

An Assessment of Pre-Service Social Studies Teachers' Understanding of Environmental Education

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Submitted: 01-09-2021

Revised: 09-09-2021

Accepted: 12-09-2021

ABSTRACT.

This study examines pre-service social Studies Teachers' understanding of Environmental Education. Qualitative research approach was adopted and the data generation instruments are focus group interview and open-ended questionnaire. Data generated were analyzed through content analysis of participants' responses and development of themes from the transcribed and well-read responses of the qualitative research participants in order to identify the main points made.

The results revealed that the Pre-Service Teachers have possess certain level of understanding of Environmental Education; the content of Environmental Education contained in the Social Studies Teacher Education Programme is inadequate to adequately equip the teachers for their roles as agents in ensuring the sustainability of human environment.

Based on the above findings, it was recommended that more content of Environmental Education should be included in the Social Studies Teacher Education Programme in order to assist the pre-service teachers acquire more knowledge and possess better understanding about the environment at large and environmental challenges in particular with a view to playing the expected roles in the sustainability of the human environment.

Keywords: Environment, Environmental challenges, Environmental Education, Focus group, Content Analysis

I. INTRODUCTION:

Nigeria, like any other country is faced with several environmental challenges which are linked to the rapid increase of Nigeria's population, technological advancement and the increased demand on the available natural resources (Aliyu&Amadu, 2017; Misfud, 2012). According to Masipa(2017) and De Beer, Dreyer and Loubser

(2014) the continued demand and exploitation of natural resources is exposing the universe to dangers such as climate change, desertification, global warming and food security issues. In Nigeria, it is observed that despite high levels of literacy amongst the population, it continues to engage in activities which degrade the environment (Ibimilua & Ibimilua, 2014). These activities consequently result in pollution, loss of biodiversity, soil erosion, overfishing, deforestation, illegal panning, land degradation, veld fires, siltation of water bodies of various proportions and decrease in agricultural yield (Robinson, 2013; Saruchera, 2019). The prevailing environmental challenges that Nigeria encounters are indicative of the level of environmental awareness (or lack thereof), knowledge and attitude of the Nigerian population.

Furthermore, regarding the above-mentioned points, it is worth noting that the environmental challenges are caused by man's inhuman activities and uncontrolled use of the natural resources. The United Nations Educational Scientific and Cultural Organization (UNESCO) at Tbilisi conference in 1977 recognized Environmental Education (EE) as leverage to address the worlds' environmental problems. During this conference, a resolution was passed which emphasized the need to include EE into the formal education curriculum at schools and universities. According to Gough (2013), the position undertaken by UNESCO (1978) was in response to the high level of awareness about the dangers associated with the many environmental problems observed globally. Consequently, the education curricula of different nations were construed as a vehicle to raise awareness of and increase environmental literacy about the global environmental challenges.

Nigeria responded to the resolution adopted at the Tbilisi conference, via section 20 of

the Constitution of the Federal Republic of Nigeria (1999, p 27) which elaborates that the “State shall protect and improve the environment and safeguard the water, air and land, forest and wild life of Nigeria”. In other words, the constitution of the Federal Republic of Nigeria (FRN, 1999) foregrounds the right of every Nigerian to a safe environment as well as ensuring that the nation’s natural resources are protected for the present generation and the generations to come. To support the fundamental obligation enshrined in the Nigerian constitution for the protection of the environment, the Nigerian Government has in place the Federal Environmental Protection Agency (FEPA) to address the above-mentioned environmental challenges, the FEPA developed the National Policy on Environment Education (NPEE) in 1989, which was revised in 2016. The FEPA has explicit goals which aim to “raise public awareness and engender a national culture of environmental preservation and promote an understanding of the essential linkages between the environment, social and economic development issues”, (NPEE, p.12. 2016). In other words, the NPEE aims to promote environmental literacy amongst the Nigerian population via Environmental Education (EE). Environmental Education is seen as a means to develop an environmentally literate citizenry who can make choices that are better for the health of the environment, thereby leading to a more sustainable planet. Carmi and Alkaher (2019, p.2), assert that an environmentally literate person is someone who “makes informed decisions concerning the environment; is willing to act on these decisions and participates in civic life”. Furthermore, these scholars argue that Environmental Education (EE) provides the methods and content that can lead to environmental literacy and a more sustainable future. Through EE, people develop questioning, analysis and interpretation skills; knowledge of environmental processes and systems; skills for understanding and addressing environmental issues; and personal and civic responsibility.

