

School Curriculum and the Promotion of Environmental Care

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Abstract: The whole world has never been so concerned about global issues generally and the promotion of environmental education and protection in particular. The earth is an environment consisting of living things and other components in it (Rabiatul, 2020). Education has various benefits, one of which is supporting activities to save the earth and manage the environment. Environmental care can be considered as concerted efforts conscientiously organized and designed to enable human beings know how natural environments function and how human beings can conserve, preserve, manage and protect them. Environmental education is an essential part of education that has not been given much attention globally and in Cameroon in particular. One of the approaches to implementing the promotion of Environmental Care Education as an independent subject is to include it in the school curriculum. This paper highlights the aspects: a) environmental care as an independent subject b) The importance of teaching environmental care education in the school curriculum c) Environmental care education objectives d) School curriculum and environmental care education strategies. However, various difficulties impede the implementation of programs for the promotion of environmental care.

Keywords: Environmental education, Environmental care, School curriculum

1. Introduction

Environmental education has been evolving for many years. It got a big push in 1972, when representatives at the UN Conference on the Human Environment in Stockholm, Sweden recommended that the UN establish an international environmental education program (Judy and David, 1993). The whole world has never been so concerned about global issues generally and the promotion of environmental education and protection in particular. "Thinking green" and "acting green" preoccupies many individuals, governmental and non-governmental institutions worldwide today (Nkwetisama, 2011). The exploitation of natural resources daily is not followed by remediation measures. Education has various benefits, one of which is supporting activities to save the earth and manage the environment. The environment is an environment consisting of living things and other components in it (Rabiatul, 2020). Environmental education is an essential part of education that has not been given much attention globally and Cameroon in particular. The promotion of environmental care education does not seem to be the preoccupation of the Cameroonian school curriculum. Can this be due to negligence, ignorance or both and more? Meanwhile, according to Tang (2009), the Earth Summit of 1992 had provided agenda 21 to render environmental education necessary for every citizen in the world and the former head of the United Nations Environment Programme, Ghafoor-Ghaznawi, had stated that environmental education was considered cross-curricular because the environment includes all areas of studies. With the increase in technology, the

importance of the environment to be conserved and preserved has been ignored. According to Judy and David (1993), in every corner of the world people are cutting forests, extracting minerals and energy supplies, eroding topsoil, polluting the air and water, creating hazardous waste, and disrupting natural areas at a rate unprecedented in the history of life on earth. The major causes of environmental degradation are population growth, industrialization, poverty, endangered species, waste minimization, deforestation, and changes in the patterns of consumption (Verma and Dhull, 2017). These issues are a threat to man and the ecosystem. Most of the world's hazards have been caused by humanity and it is the responsibility of humanity to conserve, preserve and resolve them before handing them to future generations (Nkwetisama, 2011). Environmental care works towards environmental protection and sustainability, thereby impeding environmental degradation. Ensuring environmental sustainability requires a paradigm shift in conceptualization, research and science education (Verma & Dhull, 2017). To create awareness of the efficient use of natural resources, there is an urgent need for transformative environmental education for sustainable development and active environmental participation. This will enable students to be able to conserve and preserve the environment in their school and surroundings.

In an effort to recognize the need and importance of environmental care in Cameroon, several efforts have been made to reorient and reorganize school education and establish the promotion of environmental care. Environmental science has been introduced as a subject compulsory to all the students in primary schools (Class 4, 5 and 6). At higher education level, environmental science is a department in most states and private universities. Some environmental science courses are being taught in various departments in the university. School subjects have been revised to integrate the promotion of environmental care. In the views of Tanaka (2000) environmental knowledge can be defined as individual understanding of the functions of the environment, interaction of human with the environment, origin of environmental problems and how to overcome these problems.

