

Environmental Awareness Among Teenagers; A Case Study of Cayley College, Queen's College and Isheri Grammar School in Lagos State

OKIEMUTE BRIDGET EDOKPOLO
University of Lagos

Abstract- This study investigated environmental awareness amongst teenagers sampling students from three schools taken from different socio-economic backgrounds. The aim of the study finding out if teenagers are aware of global environmental issues, such as global warming, recycling, environmental degradation and sustainable development. The study sought to find out the source of their knowledge, school, parents or television. The research also intended to see if the socio-economic background of these teenagers had an effect on their environmental awareness. The questionnaire method was used for this research and the schools sampled were Omole Grammar School, Queen's College, and Cayley College, all in Lagos State. Some of the major recommendations and conclusions are as follows: It was recommended that the curriculum of secondary schools should be revised to include more detailed environmental topics and projects that make environmental issues more real to the television and radio stations should have more programs that bring environmental issues to the front burner.

I. INTRODUCTION

1.1 Introduction

Development has brought along with it, far reaching environmental degradation and environmental pollution. The failure of industries to implement production and manufacturing processes in an environmentally friendly manner is the major reason. This has been attributed to ignorance and carelessness. The result has been the gross degradation, pollution, depletion of our natural resources and extinction of several wildlife species.

The damage has been done, but in recent times, a lot of resources have been invested in the study of the environment. Studies have also been carried out, on

the effect of these industrial processes on the environment and the way to combat the harmful effects. The United Nations and other international bodies have come up with several memoranda from conferences, and there have been recommendations on the way forward.

In developed countries, environmental awareness is on the school Curriculum, and several aspects of the environment are treated, making the children aware of the environment and the harmful effects of their day-to-day activities on the environment. These teenagers and children in turn educate their parents at home, telling them about the harmful effects of their day-to-day activities on the environment and even teaching their parents how to recycle wastes.

1.2 Problem analysis

A lot of work has been done and is still going on in developed countries to make children and youth aware of environmental issues and their role in preserving the environment, but not much has been done in developing countries like Nigeria. The average Nigerian does not know much about greenhouse gases or how they are created, some have never even heard of global warming, climate change or environmental conservation and degradation. Our ignorance does not make the problem disappear. Global warming is affecting us as much as it affects those who are aware. Our environment has been degraded by oil exploration, and the importation and use of substandard cars and other products. The average Nigerian abuses the environment because some are not aware, and for those who are aware, they either couldn't care less or they do not know how their little contribution can help in preserving and improving the environment. It seems there is little sense of responsibility. It is very alarming and saddening that materials, machinery and chemicals that have been banned in developed countries are still imported and

used in Nigeria. Most people also know little about biodegradable materials, or even recycling, and we have a challenge with waste disposal. Our environment has been severely degraded by our activities and oil exploration, and we have done little in the area of environmental conservation. Scarce resources have been seriously depleted, and the population is so large that so many are scrambling for these resources. These resources, like forest reserves and wildlife are not inexhaustible. If we do not imbibe the principles of environmental conservation and sustainable development, then in the not too distant future, posterity will have little or nothing to live on.

The government who should be at the forefront of environmental conservation and environmental awareness campaign is bogged down with so many other issues items considers more important. This is probably due to the fact that even those who are aware of environmental issues have the general Nigerian belief that nothing can happen, and that it is not that bad. This is a serious cause for concern, because everyone needs to participate or play a part in the conservation of the environment. This general attitude and ignorance is due to the fact that very little has been done to create awareness and inculcate these values in the general population.

We therefore need to seek ways to address this issue of apathy and nonchalance, as well as the issue of ignorance. This is because environmental conservation is not just a job for the government or an individual, but for everyone. Environmental conservation and sustainable development have been determined to be the only way of preserving the environment for posterity, and there is an urgent need for it to be entrenched in our value systems. In developing countries like Nigeria, this has not been the case and we need to do something urgently in order for us to begin to first of all appreciate the need for sustainable development and environmental Conservation. Education has been viewed and used as a weapon of change through the ages, and if our youths have not been exposed to environmental issues both formally and informally, then we have a huge challenge on our hands. We cannot successfully tackle the issues of environmental Conservation and sustainable development, when the fundamentals; a general understanding of the issues at stake

(environmental degradation and depletion of resources) have not been dealt with.

1.4 Objective of the study

This study seeks to address one of the issues that come to the fore when issues of the environment are raised, which is awareness. Are our teenagers and youths aware of the environment? This analysis will help to highlight the factors responsible for any possible disparity in levels of awareness, and possible suggestions will be made for the enhancement of environmental awareness among teenagers in a manner that cuts across social barriers like culture, social status or income. We need to start from somewhere and there are several age brackets and social classes involved, but we know that the best time to inculcate values in human beings is when they are still young. These youths are the decision makers of tomorrow and we want them to be more aware of the environment and the issues surrounding it, in order to manage the environment in a sustainable manner. Teenagers are also not fully developed; they are not set in their ways, and are therefore still teachable. They are also very open to new concepts.

Analysis across different social strata will help to determine if social status or level of income has anything to do with environmental awareness in teenagers. We also want to determine the effect curriculum has on environmental awareness. There is an urgent need for sustainable development now than ever before. Apart from laws and legislations, this is one of the best ways to address this issue.

1.5 Research questions

-Are our teenagers aware of their environment and the current issues at stake?

-What is the level of awareness?

-Are some children more aware of environmental issues?

-Does level of awareness have to do with their age, habitat (urban or rural), parents socio-economic background?, travels and exposure, part of city residing, gender, course pursued or career aspirations (science or arts), being in public or private schools, exposure to the internet or cable TV?

-Does the level of awareness have to do with the school curriculum, (bearing in mind that the British international school runs a British curriculum)?

-Is there some level of environmental education in the school curriculum?

-If there is an imbalance, how can the imbalance be corrected?

-How can we create a more effective awareness platform that will be uniformly distributed?

1.6 Statement of hypothesis

1. Socio economic background affects environmental awareness
2. School curriculum has a strong influence on environmental awareness
3. International travel affects environmental awareness
4. Sex influences environment environmental awareness
5. Cable television has an effect environmental awareness

1.7 Definition of concepts

Environment

Environment is defined as all of the biotic and abiotic factors that act on an organism, population, or ecological community and influence its survival and development. Biotic factors include the organisms themselves, their food, and their interactions. Abiotic factors include such items as sunlight, soil, air, water, climate, and pollution. Organisms respond to changes in their environment by evolutionary adaptations in form and behavior.

The concept if the environment is the development at any level of a general notion of the surrounding ecosystem, its foundational relationship to human life and the need to preserve its integrity.

Environmental education

Environmental education is a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take

responsible action (UNESCO, Tbilisi Declaration, 1978).

Environmental education enhances critical thinking, problem-solving, and effective decision-making skills, and teaches individuals to weigh various sides of an environmental issue to make informed and responsible decisions. Environmental education does not advocate a particular viewpoint or course of action.

The components of environmental education are:

1. Awareness and sensitivity to the environment and environmental challenges
2. Knowledge and understanding of the environment and environmental challenges
3. Attitudes of concern for the environment and motivation to improve or maintain environmental quality
4. Skills to identify and help resolve environmental challenges
5. Participation in activities that lead to the resolution of environmental challenges (UNESCO, 1978)

Environmental awareness

Nominal / conceptual definition

The UNUN defines environmental awareness as the growth and development of awareness, understanding and consciousness toward the biophysical environment and its problems, including human interactions and effects. Thinking "ecologically" or in terms of an ecological consciousness.

Environmental awareness is also a concern for the preservation, restoration, or improvement of the natural environment, such as the conservation of natural resources, prevention of pollution, and certain land use actions.

Operational definition

For the purpose of this study, a secondary school pupil will be regarded as environmentally aware if he or she:

1. Understands the meaning of environment.
2. Is conscious of environmental degradation.
3. Knows about the need for environmental preservation.
4. Knows that he or she has a part to play in environmental preservation.

5. Is aware of some of the practical approaches for environmental preservation.
6. Is ready to take action to prevent pollution.
7. Knows about bad land use actions.

On the other hand, a secondary school pupil shall be regarded as not or less environmentally aware if:

1. Does not understand the meaning of environment.
2. Is not conscious of environmental degradation.
3. Does not know about the need for environmental preservation.
4. Does not know that he or she has a part to play in environmental preservation.
5. Is not aware of some of the practical approaches for environmental preservation like recycling, proper waste disposal etcetera.
6. Is not ready to take action to prevent pollution.
7. Does not know about bad land use actions.