The objectives of the NPEE (FEPA, 2016), are to integrate EE in all teaching, learning and training programmes across the formal, non-formal and informal sectors of education in Nigeria. The intention is to raise the Nigerian public’s awareness of its responsibility towards the environment, development of knowledge, values, skills and behaviour consistent with sustainable use of natural resources as well as increase their capacity to address environmental issues. The NPEE (FEPA, 2016) envisages Social Studies as a

conduit for the inclusion of EE into the curriculum at schools and universities. Social Studies is available across the formal curriculum in Nigeria at school and university level to provide pupils/students with knowledge on Environmental Education and to inculcate pro environmental behaviour and attitudes in them. The preceding view that Social Studies is a vehicle through which EE can be taught is also supported by the International Geography Union Commission on Geography Education IGU-CGE (1992), UNESCO (1978, 2014) as well as scholars such as Ogunyemi and Ifegbesan (2011); Haubrich, Reinfried, and Schleicher (2008). Similarly, Kanene (2016), contends that Social Studies, ought to play a role in increasing people’s knowledge and awareness about the environment and its associated challenges, by developing the necessary skills needed to address environmental challenges as well as foster attitudes, motivation and commitment to make informed decisions and take responsible action towards the environment. Therefore, all curricula on EE developed within the Nigerian context for Social Studies ought to be aligned to the goals of the National Policy on Environment Education (FEPA, 2016).

The FEPA via the National Policy on Environment Education, thus, underscores the role Social Studies teachers and lecturers must play in the teaching and learning of Environmental Education in transforming Nigerian society to be environmentally and ecologically sustainable. Therefore, the level of understanding of the pre-service Social Studies Teachers about EE will determine how well they will be able to serve as agents of achieving the sustainability of our environment, a role which is expected to be played by Social Studies teachers in particular and every teacher in general. However, the crisis with regard to increase in pollution, climate change, loss of biodiversity, soil erosion, overfishing, deforestation, illegal panning, land degradation, veld fires, and siltation of water bodies and decrease in agricultural yield which still persists is an indication of the level of understanding of EE by the Pre-service Social Studies teachers.

Research Problem:

Nigeria is faced with several serious environmental challenges of varied degrees and magnitude which are linked with inadequate Environmental Education among the Nigerian population that are not unconnected with the level of environmental knowledge possessed by the Social Studies teachers. As a way of providing solution to

these problems, the Nigerian teacher training institutions in general and the Social Studies Teacher Education Departments of Nigerian Universities in particular must take responsibilities. This study therefore aims to address the gap identified in the literature by responding to the research questions below:

Research Questions:

The following research questions are to guide the study:

1. What is your understanding of Environmental Education (EE)?
2. How do you view the content of EE included in the social studies Education programme?

Research Method:

This study adopted qualitative research approach. 18 Pre-Service Social Studies Teachers of the Department of Social Science Education, AdekunleAjasin University, AkungbaAkoko were purposively selected for this study. Data generation was through focus group interview and administration of open-ended questionnaire on the Pre-service teachers. Content analysis was employed to develop themes during the analysis of the qualitative data generated. The responses gathered were transcribed and read repeatedly in order to identify the main points made by the participants. The validity of the findings was enhanced by using more than one data generation strategies.

Answers to research questions.