Education has an important role to play in the process of changing the society (Maria & Sanchez, 2010). Education increases our knowledge of the environment we live in and it helps to encourage awareness of the environment, leading to informed concern for active participation in resolving environmental problems. A clean environment is very essential for a good health living. This seems particularly sad, as being aware of environmental problems, understanding why they occur, caring about and having the skills to overcome the problems, and being able to evaluate different proposals for addressing them are all for naught if no action occurs (Jacobs & Cates, 1999). The more school curriculums neglect the promotion of environmental care, the more it will become polluted with toxins and contaminants that are harmful to our health. In the opinion of Anand and Gopal (2005), environmental care education in the school curriculum must become a vehicle for engaging young minds in the excitement of first hand observation of the nature and understanding the patterns and processes in the natural habitat and its surroundings.

2. What is Environmental Care?

Put simply, environmental care can be considered as concerted efforts conscientiously organized and designed to enable human beings know how natural environments function and how human beings can conserve, preserve, manage and protect them. Judy and David (1993) see environmental care education as a process aimed at improving the quality of life by empowering people with the tools they need to solve and prevent environmental problems. According to Nkwetisama (2011) environmental care is therefore an aspect of environmental education that refers to practices that are aimed at protecting the environment by individuals, governments, nongovernmental or professional entities. Environmental care is a process that allows individuals to explore environmental issues, its problems, how to solve them and take action to improve the environment.

As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions. In environmental care education, the curriculum can be referred to as the sum total of all the experiences that learners undertake to help them develop environmental literacy, skills in solving problems, decision making, and active participation in taking action towards the environment while taking into consideration the ecological, political, economic aspects (Palmer, 1998).

Environmental care covers a lot of issues and its endangerment is due to human activities. These issues include global warming, greenhouse gas, ozone depletion, species extinction, poaching, endangered species, inefficient energy use, habitat destruction, air quality, light, noise and visual pollution, pollution of water like ocean dumping, oil spills and urban runoffs; electromagnetic radiation and health, nuclear proliferation and fallout, genetically modified foods, overgrazing, excessive use of pesticides and herbicides, intensive farming, land pollution and desertification, soil erosion and contamination, water crises, overfishing, illegal logging and deforestation (Nkwetisama, 2011).

The promotion of environmental care is therefore an important component of every school curriculum and the principal aim of such education is to prepare not only the individual but also the society at large for the task and duty of managing the environment properly. The engagement of the promotion of environmental care in the school curriculum is aimed at raising their level of environmental awareness, understanding, responsibility and ethics. The greatest challenge of environmental care is to bridge the gap between knowledge and ethics. Environmental care has to be seen in the daily live practices of human beings.

In a bid to sustain the interest and participation of citizens in environmental issues in which eco-friendly behaviours are reflected, the promotion of environmental care has to be based on the following three facts: it is a study of the environment, (water, air pastures plants animals and forests etc), how the environment and the ecosystems function, and the conservation and preservation of environment. In Cameroon, Environmental Care Education can be integrated as an independent subject in the school curriculum, at the basic, secondary and higher educational level.

3. Environmental Care Education as an independent subject

For environmental education to be fully integrated into schools, particular care must be taken to properly incorporate it into the curriculum (Maria and Sanchez, 2010). Children are an important audience of the need for the promotion of environmental care because they are the leaders of tomorrow and the resource users. Why the focus on environmental education? At present, more than 5.3 billion people are using (and often knowingly or unknowingly abusing) the earth's natural resources (Judy & David, 1993). One of the approaches to implementing the promotion of Environmental Care Education as an independent subject is to include it in the school curriculum. The single subject pattern of organizing the curriculum treats each subject as a separate component of the curriculum (Jackson, 1992). This has been the traditional way of organizing the curriculum in many countries across the world.

Integration of the promotion of environmental care into the school curriculum should take a different dimension in Cameroon, where a theme or topic is addressed and theory is blend with practical. Kadji (2002) wrote that an integrative approach in teaching is based on both philosophy and practicality. In Tanzania during the year 1993, students organized a tree planting programme to help to reclaim the land. This is an example of the promotion of environmental care with regards to practicals. It is generally an approach which purposefully draws together knowledge, skills, attitudes, and values from within or across subject areas to develop a more powerful understanding and linkages of key ideas.

