

ELEMENTS OF ENVIRONMENTAL EDUCATION IN SOME UPPER BASIC SCHOOL CORE CURRICULA: CONTENT ANALYSIS

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Abstract

The paper content analyzed elements of environmental education in some upper basic school core curricula. This study employed purposive sampling technique to analyze two upper basic core curricula for environmental education elements in Nigeria. They were upper basic technology JSS 1-3 and upper basic social studies JSS 1-3 out of eight upper basic core curricula stipulated by the National Policy on Education. Two research questions were adopted for the study. Checklist was used for data collection. The data collected were analyzed using frequency distribution and percentages. The result revealed that the upper basic technology and upper basic social studies curricula contain inadequate environmental education elements in varying degrees. Based on the result, it was recommended that curriculum planners and developers should incorporate the elements of environmental education in all upper basic core curricula at all levels of learning. Recommended textbooks should be reviewed by publishers to reflect the curriculum

Keywords: Curriculum, Environmental Education, Upper basic core curriculum

Introduction

In developing any curriculum, major elements such as objectives, contents, methods, materials and evaluation must be clearly spelt out. Various definitions have been given by many scholars on curriculum objectives as aims specified in terms of students' behaviour. The term "content" has been variously conceived to include the selection of areas to be covered by the teacher and the activities to be performed by the learners. Methods involve the way of imparting knowledge and this goes along with the use of learning resource. Evaluation is seen as a process of measuring the success of teaching in terms of pupils' learning (Olofu, 2003).

Basic technology and social studies are some of the core subjects in junior secondary school (FGN, 2004). Technology and social studies play key roles in economic, political and social life of any successful society because they are integral and fundamental parts of living. Through developments in science and technology, man has been able to have a better understanding of his environment and can also manipulate and control therein to achieve desirable and sustainable goals (Uyoata, 2014).

Aims of Upper Basic Technology Curriculum

Upper basic technology is a compulsory subject in the 9-year basic education programme. Its purpose is to contribute to the achievement of the national education by:

- (i) inculcation of technological literacy
- (ii) exposure of students to the world of work to match their talents and interests for wise vocational choice
- (iii) inculcation of positive attitudes toward work as a source of human identity, livelihood and power (FME, 2007: vi)

This revised upper basic technology curriculum became necessary due to the technological development and national policy orientation on the teaching of technology as an integral part of world globalization trends in education. Technological education is based on the understanding that in a world increasingly driven by technology, it would be a disaster for any person or society not to inculcate basic technological skills. As such, it is the responsibility of every nation and every school to provide opportunities for all to acquire technological literacy. This is in line with the current goals of the National Economic Empowerment and Development Strategies (NEEDS).

Aims of Upper Basic Social Studies Curriculum

Upper basic social studies curriculum is a guide for teaching students the reality of everyday societal living with the desire to make them acquire the right knowledge, values, attitudes and skills required to be responsible and disciplined members of their societies. These qualities are the major focus and aims of environmental education.

The curriculum also incorporates contemporary issues of local and global concern in our society and environment issues such as: environmental problems, peace and conflict issues, Nigerian People and their cultures, the mass media for enlightenment, millennium development goals, among others (FME, 2007: v-vi).

Thus, the overall objectives of social studies at the upper basic education level are to enable students to achieve the following:

- i. Develop the ability to adapt to his or her changing environment.
- ii. Inculcate the right types of values.
- iii. Become responsible and disciplined individuals capable and willing to contribute to the development of their societies.
- iv. Develop a sense of comprehension towards other people their diverse cultures, history and those fundamental things that make them human.
- v. Develop the capacity to recognize the many dimension of being human in different cultural and social contexts.
- vi. Develop a sense of solidarity and sharing based on a sense of security in one's own identity.

Environmental education is a discipline just like any other discipline offered in schools. It is aimed at creating awareness about the environment where man finds himself. Many definitions have been given to environmental education but generally, all the definitions gear towards education for, from and about the environment (Noibi & Lawal, 1991).

Education from the environment embodies the useful experience we gain from our surrounding. Education about the environment entails the need to study our environment, to know what is made of, how it works and what use we can make of it. Education for the environment involves learning how to preserve the environment for future generations.

Aims of Environmental Education

Environmental education constitutes a comprehensive lifelong and life wide education that is responsible to changes in a rapidly changing world. It is aimed at preparing the individual for life through an understanding of the major problems of the contemporary world and the provision of skills and attitudes needed to play a productive role towards improving life and protecting the environment with due regard given to ethical values.

Environmental education focuses on:

- i. Creating awareness about environmental problems among people.
- ii. Imparting basic knowledge about the environment and its allied problems.
- iii. Developing an attitude of concern for the environment .
- iv. Acquiring skills to help the concerned individuals in identifying and solving environmental problems.
- v. Motivating public to participate in environmental protection and improvement.
- vi. Striving to attain harmony with nature.

Environmental education is being taught in tertiary levels of education as a programme. At the primary and secondary schools, it is taught as tourism and in other subjects that relate to the environment like geography, agricultural science, among others. UNESCO-UNEP (1995) sees environmental education as not being a separate or new subject rather than orientation and dovetailing of different subjects and disciplines since it concerns the environment. As such, for it to be successfully taught and learnt in schools, teaching should be interdisciplinary, drawing from and striking a relationship between all the subjects as far as environment is concerned (Esu, Umoh & Obi, 2009).

In the study of environmental education, environment is usually seen as consisting of natural, social and technological (Inyang-Abia, 1999). The natural environment being the physical features of the environment like mountains, rocks, animals, etc; social and technological environments being facets of man-made environment. Social environment consists of the morals, norms, values, culture, beliefs, interactions, etc; while technological environment incorporates all technological innovations, ideas, inventions, etc. As such, the study of environmental education is very essential to everyone.

This paper therefore takes a look at the element of environmental education as contained in upper basic technology and upper basic social studies curricula.

Objectives of the study

Environmental education is seen as multidisciplinary in nature and can be taught through any subject as far as environment is concerned. In the light of this assertion, the study was carried out to find out the total number of environmental education topics contained in:

1. Upper basic technology curriculum
2. Upper basic social studies curriculum

Research questions

The following questions were raised to guide the study:

1. What percentage of environmental education topics are contained in upper basic technology curriculum?
2. What percentage of environmental education topics are contained in upper basic social studies curriculum?

Methodology

This study adopted the purposive sampling technique to select upper basic technology and upper basic social studies curricula out of the eight (8) core subjects stipulated by the National Policy on Education for Upper Basic Education (JSS).

Checklist was used for the study. The checklist comprised a list of all the topics in each curriculum and two (2) columns were created with the caption “related to environment” and “not related to environment”. These checklists were given to two (2) lecturers in Environmental Education Department to tick the topic that relate to environment and leave blank that which do not relate to environment. A proforma was also developed to reflect types of environment and total number of environmental education topics.

The instruments were vetted by experts in Curriculum and Teaching Department of the University of Calabar before it was administered. The scoring was done by listing and counting the frequencies of the responses of each item. Analysis of the data collected was done using percentages and frequency counts of the responses and recorded under the different facets of environment.

Results

Table 1

Content of environmental education topics in upper basic technology curriculum

Class	PE	SE	TE	PE + TE	SE + TE	Total Environmental topics	None Environmental topics	Total No. of topics
JSS 1	3	2	10	1	2	18	5	23
%	(13.0)	(8.7)	(43.5)	(4.3)	(8.7)	(78.2)	(21.7)	(100)
JSS 2	-	4	10	7	1	22	6	28
%	(0)	(14.3)	(35.7)	(25)	3.6)	(78.6)	(21.4)	(100)

JSS 3	-	-	11	13	4	28	6	34
%	(0)	(0)	(32.4)	(38.2)	(11.8)	82.4)	(17.6)	(100)

PE = Physical Environment
SE = Social Environment
TE = Technical Environment

Table 2: Content of environmental education topics in upper basic social studies curriculum

Class	PE	SE	TE	PE + SE	P + TE	SE + TE	PE + SE + TE	Total Environmental topics	None Environmental topics	Total No. of topics
JSS 1	4 (15.4))	14 (53.8))	0 (0)	7 (27.0))	0 (0))	0 (0))	0 (0))	25 (96.2)	1 (3.8)	26 (100)
JSS 2	0 (0)	17 (40.5))	11 (26.2))	1 (2.4))	0 (0))	12 (28.6))	1 (2.4))	42 (100)	0 (0)	42 (100)
JSS 3	1 (7.14))	9 (64.3))	1 (7.14))	1 (7.14))	0 (0))	1 (7.14))	1 (7.14))	14 (100)	0 (0)	14 (100)

Discussion of results

Research question 1: What percentage of environmental education topics are contained in upper basic technology curriculum?

The result of Table 1 shows that technological environment topics are higher in the three classes (JSS 1-3) except for JSS3 which has a combination of physical and technological environment topics as the highest. These are topics that relate to creativity, innovations, new ideas and so on. They require practicals, activities and production processes. This result is in line with the science, technology, society and environmental education goals which state that it is essential to engage students in examining a variety of real world issues and grounding scientific knowledge. Wolf (2003) added that technology is integral to modern science because it provides students with additional tools to enhance their learning on how to change and control their environment. Topics which are not environmentally inclined include: drawing practice, free hand sketching, scale/scale drawing. These topics are totally abstract and cannot figure out its placement in environmental concepts.

Research question 2: How much of environmental education topics are contained in upper basic social studies curriculum?

The result of Table 2 indicates that social environment topics rate highest in the three classes (JSS 1-3). This may be seen as a result of the discussion, explanations and interactions in the society.

The social studies curriculum centres on ten themes that incorporates the environment; thus, culture, people, places and environment, governance, distribution and consumption, civic ideals and practices, etc. These themes are interrelated and a school course is likely to touch on more than one of them.

Generally, social studies is viewed as the study of people in relation to their past, their environment and their society. It helps students to develop their personal, family, ethnic and cultural identities to make informed and reasoned decisions about their classroom, the school, world, environment and society. Fageyinbo (2004) added that virtually everything that relates to human living and survival are potential areas of study of social studies education. Kuranga (2006) sees social studies as the study of how man influences his environment and how the environment in turn influences man.

Conclusion and recommendations

It was concluded that upper basic technology and upper basic social studies contain environmental education elements but in varying degrees. This is in support of Malebye's (2005) statement that a programme or environmental education which draws on the curriculum will give learners the opportunity to consider environmental issues from the physical, geographical, biological, sociological, economic, political, technological, aesthetical, ethical and spiritual perspective. Hence, all subjects can help to develop insights for understanding the human behaviour and its impact on the environment.

It is imperative to recommend the following to make the teaching of all subjects more result-oriented thereby causing the awareness of environmental education at an early stage of learning in the secondary schools to be widespread and achievable:

- Curriculum planners and developers should incorporate the elements of environmental education as compulsory components at all levels of learning.
- Curriculum which is a guide should reflect topics which textbooks and publishers should draw from.
- Other subjects should also be assessed to see the elements of environmental education in them.

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