Teenagers

A teenager is a young person between the ages of thirteen and nineteen, not fully developed. They are at a stage of development where they can be easily influenced positively or negatively. When they believe in a cause, they are ready to follow through to the end. Most of the habits that stay with us through life are formed during the teenage years.

Most secondary school children are teenagers and the questionnaires are going to be administered to them. Teenagers in school alone have been used because they are supposed to be more enlightened and aware than their non-schooling counterparts.

1.8 Significance of the Research Problem and Justification for the Research

Ignorance of environmental issues or lack of awareness of environmental issues is a major factor that needs to be addressed for any progress to be made in environmental sustainability and conservation issues. This is because we all have our individual impact on the environment by our activities and the environment also has an effect on us in response to our activities. Since every individual has an effect on the environment, it is therefore imperative that if we want to carry out our activities in an environmentally sustainable manner, everyone needs to be involved. The government cannot do this on its own. Increasing

economic activities in developing countries result in more energy and consumption demand, which generally lead to environmental degradation.

Moreover, there are increasing needs for public participation due to the recent change in sources of environmental problems. Today, the sources of pollution have shifted from production to consumption processes. The Human Development Report of 1998 (UNDP) affirms this trend and states that growth, consumption and unbalanced consumption patterns are placing unprecedented pressure on the environment. In this light, the acceptance of pro-environmental behaviour by general public, that is, to adopt sustainable life style, is an urgent issue in protecting environment.

The participation of citizen can complement existent legal and economic instruments, which are facing shortage of institutional, managerial and financial capabilities for enforcement. The increase of participation of citizen means that legal frameworks would be more respected and economic mechanisms would be more accepted thus increase their effectiveness.

We also know that it is more difficult to change an adult's behaviour pattern than that of a teenager or child. The teenagers also have an effect on their parents. They have a way of getting their way, and this is the avenue this study seeks to explore. Our teenagers need to be more aware of environmental issues, and avenues of enhancing their environmental awareness need to be explored and enhanced, such that a Nigerian child schooling anywhere in the country has a high level of environmental awareness, understands basic concepts of the environment and wants to play his/her part in environmental conservation and sustainable development. If we can get the young ones to imbibe the principles of environmental conservation and sustainable development, we know that the next generation is going "to carry the flag and keep it flying".

The fact that we are also involving a school that runs a different curriculum will also help to determine if our curriculum is lacking in environmental education because this is one of the major ways of creating environmental awareness.

II. LITERATURE REVIEW

2.1 THE IMPORTANCE OF LITERATURE REVIEW

The purpose of this chapter is to review all known literature that has relevance to the subject of study. A proper understanding of the history behind a certain area of research will enable the researcher follow the trend of thought in that area and know which new area to focus on. There is no point reinventing the wheel.

History here does not only mean dates and times, but it is simply a review of the trend of thought and the research done in that area of study. A review of current literature to understand the present trend in the proposed area of research is also important. A review of this kind will enable the researcher understand more clearly the body of knowledge surrounding his area of interest and this will enable him fully appreciate the magnitude of the problems he is striving to find solutions to.

This chapter covers the following areas;

- Historical background of Environmental Education and Awareness
- Review of major studies on public opinion on environment
- Review of the major hypothesis on environmental awareness formation
- Review of major study on relationship between values/ worldview and environmental awareness
- Summary

2.2 HISTORICAL BACKGROUND OF ENVIRONMENTAL EDUCATION AND AWARENESS

Efforts to define environmental education as a specific endeavour began in the 1960s.

They were given international support at the United Nations Conference on the Human Environment held in Stockholm in 1972, where participating governments recommended that it be recognised and promoted on an international scale through the United Nations.

One of the initial tasks was to develop some consensus on what environmental education could and should become, and to assist governments in implementing relevant programs as soon as practicable.

Two major conferences, supported by regional meetings of experts, were hosted by the newly formed UNESCO-UNEP International Environmental Education Program.

The purpose of the first (Belgrade, 1975) was to draft concepts of and a vision for environmental education. The second, an Intergovernmental Conference on Environmental Education (Tbilisi, 1977), formally approved the scope and action plans put forward from the previous conference.

The provisions of the 'Tbilisi Declaration on the role, objectives and characteristics of environmental education', appended to this document, remain in wide international use and have sustained their role as a guiding influence over the past two decades.

Other major milestones include:

- The IUCN World Conservation Strategy (1980) suggested requirements for human survival and prosperity, putting forward the conservationist concept of sustainable development.
- Our Common Future (1988) was the name of the report published by the World Commission on Environment and Development, chaired by the Prime Minister of Norway, Mrs Brundtland. It emphasised the relationship between the under-developed nature of parts of the world, and existing social and environmental problems. The report is a survey of the planet's health, presenting the problems of atmospheric pollution, desertification, over-population, over-consumption, water shortages, poverty and under-development.
- Agenda 21 (1992) The United Nations Conference on Environment and Development in Rio de Janeiro established further strategies for a sustainable future. Chapter 36 of the action plan adopted by the Conference, Agenda 21, focused on public education, awareness and training and

confirms the role of education and the importance of positioning environmental education in the perspective of sustainable development.

- UNESCO Thessaloniki Declaration (1997), *Educating for a Viable Future: a multidisciplinary vision for concerted action* sought to further clarify the concept of education for sustainable development. It presented sustainability as an ethical and moral imperative and the objective to which education should devote itself as an instrument of choice. Education is described as an ongoing process aimed at developing the capability of adapting to rapid changes in the world, but first and foremost as a process of transmitting knowledge and information to make the public understand the problems and to stimulate awareness.

During the same period, individuals and groups, both within and outside formal education systems and agencies, began to generate new emphases in their educational work, finding and expressing different focal points and relationships as well as a new urgency in their treatment.

This groundswell helped institutionalise environmental education in formal settings and inspire the rising activism of the voluntary and community environmental groups which have contributed so much.

2.3 REVIEW OF MAJOR STUDIES ON PUBLIC OPINION IN ENVIRONMENT

Many studies on environmental awareness use results of opinion surveys as a proxy for level of environmental attitude. Although there is a difference between opinion and attitude as Worcester (1996) states "...opinions: the ripples on the surface of the public's consciousness, shallow and easily changed; attitudes: the currents below the surface, deeper and stronger..." many analysis on attitudes are drawn from the results of opinion surveys. Considering this wide use of opinion survey results, basic trends on public opinion on environment are reviewed in this section. The public opinion survey on environment is generally categorized into time series and cross-national perspectives. The time series data on public environmental concerns exist mainly in developed

countries such as the United States, Europe, and Japan. The study of trends in opinion survey is particularly thorough in the United States here data is most available since 1960s. For Europe, there is the opinion survey called Eurobarometer, compiled by the European Community. This survey monitors the European's attitudes to the environment from 1982. In Japan, too, there are similar opinion surveys carried out during 1960-70s when industrial pollution was a serious problem. The cross national surveys on environment are conducted first by Harris for UNEP in 1989. This was followed by other attempts by Gallup in 1992, International Social Survey Program, in 1993, MORI (Market and opinion Research International) and WWF (World Wildlife Found) in 1993 and Environics in 1995, to mention a few.

1. Results from time series trends on public opinion on environmental issues

In the most of cases, the time series studies on environmental public opinion had been carried out in developed countries due to the early presence of concern for the environment. In general, these results demonstrated increase in interests toward environmental issues from the late 1960s to 1990s. Although the transition process to pro-environmentalist is not exactly the same for all countries, the persistence of interests on environment can interpret as a formulation of environmental attitude. In order to show the process of transformation; the case of the United States is reviewed as an example. The reason for selecting the United State is due to its availability and accessibility to the public opinion data.

The studies on trends of environmental concerns have initiated in the late 1960s in United States when the public in 1970 and later declined in rest of the 1970s, rapidly at first and steadily since around 1973 (Dunlap and Scarce, 1991). This trend of environmental concern was portrayed by Anthony Downs in his work, "Ups and Downs with Ecology" (1972). In this, he stated that like most social problems, environmental problems would proceed through five-stage "issue attention cycle". Downs tried to explain that environmental concerns expressed by American citizen were short-lived and changeable. He predicted

that environmental concern would disappear as soon as people are interested in other social issues.