Environmental sanitation, health, natural resources and their conservation have been incorporated in the school curriculum at various stages. Efforts are aimed at encouraging children to become aware of their environment, understand its structure and functioning and work for environmental protection and conservation (Gill, 1995). Activities on studies of components of the environment strengthen the teaching learning process. For example, tree planting in schools. School curriculum on the promotion of environmental care, helps the teachers to emphasize the need for understanding the environmental components and motivates the children to contribute towards the improvement of their environment, either in their schools or communities they live in.

A study was carried out in India to include environmental education in the school curriculum and some guiding principles were brought out. These principles can also be implemented in the school curriculum of Cameroon to

promote environmental care. Anand and Gopal (2005) gave guiding principles for environmental education in the school curriculum, as seen below;

- The environment as a common heritage of mankind.
- The common duty of maintaining, protecting & improving the quality of environment, as a contribution to the protection of human health and safeguarding the ecological balance.
- The need for a prudent and rational utilization of resources.
- The way in which each individual can, by his own behavior and action, contribute to the protection of the environment.
- The long-term aims of environmental education are to improve management of environment and provide satisfactory solutions to environmental issues.
- Provide opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment.
- Encourage pupils to examine and interpret the environment from variety of perspectives-physical, geographical, biological, sociological, economic, political, technological, historical, an esthetic and ethical.
- Arouse pupil's awareness and curiosity about the environment and encourage active participation in resolving environmental problems.
- Environmental education is closely linked to the other cross circular themes of other subject areas, such as Biology, chemistry, natural science, political science, and geo-strategy to name but these.

4. The importance of teaching environmental care education in the school curriculum

There are recognizable benefits to integrating environmental care education into existing curricula (Naeema, 2012). Environmental care is a necessity to mankind, teachers and students in particular. Thus, for Novo (1995) the incorporation of environmental education into the curriculum should be more comprehensive than a mere "addition" of environmental issues to existing content and greening the curriculum means consistently aligning it with the ethical, conceptual, and methodological principles underlying environmental education. Rogers (2004) pointed out that learning about the environment is often memorable and effective, and can help promote overall academic excellence. Environmental education provides an opportunity to strengthen teaching in many core subjects, especially science, because it is the basis for solving many of our environmental challenges (Naeema, 2012).

Environmental education also provides an opportunity to strengthen interdisciplinary teaching because environmental topics such as pollution and global warming can be addressed from many different perspectives, including scientific, historical, cultural, and political perspectives. In the education system, the school curriculum has a very strategic role in impacting quality schools. A good curriculum will create a quality school, and a quality school will provide education according to the needs of the community (Rabiatul, 2020). Environmental care education is information education and it enables students to have knowledge about the environment. The goal of environmental education is to change the behavior of learners and to translate acquired knowledge into action, in order to preserve or minimize the detrimental effect on the environment (Talbot and Muigai, 1998). Specifically, environmental care education stresses on five main objectives: creating awareness, knowledge, attitudes, skills and participation.

Awareness: Putting environmental care education in the school curriculum helps students acquire an awareness and sensitivity to the total environment and its problems. These problems include, air pollution, wastes disposal, flooding, and deforestation to name but these. Environmental knowledge contributes to an understanding and appreciation of the society, technology and productivity and conservation of natural and cultural resources of their own environment (Anand and Gopal, 2005).

Knowledge: The promotion of environmental care in the school curriculum enables students acquire a basic understanding of how the environment functions. It makes them know how people interact with the environment

and how issues and problems dealing with the environment arise and how they can be resolved. Anand and Gopal (2005) outline the following as knowledge gotten from environmental care education;

- ✓ The comparison between different environments both in the past and present.
- ✓ Environmental issues such as: (i) the greenhouse effect. (ii) Acid rain and (iii) Air pollution.
- ✓ Local, national and international legislative controls to protect and manage the environment.
- ✓ How policies and decisions are made about the environment.
- ✓ How human life and livelihood are dependent on the environment.
- ✓ The conflicts, which can arise about environmental issues like river water sharing.
- ✓ How the environment has been effected owing to past decisions and actions.
- ✓ The importance of planning and design and an esthetic consideration.
- ✓ The importance of effective action to protect and manage the environment.