Research Question One: What is your understanding of Environmental Education (EE)?

From the analysis of responses to research question, one theme emerged, namely Pre-Service Social Studies Teachers' (PSSSTs) Understanding of Environmental Education (EE). Below are excerpts from participants' responses to PSSSTs understanding of EE:

EE is the process that allows an individual to know about his environment (awareness) and to be engaged in problem solving on how to save the environment. **(FGI-1, P1).**

EE is a process whereby individuals acquire knowledge about the environment, to be able to identify problems, proffer solutions to the problems as well as explore the environment and help to preserve it. **(FGI-1, P2).**

EE is the study of the process that help us to know what is going on in our environment per time and how well we can contribute to the development of our environment. **(FGI-1, P3).**

In my own view, EE simply means having the knowledge of how to maintain our environment, how to improve it in order to sustain healthy living in our various environments. When we have such knowledge, we will know how to handle things in our environment, for instance the issue of refuse disposal, don't drop refuse here or there, then our environment will be okay for our living and it will be more beneficial to man. **(FGI-2, P1).**

As he has rightly said, EE is acquiring knowledge about the environment, knowing what to do on how to better ones environment and determining what happen in our environment. We can easily determine what happens by the time we gain knowledge about our environment. **(FGI-2, P3).**

EE is the process of gaining knowledge on how people can live in their environment in order to be able to provide solutions to problems within ones environment. **(FGI-2, P2).**

In my own view, when we talk about EE it is just how man gain the knowledge and how man is interacting with the environment so as to be able to manage the environment and also interact with the resources within the environment, use them in a judicious way. The process where we gain this knowledge is EE. **(FGI-3, P2).**

From the above excerpts, the responses of the PSSSTs regarding their understanding of EE is substantiated. The PSSSTs express high level of understanding of the concept EE and the benefits derivable from it. The need for adequate understanding of EE by teachers cannot be underscored. It is clear that better understanding of EE by the PSSSTs will invariably promote better living within the environment. The submission of the PSSSTs in respect of their roles within the environment based on their level of understanding of EE is supported by submission of Dhull, et al. (2017) that teachers' adequate understanding of EE is essential for imparting to the learners the needed knowledge towards positive environmental actions. On the other hand, Gwekwerere (2014) noted the lack of adequate understanding and knowledge of environmental problems/issues among prospective teachers. The inadequacies noticed could be linked with the inadequate incorporation of EE within teacher education programmes (Yavetz, Goldman, & Pe'er, 2014). It was argued further that the inadequate incorporation of EE within teacher education programmes to a reasonable extent also serves as an obstacle to the successful implementation of (EE) in schools. In view of the above findings, it is very clear that the level of

knowledge of EE possessed by pre-service teachers, is a determinant of what is taught in the secondary schools. The reason is that if teachers who are key actors in shaping the children that are environmentally knowledgeable in Nigeria lack adequate knowledge themselves, then achieving the goal of grooming environment-friendly future leaders becomes highly difficult if not impossible. Hence, ascertaining that pre-service teachers acquire adequate knowledge through what they are being taught becomes a matter of urgency.

Research question two: How do you view the content of EE included in the Social Studies Education Programme?

From the analysis of responses to research question two, one theme emerged, namely Inadequacy of Environmental Education content in Social Studies Education Programme. Below are excerpts from respondents in respect of EE content included in Social Studies Teacher Education Programme:

In my own opinion, the EE knowledge gained as PSSST is not enough because EE content is not spread across our programme from 100level to 400level, so I can say that the knowledge is inadequate. **(FGI-3, P2)**

Emm... in our Social Studies teacher Education programme, we discover that EE content is not much in the sense that if we are to look at our programme, from 100level to 400level, we will only discover that we were taught much about our environment in 100 level with little in 200level, and knowledge gain since that time is no more fresh, but if EE is embedded in our programme may be from 100level to 400l, this knowledge will still be fresh by the time we leave the school as students to the larger society and so we will be able to impact positively on our society. **(FGI-2, P3)**

