that is hazardous to the environment and to the survival of planetary species. Thus, within the corpus of ecopedagogy, three broad issues can be identified as stipulated by Omiyefa, Ajayi & Adeyanju (2015). First, there is a need of mapping out a way that would facilitate participation of planetary citizens in the creation of an ideal world for the survival of the species. Secondly, there should be an education that is fashioned to guarantee the participation mentioned earlier and that this education should be accessible to all people. Lastly, the content of education should be highly relevant to contemporary globalized conditions as posed by social and ecological crises. It is thus mandatory that all people should be brought on board through education for ecopedagogy to be successful. This study recommends on the kind of education that would guarantee success of ecopedagogy.

Effectiveness of ecopedagogy is dependent upon the stage of acquisition. When it is introduced to the learners at a tender age, it is easily assimilated and lasts longer. Lloyd and Gray (2014) suggest that childhood observations pose great influence throughout the human lifespan and, as such, they should be allowed to develop a connection with the environment which most likely tends to groom environmental consciousness in them from a tender age. To guarantee this exposure with the environment, they suggest that place-based pedagogy should be adopted as it approves the effectiveness of forming intimate relationships with places through frequent visitations. They further make a vital observation with regard to information relayed to children either consciously or unconsciously which, as they insist, has a long term impact to the well-being of the learners. It is this information that creates their perception of reality and when they mature such information is visible through their judgments and ways of interacting with phenomena. It is thus prudent to observe that success of any educational paradigm is subject to the time of its implementation in line with learners' developmental stage. As such, ecopedagogy as a discourse should be exposed to learners at their preliminary stages of learning.

K'Odhiambo (2017) observes that the human beings' appetite for industrial and technological advancements has posed a negative impact on mother earth's resources. This statement can be corroborated with persistent efforts by the people of the planet to fight global warming. People's reaction against the destruction of the environment is not novel. It started during the onset of industrial revolution in Europe (K'Odhiambo, 2017). It is also true that a huge percentage of all Africa's environmental problems vary geographically and in most cases they are human induced (Duncan, West, Yoshida, Flore, & Zlemke, 2008). Human activities are provoked by the urge for wealth creation anchored on a capitalistic mindset. Consequently, this study reviews the philosophical canons of African indigenous education and how it helps in the sustainable utilization of resources.

All communities across the globe developed and propagated to subsequent generations a wealth of experiences with regard to their environment. This knowledge system is described in a study by UNESCO (2014) as traditional ecological knowledge or local or indigenous knowledge. The study indicates that communities in their economic endeavors driven by the need to satisfy human wants developed unique sets of information, understandings and interpretations that served as a scale of reference that governed their interactions with their immediate natural milieu. All communities had developed mechanisms through which they dealt with diseases, explanation of phenomena and ways to control fluctuation of the environment (UNESCO, 2014). All mechanisms were ingrained in their education systems and thus easily assimilated.

Indigenous knowledge is defined as a knowledge that has been developed and upheld by a specific culture or society (Bates, Chiba, Kube & Nakashima, 2009). The mode of disseminating this knowledge heavily relied on word of mouth together with observable cultural rituals (Bates, Chiba, Kube & Nakashima, 2009). Word of mouth and rituals are vivid experiences that last for quite some time and the message they carry can easily be enforced. Formal systems of education put much emphasis on intellectual and academic ways of learning. These intellectual and academic ways of learning have disrupted the indigenous knowledge systems which contained broad knowledge of how to live sustainably (Bates, Chiba, Kube & Nakashima 2009). With incessant suppression of indigenous knowledge systems by overemphasizing intellectual and academic education, there is a high risk of losing valuable knowledge of living sustainably as ingrained in indigenous knowledge systems. It is thus wise for educators and learners to appreciate and develop respect for indigenous cultures, wisdom and ethics. This paper gives ways of integrating indigenous knowledge within the formal education frame work to guarantee sustainable development.

1.3. Statement of Problem

Before the onset of industrialization in sub-Sahara Africa, the region was acknowledged to be environmentally secure. It heavily relied on primary production for subsistence thus rendering the environment more stable. The continued appetite for venturing in secondary production in Sub-Sahara Africa and elsewhere on the globe has seen environmentalists raise an alarm over continued degradation of the environment. This is evident in increased human wildlife conflicts, deforestation and increased lifestyle diseases. Formal education is fashioned to create appetite for wealth creation in its recipients and thus not sufficient in propagating ecological education. Increased suppression of indigenous knowledge systems by formal education has led to loss of rich ecologic knowledge that would have leveraged the deteriorating environment. Consequently, there is need to take lessons from African indigenous knowledge systems.

1.4. Methodology

This study employs analysis in looking at the African indigenous education with respect to ecopedagogy. Analysis is derived from the Greek term 'analysis', where the 'ana' means 'up' while 'lisis' means 'loosing', 'separation' or 'dissolution' (Harper, 2001-2012). In philosophy, it is evident in Socrates high concern with definitions as it is in Plato's "dialogues of Socrates" (Gentzler, 1998). Aristotle says that reasoning about means to a given end is analogical to geometric analysis in his Nicomachean ethics (Corbett & Robert, 1999).

The study analyses philosophical cannons of African indigenous education with respect to content and approaches and how the contemporary movement of ecopedagogy could learn from the earlier mentioned. African philosophical cannons namely; preparationism, functionalism, hollisticim, communalism and perennialism are African philosophies of education that the study analyses with respect to ecopedagogy.

2. ANALYSIS AND DISCUSSION

2.1. General analysis

This part offers a comprehensive analysis of the philosophical cannons of African indigenous education with respect to ecopedagogy. The aim of this part is to inculcate three broad aspects in teachers and learners. These are: encouraging them to appreciate indigenous thought processes and acknowledge that communal life enhances sustainable utilization of resources. In the same vein, it is meant to enlighten learners and educators on roles of indigenous philosophical cannons in the maintenance of sustainable utilization of communal resources. Lastly, it is intended to aid them in the identification of appropriate approaches of integrating relevant indigenous knowledge to ecopedagogy.

African indigenous education is ecologic in nature (UNESCO, 2014). The analysis of the philosophical cannons of African indigenous education as espoused by Kanu (nd), attests to this statement. Kanu (nd) observes that African indigenous education is anchored on five philosophical cannons namely: preparationism, hollisticism, communalism, perennialism and functionalism. It is upon these cannons that African knowledge systems are underpinned. These cannons interpenetrate. The fabric that holds them together is unique to an extent that one needs to take a point of view to distinguish them. They are complimentary in theory and practice. Additionally, they harbor similarities with African socialism which is a communal way of life where resources are owned communally.

In Europe, ecopedagogy takes a form of an intercultural approach in which children and the youth are critically and creatively educated to develop the spirit and capacity for establishing a society that is ecologically conscious (Grigorov&Fleuri, 2012). This preparatory training is analogical to the African concept of preparationism. In the contemporary academic spectrum, preparationism is widely employed in Christian theology where unregenerate people take steps in preparation for conversion (Kang, 2006). Preparationism in theology outlines the steps that people need to take to believe in Christ. Such things comprise of reading the bible, attending worship, listening to sermon and praying (Kang, 2006). These series of things which people do in Christianity are analogical to the process of initiation in African indigenous education where individuals had to accomplish certain societal thresholds to be accommodated in various age sets.

According to Kanu (nd.), in Africa, the principle of preparationism is evident in the training of specific people for specific roles as a way of preparing them to take up specific roles in the society. This guarantees continuity in the supply of such specific services. This training was gender based (male learners were trained in specified roles and so were the female learners). This ensured the enhancement of role complementarity in the society (Kanu, nd.). Above all, learning was done through practical interaction with phenomena: forests, hills, bushes, mountains, streams and rivers formed part of study centers (Kanu, nd.). This place-based type of study instilled a sense of responsibility for the resources among the learners. These resources were owned communally thus obligatory for everyone to protect them given the fact that peoples' entire livelihoods heavily depended on these resources for food, medicine and shelter.

African indigenous education was mostly practical with African contemporary scholars citing apprenticeship as the predominant mode of tutelage (Kanu, nd.). Learning occurred by way of learners observing their masters and also working alongside them (Bates, 2009). Young men learnt the art of fishing, farming or hunting by escorting their fathers to their various preoccupations. On the other hand, the female learners accompanied their mothers and other female members of the society in farming, basketry among other roles (Mushi, 2009). Herbalists were escorted by those under their tutelage to specific locations where medicinal herbs could be obtained (Kanu, nd.). Subsequently, the education was highly functional and tended to ingrain environmental consciousness in learners and the tendency to preserve the flora and fauna for functional purposes. Functionalism in education was vivid. At tender ages, learners knew where to obtain safe drinking water, how to keep farms fertile, how to preserve fishing points and various herbs that could treat basic ailments like stomach ache (Mushi, 2009). Children grew up knowing which trees were appropriate for constructing houses, fencing, firewood and which ones had medicinal value (Mushi, 2009). Therefore, due to this education being largely functional, learners appreciated the environment as preservation tendencies were inculcated in them at tender ages.

Grigorov and Fleuri (2012), maintain that ecopedagogy is pedagogy of the earth as it seeks to develop sustainability of earthly resources. The paradigm also disapproves hegemonic and Eurocentric capitalism that privatize resources. When this is juxtaposed with African indigenous education, it approves the African concept of communalism. Educating the young in African indigenous society was communal (Kanu, nd.). Communalism in environmental preservation is fundamental as every member of the society takes it within their mandate to protect the environment against destruction. Education being a community affair, enabled learners to receive instructions from everyone about the significance of resources. Modern education has been formalized to an extent that children cannot take anything as education if it is done outside a classroom. Mushi (2009) avers that resources were owned communally and the communities treated such resources with utmost regard. It was upon every member of the society to participate in protecting these resources. In ensuring sustainable utilization of resources, they were by default safeguarding the environment from destruction. Communal learning ensured that learners always had resource persons wherever they went which enhanced the inculcation of the knowledge of sustainable utilization of resources. Shifting cultivation, though demonized by contemporary agricultural practices, allowed continuous existence of vegetation. Most importantly, learning was practical

which ensured proper acquisition of the skills. Learning taking place in places of work endeared the learners to their specific specializations vis-à-vis the environment (Kanu, nd.).

Perennialism, as an African philosophical cannon, is a yardstick of indigenous education which propagates knowledge, skills and culture in a generation after another (Kanu, nd.). In the spirit of conservatism and propagation of status quo, African indigenous education aided in the transmission of knowledge, skills and cultures from one generation to another. This impacted positively in environmental protection. Rituals and taboos carried from one generation to another through practice, for instance, use of specific locations as shrines and taboos against cutting down of certain trees helped in the preservation of natural vegetation (Mushi, 2009). Education was also done in forests. Foreexample, among the Kalenjin of Kenya, the newly circumcised were tutored in the forests (Hollis, 1909). Thus, protection of forests as special places was vital. These activities propagated from one generation to another, cushioned the forests from degradation.

Grigorov and Fleuri (2012) state that ecopedagogy is derived from real problems, contradictions and perspectives of a peoples life. They also identify that ecopedagogy is a multidimensional project that seeks to enforce rights and guarantee a better future. From their observation, it is clear that, ecopedagogy embraces eclecticism which when looked at from the African indigenous education, would be equated to hollisticism. Hollisticism as a paradigm in contemporary education was coined by J.C Smuts who used the word Holism (Auyang, 1999). Holism is the idea that systems and their properties should be viewed as a whole (Oshry, 2008). Kanu (nd) observes that indigenous education was holistic. Learners were taught to be all round even though there were specializations. Learners specialized after having acquired all the basic knowledge and skills required of them by the society (Kanu, nd.). People participated in the construction of their own houses and other domestic duties relating to normal life situations (Mushi, 2009). It is therefore evident that learners grew understanding the significance of every communal resource and in them developed habits of safeguarding the environment.

2.2. Metaphysical assessment of ecopedagogical canons

Apart from being a content area of learning and a method of teaching, ecopedagogy has a valid and sound foundation in formal philosophy with a plausible appeal to metaphysical nexus of its canons. The canon of preparationism, for instance, derives its metaphysical locus from the metaphysical principle of act and potence, Heraclitian principle of change and the principle of Finality. Potence (*Potentia*) refers to the capacity in a being to receive some perfection or perform an act while act (*actus*) is the fully present realization of a potence (Mattei, 2007). Preparationism as a canon can be equivocated to the first pedagogical process towards achieving the perfection of environmental consciousness. Being a process and an act it propels and actuates the cognition of the learner, who by default has the capacity (*potentia*) to absorb more knowledge on environmental conservation. Furthermore ecopedagogy can only happen because the ecopedagogue believes in the capacity of the learner to transit from lesser knowledge to more knowledge, from a lesser perfection to a higher perfection (*actus*). This is only possible because everything is in flux, and that the only permanent thing is change (Heraclitus of Ephesus as cited in Long, 1999); and is still relevant to ecopedagogy today. The principle of finality indicates that every being when acting acts towards a particular definite end. The act of teaching learners on ecopedagogy is thus, not a random accidental activity that happens for the sake of happening; it is rather a premeditated beneficial act that tends towards the sustainability of natural resources which are crucial for the survival of humanity as part of the ecosystem.

Holism and communalism are expressions of non-dualism and non-divisibility of being which connotes that a being is not and cannot be fragmented. The principle of Non duality was a reaction of Aristotle against Platonic ontology which created a chasm between matter and form. The Whole according to Aristotle and Aristotelian philosophers is greater than the parts because the parts are incomplete in themselves (Long, 1999, Jacquette, 2002). Thomas Aquinas, borrowing from Aristotle, further postulates that what we call entity is not only material but also formal (Aquinas, 2001). To this extent then reality is not a multiplicity of things but a union of incomplete but inseparable parts. The necessity of ecopedagogy is premised on the fact that human beings and the environment substantially share being and are part of the same reality. It also points to the fact that human beings are one and interrelated, and as such the action of one affects the action of the other. This is also the principle upon which the Ubuntu Philosophy of ecopedagogy is pegged on (Kagame, 1976) as expressed in the principle of *umuntu ngumuntu ngabantu* (human being is what he is because of other humans) and its variant *umuntu ngumuntu ngabantu mukintu* (human being is what he is because of other humans, through things). The most important of things (Ikintu) is the environment as handed down to us by ancestors.

Perennialism is not just a canon. It is also a philosophical outlook with its own ontological, epistemological and axiological foundations. The perennial stance is that there are some content areas in learning that are not bound by time or place. They were equally relevant in the past as they are relevant today and they will be so in future. It exhibits the conception of timelessness. From African perspective, creation and the creator are both timeless entities. Creation however is not the creator because while the creator is eternal (meaning he neither has no beginning nor end). Creation is futuristically timeless because it had a beginning point but no end in view (Makumba, 2008). The timeless existence implies that the object of ecopedagogy and the activity of ecopedagogy cannot lose relevance in as much as the creator and creation persist in the realm of existence. In addition, the hylomorphic cosmology infers that the indeterminateness of matter (*Hyle*) is pegged on a persistent determinate factor of form (*Morphe*) (Nyasani, 2012). The *morphe*, is an enduring principle that determines and defines an entity beyond space and time. From ecopedagogical perspectives, the ecosystem in which a human being finds himself defines him in such a way that there cannot be a substantial disconnectedness between a human being his/her defining environment (*morphe*). This observation applied to the past generations and will certainly apply to the future generations. The axiology of perennialism is such that values, especially environmental amicability, are objective and persistent; accruing from the objective epistemology (Nyasani & Ogwara, 2010).

Functionalism: The operational definition of functionalism posits the creative ability inherent in an intelligent being to adapt in an environment be it ecosystematic or otherwise. Whatever is learnt should enable the learner to adapt in the environment, not only as matter of instinct but intelligently so. The teleology of ecopedagogy then has a nexus in the principle of sufficient reason, which is first principle of metaphysics. It states that “everything that exists has sufficient reason for its existence” (Mattei, 2007). Ecopedagogy exists for the reason of augmenting man’s adaptability and efficiency in manipulating environment for *eaudamionic* ends. In the same breath, the environment as nature’s gift to man has its sufficient reason giving man the happiness that he yearns for on a condition that humans do not irrationally exploit the same environment.

3. CONCLUSION AND RECOMMENDATIONS

Basically, contemporary education is laden with pragmatic content and approaches that focus on need satisfaction and wealth creation. Education focuses on resource exploitation to improve standards of living and in so doing pressure is put on the natural environment which results to its automatic degradation. From the discussion, it is vivid that, African indigenous education unlike the contemporary education has tenets of ecopedagogy ingrained in both its content and approaches. In African indigenous education, learning was not only taking place in the natural environment but was also about the environment and its myriad uses. As a result, it inculcated in the learners aspects of environmental conservation. It is therefore paramount that content and approaches from African indigenous education be revisited with the aim of informing curriculum developers on what should form the subject matter of ecopedagogy.

After having discussed the philosophical cannons of African indigenous education with regard to ecopedagogy, the study makes the following recommendations.

- Widespread campaigns and seminars should be encouraged by governments and all stakeholders on environmental education employing ecopedagogy as the major educational paradigm so as to help increase the number of resource persons to propagate environmental education.
- Place-based learning should be encouraged to allow learners develop intimate relationships with their environment thus making them environmental protectors.
- The curriculum needs to be revised to accommodate ecopedagogy as a subject matter so as to impart among learners environmental education and consciousness for the need to advocate for a safe environment.

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