

Social Studies Teachers' Awareness and Attitude to Environmental Education among Secondary School teachers in Ibadan, Oyo State, Nigeria

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Abstract. The study assessed Social Studies teachers' awareness of and attitude to Environmental Education among Secondary School teachers in Ibadan. Twenty-six secondary schools were randomly selected across the eleven local governments in Ibadan using sixty-nine Social studies teachers. It assessed social studies teachers' attitude to objectives and methods used in teaching Environmental Education as well as their view on the role they are to play in Environmental Education. The study made use of primary source of data, using a likert type questionnaire which tested areas of attitude and methodology with the descriptive and inferential statistics. Findings are based on 5% level of significance. The study identified no significant effect of gender, training in environmental awareness and experience in teaching social studies. It also revealed that teachers have positive attitude towards environmental education.

Keywords: Environmental Education,
Environmental Awareness, Attitude

1. Introduction

The history of Environmental Education (EE) dates back to 1972 in Stockholm, the United Nations Conference where participating countries recommended that Environmental Education should be promoted. In 1975, at the Belgrade conference, the concepts and vision for environmental Education were drafted while an intergovernmental Conference on Environmental Education at Tbilisi, 1977, formally approved the scope and action plan put forward from the previous conference. At the conference the role, objectives and characteristics of EE document were appended. Other notable efforts include:

- The World Conservation Union (1991) strategy suggested requirement for human survival and prosperity, putting forward the conservationist concept.
- Our common future' (1988) which emphasized the relationship between the underdeveloped nature of the part of the world and existing social and environmental problems.
- The United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil in 1992 which adopted Agenda 21, a programme for the implementation of actions to be taken at all levels. Above all education was seen as a veritable tool for solving environmental problems.
- UNESCO Thessaloniki Declaration in 1997 where sustainability was presented as an ethical and moral imperative and the objective to which education should devote itself as an instrument of choice.

Amosun (1997) agreed that the population crisis is contributing to the environmental problem and that it has also become a concern for the nations. People have also began to understand the effects of environmental problems on their health and are starting to demand remedies to stop the increasing deterioration of our environment. This environmental concern manifested in the increasing complaints against environmental degradation, received from different segments of the society. This indicates that the problems have reached a point which needs the support of everyone.

Environmental Education is a field of education in the school curriculum that enhances the awareness of people on environmental issues at all levels of

education. It is also meant to provide solution to the deteriorating relationship between human and the environment (Jekayinfa, 2008). Environmental Education provides learners with values, attitudes, skills and knowledge (VASK) that are necessary for studying the relationship between mankind and the environment in order to identify the problem of survival and proffer solutions to them (Adebisi and Olawepo, 2016).

According to Modal (2015) Environmental Education (E.E) objectives are centred on creating awareness, knowledge, acquisition of set of values for environment, development of skills and capacity required and creation of opportunities for individual to participate at all levels of environmental decision. Modal also classified the guiding principles of E.E. into resource use and rationalization; soil protection and maintenance of sustainable agriculture, soil erosion is irreversible loss of essential resources and prevention and protection of vegetation for the balance of nature. Wildlife protection, nature reserves and survival of wildlife which is linked to human. Others are environmental management principles that are beneficial to humans in rational manner and use of technology to eliminate waste through recycling and the relations between humans and their environment are determined by the culture, historical and architectural heritage that need protection.

This is in line with the goals of Social Studies Education, which is to inculcate usable knowledge, skills, attitude and values that are essential for the individual to survive. The only proper way to influence values, attitude and basic assumption in a democratic society is behaviour in the long run which can be changed through the process of education and the success of any curriculum in EE is dependent on the level of preparation and readiness of teachers (Noibi, 1990).

Agbogidi and Ofuoku (2007) and Omonfonma (2008) listed some of the environmental problems in Nigeria to include soil degradation and loss, water contamination, deforestation, gully erosion, fishery loss, coastal erosion, wild life and biodiversity loss, air pollution and water hyacinth infestation. Jekayinfa (2007) while citing Osuntokun (1998), also identifies some of the causes of environmental problems in Nigeria as uncollected urban and rural waste, indiscriminate and unplanned construction of houses, refuse and bush burning, industrial pollution of land and water all these affect not only the physical environment. The implication of this is that Nigeria is at the threshold of an environmental crisis and if care is not taken the drive for EE may end the way of earlier local, regional, and international initiative.

This calls for the need to address human values and attitude that are associated with policy formulation and implementation. Hence Ogunyemi and Ifegbesan (2011) suggested call for appropriate educational and methodological approaches implicit in Environmental Education.