Down's five stage attention cycle are as follows:

- 1) the pre-problem state in which the undesirable social conditions exist and may have aroused the interest of experts or interest groups but have not yet attracted much attention from the public;
- 2) the alarmed discovery and euphoric enthusiasm stage in which one or more dramatic events or crises bring the problem to the public's attention and create enthusiastic support for solving it;
- 3) a realisation of the cost of significant progress stage in which public enthusiasm is dampened;
- 4) a gradual decline in the intense public interest due to recognition of the costs of a solution, boredom with the issue, and decline in media attention to the problem; and finally,
- 5) The post problem state in which the issue is replaced at the centre of public concern by new problems and moves into "a twilight realm of lesser attention or spasmodic recurrences of interest" (Downs, 1972 quoted in Dunlap, 1989). Dunlap (1992), on the other hand, denied this claim on disappearing environmental concern among American public. In his review of American public opinion on environmental issues from 1965 to 1990, he found that there was evidence of "continued interest" on environmental issues by the public throughout the 1980s.

According to Dunlap, as a backlash against the Reagan administration's poor environmental policies and continuing occurrence of new environmental problems, substantial increase in public support for environmental protection are observed in 1980s (Dunlap and Scarce, 1991, Gullroy and Shapiro, 1986).

In late 80s, this trend was continued by the "discovery" of global environmental problems, such as global warming and ozone depletion, with wide coverage by the mass media. The increased attention is observed in 90s when the Earth Summit in 92 focuses the importance of "sustainable development". The results of opinion polls between 1965-90 indicate the continued concern for environmental protection and the higher level of concern in 90s than in 70s.

Based on these results, Dunlap and Scarce (1991) stated the existence of persistent environmental concern among American public and called 1990's renewal of environmental concern as the "second miracle" of public opinion. The study of Dunlap and Scarce (1991) demonstrated that growing majorities share following tendencies:

- 1) consider environmental problems as serious, worsening and increasingly threatening problem for human well-being;
- 2) support government action to protect environmental quality;
- 3) give priority to environmental protection over economic growth and indicate a personal willingness to pay the costs of such protection. These results, together with the results of opinion polls, indicate that environmental concern has reached a point to become an environmental "attitude" from temporary "opinion" among the American citizens during the period 1965-90.

2. Results from cross national opinion survey on environmental concerns

There is a limited number of cross national opinion surveys on environmental awareness. The existing extensive cross-national surveys identified are Harris's Public and Leadership Attitudes to the Environment in Four Continents of 1989 and Gallup's Health of the Planet Survey of 1992. Each of these surveys is done with different methodologies and cover different groups of countries.

Harris Survey, Public and Leadership Attitudes to the Environment in Four Continents (Luis Harris and Associates, 1989)

The survey showed that people, both general public and leaders, in most of the countries, are feeling that environmental conditions have worsened compared to the past and are aware of harmful effect of environmental degradation on health. Most people believe something ought to be done and environmental protection should be the major governmental priority. Although many shared the pessimistic view toward the condition of environment, especially among young and women, they believe that environmental degradation can be avoided if proper measures are taken. Substantial majority of public and leaders believed that advocacy by the United Nations and

world leaders on the environment would help to improve the situation since protection of the environment require involvement of government, international organizations, business, voluntary organizations and individuals. These results indicate the existence of global consensus that stronger action is necessary from both government and international organizations through formulating the law to regulate anti-environmental activities. As for the individuals, many expressed their willingness to make material sacrifices and personal contributions in order to protect the environment. These contributions can be realized in terms of lower standard of living, higher taxes, and some kind of direct involvement in pro-environmental activities.

Louis Harris and Associates conducted one of the first multinational surveys on environmental attitude by public and leaders in 1989 for the United Nations Environmental Program. The questionnaire was used in 21 separate surveys conducted in 16 countries (Argentina, Brazil, China, Hungary, India, Jamaica, Japan, Kenya, Mexico, Nigeria, Norway, Saudi Arabia Senegal, West Germany, United States, Zimbabwe) aiming general public and leaders. This survey consist of variety of interrelated elements such as: awareness on environmental issues, level of concern about environmental issues, perception for the cause of pollution and environmental degradation, attitudes to global and regional interdependence; and attitudes to possible policies for addressing environmental problems (Louis Harris and Associates, Inc., 1989).

This survey is open to a number of criticisms, which throw doubts on its validity as cross-national survey. This is due to fairly small (300-600) sample size for each country, use of different sampling methods in each country, limited samples to residents in major urban areas and problems of bias in the format of questions.

Gallup Survey, The Health of the Planet Survey (1992) The Health of the Planet Survey (Dunlap, Gallup and Gallup, 1993, Dunlap and Metig, 1995) was conducted on wide range of environmental perceptions and opinions from citizen in economically and geographically diverse nations. The survey was descriptive, although certain items were relevant to policy issues and explanatory studies of attitude

formation. The initial results provide relevant to policy issues and explanatory studies of attitude formation as well as evidence of widespread concern about the environment in most countries.

Based on their findings, Dunlap and Metig (1995) stated that environmental problems are no longer viewed as just a threat to quality of life but are considered a fundamental threat to human welfare. According to Ladd (1982), people in developing countries often depend directly on the immediate environment for sustenance and are more vulnerable for natural disasters. In this sense, environment degradation affect greater those in developing countries. Therefore, as Dunlap and Mertig state, environmental degradation is not only a threat to the quality of life but also a threat to human survival (Dunlap and Mertig, 1995).

Although developing countries and developed countries share the general increase of concern on environment, their attitude differs on more specific environmental issues (Mitsuda, 1992). For instance, when main causes of environmental degradation were asked, people from developing countries tends to raise factors as 'over population', 'incapability of government', 'lack of education', and 'technological problem' but people from developed countries tends to raise the 'individual consumption'.

This portrays the difference between developed and developing countries. Although less preoccupation for "individual consumption" is expressed by developing countries, they admit the responsibility and effectiveness of citizen's activities in improving environment. For instance, environmental education was chosen as the top priority in 12 out of 22 developing countries studied when survey asked to choose only one factor in which "developed countries must co-operate with developing countries" among the followings: environmental education, environmental technology, environmental legislation, family planning, omission of overseas debt. Gallup's study is unique in the sense that it illustrated not only the opinion and attitude of the people but also questioned for the actual behaviour / actions implemented by the citizens.

Both time series and cross-national analysis demonstrated different aspects on trends of environmental public opinion. The time series analysis, for the case of the U.S., illustrated the process of the formation of environmental attitude by citizens. The cross national analysis on environment showed universal trends of increase in environmental awareness. Both analyses showed, despite of fluctuation on environmental opinions, increase in people's environmental concerns and willingness to contribute for the environment.

2.4 REVIEW OF THE MAJOR HYPOTHESIS ON ENVIRONMENTAL AWARENESS FORMATION

A number of studies have examined the associations between environmental concern and socio-demographic factors. These studies are mainly focused on finding a "link" between high environmental concern with particular social attribute in order to explain the major causes of environmental awareness. In this section, several hypotheses on environmental concern and some social attributes such as age, gender, social status and political ideology are reviewed (Van Liere and Dunlap, 1980, Dietz, Stern, and Guagnaro, 1998).

1. Age and environmental concern

Many studies reveal the relationship between the concern and age. It says that in general, younger generation tends to be more concerned about environmental quality than older generation. The earliest of this study, as it was stated in the Mohai and Twight (1987), was realized by Malkis and Grasmick (1977, quoted in Mohai and Twight, 1987) which discovered the dominant relationship between age and environmental concern from a survey of Minneapolis. Since then, Lowe and Pinhey (1982, quoted in Mohai and Twight, 1987) had studied the association between age and environmental concern as well as Grimes (1980 quoted in Mohai and Twight, 1987) all of them using the result from the national survey. The extensive literature survey of Van Liere and Dunlap (1980) also stated 'age' as a dominant factor in determining the degree of environmental concern.

In these studies, attitudinal changes, due to the ageing process, or "age-effect", are explained on the basis of changing views of individual as his/her role in the

society changes with ageing. For instance, it is generally thought that with ageing, individuals increase the "accumulation of material and social resources", become more involved in "religious, political economic and social subsystems" and impel to take conservative actions in order to maintain their status quo (Hornback, 1974 quoted in Mohai and Twight, 1987) since until recently, environmental issues are generally viewed as a "threat" to existing social order. Hence, younger generations are considered more open to the environmental issues than the older ones.

Buttel (1979, quoted in Mohai and Twight, 1987), according to Mohai and Twight (1987), analyzed this issue applying the path analysis and demonstrated that the relationship between age and concern was largely direct, rather than indirect like other variables such as education, place of current residence and political liberalism. He presupposed two hypotheses on the relationship between age and environmental concern as follows:

- 1) difference in attitude originates from generation difference (cohort effect)
- or
- 2) attitude changes are due to the changes in socio-economic conditions followed by the ageing process (age-effect).

Other researchers support Buttel on this matter. Reviews of the literature (Cutler, Kaufman and Glenn, 1975 quoted in Mohai and Twight, 1987) explained that ageing does not necessarily mean a shift toward conservatism since "attitudinal change over time is just as likely to be in liberal direction as in a conservative direction". Glenn (1980 quoted in Mohai and Twight, 1987) expressed a preference for a cohort effect since he found out that not only cohort data have fail to support the ageing-conservatism, but that individuals and cohorts have generally become more liberal rather than conservative over the past few decades. Inglehart (1990) also supported the "cohort effect". He found that historical and social conditions of individuals' in 'formative' or pre-adult years are an important factor to determine their pro-environmental preferences. Although Mannheim's theory do not mention it directly, Dunlap, Van Liere and Dunlap, (1980) suspects that continued exposure to alarming

information on environmental deterioration, via news media and environmental education, would formulate 'ecology-minded' generation / whose commitments to environmental reform do not disappear as they move into adulthood.

Although link between age and environmental concern is suggested by various scholars, there are inconsistencies in the survey results to support their hypothesis, probably because this area has not been fully explored.

2. Gender and environmental concern

The relationships between gender and environmental concern are studied and carefully theorised more than other structural variations in environmental concern" (Dietz, Stern, Guagnano, 1998). It is generally believed that women are more concerned about environment than men because "women are potentially more environmentalist than men due to biospheric orientation" (Diamond& Orenstein, 1990, Griffin, 1978, Merchangt, 1979 quoted in Stern, Dietz and Kalof, 1993). This is supported by the Harris survey (1991), which showed that more women are concerned about the environmental quality, critical about policy taken by government and willing to accept lower standard of living for fewer health risks.

Nevertheless, other empirical investigations show inconsistent results on this hypothesis. For instance, one of the earlier studies done by McEvoy (1972, quoted in Van Liere and Dunlap 1980) showed that men are more concerned about environment than women due to their higher level of education and involvement with the communities and political issues. However, other studies shows that women are more concerned about environment than men because men are much more concerned about economic growth and economic stability (Passino and Lounsbury, 1976 quoted in Van Liere and Dunlap 1980) and consider environment as constraint to the economic growth. The review of further analysis by Mohai suggests (quoted in Stern, Dietz, and Kalof, 1993) that women tend to be more concerned about local environmental issues than men, but this difference is smaller when it comes to the issues at national or global level. It also notes that women are less likely o take political actions to protect the environment.

There is a discussion on "mother" and "father" effects by Blocker and Eckgberg (1989 quoted in Stern, Dietz and Kalof, 1993). These discussions are based on difference in gender roles. They state that, in general, mothers are more concerned about local environmental problems than fathers. The reasons for such differences are based on role in the society: mothers priorities welfare and health of family (which closely associates with the local environmental quality such as water, air and solid waste), while fathers prioritize economic and material well being of the family (George and Southwell, 1986 quoted in Dietz, Stern and Guagnano, 1998).

Many studies suggest the possible relationships between gender and environmental concerns. However, this relationship must be treated with caution. All investigations indicated that environment-gender association has much to do with the difference in social role, which is culturally conformed and changes greatly from time to time. Considering the fact that these hypotheses are based on Western culture and on period varying between 1970s to 90s, different outcome can be expected from different cultural and historical context. Therefore, more investigation on different cultural context and time period are necessary to consolidate the gender-environment link.

3. Social status and environmental concern

There is a hypothesis that states "environmental concern is positively associated with social class as indicated by education income and occupational prestige" (Van Liere and Dunlap, 1980). Inglehart (1990) and earlier, Andrews (1978), gave an explanation for this hypothesis based on the fact that once people solved their basic material and physical needs, they opt for more aesthetic aspect of human existence or "quality of life", such as better environment is associated with higher concern since it is directly related to the access to information on environment and ability to process the information into knowledge. The study by Arcury (1990 quoted in Furman, 1998) supports a consistent and positive relationship between environmental knowledge and environmental attitudes. However, caution is needed to directly link the educational level to high level of environmental concern since educational level also involves other social factors. For instance, better

education generally means better job, thus having more economical "surplus" which may allow individuals to pay more attention to the "luxury good" such as environmental quality. Also, the social background that permits individuals to have better education could have some effect on their thinking process.

2.5 REVIEW OF MAJOR STUDY ON RELATIONSHIP BETWEEN VALUES/ WORLDVIEW AND ENVIRONMENTAL AWARENESS

The value system or worldview of individual is fundamental and it is rarely changed. Value is defined as "the deep tides of public mood, slow to change, but powerful" in comparison to opinion and attitude (Worcester, 1996). If public opinion is a reflection of the current information and situation given to the person, socio-economic background can be considered as a framework of a person who receives such information. In this context, the value/worldview is considered as one of the most important element in decision making. Each individual is embedded in social structure where the decision is shaped by individual's values and worldview.

1. Materialist vs. Post-Materialist theory

Ronald Inglehart (1977, 1990 and 1997) did one of the early and extensive researches on value systems. He has written widely about cultural values and has developed a theory of 'Post Materialist Societies'. His works set the hypothesis that a society's culture- its basic values and beliefs of its peoples- are closely linked with its economic and political system. His analysis demonstrated powerful linkages between value systems and socio-economic systems. According to that, the increase of environmental concern is considered as one of the phenomena caused by the "value shift" from 'materialist' to 'post-materialist' (Inglehart, 1990). This means that there was a 'shift' away from the long predominant preoccupation with material well being and physical factors tend to play a decisive role in determining the 'shift'. For instance, under condition of economic scarcity the materialist value prevails; however, as material scarcity diminishes, demand for the quality of life, Post-materialist value, increases. Although it shares the basic concept with theory of Environmental

Kuznets Curve, Inglehart suspects that environmental quality improvement is not simply achieved by the economic level since post materialist value reflect one's subjective sense of scarcity. Therefore, the situation of social welfare, cultural and political setting of individuals in which one is raised, also have an influence on the change in environmental quality. In this context, the socialization hypothesis becomes important.

He also considered that "value system", established during one's formative years, has an impact on "cognitive mobilization" or political behaviour such as ecological movement. He links the degree of impact to the social background of individuals by claiming that impact is greatest among those with relatively high levels of education, political information, political interest and political skills. In relation to that, relationships between degree of post-materialist and socio-demographic factors such as education, age, sex, political ideology, religion were analyzed. As the result, he found that that age and economic level are the strongest factors for post-materialist – value, environmental concerns, thereby confirming his hypothesis. In his work of 1997 (Inglehart, 1997), he extends his 'materialism and post-materialism thesis' into modernization and post modernization and explains Post modernism as the selective re-evaluation of tradition or as a rise of new values and lifestyles. In the value from modernization to post-modernization is occurring as a result of diminishing return of modernization felt subjectively by the population through the degradation in the quality of life, in which includes environmental quality.

2. New ecological paradigm and human exceptionalism paradigm

In addition to materialist/post-materialist theory, theory of Human Exceptionalism Paradigm/New Ecological (Environmental11) Paradigm, founded by Dunlap and Catton, is frequently mentioned in discussion of environmental concern. This theory focused on worldview on environment and evaluated its relationships with socio-demographic factors. They claimed conventional sociology is unable to find a solution for environmental problems because it stems from particular worldview, "Human Exceptionalism Paradigm (HEP), 12 which fail to acknowledge the biophysical bases of social structure and social life

(Buttel, 1995, Taniguchi, 1998). They asserted a need to "shift" paradigmatically from HEP to New Ecological Paradigm: NEP.¹³ The NEP, unlike HEP, consider human beings as a part of ecological system (Buttel, 1996) and the environmental improvement can be achieved through the spread of NEP among public (Buttel, 1996). In this context, he considers the trends of public opinion on environmental issue as a sign of environmentalism. He came up with a set of questions 14 to measure the degree of NEP to estimate the worldview of citizens.

This set of questions is widely used in different studies such as in case of the United States (Kempton, Boster and Harley, 1995) and case of Istanbul, Turkey (Furman, 1998) amongst others.

The study of values and worldview are important in predicting people's behaviour since these work as "filters" for the information and ideas. However, studies discussed above concentrated on evaluation of the 'shift' in value system/worldview and lack the analysis to link the value/worldview and behaviour.

