

## ENVIRONMENTAL AWARENESS AND ENVIRONMENTAL ATTITUDES AMONG SECONDARY SCHOOL STUDENTS IN OGOJA EDUCATION ZONE, CRS, NIGERIA.

By

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### Abstract

The purpose of this research work was to gather baseline data through a survey to document the existing level of environmental awareness or consciousness among secondary school students and their attitude towards well known environmental issues. Using the descriptive survey design, three hypotheses were formulated to guide the study. A sample size of 600 students was drawn from 34 public schools in the zone. Two researcher developed questionnaire titled student's environmental awareness scale (SEAS) and student's environmental awareness attitude scale (SEAS) were developed. Data gathered were analyzed using the independent t-test and r-test respectively. Findings revealed that students of both genders have a high level of awareness and positive attitudes towards the environment. Based on these findings, it was recommended among others that both male and female students should be exposed to the same level of environmental awareness as this will grant them positive environmental attitudes.

**Key words:** environmental awareness, environmental attitudes, students' gender, urban and rural students.

### 1.1 Background to the Study

Global environmental concerns and events have dominated the news and public discourse at local and international levels in this millennium. As humanity moved into the final decades of the last century, concern for the state of the environment grew and so did international initiatives to avert what many have come to describe as potential 'Ecocrisis' or 'Ecocatastrophes' (Linden 1989 P. 56).

The word 'environment' is recently being over used and abused. It originated from the French word 'environner' which means to encircle or surround. To Fellman, Getis and Getis (2010), environment refers to the circumstances and conditions that surround an organism or group of organisms, or the social and cultural conditions that affect an individual or community. This definition agrees with UNESCO/UNEP, and other world bodies concerned with the environment that view the concept of 'environment' in its entirety embraces natural, man-made, Ecological, political, economic, technological, social, cultural and aesthetic environment. The definition of environmental education in itself is fluid, processional and in a state of flux.

Recently, the UN came up with a new definition of EE. It is said to be a process that allows individuals to explore environmental issues, engage in problem

solving 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. Since humans inhabit the natural world as well as the 'built' or technological, social and cultural world, all these constitute important part of human environment in other words, humans inhabit two worlds, one is the natural world of plants, animals, soils, air and water that has preceded mankind through the millennia of time and of which they are part of; the other, in the words of Cunningham and Cunningham (2012) is the cultural world of social institutions, social processes and artifacts created by human beings using science, technology and socio-political organizations. Both worlds are essential to human existence and in determining the state of human health.

The World Health Organization (WHO) traced emergent diseases and leading causes of death worldwide to environmental change. The report continued that a number of factors currently contribute to the appearance and spread of contagious diseases. With six billion people now inhabiting the planet, human densities are much higher, enabling germs to spread further and faster than ever, expanding populations push into remote areas, coming into contact with new pathogens and parasites. "Moreover, Humans are causing the environmental change on a massive scale, cutting forests, impounding rivers, creating unhealthy urban surroundings and habitat changes and the eliminations of predators favour disease carrying organisms, such as mice, rats, mosquitoes, bats forrets" etc. Patton, (2002). The world over, people generally desire good climates, with clement conditions such as non-industrialized settings with clean air, pure water, and disease-free conditions affording life comforts that do minimal damage to the natural environment. But the above environmental quality described by environmentalists as 'Ambient environmental standard' is currently under threat. This sense of threat to human health and survival lies behind current environmental activism at the local and international levels.

The World Resources Institute, (WRI) the United Nations (UN), and the World Bank Published a study in September of 2000 carried out by more than 175 scientists who assessed the health of global Ecosystems. They discovered a widespread decline in the ability of eco-systems to produce the goods and services on which we currently depend, they further discover that half the world's wet lands were lost in the last 100 years, while logging and land conversion have shrunk the World's forest by as much as half.

Nearly three quarters of the World's major marine fish stocks are over fished or are being harvested beyond a sustainable rate, and soil degradation has affected two-thirds of the World's Agricultural lands in the last 50 years. Cunningham & Cunningham (2002). The above facts and other reports seem to capture a widespread feeling that "The state of the earth is somewhat precarious" Mannion (1991). The International Geographical Union (IGU) on its part identified a litany of environmental problems and their social and economic consequences to include: extinction of plants and animals, deforestation, soil erosion, desertification, natural disasters, toxic and nuclear waste, climate change, atmospheric pollution, ozone depletion, limits to growth etc. with their consequences of food and hunger, poverty, unemployment, urbanization, illiteracy, refugees and stateless persons, violation of

human rights, disease, crime, gender inequalities, migration, ethnic conflict, wars, globalization etc. all on 'spaceship Earth'. (IGU, 1992:4)

Responses to these increasing evidences of environmental deterioration are now on a global scale - from the United Nations, International agencies, governments, Advocacy groups, animal rights activists, social and environmental activists, to even individuals and religious leaders. For instance the Pope during a visit to Kenya in 1985 went to the United Nations environmental program (UNEP) Headquarters in Nairobi and added his voice then to the swelling voices of concern about human environment. These issues are traceable to mankind's history of development and pattern of relating to the earth, which Emeh (1996:11) describe as a domineering approach as opposed to the conservational approach with reference to future generations.

The first major effort to respond to environmental problems on a large scale was organized by the United Nations (UN) in 1972 when it organized a conference on human environment in Stockholm, Sweden heralding the full involvement of the World body in global environmental programmes. It was followed by the formation of (UNEP). The United Nations environmental programme and later the establishment of the World Commission on Environment and Development (WCED) in 1983. Obviously, the overarching goal of UNEP'S Environmental Education as clearly articulated in a later conference, at Tbilisi in 1977, is to

"...Develop a world population that is aware of and concerned about the environment and its associated problems, and which has the knowledge, skills, attitude, motivations and commitment to work individually and collectively towards the solution of current problems and the prevention of new ones". UNESCO (1977). In the light of the litany of challenges emanating from mans use and abuse of the environment, a versatile and multi-directional strategy is required to redress these problems at local and global levels using education as a tool.

Asthana and Asthana (2013) opine that EE has a fundamental role to play in motivating people to adopt environment friendly practices. They suggest that this education should start from the grassroots, should involve all sectors of the society and it should be able to do the following:

1. Create a general awareness concerning environmental problems,
2. Motivate people to conserve resources, protect environment and avoid extravagancies,
3. Promote understanding and corporation among people to face ecological issues, and
4. Conserve indigenous knowledge, traditions and culture friendly to the environment.

Environmental Education in Nigeria is developing rapidly but its effect on the populace has been slow. It has been incorporated into secondary schools' curriculum through definite strategies promoted by nongovernmental organizations (NGOs) and environmental advocacy groups such as the Nigerian conservation foundation (NCF), the Nigeria Environmental study and Action Team (NEST), The World Wide fund for Nature- United Kingdom (WWF-UK)(Aina, 1991).

In Ogoja and elsewhere, secondary -level students' environmental knowledge expectedly began through learned traditional ways of interacting with their environment. Awareness of environment quality has been largely in terms of sanitation and hygiene which is acquired informally through government and schools programmes on sanitary inspection.

E.E has existed at the secondary schools in certain undefined forms and its teaching in Nigerian secondary schools, is dictated by the environment-oriented topics in integrated science, biology, geography, Agricultural science etc. (Aina, 1991) point out that E.E when offered beyond the above level, became trivialized under the label of nature study whose focus was the naming and diagrammatic representation of plants and animals". Another approach adopted by E.E educators, NGOS and other Agencies to effectuate it at this level is the creation of awareness among teachers through symposia, seminars, workshops, short course etc. aimed at enhancing environmental consciousness among secondary school youths and the adoption of various strategies to infuse E.E into existing curricula structures of secondary and primary schools.

However, the short coming of various former efforts led to the formal introduction of E.E in the early 1990s into secondary system in Nigeria. As Okpara, (1995) put it, "Adults, youths and others cannot change their attitude towards the environment, if they are not sufficiently sensitized regarding major environmental Considering societal stereotyping that differentiate roles of boys from girls in relation to the environment, Ebong and Bassey (2010) present the view that "E.E and training should take into cognizance the gender differences or the physiological differences between males and females which are obvious and expectedly affect ways in which both sexes respond to the world". They also identify the different ways boy and girls are socialized that tend to determine their environmental exploration, degree of environmental manipulation and overall relationship with the environment thus suggesting that by virtue of their roles within various cultures, women are universally known to be closer to nature than men, and ought to get special attention in the course of environmental training.

The inclusion of E E course in the Nigerian secondary and tertiary levels of the school system is to help in creating awareness among all on the necessary actions needed to mitigate the problems created already and to forestall new ones.

#### Goals and Objectives of E E

The goals of E E are derivable from the definition. In Tbilisi, USSR, 1977, the world inter-governmental conference on environmental education, adopted a onerous goal that seek to:

"To develop a world population that is aware of, and concerned about, the environment and its associated problems and which has the knowledge, skills, attitudes motivations, and commitment to work individually and collectively towards solutions of current problems and the prevention of new ones" .

It is this broad and universal goal that motivated Schneider (1977) to comment that environmental educators may be the first educational specialty group in history who are concerned with the education of all as it is often attempting something rather broader than much of the traditional subject matter of schools or go far beyond the learning of traditional content.

WWF/UK an activist group declare that in recent years, concern for the environment has become fashionable and environmental organizations have proliferated, but the environment has continued to deteriorate at an alarming rate, one reason for this may be that much of what pass for environmental education has remained at a superficial level, and in many instances has not addressed the above goal. E E is essentially a practical process for equipping people with the knowledge, skills and commitment to protect or improve their environment. It is important as part of this process that students come to understand not only what the environmental problems are, but why they have arisen.

He further stress that three crucial elements must be noted and maintained in all E E programmes viz:

- (a) Creating awareness, raising people's consciousness and understanding about the environment.
- (b) Recognizing man's relationship, responsibility; attitudes and commitment to the environment.
- (c) Developing efficient and effective environmental management skills and strategies for the survival of present and future generations.

It is necessary to also isolate the objectives of E E as their importance were identified and summarized in the Belgrade charter; a document that emanated from a landmark conference Jointly organized by UNESCO and UNEP in 1989 they are:

**Awareness:** To help individuals and social groups acquire an awareness of and sensitivity to the total environment and its allied problems.

**Knowledge:** To help individuals and social groups acquire basic understanding of the total environment, its associated problems and humanity's critical responsible presence and role in it.

**Attitude:** To help individuals and social groups acquire social values and ethics, strong feelings of concern for the environment and the motivation for actively participating in its protection and improvement.

**Skills:** To help individuals and social groups acquire the skills for solving environmental problems.

**Evolution:** To help individuals and social groups develop a sense of responsibility and urgency regarding environmental problems so as to ensure appropriate action to solve these problems.

**Participation:** To help individuals and social groups develop a sense of responsibility and urgency regarding environmental problems so as to ensure appropriate action to solve these problems.

The above goal and objectives constitute the global framework for environmental education. Following the above suggestion, this proposed work intends to survey the level of awareness and knowledge referred to here as environmental consciousness, and attitudes of students at the secondary level of education, and how their level of consciousness and attitude influence their participation in caring for or solving existing environmental problems. This enquiry approach is necessary as experts and environmental educators are of the consensus that the success of the international under taking in the field of E E and training most assuredly depends on action at the local level; hence the well-known E E maxim – 'Think globally. Act locally'.

The importance of EE is now well recognized and this fact is underscored by the involvement of the federal government, state agencies, NGOS and private individuals. As part of its functions, the cross River state environmental protection Agency (CREPA) since its establishment in 1996 has organized public enlightenment and EE for the protection and promotion of a healthy environment and has developed an EE curriculum for the state primary and secondary schools, but the curriculum has not been implemented nor does EE yet enjoy the status of a separate discipline making it difficult to assess its effectiveness; hence the widely adopted option of creating awareness and raising consciousness. It is against this background that this study attempts to ascertain the level of secondary students' awareness of environmental problems and issues within and outside their locality and as a measure also of ascertaining the effectiveness or otherwise of the various consciousness raising activities among secondary students.

### **Hypotheses:**

The following hypotheses were formulated for the study:

- i. There is no significant difference ( $P < 0.05$ ) in the mean level of environmental awareness of male and female secondary school students in Ogoja education zone
- ii. There is no significant difference ( $P < 0.05$ ) in the mean levels of environmental attitude of male and female secondary school students in Ogoja education zone
- iii. There is no significant difference ( $P < 0.05$ ) between the mean levels of environmental consciousness of secondary school students in urban areas and rural areas in Cross River State.
- iv. There is no significant relationship ( $P < 0.05$ ) between the levels of environmental awareness and attitude of secondary school student's in Ogoja education zone.

### **Methodology**

The researcher adopted the descriptive survey method for the study. The study was designed to cover all the public schools in Ogoja education zone of Cross-River state. The population for this study comprised all the senior secondary students in all the 68 public schools in the area of study spread across (5) five local government areas that make up the Ogoja education zone.

The researchers constructed two instruments pertinent to the study, these were; Students Environmental Awareness Scale (SEAS) and Students Environmental Attitude Scale (SEAS)

The data obtained from the instruments were weighted and summed up for each subject and items analyzed using mean and standard deviation (SD). Based on the 4 – point scale of the instrument a mean of 2.50 and above shall be considered as an indication for high awareness and positive attitude. On the other hand, a mean of 2.49 and below shall be an indication of negative attitude and low awareness. Students t -test was used to test all null hypothesis at at 0. 05 level of significance.

