ISSN: 0975-4792

Journal

Educational Review

Volume 2

Number 3

October-December 2009



Vision
Harvesting global scientific knowledge
for development of African higher education



SERIALS PUBLICATIONS
New Delhi (India)

JOURNAL OF EDUCATIONAL REVIEW

published four times in a year March, June, September and December.

JER ADVISORY BOARD

SPECIAL GUEST EDITOR

Prof. Tom Calhoun (USA)

Department of Criminal Justice and

Department of Criminal Justice and Sociology Jackson State University, Jackson, MS 39217, USA.

thomas.c.calhoun@jsums.edu

EDITOR-IN-CHIEF

1. Prof. Joel B. Babalola

Department of Educational Management, University of Ibadan, Ibadan, Nigeria Joelbabalola2000@yahoo.co.uk

2. Prof. A. A. Agagu

Department of Political Science
University of Ado-Ekiti, Ado-Ekiti, Nigeria
victagag@yahoo.com

EDITORS

1. Dr. Gbolagade Adekanmbi

Centre for Continuing Education
University of Botswana, Gaborone, Botswana
ADEKANMB@mopipi.ub.bw

2. Dr (Rev) Adams Onuka

Institute of Education
University of Ibadan, Nigeria
adamonuka@yahoo.com

ASSOCIATE EDITOR

1. Dr. Segun Adedeji

Department of Educational Management
University of Ibadan, Ibadan, Nigeria
Soadedeji_dr@yahoo.co.uk

2. Dr. Adesoji Oni

Department of Educational Foundations
University of Lagos, Akoka- Yaba,
Lagos, Nigeria
aoluoni@yahoo.~m/aoni@unilag.edu.ng

EDITORIAL MEMBERS

1. Dr. Kolade Odekunle

Human Resources Department
Nigeria Institute for Social and
Economic Research, Ibadan, Nigeria
Kodekunle@yahoo.com

2. Dr. Abiodun O. Ayeni

Department of Educational Management, University of Ibadan, Ibadan, Nigeria biodunmide@yahoo.com

3. Dr. Anne L. Sikwibele

Department of Educational Foundations
University of Botswana, Gaborone, Botswana
annesikwibele@yahoo.com

4. Dr. Ben Emunemu

Department of Educational Management
University of Ibadan, Ibadan, Nigeria
doriben7701@yahoo.co.uk.

5. Dr. Rosemary Agbolahor

ARCIS, University of Ibadan, Nigeria ragbonlahor@yahoo.com

CONSULTING EDITORS

1. Prof Tom Ngidi

University of Zululand, South Africa dngidi@pan.uzulu.ac.za

2. Prof. Morayo I. Atinmo

Department of Library and Archival Studies
University of Ibadan, Ibadan, Nigeria
morayoatinmo2004@yahoo.com

3. Prof. Temi Busari

Department of Science and Technology Education, University of Lagos, Nigeria olabusa@yahoo.com

4. Dr. Tom Russell

Association of Institutional Research (USA) trussell@airweb2.org

5. Dr. Juliet W. Macharia

Department of Communication Studies
Moi University, Eldoret, Kenya
juliemach@yahoo.com

6. Dr. Piotr T. Nowakowski

The John Paul II Catholic University of Lublin
Off Campus Faculty of Social Sciences
Stalowa, Wola. Poland
nowakowski@maternus.pl

7. Dr. Devora Kalekin

Faculty of Education
University of Haifa, Haifa 31905, Israel
dkalekin@univ.haifa.ac.il

MANAGING EDITORS

Prof. Muthaiyan Palani

Dept. of Economics, Pondicherry University
Pondicherry 605 014, India
muthaiyanecon@yahoo.com

2. Vijay Kumar

Serials Publications, 4830/24, Ansari Road Darya Ganj, New Delhi-110002, India

EDITORIAL OFFICES

1. Serials Publications

4830/24, Ansari Road, Darya Ganj New Delhi-110002, India serialspublications@gmail.com, serials@sify.com Ph: 011-23245225 Website: www.serialspublications.com

2. G/o. Dr. Gbolagade Adekanmbi

Centre for Continuing Education
University of Botswana, Gaborone, Botswana

3. C/o. Dr Adesoji Oni

Department of Educational Foundations, University of Lagos, Akoka- Yaba, Lagos, Nigeria

Annual Subscription: Price Per Volume : Rs. 2000 (India) US\$ 125 (Foreign)



PUBLICATIONS

4830/24, Ansari Road, Darya Ganj New Delhi-110 002 (India) Ph.: 2324 5225, Fax: 2327 2135 E-mail: serials@sify.com