The theoretical framework is based on Piaget's theory of constructivism. The theory holds that learners are a blank slate on which the knowledge of others is simply written (Duit & Komorek, 2010). It believes that learning occurs as a result dynamic interaction between the learner and the environment. According to Ausubel and Wood (2008) the most important factor influencing learning is what the learner already knows, that learning takes place when the new idea or concept can be integrated into the learner's previous experience.

Consequently, upon the background above, the study is carried out to assess the social studies teachers in Nigerian Secondary School to:

- Ascertain the social studies teachers' knowledge of the objectives of environmental education.
- Find out the social studies teachers perception of their role in fostering environmental education.
- Assess the environmental related practices of the secondary school social studies teachers.

2. Hypotheses

The following null hypotheses were raised to guide the study:

H₀₁: There is no significant difference between male and female social studies teachers perception of their role in fostering environmental education.

H₀₂: There is no significant difference in the perception of male and female social studies teachers on methodology used in fostering environmental education.

H₀₃: There is no significant difference in perception of trained and untrained social studies teachers on their attitude towards environmental education.

H₀₄: There is no significant difference in social studies teachers in perception of their attitude on their roles in creating environmental awareness according to teaching experience.

3. Research Methodology

The study adopted survey design for its investigation. The population for this study is basically social studies teachers. The sixty-nine (69) respondents

used in the study were randomly selected from twenty six (26) secondary schools in Ibadan. The main instrument used for the study was a twenty eight (28) item researcher designed questionnaire. The scale was trial-tested and reliability coefficient of 0.68 was obtained. The scale was structured on a four point Likert format. Section A, provided personal information, B – Awareness on Environmental Education, C – Methodology, D – Purpose of Teaching Environmental Education and E – Role of Social Studies should play in environmental education. To collect information, the data collected were analysed using mean scores, T-test and Analysis of variance (ANOVA).

4. Findings

Distribution of Teachers by Level of Education

Table 1: Teachers' Highest Qualification

Qualification	F	%
Ph.D		
M.Ed	12	17.4
M.A.	1	1.54
M.Sc	4	5.8
B.A.	3	4.4
B.Ed	15	27.7
B.Sc	5	7.7
B.Sc (ed)	2	2.9
B.A (ed)	1	1.4
NCE	26	37.7
TOTAL	69	100

Table 1 shows that 37.7% possessed Nigeria Certificate in Education, 37.4% possessed first degree, 24.6% had second degree and none of the

Hypothesis 1: There is no significant difference between male and female social studies teachers in perception of their role in fostering environmental education.

Table 4: Comparison of mean perception of male and female teachers' attitude in promoting environmental awareness

Gender	N	X	SD	DF	t _{cal}	t _{cri}	2Tail Sig
Male	39	34.33	6.88	67	1.75	1.98	0.86
Female	30	31.83	4.27				

P < 0.05 significance level, t calculated is less than t – critical value.

The table shows that there is no significant difference in the perception on the attitude in promoting environmental awareness among male and female social studies teachers.

Hypothesis 2: There is no significant difference in the perception of male and female social studies teachers on methodology used in fostering environmental education.

Table 5: Comparison of methodology of environmental awareness of male and female Social Studies teachers

Gender	N	X	SD	DF	t _{cal}	t _{cri}	Sig
Male	39	22.12	5.67	67	1.32	1.98	
Female	30	20.53	3.83				.190

P α 0.05 significance level, t calculated is less than t – critical value.

teachers possessed Ph.D degree. It is interesting to note that 62.3% of the teachers had university education which positioned them better to teach environmental education.

Table 2: Teacher's Teaching Experience (Social Studies)

Year	F	%
1 – 5	30	43.5
6 – 10	13	18.8
11 – 15	7	10.1
16 – 20	12	17.4
20 +	7	10.1

Table 2 above shows that 43.5% of the total number of social studies teachers have teaching experience within the range of one and five year, 28.9% have their teaching experience from six to fifteen years and 27.5% from sixteen and above.

The years of experience by these teachers are adequate for teaching experience needed to promote environmental education among students.

Table 3: Environmental Education Teachers the Trained in Workshop (In-Service Training)

Answer	Yes	No
Ever attended training	63 (91.3)	6 (8.7)

The table 3 above shows that the majority of the teachers have experience of environmental education at 91.3% the percentage of those who have no training in environmental education are 8.7%. It then means that environmental education is not new to the social studies teachers and it is expected that they should be able to create environmental awareness among the secondary school students.

The table above shows that there is no significant difference in the perception on methodology used in environmental awareness among male and female social studies teacher.

Hypothesis 3: There is no significant difference between trained and untrained Social Studies teachers in their attitude towards environmental education.

Table 6: Comparison of trained and untrained environment education teachers on their perception of their attitude in fostering environmental awareness

Training in Environmental Education	N	X	SD	DF	T		Sig
Trained	63	33.14	6.206			1.98	.645
Untrained	6	34.33	2.875	67	46		

The table above shows that t calculated (.46) is less than t critical values. It shows that there is no significant difference in the perception of trained and untrained environmental awareness. The trained are those who had attended workshops and seminar on environmental education. The untrained are those who have never attended.

Hypothesis 4: There is no significant difference in social studies teachers' perception of their attitude on their roles in creating environmental awareness according to teaching experience.

Table 7: ANOVA showing comparison of the Perception of the Attitude of Social Studies Teachers in fostering Environmental Education according to their Teaching Experience

Source of variation	Sum of Square	Df	Mean Square	F	Sig.
Main effects	68.516	4	17.129	.463	.763
Residual	2368.295	64	37.005		
Total	2436.812	68	35.835		

Significance at 0.05 level probability; and significance of F(.423) the table above shows that there is no significant difference in the perception of the social studies teachers on their attitude to environmental education according to their teaching experience.

Table 8: Multiple classification analysis table showing perception of the teachers according to their teaching Experience

Grand mean = 33.25

Variable Category	N	Unadjusted	Eta	Adjusted for dependent Derivation	Beta
1-5	36	-.16		-.16	
6-10	11	1.39		1.37	
11-15	12	-.58		-.58	
16-20	6	-1.48		-1.42	
21->	4	2.75	.17	2.75	.17
Multiple R Square					.028
Multiple R					.168

From table 8 above, findings shows that 73.9% of the social studies teachers agreed that the teachers should play high role in fostering environmental awareness in our society.

Hypothesis 5: There is no significant difference in the perception of Social Studies teachers on purpose or objectives of environmental education according to teaching experience.

Table 9: There is no significant difference in the perception of Social Studies teachers on purpose of environmental education according to teaching experience

Source of variation	Sum of Square	DF	Mean Square	F	Sig.
Main Effects	153.354	4	38.338	.578	.679
Residual	4243.806	64	66.309		
Total	4397.157.159	68	64.664		

**Significance at 0.05 level probability and significance of F (.679) the table above shows that there is no significant difference in the perception of the Social Studies teachers on the objectives of environmental education according to their experience in teaching social studies.

Table 10: Multiple classification showing the perception of teachers on the objectives of environmental education according to their teaching experience.

Grand Mean =54.46

Variable category	N	Unadjusted	Eta	Adjusted for dependence Derivation	Beta
1-5	36	-.93			
6-10	11	1-2.46			
11-15	12	-1.63			
15-20	4	-.70			
21>	4	2.29	19		.19
Multiple R square					.035
Multiple R					.187

From the table 10 above the multiple R^2 of 0.035 indicate that 3.5% of the variance is accounted for based on the years of teaching experience. This could have been justified by the general awareness of environmental education by many of the social studies teachers.

5. Discussion of Findings

The major findings of this study as obtained from the analysis based on the hypotheses revealed that there were no significant differences in the attitude of the teachers.

The first hypothesis revealed no significant difference in the perception of male and female teachers on their role in fostering environmental education among students. Sadik and Sadik (2014) carried out a study on the environmental knowledge and attitude of teachers and discovered no significant difference. This study is in line with the study of Callam and Dopico (2016) while using a one way Anova between male and female compared the perception of teachers on environmental issues discovered no statistical significant difference. This study indicates that both the male and female teachers have equal knowledge on their roles in fostering environmental education among students.

The second hypothesis showed no significant difference in the use of methodology between male and female teachers in fostering environmental education among secondary school students. This study is in line with Callam and Dopico (2016) which claimed that acquisition of skills and knowledge in science education depends on factors such as age, gender and education level. To this end this study cannot guarantee the claim for the methodology used. The interest and the knowledge of the teachers could have been responsible for the non-significant difference.

The non-significant difference between trained and untrained social studies teachers' attitude to fostering environmental education. This result is against the study of Lee, Hye-Eunchu and Sonya (2018). The

study measured teachers' awareness about generalized PCK in the context of environmental education company responses of teachers who completed programmes designed to improve teachers' knowledge and those who did not. Those who attended training showed positive influence. The interest of the teachers and personal background could have been responsible for the non-significance in this study.

The non-significant difference in social studies teachers' perception of roles in fostering and according to teaching experience recorded in this study runs contrary to the finding of Serikaya, and Sarac (2018). They reported while studying pre-service teachers attitude to environmental shows there were significant differences according to years and level. It also revealed significant differences in courses on environment and activities carried out on environmental issues. The personal efforts of the individual teachers in term of books and journals could have been responsible for the non-significant difference in this study.