In our programme, the content of EE is so low. In our 100level, the course that really deal with EE is SSE 106 (Man and his environment). In our 200level, we did a course SSE 214 (The ecosystem), in our 300l, there is no course that is directly related to EE and also in 400level there is no course that is directly related to EE, but more on social studies. **(FGI-1, P3)**

The content of EE in social studies programme let me say it's very low. The reason is that when we look through the curriculum for this four years programme, we can see that more attention is on social aspect to the neglect of other aspects which is somehow responsible for the several problems witnessed in our country. People lack the knowledge of how to relate well with their environment, how well to explore the resources, how to involve in agricultural practices that will

lead to better productivity without adversely affecting the environment. With proper environmental knowledge, our agricultural productivity will improve thereby reducing the level of food shortage and poverty. So the content of EE in social studies programme is very low. **(FGI-1, P3)**

From the above excerpts, the responses of the PSSSTs regarding insufficient EE content within the Social Studies curriculum is substantiated. The PSSSTs emphasized that the number of courses that focused adequately on the environment in the teacher education training programme is minimal. They also stressed that the few EE focused courses were not spread across the four -year programme leading to the award of a Bachelor of Education Degree. It was argued that for the PSSSTs to be well groomed as EE teachers of the future, the content of EE exposed to while on training should be rich enough in issues about the environment, its uses and sustainability. The PSSSTs believed the purpose of their professional training in EE is not limited to just teaching in schools in the future but it is also expected that knowledge acquired through the professional training could be transferred to other endeavours like engaging in appropriate agricultural practices that support sustainability of the environment. But these cannot be achieved with the few EE courses available in the Social Studies Education Programme. The PSSSTs claimed such will only lead to having shallow knowledge about the environment. Based on the situation analyzed above, the PSSSTs submitted the learning of EE is constrained.

The submission of the PSSSTs in respect of insufficient EE content within the Social Studies Programme as a factor that constrains learning of EE is supported by the argument of Álvarez-García, Sureda-Negre Comas-Forgas (2015) that the teacher training institutions should provide the pre-service teachers knowledge about environmental issues that would arouse and sustain their interest about their studies. authors observed very low inclusion of EE content in most of the studies reviewed which constitutes a major reason for insufficient EE knowledge acquired by the pre-service teachers. They stressed that training provided for the pre-service teacher in the different teacher training institutions on EE should be comprehensive enough to make the teachers in training not just find a way of solving environmental problems but rather be agents of achieving the sustainability of the environment. However, based on their findings, the training provided in some of the institutions is not

comprehensive enough for the roles expected of the future teachers in their teaching of EE and the poor preparation was linked to the content of EE included in the training modules. Similarly, Yavetz, Goldman and Pefer (2014) emphasized the need to include sufficient EE content in all pre-service teacher training programmes to prepare the pre-service teachers adequately for their future teaching tasks.

II. CONCLUSION AND RECOMMENDATION.

The findings of this study revealed that the Pre-service Social Studies Teachers are not without any understanding of what Environmental Education entails and its usefulness in ensuring that human environment is safe, but much knowledge and understanding are required. Also, it was revealed that the Social Studies Teacher Education Programme lack adequate content of Environmental Education in it, perhaps this is responsible for the level of understanding possessed by the pre-service teachers. It is recommended therefore that adequate content of Environmental Education be included in the Social Studies Teacher Education Programme in order to produce teachers that are adequately equip for the task of teaching the future leaders what is expected of them within the environment for its sustainability. This resonates with the submission of Álvarez-García, et al (2015) that the training provided for the pre-service teacher in the different teacher training institutions on EE should be comprehensive enough to make the teachers in training not just find a way of solving environmental problems but rather be agents of achieving the sustainability of the environment.

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