visit us: www.serialspublications.com

JOURNAL OF EDUCATIONAL REVIEW

VOL. 2 . NO. 3 . OCTOBER-DECEMBER 2009

CONTENTS Unil

		HVTTE CLARL TO THE PARTY OF THE	to marious J.Cl
	Promoting Teaching Effectiveness using Information and Communication Technology (ICT) in Colleges of Education in Lagos State Nigeria	Adeogun, A. A. & Olisaemeka, B. U.	307-312
	Higher Education and Youth Preparation for Entrepreneurship: A Focus on Functional Education	Robert Etor, S. I. Akpama C. P. Akpan & Comfort R. Etor	
	Students' Perception of Values Orientation and Re-orientation of Youths in Higher Education in Enugu State, Nigeria	Dorothy U. Akubuilo & Chidi A. Ozochi	319-325
K	Impact of School Conservation Club Membership on Secondary School Students' Behaviour in OJO, Lagos State, Nigeria	H. O. Owolabi, Sola Aletan & Ogunjimi Mayowa O.	327- 337
	A Background Study of Female Teachers' Participation in Family. Decision-Making in Oyo State Nigeria	BABAYEMI, Beatrice Adeitan & ISAH, Emmanuel A	339-343
	Widening Employment Opportunities for African Youths through Higher Education: Measures Unexplored in Nigeria	Grace Koko Etuk, Eno Etudor-Eyo & Imaikop V. Ekpo	345- 350
	The Role of Nigeria Tertiary Education in Youth Leadership Preperation	Carol O. Ezeugbor, Vivian N. Nwogbo & Perpetua N. Okorji	351-357
	Higher Education and Labour Market Prospects for Tertiary School Undergraduates in Nigeria: Focus on Youth Unemployment in Ebonyi State	A. S. Omenyi Nwankwo, Isaac N. & Nwachukwu, Emeka A.	359-370
	Factors Determining Financing of Higher Education in India: An Assessment of Post Reform Period	Kannuswamy & P. Muthaiyan	371-377
	Access to and Privatisation of Education: Issues and Policy Options	P. Muthaiyan	379-386
	Digital Empowerment of Students in Universities in South Eastern Nigeria	OLIBIE, Eyiuche Ifeoma & AKUDOLU, Lilian-Rita Ifeoma	387-393
	Towards Better Integration and Persistence in Science Teaching: Implication for Youth Preparation for the Labour Market	Kehinde A. OMOTAYO, A. A. Popoola & M.O. Adedokun	395-400
	Students' Perception of Corruption in Nigeria: Implication for Education	Adesoji A. ONI & Oluwatomi M. ALADE	401-408
	Youth Preparation for Parenthood in Nigeria Higher Education by 2015	G. A. T. Osifeso (MHER 1N)	409-417
	Effect of Sleep Deprivation on Secondary School Students' Performance in a Standardized English Language Test	Oyerinde, O. O. &	419 -422

The Features and Components of Engineering Education:	Abdul Raheem & P. Muthaiyan	423- 427	
A Vision for New Century	A. Abdul Raheem & P. Muthaiyan	429-435	
Rural Women's Health Status in Asia: An Evaluation		437- 442	
Influence of the Role of Higher Education on Youth Preparation for Parenthood in the South–South Coo. Political Zone of Nigeria	Udida, Lucy Ambekeh, Ebuara, V.O & Ude, Franca	437-442	
Geo-Political Zone of Nigeria Research Productivity in a Nigerian University: A Histo-gender Analysis of Doctorate Research Output	Oke, Ganiyu G. & I. A. Musa	443-453	
	Mitu Dash	455-463	
Education of the Visually Impaired: An Overview	Jimoh, M. A.	465-471	
Preventive attitudes towards HIV/AIDS: An Investigation into Patterns of Sexual Behaviour Among Adolescent Students in		Co- union	
Nigeria			
Conclusion I I made Holler Literature 1	Triple of maintenance I deposit in the land		

A Background Towns of the Same Bull of the Bull of the Bull of the Same of the

to morning Perception of Value of the continue of the continue of the continue of the continue of

Or have a Steel steel and our gulandership della sequence and beeslock to resign

Dr. Rent Emanantum

Commence of Figure and regulation of the Africa of the September of the Figure of the September of September of September 19 September

The Role of the Role of the Research of the Role of th

Higher Education and Industrial Educated Prospects for a point of the

Termany Schrödelstein and Schrödelstein State Schrödelstein Schrödelstei

The state of the s

Access to and Extrapolate Education of Secure And Police Capitalist

De lam Kreen gammana and annual sound and the sound and th

The state of the s

The Edward Commission of the C

nonscould asimple anagers on Laterboard not nonsurque the

spiritably mands a self-mil-timestable and Amery and manageral

THE PROPERTY AND ADDRESS OF THE PROPERTY OF TH

Sandense Description of Consulption in Numbers

traversity of Botswann Geldraff before a regard of the manager of the Employed South

Youthan thigher Education in Languages State, Mageria

Preperature . With a substitution of the party and

Uncompleyment in Blacker Smite

An Assessment of Peaching Militarios

The Action of Compagnet States

Child 4. Ogerh

A Description of the second of

TEAN Emmanhed Hard

Takengle V wines

Navasidad Long N. Service

Alle and the first the second second

THE PERSON NAMED IN THE PE

the Manufacture of the Parameter of the American Committee of the Committe

The state of the s

A CONTRACTOR OF THE CONTRACTOR

11 11 11

The state of the state of the state of

(Franchister Commission Commissio



IMPACT OF SCHOOL CONSERVATION CLUB MEMBERSHIP ON SECONDARY SCHOOL STUDENTS' BEHAVIOUR IN OJO, LAGOS STATE, NIGERIA

H. O. Owolabi

Department of Arts and Social Sciences Education, University of Ilorin, Ilorin, Kwara State, Nigeria

Sola Aletan

Department of Educational Foundation, University of Lagos, Akoka, Lagos, Nigeria

Ogunjimi Mayowa O.

Department of Educational Psychology, Guidance and Counselling, Adeniran Ogunsanya College of Education, Otto-Ijanikin, Lagos, