

Managing Education for Sustainable Development

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Abstract

UNESCO being the lead agency for the UN Decade of Education for Sustainable Development has continually reiterated that education remains the vehicle to achieving sustainable development. This paper puts forth a proposition for the use of a conceptual approach of Education for Sustainable Development (ESD) for the planning and design of curricula to ensure that educational opportunities in sustainable development are holistically and effectively provided to secondary school students. It addresses how the internal and external environments could influence the prospects of a school to address curriculum development and an implementation process in ESD. In addition, due to concerns of many researchers that any strategies pertaining to sustainable development should consider the surrounding environment and geographical location, this study addresses what such a 'localization' process would mean in practice through a case study of selected secondary schools in Kenya. Working from stated definitions of 'Sustainable Development' and 'Education for Sustainable Development,' the author developed a theoretical process for achieving curricular reform in secondary education. This paper explores current awareness and attitudes towards sustainable development; explores the inclusion of sustainable development in the secondary school curriculum and investigates possible barriers to incorporating sustainable development in secondary school curriculum. In-depth interviews and questionnaire tools are key in data collection for this study. Findings are presented descriptively in form of cumulative frequency counts and percentages. The study establishes that awareness levels of sustainable development among secondary

school students are low and their attitudes negative. There are opportunities for inclusion of sustainable development in the secondary school curriculum albeit notable barriers; an already flooded secondary school curriculum as well as inadequate teachers required for implementing the curriculum. It is recommended that the Ministry of Education needs to undertake a ‘Phased Strategy’ in order to systematically and holistically develop a curriculum in ESD in secondary schools. Universities need to start training teachers of Environmental Studies and that there is a critical need for a ‘localization’ strategy for a ESD curriculum development process in Kenyan secondary schools. Besides, UNESCO should focus more on ESD sensitization, public awareness and education through establishing a portal and creating caucuses which would map ESD implementation in universities.

Introduction

Education, both formal and non-formal, public awareness and training are key processes by which human beings and societies can reach their fullest potential. In a bid to respond to educational needs, Education for Sustainable Development (ESD) has been enhanced. In December 2002, resolution 57/254 of the United Nations Decade of Education for Sustainable Development (UNDESD) 2005-2014 was adopted by the United Nations General Assembly and UNESCO was designated as lead agency for the promotion of the Decade. The vision for Education for Sustainable Development is about:

Learning to recognize, respect, value and preserve the past achievements; appreciate the diversity and uniqueness of the peoples of the earth; live in a world where resources are distributed in a way that no one is denied what they need to live happily for a healthy and productive life; assess, monitor, evaluate, care for, rehabilitate and restore the state of our planet; create and enjoy a better, safer, more just world; be caring citizens who exercise their rights and responsibilities locally, nationally and globally. Quality education is a prerequisite for Education for Sustainable Development (UNESCO Nairobi Cluster, 2006:4).

The Plan of Implementation recognizes two key aspects of education in relation to sustainable development:

First, education is the foundation for sustainable development and much of the work on Education for Sustainable Development (ESD) must be closely linked to the pursuit of Education for All (EFA). Second education is a key instrument for bringing about changes in values and attitudes, skills, behaviours, and lifestyles consistent with sustainable development within and among countries. Education is then meant to address such issues as gender equality, environmental protection, rural development, human rights, health care, HIV/AIDS and consumption patterns as these intersect with the sustainable development agenda (UNESCO Nairobi Cluster, 2006:3).

Education has kept on changing with time to meet the needs of a dynamic society. There are concerns all over the globe on the education offered; the changes in education; the curriculum and the content in relation to the challenges that face our society, hence the call for Education for Sustainable Development. Education remains the basic tool of transformation towards sustainable development. This is because education redefines, refocuses, and re-orient people's capacities, activities and perspective to transform their visions to produce the society of their make. Education provides scientific, technological skills, the motivation and quite paramount the justification, ethical dimension and social support for pursuing and applying them. This therefore means the only way to make a world that we want we have to pass through education as it is the most appropriate means. The teacher therefore has a responsibility of instilling ESD to the learners for a sustainable society. The international community understands the role of education in modeling individuals who consequently make the society. The world today is threatened by lots of ills like destruction of the ecosystem/biodiversity, pollution, terrorism, heightened poverty, unfair trade and so on. Through education, the attitudes, values, behaviour, skills, technology and lifestyles required for a sustainable future can be fostered. ESD is a process of learning how to make decisions that consider the long-term future of the economy, ecology and equity of all communities. Building the capacity for such future-oriented thinking is a key task of teachers and the teacher educators should prepare teachers for this daunting task. ESD is a holistic approach that wants to make up for the ills of man and enhance a life supporting world as opposed to the already existing life-threatening situation in the world. The international community wishes to use education to transform the society to a balanced one which enhances equality and that which supports life.

Higher education has a central role in the development of knowledge based economy. Thus the overall mission of the universities according to Kurapka and Vaitkus (2012) is to prepare individuals for the labor market; to prepare for life as active citizens in a democratic society; to contribute to personal growth; and to maintain and develop an advanced knowledge base. The sole person charged with this responsibility is the teacher. Educational institutions, particularly the ones educating or training teachers, stand out as the vehicles to instilling knowledge and training the teacher with the desirable knowledge on Sustainable (SD). According to UNESCO (2006) education at all levels and in all its forms should help people of all ages to understand the world in which they live and the complexity and interrelationship of problems such as poverty, wasteful consumption, environmental degradation, urban decay, population growth, gender inequality, health, conflict, and the violation of human rights that threaten the future. ESD is fundamentally about values, with respect at the centre for others, including those of present and future generations, for difference and diversity, for the environment, for the resources of the planet we inhabit.

Education enables us to understand ourselves and others and our links with the wider natural and social environment, and this understanding serves as a durable basis for building respect. Along with the sense of justice, ESD aims to move us to adopting behaviours and practices which enable all to live a full life without being deprived of basics. The three key areas of concern to ESD are society, environment and economy with culture as an underlying dimension (UNESCO Nairobi Cluster, 2006). The Faculties of Education in different universities and teacher training institutions have a key role to play to enhance sustainable education. They form a link between knowledge generation and transfer of knowledge to society in two ways. They prepare the future decision makers of society for their entry into the labour market. Such preparation includes education of teachers, who play the most important role in providing education at both primary and secondary levels. Secondly, they actively contribute to the societal development through outreach and service to the society (UNESCO, 2006).

Objectives of the study

This paper presents findings of a study that aimed at achieving the following objectives:

To assess students' and lecturers' knowledge of Education for Sustainable Development in the Faculty of Education in Catholic University of Eastern Africa.

To establish the extent to which students and lecturers in the Faculty of Education in Catholic University of Eastern Africa in Kenya engage in community-based activities.

To evaluate the relevance of research carried out by students in the Faculty of Education in Catholic University of Eastern Africa in solving societal educational challenges.

To find out relevant components of Education for Sustainable Development not being offered in the Faculty of Education in Catholic University of Eastern Africa in Kenya.

Methods

The study employed case study research design. The research concentrated on students in the undergraduate programmes in the Faculty of Education: that is the ones taking the school focused and fulltime/regular program and the lecturers teaching the undergraduate students in the Faculty of Education. The study targeted 814 students and 13 lecturers in the Faculty of Education. The students' population was not homogenous. Therefore, the researcher used stratified random sampling which is one method of Probability Sampling (Kombo and Tromp, 2006) to divide the students' population into homogeneous subgroups and then took simple random sample in each subgroup. Simple random sampling was employed in selecting lecturers who participated in the study. There were two groupings in the undergraduate programmes offered in the Faculty namely B/Ed Fulltime and B/Ed School Focused; simple random sampling was then used taking 10% to ensure that the sample was representative in proportion to their number in population. This is because for descriptive studies 10% of the population is adequate for sampling (Gay, 1996). The researcher therefore distributed questionnaires to 81 students and intended to interview 13 staff lecturers. Nevertheless, only 67 students

returned their filled up questionnaire. 2 lecturers were not available for interview, thus only 11 lecturers were interviewed.

Results

Knowledge of Education for Sustainable Development among Students and Lecturers

The first question in the students' questionnaire sought to find out students overall feeling

towards the coverage of the following components of ESD: Peace, Environment, Development, Entrepreneurship, Information Communication Technology (ICT) and HIV/AIDS Education. Table 1 presents a summary of students who felt CUEA did offer education in the ESD selected areas, those who felt it did/did not and those who gave no response either due to hurry to finish filling in the questionnaire or they did not have an idea/response.

Table 1: Students' Opinion on inclusion of key components of ESD

Selected ESD areas of concern to Africa at CUEA	Students N=67						Total	
	n	%	n	%	N	%	N	%
Environment	63	94	3	4.5	1	1.5	67	100
Development	57	85.1	7	10.4	3	4.5	67	100
ICT	45	67.2	18	26.9	4	6	67	100
Peace	41	61.2	22	32.8	4	6	67	100
HIV/AIDS	32	47.8	31	46.3	4	6	67	100
Entrepreneurship	64	95.5	2	3	1	1.5	67	100

Source: Field data, 2014

When asked if they had taken ESD or ESD related courses, 10 out of 11 lecturers interviewed said they had taken ESD related courses. Those who had taken ESD related courses mentioned courses like HIV/AIDS, gender,

environment, ICT and education psychology/counseling psychology. Some had researched or presented papers in ESD related courses. Asked who organized these studies, 5 lecturers said it was personal initiative, 3 learnt as part of the graduate studies, 1 as personal initiative and part of graduate studies and 1 said it was part of training in the convent. From the findings it was clear CUEA did not have a conceptual framework on ESD. Most lecturers admitted that ESD was a new concept to them and had not heard about it before and it was only after explanation on what ESD addressed that they pointed out some studies they had taken which were of concern to ESD; they posited that they took initiative to take those studies out of the necessity to be up to date with contemporary educational challenges. It was also observed that the lecturers interviewed were not aware of the African module for the ESD studies. All the lecturers agreed ESD concerns in education were vital to teacher training and that CUEA and other universities needed to adopt ESD fully as it offered answers to most challenges in teacher training and achieving of overall education objectives in line with sustainable development.

Extent to which Students and Lecturers Engage in Community-based Activities

Students were asked to list the community based activities they engage in and which were organized by the Faculty of Education. Table 2 presents a summary of students' responses on this attribute.

Table 2: Community-based Activities that Students Engage in

N=67		
Activities	N	%
Teaching/Visiting Schools Activities	19	28.4
Community Service Day	17	25.4
Environmental club Activities	15	22.4
Awareness and Seminars	11	16.4
Donations	11	16.4
Guidance/Counseling/Peer counsel	10	14.9
Project Writing/ Youth Projects	9	13.4
Visiting the Sick, Assisting Needy	8	11.9

Source: *Field data, 2014*

Lecturers were asked to indicate how often they engaged in community service. Seven lecturers said they engage in community service spontaneously and in an ongoing process, two once a semester, one sporadically and another when opportunity arises. Some activities they identified included environmental conservation, educating the community, mobilizing the community to tackle the problems in the neighborhoods like collecting litter, clearing the drainage etc. The participation of the lecturers in community service seemed to be in line with the ESD expectations. One ESD perspective is that educated people in the society should dedicate themselves to serving the community and improving the living standards. Lecturers indicated that they were involved in many community activities.

They provided civic education on many societal challenges like HIV/ AIDS, democracy, and environment. Secondly, they participated in policy formulation to develop policies that enhance sustainability. Some offered counseling services to the community, participated in church and women groups, held leadership positions in community welfare groups etc. They also conduct research aimed at solving societal problems. Thus they

initiate change through research, writing and mobilizing community to development.

Relevance of Students' Research in Solving Educational Challenges

In the interview all the lecturers observed that the research carried out by students in the Faculty was relevant to ESD. All the same, they observed that there was over concentration in some areas (e.g. performance) whereas others have not been researched on (like the role of education in enhancing poverty alleviation). They felt there was need to research on areas of other problems on SD under economic, social and environmental realms. The following were some areas the students had been conducting research in and the lecturers felt address issues of ESD: drug and substance abuse, Reproductive health, environment, Performance, Alcoholism among youth and Causes of crime among boys. Other areas were on adolescents, Gender, Culture and influence on education of girl child, Discipline, guidance and counseling, HIV/AIDS, Special education, Free primary education, counseling and peer counseling, Environment, Public relations, How parents could be involved in education of children, Problems facing mentally handicapped people in learning in integrated (mainstreamed) schools, visually and physically challenged, Strikes and disadvantaged groups in the society especially women and children. There was need for curriculum implementation to try and address the critical issues in education, segregation in schools-the private and public schools, Globalization and IT.

Lecturers made several suggestions on the relevance of research conducted by students in enhancing Education for Sustainable Development. They indicated that research conducted by students' enhanced awareness on sustainability matters. Research was seen as being of invaluable contribution in education in regard to reevaluating and understanding a country's national goals of education and their relevance globally. There were those who felt research would tailor the education offered to immediate region challenges so that teachers and instructors would teach with emphasis in relation to their places of work. They observed that research conducted by students would help in highlighting those most immediate and urgent issues in education that need to be emphasized on development such as politics and economy.

Lecturers indicated that research conducted by students would enable the nation to have a sound curriculum that could be practical and market oriented addressing for emerging issues such as HIV/AIDS, crime, clashes and globalization; result to a curriculum that is acceptable in other parts of the world. Research would lead to new innovations in methodology to teaching. Research would help in unearthing the problems facing the sector of education; research would assist in making. Therefore, research conducted would help the researcher to come to terms with the needs of the country and capitalize on those needs when suggesting intervention measures. In addition respondents felt research was also a tool of education in that it would help unearth evils in the society and try to offer remedy.

At the same time the lecturer respondents felt that research helped in planning for the future and management of available resources. It educated stakeholders and equipped learners with relevant skills. Helped to know the causes of most problems, helped in suggesting ways of eradicating such problems, made an individual to acquire the right knowledge, skills and attitude for enhancing sustainable development. In improving the economy, the respondents were of the view that research would help in fair distribution of resources, help people acquire skills to be self-employed and instill values of hard work to create wealth. At the same time the respondents believed that research on environment areas of concern would help the present generation realize that they were the care takers or trustees of the environment. This would hence lead to using the environment resources in a sustainable manner; without jeopardizing chances for the future generation.

Suggested Fundamental ESD Courses that need be included in Teacher Training

Lecturer respondents were asked to indicate relevant components of ESD that were not being offered in the university curricula to teacher trainees and which they felt were significant. Table 3 summarizes the opinions gathered from the lecturers.

Table 3: Suggested Fundamental ESD Courses

Suggested ECD Course	Frequency	Percentage
Peace and conflict resolution	9	81.8
School financial resource mobilization	11	100
Corruption and its consequences	11	100
Health issues in education	10	90.9
Gender education and development	6	54.5
Nationalism and patriotism	11	100

Summary

The study sought to establish the extent to which the Faculty of Education in Catholic University of Eastern Africa incorporates Educational for Sustainable Development components in a bid to manage education for sustainability. This conviction was driven by realization that the faculties of education train and produce teachers and that these teachers develop policies in education realm in curriculum. Knowledge of ESD therefore remains indispensable in developing education curriculum that would enhance ESD. UNESCO (2006) postulated that education is the tool for transformation and the teacher is the instrument of achieving the desirable changes in relation to sustainable education, hence the great need to train teachers on ESD. The study employed a case study design, targeting lecturers and students in the Faculty of Education. The researcher employed stratified probability and simple random sampling to select 81 teacher students and 13 lecturers in the sample. It was established that the curriculum of the Faculty of education covered ESD attributes minimally and that more needed to be incorporated in the curriculum. It is recommended that UNESCO should focus more on ESD sensitization, public awareness and education through establishing a portal and creating caucuses which would map ESD implementation in universities.

Conclusions

Students and lecturers demonstrated knowledge in ESD. Key areas that are incorporated in the Faculty of Education curriculum include:

environment; entrepreneurship; development; ICT; peace and HIV/AIDS. Students and lecturers were reported to be engaging in community-based activities. These activities were: teaching/visiting schools; organizing community service days; engaging in environmental club activities; organizing environmental awareness seminars; donations; offering guiding and counseling services to community members; assisting the concerned with project writing particularly for youth projects and visiting the sick and the needy.

Lecturers provided civic education on many societal challenges like HIV/AIDS, democracy, and environment. Secondly, they participated in policy formulation to develop policies that enhance sustainability. Some offered counseling services to the community, participated in church and women groups, held leadership positions in community welfare groups etc. They also conduct research aimed at solving societal problems. Thus they initiate change through research, writing and mobilizing community to development. Lecturers observed that research carried out by students in the Faculty was relevant to ESD. All the same, they observed that there was over concentration in some areas (e.g. performance) whereas others have not been researched on (like the role of education in enhancing poverty alleviation).

lecturers felt there was need to research on areas of other problems on SD under economic, social and environmental realms. It was observed that the curriculum in the Faculty of Education did not fully address components of ESD. It was therefore suggested that the following attributes be included in the curriculum: peace and conflict resolution; school financial/ resource mobilization management; corruption and its consequences to the environment; health issues in education; gender education and development; and nationalism and patriotism. It is recommended that UNESCO should focus more on ESD sensitization, public awareness and education through establishing a portal and creating caucuses which would map ESD implementation in universities.

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