Attitudes: The way we interact with the environment determines how our environment looks. Our attitudes with the environment lead to maintenance and improvement or destruction of the environment. Environmental care programmes in the school curriculum enable students set values and have feelings of concern for the environment. The development of attitudes in personal qualities listed below will contribute to the process.

- ✓ Concern for other living things on the environment.
- ✓ Personal thoughts on environmental issues.
- ✓ Respect for others' opinion about the environment.
- ✓ Rational argument and evidence concerning the environment.

Skills: Various skills are necessary for environmental education. These skills need to identify and investigate environmental problems, thereby giving panacea to the problems. These skills include; communication skills, numeric skills, study skills, problem solving skills, personal skills/social skills, and lastly, information technology skills.

Participation: Environmental care education theory has an ability to solve the societal needs and these problems cannot be solved without participation. Environmental care education helps students acquire experience in using their acquired knowledge and skills in taking thoughtful, positive actions toward the resolution of environmental issues and problems (Judy & David, 1993).

5. School curriculum and environmental care education strategies

Some learning strategies are more appropriate than others, depending on the needs of the student (Naeema, 2012). Appropriate strategies help to place the student at the centre of the learning, are negotiated with students and are highly interactive within and beyond the classroom. Naeema (2012) brought out some of the strategies to use in the promotion of environmental care education. Some of these strategies can help in the promotion of environmental care in Cameroon educational systems. These strategies include;

Narrative strategy: A narrative in its broadest sense is anything told or recounted; more narrowly, something told or recounted in the form of a causally linked set of events. To say what something means is to say how it is related or connected to something else. It is the connections or relations between events (Roger, 2004). Roger (2004) explored the role of narrative in developing an environmental ethic by creating narrative-based environmental education curriculum and assessing student response. The findings suggest that an environmental care education curriculum strong in narrative is a powerful tool in teaching children a specific environmental ethic.

Problem solving strategy: The scientific method steps in solving problems are summarized in: identifying the problem, the collection of data and information about the problem, classification of information and data, calendar information, selecting solutions and evaluating the solution. The method of problem solving is a strategy for helping students develop skills for analyzing an environmental problem. For instance deforestation, working

through steps of scientific method, systematically can help them decide, from a futures perspective, what can be done about the problem.

Study cases: Case studies are similar to 'environmental encounters'. Real life situations are chosen and the whole class/group of students/school together with their teacher and local experts focus study/activity on a particular situation. The encounter may last for several days or weeks but the basic idea is to focus the traditional elements of teaching and learning on a particular issue and to thus explore what additional knowledge, skills and attitudes may be involved in solving environmental problems. Methods appropriate to the study of the particular issue or case are to be selected such as survey, field visits etc. The study of environmental impacts, for instance allow individuals to have opportunities in deepening the topic.

Environmental excursions and visits (Field Trips): Trip or visit to environmental sites outside the classroom provides experiences to the student, which is difficult for traditional methods of teaching. Field trip resource kits aim to encourage these ideas in the following ways:

- ✓ The suggested activities encourage learning **IN** the environment. This enables the development of skills, attitudes and values that students gain from experiences in the environment.
- ✓ Background notes and activities assist study **ABOUT** the environment. This leads to raising levels of knowledge and understanding, awareness and sensitivity to the environment and environmental issues.
- ✓ Fostering the opportunity to participate, take action, and do something **FOR** the environment, as either an individual or a group.
- ✓

6. Conclusion

Conflicting opinions about the state of the environment, the consequences of environmental degradation, and the role of education make good subjects for discussion and debate (Judy & David, 1993). Environmental activities which involve target communities in problem identification and analysis, planning, implementation and evaluation, are more likely to have the desired positive impact (UNESCO, 2006). However, various difficulties impede the implementation of programs for the promotion of environmental care. These include, time constraints, the large number of curricula, inadequate training and inadequate material. In addition, many people resist change in the curriculum. Studies also showed a gap in appropriate pedagogy and curriculum development in teacher training, the absence of a positive vision, and a general lack of conviction that individual teacher efforts will really make a difference (Naeema, 2012). Focus on teacher training, pre-service and in-service through establishment of a nationally accepted set of criteria for the evaluation of effective environmental care education programs would assist teachers in their development of environmental education programs.

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