2.6 SUMMARY

The importance of environmental awareness and education is recognized globally. There are so many factors that affect environmental awareness and so many postulations as to the extent of these effects. As previously stated, public opinion survey on environment is categorized into time series and cross-national perspectives. Both time series and cross-national analysis demonstrated different aspects on trends of environmental public opinion. The time series analysis, for the case of the U.S., illustrated the process of the formation of environmental attitude by citizens. The cross national analysis on environment showed universal trends of increase in environmental awareness. Both analyses showed, despite of fluctuation on environmental opinions, increase in people's environmental concerns and willingness to contribute for the environment.

The major hypothesis on environmental awareness formation are focused on finding a link between high environmental concern and particular social attribute in order to explain the major causes of environmental awareness. It has been found that some social

attributes like age, gender, social status influence environmental awareness formation.

There is also a relationship between values or world view and environmental, awareness. This has also been explored extensively.

These studies give insight and direction to this research project and the issues to be examined.

III. RESEARCH DESIGNS AND METHODS

3.1 INTRODUCTION

The purpose of this research is to find out if teenagers are environmentally aware and the level of awareness of environmental issues by teenagers. This study also seeks to find out the factors that affect environmental awareness amongst teenagers in school; factors like age, socio-economic background, travel and exposure, exposure to the internet or cable television, school curriculum and other related issues. We need to develop a research design that will measure these factors and give us answers to our questions.

3.2 RESEARCH DESIGN

A research design is a description and explanation of the steps and procedures which will be used to carry out the processes of arriving at answers to the questions posed in the research project. It is the structuring of investigation aimed at identifying variables and their relationships with one another. It enables a researcher to obtain data, to test hypothesis or answer research questions. It is an outline or a scheme that serves as a guide for the researcher. Hence a research design is regarded as the blueprint of a research. It answers the questions of what, why, how, when and where of the study.

A research design gives focus to the researcher, and guides every step of the research. It also helps to illuminate some areas of the study, or some information that is essential to a successful research.

A research design always contains the following: the population or universe of study, sampling frame, sampling technique, data collection instrument and method of data analysis. Research designs are carried out for various reasons.

Characteristics of the study population

As earlier stated, this study is concerned with teenagers, and so our study population are teenagers in school, basically secondary school students, aged between twelve and sixteen. We have a cross section of teenagers from different economic and social backgrounds; the rich, middle class and the poor. These teenagers are from different ethnic groups all over the country? and live in different parts of the Lagos metropolis. Some of them live in other states of Nigeria. The students will be both male and female.

Data Collection Instruments

There are two main groups of research. These are:-

1. Experimentation
2. Survey research

This study is going to be done by survey research method

Survey research

Survey research is one of the most important areas of measurement in applied social research. The broad area of survey research encompasses any measurement procedures that involve asking questions of respondents. A "survey" can be anything from a short paper-and-pencil feedback form to an intensive one-on-one in-depth interview.

Data are collected from the population for intensive study and analysis. More often than not, the researcher finds that he cannot possibly study all of the subjects or items in the population. Hence, the survey researcher selects a sample from or a subset of, the population using some techniques of sampling.

The manner of selecting the sample will determine his ability to generalize his findings for the whole population or universe. The methods of survey research are based on the methods of gathering information or data from the population or from sample drawn from the population. The survey research will be used for this study.

The data collection instruments for a survey research are as follows

1. Observations

Observation research (or field research) is a social research technique that involves the direct observation

of phenomena in their natural setting. This differentiates it from experimental research in which a quasi-artificial environment is created to control for spurious factors, and where at least one of the variables is manipulated as part of the experiment. Observations are used in some research situations where the researcher can gather information only by watching and recording information. Observation includes monitoring behavioural and non behavioural activities and conditions of sample subjects. Non-behavioural observation is used in recording physical processes and conditions such as watching the weather to see if it rained or was bright. Behavioural observation is used in non-verbal analysis, linguistic analysis, spatial analysis (i.e. how we relate physically to others).

The main advantage of observational research is flexibility. The researchers can change their approach as needed. Also it measures behaviour directly, not reports of behaviour or intentions. The main disadvantage is it cannot be used to study cognitive or affective variables. Another disadvantage is that observational data is not usually generalizable.

Generally, there are three types of observational research:

- Covert observational research - The researchers do not identify themselves. Either they mix in with the subjects undetected, or they observe from a distance. The advantages of this approach are: (1) It is not necessary to get the subjects' cooperation, and (2) The subjects' behaviour will not be contaminated by the presence of the researcher. Some researchers have ethical misgivings with the deceit involved in this approach.
- Overt observational research - The researchers identify themselves as researchers and explain the purpose of their observations. The problem with this approach is subjects tend to modify their behaviour when they know they are being watched. They portray their "ideal self rather than their true self.
- Researcher Participation - The researcher participates in what they are observing so as to get a finer appreciation of the phenomena. Researchers that participate tend to lose their objectivity.

2. Interview

This is a survey method of research involving a person seeking information called the interviewer and another giving the information, called the respondent. The interviewer armed with an interview schedule, meets the respondent, asks questions of the respondents and completes interview schedule himself. In effect, personal interview uses questionnaire which is completed by the interviewer himself. Unlike the questionnaire method, the interviewer often goes beyond what is contained in the interview schedule in order to enrich the response.

Face-to-face interviews have long been the dominant interview technique in the field of qualitative research. In the last two decades, telephone interviewing became more and more common. Due to the explosive growth of new communication forms, such as computer mediated communication (for example e-mail and chat boxes), other interview techniques can be introduced and used within the field of qualitative research.

Advantages of interviews

- Allows the participant to describe what is meaningful or important to him or her using his or her own words rather than being restricted to predetermine categories; thus participants may feel more relaxed and candid
- Provides high credibility and face validity; results "ring true" to participants and make intuitive sense to lay audiences
- Allows evaluator to probe for more details and ensure that participants are interpreting questions the way they were intended
- Interviewers have the flexibility to use their knowledge, expertise, and interpersonal skills to explore interesting or unexpected ideas or themes raised by participants
- Sometimes no existing standardized questionnaires or outcome measures are available that are appropriate for what your program is trying to accomplish

Disadvantages of interviews

- May be experienced as more intrusive than quantitative approaches; participants may say

more than they intended to say, and later regret having done so

- May be more reactive to personalities, moods, and interpersonal dynamics between the interviewer and the interviewee than methods such as surveys.
- Training interviewers and conducting interviews can be expensive and time-consuming, because interviewing requires considerable skill and experience.
- Analyzing and interpreting qualitative interviews is much more time-consuming than analyzing and interpreting quantitative interviews.
- More subjective than quantitative interviews because the evaluator/researcher decides which quotes or specific examples to report.

Types of Interviews

Patton (1990) identifies three basic types of qualitative interviewing for research or evaluation: the informal conversational interview, the interview guide approach, and the standardized open-ended interview. Although these types vary in the format and structure of questioning, they have in common the fact that the participant's responses are open-ended and not restricted to choices provided by the interviewer. A fourth type of interview, the closed, fixed-response interview, falls in the realm of quantitative interviewing. In quantitative or structured interviews, the respondent is asked to choose from a predetermined set of response categories. Each type of qualitative interview has advantages and disadvantages. Once your evaluation team has decided to include qualitative interviews as part of your evaluation plan, it is still necessary to consider the strengths and weaknesses of each type in relation to your needs and the resources available for your evaluation:

1) Informal Conversational Interview: This type of interview may occur spontaneously in the course of field work, and the respondent may not know that an "interview" is taking place. Questions emerge from the immediate context, so the wording of questions and even the topics are not predetermined. The major advantage is that the interview is highly individualized and relevant to the individual. Thus, it is likely to produce information or insights that the interviewer could not have anticipated. This type of interview

requires an interviewer who is very knowledgeable and experienced in the content area and strong in interpersonal skills, since he or she will have considerable discretion in directing the interview. However, since different information is collected from different people, this kind of interview is not systematic or comprehensive, and it can be very difficult and time-consuming to analyze the data.

2) Interview Guide Approach: This may be the most widely used format for qualitative interviewing. In this approach, the interviewer has an outline of topics or issues to be covered, but is free to vary the wording and order of the questions to some extent. The major advantage is that the data are somewhat more systematic and comprehensive than in the informal conversational interview, while the tone of the interview still remains fairly conversational and informal. Like the conversational interview, this type of interview also requires an interviewer who is relatively skilled and experienced, since he or she will need to know when to probe for more in-depth responses or guide the conversation, to make sure that all topics on the outline are covered. A possible drawback is that sticking to the outlined topics will prevent other important topics from being raised by the respondent. Also, while this format, is more systematic than the conversational interview, it is still difficult to compare or analyze data because different respondents are responding to somewhat different questions.