**Results**

**Hypotheses 1**

There is no significant difference ( $P < 0.05$ ) in the mean level of environmental awareness of male and female secondary school students.

Table 1:

T-test on the level of environment awareness of male and female students.

Variables	N	X	Sd	Df	t-cal	t-critical	Remark
Male	300	2.658	1.026	598	0.319	1.960	Positive
Female	300	2.635	.968				Accept Ho

Table one above shows that the calculated value of t (0.319) is less than the critical value 1.960 at the 0.05 level of significance. The null hypothesis of no significant difference in the level of environmental awareness of male and female secondary school students are accepted.

**Hypotheses 2**

There is no significant difference ( $P < 0.05$ ) in the mean levels of environmental attitude of male and female secondary school students.

Table 3:

T -test result on environmental attitude of male and female students

Variable	N	X	Sd	df	t-cal	t-critical	Remark
Male	300	2.731	1.021	598	0.882	1.960	Positive
Female	300	2.659	0.978				Accept Ho

Table 3 above show that the calculated value of t (0.882) is less than the critical value 1.960 at the 0.05 level of significance confirming that there is no significance difference in the environmental attitude of male and female secondary school students.

**Hypotheses 3**

There is no significant relationship between the levels of environmental awareness and attitude of secondary school students.

Table 4:  
 Pearson product moment -test for relationship between student's environmental awareness and attitude

Variable	N		$\sum xy$	r-cal	
Awareness, x	600	19431	1295905	1240504	0.57
Attitude, y	600	19183	1258905		

r-cal = 0.57; r-critical = 0.3249; df=598 at .05 level of significance.  $r^2=32.49\%$

Table 4 above show that r-cal =0.57 which signify that the relationship between student's environmental awareness and students' environmental attitude is moderate. The r squared indicate that student's level of environmental awareness contributes 32. 49 percent to student's attitude towards the environment. Thus, student's awareness influences their attitude towards the environment.

**Discussions of findings**

It was discovered from hypotheses one testing that there is no significant difference in the level of environmental awareness of male and female students meaning, the null hypothesis was accepted. Therefore, this implied that male and female secondary students equally have a high awareness of environmental issues, problems and concerns. The finding is against the earlier suggestions by Aina (1992), Denton (2001) and others that women (girls included) due to their daily contact with the nature habitat tend to have sound ecological knowledge then men and boys.

It can be observed from table 2, that the hypothesis of no significant difference in the level of environmental attitudes of male and female secondary students was accepted. The implication being that male & female students have similar attitudes toward their environments.

The implication of this all is that gender or being male or female has little to do with students levels environmental awareness and attitude. This findings upset societal stereotypes that according to Ebong and Bassey (2010) consign women and girls to certain roles that according to them rob them of early exposure to the natural environment: whereas boys are culturally free to run, play and explore their environments early in life, girls are trained early to cook, wash and learn to keep house. Aina (1992), Ibrahim (1982) all cited in Ebong and Bassey tend to believe that the consequences of environmental degradation have a gender bias. The findings of this study reflect little of such differences in the level of environmental awareness and attitude of secondary students in Ogoja Education zone.

However, the hypothesis of no significant relationship between the levels of environmental awareness and attitude tested with r at 0.05 level of significance

indicated that students environmental awareness contribute a moderate 32.29% to shaping their attitudes towards the environment.

### Conclusion

Based on the findings of the study, it was concluded that:

1. Senior Secondary level students in Ogoja Education zone have appreciable level of awareness and consciousness about issues, problems and concerns.
2. Senior Secondary Students in Ogoja Education zone have positive attitude towards the environment.
3. Gender or being male (boy) female (girl), does not have any bearing on students levels of environmental awareness and attitudes.
4. Students' level of environmental awareness influences their environmental attitudes.

### Implications of the Findings

This study has demonstrated that environmental education; though new in the education enterprise is already having effect as the Senior Secondary Students in this study have demonstrated.

It revealed an appreciable level of awareness about issues that constitute environmental education. It also revealed that Senior Secondary Students showed positive attitude toward the environment and its current concerns that getting the attention of all classes of people across the world.

Furthermore, students' environmental consciousness, or awareness and attitudes as revealed here are complimentary as the level of awareness tend to influence and shape their attitude to a large extent. But gender, or age play very little role in influencing either of the variables considered, so that both male and female students should be exposed equally to the dynamics of environmental education without due regard to their physiological attributes.

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