It is clearly stated that education has an enormous important role to play in motivating and empowering citizens to participate in environmental improvement and protection as stressed in Brudtland report of the World Commission on Environment and Development (Noibi, 1990). It is further stated that environmental education requires changes in ways teachers conceive and act in their classroom. Invitation to change, or try innovating teaching strategies are almost inevitably seen as additions and hence extra time and effort.

6. Conclusion and Recommendations

Environmental education is no longer new in the developing countries especially in Nigeria. However, it is obvious that there are problems inhibiting the growth of environmental education as it has not been fully incorporated into the school curriculum with

adequate concepts and stimulating methodology and evaluation.

Based on the findings of this study, the following recommendations are made:

- Example is better than precept. As long as the teachers have good environmental attitude, there is high tendering that the younger ones will hearken to the preaching of the teachers.
- The prevalence of environmental degradation suggests the need for the teachers to utilize their skills learnt and also re-orientate themselves in environmental education.
- There is need to follows environmental awareness with positive attitude capped with position practices so that the country's resources would not be exhausted and all manners of illness and epidemic will not reign in our land.

References

- Agbogidi, O.M. and Ofuoku O. (2007). Promoting Environmental Protection in Nigeria through Environmental Education: The Role of Women. <http://www.ajo.info/index.php>
- Adebisi, A. and Olawepo, J.A (2016). Injecting Environmental Education elements into the Social Studies Curriculum for Junior Secondary Schools in Nigeria. www.academia.edu
- Amosun, P.A. (1997). An Assessment of Teachers Perverseness to Teach Environmental Education in Ibadan, Oyo state. Department of Teacher Education, University of Ibadan. Unpublished Dissertation.
- Ausubel, D; Novak, J. and Hanesian H. (2008). Education Psychology: A Cognitive View. (2nd ed) New York: Holt, Rinhart & Winston
- Callam, B. E. and Dopico, E. (2016). Science Teaching in Science Education. *Cultural Studies of Science Education*, 11(2), 411-418
- Duit, R. and Komorek, M. (2010). Constructivist Informed Research on Students' Understanding of Basic ideas of chaos-theory. In H.J Schmidt, (Edu), Proceeding of the 12th Dortmund Summer Symposium "Problem solving and Misconceptions in chemistry and physics. May 1994. Hong Kong
- Environmental Education (2016). Historical Background. http://www.wgbis.ce.iisc.ernet.in/biodiversity/sdev/sus_enews/issues2/Article/hist.htm
- IUCN/UNEP/WWF (1991). Caring for the Earth. A strategy for Sustainable Living. Switzerland. (ISBN 2-8317-0075-2). Retrieved February 18, 2008 from <http://www.krepublishers.com>
- Jekayinfa, A.A. (2008). Teachers' Cooperation no Environmental Education. www.academicjournals.org/EER. *Educational Research and Review* 3 (11), 334-338.
- Modal, P. (2015). Environmental Education: Objectives, Aims and Principles of Environmental Education. [Http://www.yourarticlelibrary.com](http://www.yourarticlelibrary.com)
- Ogunyemi, B and Ifegbesan, A. (2011). Environmental Literacy among Pre-Service Social Studies Teachers: A Review of the Nigerian Experience. *Applied Environmental Education & Communication*, 10: 1, 7-19. Retrieved April 14, 2012. From <http://www.tandfonline.com>
- Omofonmwan, S.I. and Osa-Edoh, G.I. (2008). The Challenges of Environmental Problems in Nigeria. Retrieved July 20, 2012 from <http://www.krepublishers.com>
- Osuntokun, F.A. (1998). Teachers preparation in population of education in Nigeria. *Journal for curriculum studies*, pp, 3
- Noibi, Y. and Lawal, M.B. (1990). Reading in Environmental Education for Tertiary Institution. Lagos Refeld Nig. Ltd.
- Sadik, F. and Sadik, K. (2014). A Study on Environmental Knowledge and Attitude of Teacher Candidate. 5th World Conference on Educational Sciences. www.sciencedirect.com
- Serikaya, R. and Sarac, E. (2018). An Analysis of Pre-Service Teachers' Attitude Towards Environmental Issues in Terms of Various Variables. *Universal Journal of Educational Research* 6 (1): 9-109, DOI: 10.13189/ujer.2018.060109.
- Siseho, G. S. (2018). Perception of Teachers' Knowledge and Attitude Towards Environmental Issues in Science Education. Case study of Namibian Science Teachers. University of Eastern Finland. [epublication.euf.fi](http://publication.euf.fi)
- Young, J. L.; Hye E. and Sonya, N. M. (2018). Examining Factors that Influence on Elementary Teachers' Perceptionin Graduate level Interdisciplinary Environmental Education Programme: Using ePCK as Framework. *Eurasia Journal of Mathematics Science and Technology Education*. DOI: <https://doi.org/10.29333/ejmste/92184>