3) Standardized Open-Ended Interview: In this format, the interviewers adhere to a strict script, and there is no flexibility in the wording or order of questions. It is still considered a qualitative interview rather than a quantitative interview, because the responses are open-ended. This is the most structured and efficient of the qualitative interviewing techniques and is useful for reducing bias when several interviewers are involved, when interviewers are less experienced or knowledgeable, or when it is important to be able to compare the responses of different respondents. This may be the best choice for an evaluation if you must rely on volunteer or inexperienced interviewers or if you have limited time and money available for analyzing the data. The major drawback is that the interviewer has little flexibility to respond to the particular concerns of the individual, and there is no

guarantee that the questions asked tap into the issues that are most relevant to this particular respondent.

3. Questionnaire

A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. Although they are often designed for statistical analysis of the responses, this is not always the case. The questionnaire was invented by Sir Francis Galton. It contains carefully worded questions and instructions for the respondent who may not have the opportunity of seeing and asking for clarification from the interviewer. Answers are filled in the space provided beside each question. Questionnaires are usually standardized for all respondents in the study. There are different types of questionnaires and the type used depends on the circumstances involved. They are:

Mail Questionnaire survey

Questionnaires are sent in the mail. There are many advantages to mail surveys. They are relatively inexpensive to administer. You can send the exact same instrument to a wide number of people. They allow the respondent to fill it out at their own convenience. But there are some disadvantages as well. Response rates from mail surveys are often very low. And, mail questionnaires are not the best vehicles for asking for detailed written responses.

Group administered questionnaire.

A sample of respondents is brought together and asked to respond to a structured sequence of questions. Traditionally, questionnaires were administered in group settings for convenience. The researcher could give the questionnaire to those who were present and be fairly sure that there would be a high response rate. If the respondents were unclear about the meaning of a question they could ask for clarification. And, there were often organizational settings where it was relatively easy to assemble the group (in a company or business, for instance).

What's the difference between a group administered questionnaire and group interview or focus group? In the group administered questionnaire, each respondent is handed an instrument and asked to complete it while in the room. Each respondent completes an instrument. In the group interview or focus group, the interviewer

facilitates the session. People work as a group, listening to each other's comments and answering the questions. Someone takes notes for the entire group -- people don't complete an interview individually.

Household drop-off survey questionnaire

A less familiar type of questionnaire is the household drop-off survey. In this approach, a researcher goes to the respondent's home or business and hands the respondent the instrument. In some cases, the respondent is asked to mail it back or the interview returns to pick it up. This approach attempts to blend the advantages of the mail survey and the group administered questionnaire. Like the mail survey, the respondent can work on the instrument in private, when it's convenient. Like the group administered questionnaire, the interviewer makes personal contact with the respondent -- they don't just send an impersonal survey instrument. And, the respondent can ask questions about the study and get clarification on what is to be done. Generally, this would be expected to increase the percent of people who are willing to respond.

Advantages of questionnaires

The advantages of the questionnaire are many.

It is cheaper to administer than an interview.

It also takes less time to administer.

The problem of bias is eliminated. It can also be administered to a large number of people at the same time.

A questionnaire also offers great anonymity to respondents and this may encourage more truthful responses.

A questionnaire can also produce a large amount of data in a short time. Provided the questionnaire is well designed, the data is also very easy to interpret.

Questionnaires provide a good source of quantitative data. The advantage of this quantitative data is that it makes it easy to do statistical analysis with. The results of data analysis can provide answers to compare between different situations or different products.

Disadvantages of questionnaires

The disadvantage of the questionnaire approach is that unless a questionnaire is well designed then it is very difficult to ensure its validity. It may seem obvious but it is also very true that a questionnaire can only provide you answers to the questions specifically asked in it.

Questionnaires tend to lead to lots of issues regarding what participants really meant when they answered a question. As such the data is not as rich as it could be.

Another problem with questionnaire studies is that it is impossible to know what the user was doing when they filled out the questionnaire. How do you know the user was paying attention? Were they thinking about the questions or considering their answers? Did they have any incentive to give misleading answers? Suppose the questionnaire offered a prize draw to respondents, perhaps some would think that they would be better served to give answers that the company would prefer in order to buy favour with them ahead of the prize draw.

Another disadvantage of the questionnaire is that it cannot be administered to illiterate subjects. It also denies the researcher the opportunity to probe for further clarification of responses.

The key to good questionnaire design is to ensure that the questions are well designed. Experts in user research, particularly those with a background in psychology, should have a good understanding of questionnaire design. Make sure your questionnaire is reliable, valid, and balanced, both in terms of the questions being asked and the answers that can be given. Be sure that the answers you will receive will be meaningful. Before you start any questionnaire research it is worth checking that you know what conclusions any particular set of answers would allow you to draw.

In this study, the questionnaire method of survey research will be used. This is the method of choice for this study because all our respondents are literate, We need to administer the questionnaires to them in school and so we can take less time to administer the questionnaire. The school authorities will definitely not be amenable to personal interviews, as this will disrupt their schedule. The questionnaire will also help us get more honest replies because of the cloak of anonymity.

3.3 DESCRIPTION OF THE QUESTIONNAIRE

The questionnaire to be used for this study contains forty three questions, divided into three sections, each addressing a different area

- Section A: Socio-economic Information. This section contains fifteen questions aimed at getting such information as age, address, sex, family size, parents level of education, etcetera.
- Section B: Environmental Awareness. This section contains twenty three questions aimed at determining the level of environmental awareness of the teenagers.
- Section C: Environmental Responsibility. This seeks to find out the respondent's perception of environmental responsibility as pertains to the individual. It contains five questions.

3.4 FIELDWORK-DESCRIPTION OF THE PROCESS

Teenage secondary school students are to be sampled, and for each of the schools, we will sample a hundred students from each school. This means a total of three hundred questionnaires will be given out. This number we believe will be a good representation of the different schools and varied parameters being used for this study. For each school, we will sample thirty JSS2 pupils, thirty SSS1 pupils and forty SSS2 pupils. The JSS3 and SSS3 pupils are on holiday.

3.5 FIELDWORK PROBLEMS AND HOW THEY WERE RESOLVED

The fieldwork went relatively smoothly. The major challenges encountered were the reluctance of some students to fill out the questionnaire and the fear that the questionnaire was an academic test.

I encouraged them to fill out the questionnaire, assuring them that it would not take much time. They were also reassured that they needed to answer truthfully, and not spy on others, because this was an academic research. The students co-operated after the explanations.

IV. ANALYSIS OF RESEARCH FINDINGS

SECTION 1

4.1 INTRODUCTION

Data presentation, analysis and interpretation is a vital aspect of research effort. It gives meaning and shape to the raw data collected during the field survey.

In this chapter, an attempt will be made to present, analyze and interpret the results of the field survey and use them to answer the research questions.

4.2 DATA ANALYSIS

The response to the questionnaires will be represented in a frequency distribution table, analyzed and interpreted using simple percentages. The hypothesis will be tested using the chi-square statistical method of data analysis.

4.3 GENERAL DESCRIPTION AND CHARACTERISTICS OF RESPONDENTS AND SCHOOLS

In this research, "Environmental Awareness Amongst Teenagers, a comparative analysis of Cayley College, Queen's College, and Omole Grammar School", a total of 300 questionnaires were administered to the students. One hundred questionnaires were administered per school and they were all returned, which translates to a 100% return rate.

The students ranged in age from twelve to seventeen, and we had both male and female respondents, except for Queen's College which is an all-girls school. Their socio-economic backgrounds varied; children from low-income families to children from the upper income families.

Cayley College is a school in Agidingbi that caters for children from Upper income families. They come from comfortable backgrounds and live mostly in big houses with access to cable television and international travel.

Queen's College is a school which cuts across children from all backgrounds, because even though the fees are not high, a lot of children from upper income families are sent there because it is a federal government school with high educational standards. Therefore, in this school, we have children from diverse economic and social backgrounds.

Omole Grammar school is a state government run school, located in Omole Estate. It caters for children from low-income families and housemaids of middle-upper income families. The children are not generally exposed to a lot of things, and the teaching staff have

a hard time teaching the basic subjects, due to lack of discipline. Basic understanding of English language is a little limited.

4.4 SOCIO-ECONOMIC BACKGROUND OF STUDENT RESPONDENTS

Table 4.41 -Age

School	Female	Percentage	Male	Percentage	Total%
Omole G.S	41	41%	59	59%	100%
Queen's C.	100	100%	-	-	100%
Cayley C.	56	56%	44	44%	100%
Total	197	69%	103	34.3%	

This table shows that for Omole Grammar School, the male respondents were 59%, and the female respondents 41%, which shows more boys than girls. In Queen's College, we have only female students because it is an all-girls school, whilst in Cayley College, the female population is more (56%) as against the male student's which make up 44% of the respondents.

Table 4.42 Type of House

School	Duplex	%	Bungalow	%	Flat	%	Room parlor	%	1 room	%	Not indicated
Omole Gr. Sch.	15	15	9	9	30	30	31	31	15	15	-
Queen's College	18	18	28	28	40	40	-	-	4	4	10
Cayley College	60	60	18	18	18	18	1	1	-	-	-
Total											

The distribution table (4.43) shows a difference in the type of houses of the students in the different schools, this is because of the difference in their socio-economic backgrounds.

Omole Grammar school has 15% of the students living in duplexes, most of these will be living with relations or will be house helps., 9% live in bungalows, 30% in flats, 31% in room and parlor, and 15% of them live in single rooms. This shows that they basically come from low-income families.

Queen's College which is more of a mixed income school, shows, a distribution of students thus; 18 live in duplexes, 28% in bungalows, 40% live in flats, which is the greater percentage of them. None of them lives in a room and parlour, 4% live in a single room and 10% did not indicate where they live.

Cayley College shows 60% of the students live in duplexes, this is the greater percentage of them. This shows that they generally come from upper income families. 18% of them live in bungalows, 21% live in flats and 1% lives in a room and parlour.

Table 4.43 Age Distribution

School	10-13	%	14-17	%	18-20	%
Omole Gr. Schl.	20	20	65	65	15	15
Queen's College	29	29	65	65	6	6
Cayley College	39	29	60	65	-	-

Table 4.43 shows a difference in the age distribution of the children. Omole Grammar School records 20% of the students aged 10-13, 65% aged 14-17 and 15% aged 18-29. This shows an age distribution of more middle to late teenagers.

Queen's College shows an age distribution of 29% aged 10-13, 65% aged 14-17 and 6% aged 18-20. This

also shows that more of the children are in their mid teens.

Cayley College has 39% aged 10-13, 61% aged 14-17 and none 18 years and above.

This also shows most mid teens and some very young teenagers. The age distribution in the three schools is therefore quite similar.

Table 4.44 Parents' education Distribution

School	No education	Primary School	O'levels	B.Sc/B.A	Masters	Ph.D	Not indicated
Omole Gr. School	-	6	24	45	15	9	
	-	16	45	33	6	-	-
Queen's College	-	8	4	12	24	34	18
	-	6	10	18	26	22	18
Cayley College	-	-	3	15	36	42	4
	-	-	3	33	36	27	1

Table 4.44 which is the parents education distribution table shows for Omole Grammar School, the educational qualification of the parents is 45% male and 33% female are B.Sc holders, 24% male and 45% female stopped at their O'levels, 6% male and 16% female have primary school education, 15% male and 6% female are masters holders. A small percentage of the male parents have a Ph.D. For parents of Omole Grammar school students therefore, a significant number of the parents are graduates and O' levels

holders.

Queen's College students' parents however show a distribution of more M.Sc holders (24% male and 26% female, and PhD holders (34% male and 22% female. This means that these parents are generally much better educated than the Omole Grammar School's parents. Parents with primary education (8% male and 6% female) and secondary education (4% male and 10% female) are few.

Cayley College parents' educational distribution shows a much greater percentage of highly educated parents, none is a primary six certificate holder, only 3% male and 3% female are O'levels certificate holders, 15% male and 33% female are B.Sc holders. The greater percentage are Masters holders (36% male and 36% female), and PhD holders (42% male and 27% female). This means there is an even higher percentage of highly educated parents here as compared to the parents of Queen's College students.

Table 4.45 Parents' Occupation Distribution

School	Unemployed	Civil Service	Private Employment	Self Employed	Professional
Omole Gr. Sch. Male	20	17	22	44	-
Female	15	10	22	53	-
Queen's Col. Male	18	12	20	42	-
Female	13	9	18	60	-
Cayley Col. Male	-	10	16	66	-
Female	-	6	14	80	-

Table 4.44 which is a parents' occupation distribution table shows that some of the parents of Omole Grammar School students are unemployed, specifically 10% male and 15% female, also more of them are in private employment (27%). Another significant group are the civil servants. Generally, income of parents in this group is low.

For the Queen's College Students, data shows that none of the parents is unemployed, the greater percentage of the parents are self employed (40%), and the rest of the population is distributed amongst civil service, private employment and professionals. A few students (45% male and 60% female), very few are civil servants, and those in private employment are also few, the rest are professionals, and a few students did not indicate their parents professions. This speaks of more income for the Cayley College Families than Queen's College and Omole Grammar School.

Table 4.46 International Travel Distribution

School	Yes	No	Total
Omole Gr. Sch.	30	70	100
Queen's Col.	55	45	100
Cayley Col.	85	15	100
Total	170	130	

Table 4.46 shows a vast difference in the travel exposure of the students from the different schools. This is a further proof of the differences in socio-economic background of the students from the different schools.

Omole Grammar school students showed the least number of students to have traveled outside West Africa (30%). 70% of them have not traveled outside West Africa.

Queen's College students have traveled outside West Africa a bit more as 55% of them have traveled outside West Africa, while 45% have not. Cayley College International travel distribution table shows that 85% of them have traveled outside West Africa, and 15%

have not traveled outside West Africa. There is a wide gap between Cayley students travel exposure and that of Queens College and Omole Grammar School students.

Table 4.47 Television and Cable Distribution

School	Have T. V. Yes	No	Listen to News Yes	No	Have Cable T. V. Yes	No	Watch National Geo. Yes	No
Omole Gr. Sch.	90	12	7	93	13	87	3	97
Queen's Col.	100	-	56	44	64	36	40	60
Cayley Col.	100	-	6	94	97	3	69	31
Total	288	12	69	231	174	126	112	188

Table 4.47 shows the TV habits of the teenagers. All except a few from Omole Grammar school have television sets at home. Very few Omole Grammar School students have cable television (13%), and most of them do not listen to news broadcasts (93%).

All Queen's College students have television sets at home. And about 56% listen to the news broadcast. 64% of them have cable television at home and of the 64%, about half of them watch National Geographic Channel, which is very good. All environmental issues are highlighted in the National Geographic Channel.

Cayley College students all have television sets at home, but only 6% listen to the news broadcast. 97% have cable television at home and 60% of them watch the national geographic channel.

Table 4.48 Environmental awareness distribution

School	Global Warming	Recycling	Environmental Degradation	Environmental Conservation	Sustainable Development	Flush	Generator	Oil Exploration	Total GRDCD
Omole Gr. Sch.	7	12	8	8	-	40	70	20	27
Queen's Col.	33	39	29	20	10	80	90	60	51
Cayley Col.	17	20	10	4	-	70	85	50	35
Total	57	71	47	32	10	190	245	130	

Table 4.48 shows the environmental awareness distribution amongst students of the three schools. The environmental issues mentioned are coded thus:

Global warming- G. W.

Recycling-R

Environmental degradation-E.D.

Environmental conservation-E.C.

Sustainable Development-S.D.

What happens when you flush the toilet or bath?-flush

What is the effect of the use of generators?-Generator

Why is there dispute in the Niger delta? -Oil exploration

Total value for Global warming, recycling, environmental degradation, environmental conservation and sustainable development-GRDCD

Students of Omole Grammar School showed the least awareness level (27%) out of 100 students are really aware of environmental concepts like global warming etc., and they are not even knowledgeable about all

the issues involved. None of them is aware of sustainable development.

Students of Queen's College, show the greatest level of environmental awareness with more of them being aware of more than one environmental issue. 51% are environmentally aware. 10% of them out of the students of the three schools know what sustainable development is. This gives cause for alarm, because sustainable development is the bedrock of environmental management.

Cayley College students have no knowledge of sustainable development and 35% are aware of one or two environmental issues. They also show very little knowledge of environmental conservation.

Generally more of them are aware of the environmental issues in an informal way, like knowing about the effect of generator fumes, oil exploration, but only about 113 students out of 300 showed real environmental awareness.

This gives cause for concern.

Table 4.49 Source of Environmental Knowledge distribution

School	School Club	Class	T.V.	Parents	Internet	Radio	Not Indicated	Total
Omole Gr. Sch.	5	5	5	8	2	1	1	27
Queen's Col.	16	17	15	3	-	-	-	51
Cayley Col.	-	3	20	7	-	-	5	35
Total	21	25	40	18	2	1	6	

This table shows the source of environmental knowledge amongst the students. Students of Omole Grammar school show that most of them gained environmental knowledge from their parents and most of the rest from the school science club and their science class.

Queen's college students however gained most of their environmental knowledge from School and Television. They have a vibrant science club.

Cayley College students however gained little environmental knowledge from school; none from any club, little from the science class. Most of them gained.

Relationship between School and Awareness

	Awareness2				Total
	Below Average	Average	Good	Excellent	
School Cayley College	17	32	42	9	100
Queens College	0	3	92	5	100
Ojodu Grammar School	18	37	45	0	100
Total	35	72	179	14	300

Chi test-x2 = 80.698, /degree of freedom= 6; significance= 0.000

The awareness figures for the students were graded into four groups:

1. below average
2. average
3. good
4. excellent.

This was named awareness 2, and each group was given a numeric figure to enable cross tabulation. Awareness 2 is cross tabulated with the individual schools, to see the awareness level of each of the schools more clearly.

Association between Awareness and Travel

	Travel		Total
	Yes	No	
Awareness Below Average	12	23	35
Average	33	39	72
Good	112	67	179
Excellent	13	1	14
Total	170	130	300

Chi tests-x2=20.588; degree of freedom3: significance= 0.000

Association between Awareness and Television viewing

	Television		Total
	Yes	No	
Awareness Below Average	35	0	35
Average	66	6	72
Good	175	4	179
Excellent	12	2	14
Total	288	12	300

Chi test-x2-10.289; degree of freedom-3: significance 0.016

Relationship between Father's Occupation and Awareness

		Awareness				Total
		Below Average	average	Good	Excellent	
Father Occupation	Below	8	4	14	3	29
	Average	6	12	38	2	58
Employment	Private	11	47	110	6	174
	Self	10	9	16	3	38
Unemployment		0	0	1	0	1
Total		35	72	179	14	300

Chi tests- $\chi^2=27.381$; degree of freedom= 12; significance = 0.007

Relationship between Mother's Education and Awareness

		Awareness				Total
		Below Average	average	Good	Excellent	
Mother's Education	No formal Education	5	9	2	1	17
	Private Education	4	3	2	1	10
	O'levels	0	23	31	0	54
	B.Sc/B.A	6	9	36	2	53
	Masters	12	8	33	2	55
	PhD	8	18	66	7	99
	No answer	0	2	9	1	12
Total		35	72	179	14	300

Chi tests- $\chi^2=59.871$; degree of freedom- 18; significance= 0.000

Relationship between Father's Education and Awareness

	Awareness				Total
	Below Average	average	Good	Excellent	
Father's Occupation No formal Education	5	3	2	0	10
Private Education	0	1	4	0	5
O'levels	2	14	18	1	35
B.Sc/B.A	2	10	18	2	32
Masters	8	19	55	3	85
PhD	17	18	71	6	112
No answer	1	7	11	2	21
Total	35	72	179	14	300

Chi tests- $\chi^2 = 32.651$; degree of freedom = 18; significance = 0.018

4.6 DECISION RULE

Acceptance: We accept the results of the findings when the calculated chi-square is less than the table chi-square value. This means accepting the null hypothesis and rejecting the research hypothesis.

Rejection: We reject the result of the findings when calculated chi-square value is greater than the table chi-square value. This means rejecting the null hypothesis and accepting the research hypothesis.

4.7 DISCUSSION OF FINDINGS

Since the calculated chi-square values for each of the indices cross tabulated is less than the table chi-square value, we therefore accept the hypothesis postulated.

The correlation analysis result indicate a positive (though small) relationship between Economic background and Awareness, i.e, the higher the teenager's socioeconomic background, the more aware

they are of the environmental issues. In other words, those with a comfortable socioeconomic background are more aware of the environmental issues than those from a humble socioeconomic background.

The Chi-Square and likelihood ratio tests too Support the hypothesis, in that all the tests are significant except father's occupation versus Awareness that is narrowly significant at the 5% level (table 3d-h).

Also, the result of the chi-square and likelihood ratio tests shows significant relationship between; School and Awareness, International travel and awareness, as well as Watching television and awareness.

This means that the hypothesis postulated have been proven correct, in this study. This is really significant because it shows that socioeconomic background, school curriculum or methods, international travel and watching television really influence environmental awareness significantly. Therefore, to improve on environmental awareness amongst teenagers, efforts can be made in these areas.

SUMMARY AND CONCLUSION

5.1 SUMMARY OF THE STUDY

Environmental awareness is an issue that has been brought to the front burner, because of the damage to the natural environment that development has brought. Issues like global warming, recycling, sustainable development and environmental conservation are now issues that need to be addressed urgently.

Youths and teens in developing countries are becoming strong advocates of environmental conservation and sustainable development. This has not really been the case in developing countries. The question of the awareness of these teenagers needs to be answered first. These issues need to be brought to the knowledge of the future leaders, so that they can make informed decisions and carry the torch for sustainable development. This study has sought to determine the level of environmental awareness amongst teenagers in Lagos, sampling those in school, because they are more knowledgeable than those not in school.

Questionnaires were administered to a total of three hundred students; One hundred students from each of the three schools chosen for the study. The schools were chosen to represent the different socioeconomic backgrounds, in order to have a balanced study. The students ranged in age from thirteen to eighteen years.

The questionnaire sought to determine the socio-economic background of the students, and their level of environmental awareness of environmental issues like recycling, global warming, sustainable development, pollution e.t.c.

The study also sought to determine the factors that affect environmental awareness. From the study, it was discovered that the level of environmental awareness amongst teenagers is average. There is a general knowledge which they have of issues like pollution, but the basic issues of global warming, recycling and other issues are not fully understood.

The SPSS software was used to determine the correlation between different issues, like socio-economic background and environmental awareness, television viewing and environmental awareness and

school and environmental awareness. Chi-tests were also carried out to determine the level of significance of these relationships.

The study has shown that all these factors have a role to play in the environmental awareness of teenagers.

5.2 CONCLUSION

From the review of literature on the major hypothesis on environmental awareness formation, many studies reveal the relationship between environmental concern and age. It says that in general, the younger generation tends to be more concerned about environmental quality than the older generation. Younger generation are considered more open to the environmental issues than the older ones, therefore in order to make optimal use of this, the young ones need to become environmentally aware quite early so that they will be vanguards for change.

The study has shown that generally for the students who were examined, the level of environmental awareness is quite average, and on some specific environmental issues like sustainable development and environmental conservation, the level of environmental awareness is quite low and leaves much to be desired.

The schools' curriculum has a strong effect on environmental awareness. This means that a good proportion of those who are environmentally aware got the knowledge from school, either from class, excursions or science clubs.

The socio-economic background of the teenagers also had an effect, like international travel, TV viewing, parent's educational qualification. These have a significant effect on environmental awareness.

5.3 MORE RECOMMENDATIONS

Following the conclusions made from the study, we wish to recommend that:

First of all, the schools science curriculum for Nigeria be reviewed, in order to include environmental awareness and key issues like recycling, global warming, sustainable development and environmental conservation.

Secondly, projects and school excursions that deal with environmental awareness should be made compulsory for schools.

Nigerian TV stations should also promote programs that highlight environmental issues and bring to the fore, environmental challenges of this century and the urgency of these issues via children's programmes and belts.

REFERENCES

- [1] Asika, N. (2006): Research Methodology in the Behavioural Sciences. Longman Nigeria Plc, Lagos
- [2] Dunlap R. E. (1965-1990): Trends in Public Opinion Toward Environmental Issues
- [3] Dunlap, Gallup and Gallup(1993), Dunlap and Metig (1995): The Health of the Planet Survey
- [4] Dunlap Riley E., Van Liere Kent D., Mertig Angela G. and Jones Robert Ernest: New Trends in measuring Environmental Attitudes: Measuring Endorsement of the New Ecological Paradigm. A revised NEP Scale
- [5] ECLAC: Economic Committee for Latin America and the Carribean
- [6] Opdenakker, R. (2006): Advantages and disadvantages of Oualitative Research, Forum :Oualitative Social Research Journal. Vol 7, No 4 (2006)
- [7] Patton, M. Q. (1987). How to use qualitative methods in evaluation. Newbury Park, CA: Sage.
- [8] Patton, M. Q. (1990). Qualitative evaluation and research methods (2nd ed.). Newbury Park, CA: Sage.
- [9] Tromchin, W.M. K. (2006): Research Methods Knowledge Base.
- [10] Sewell, M. The use of Qualitative Interviews In Evaluation; The University of Arizona. Cyfernet.
- [11] Wikipedia - The free Encyclopedia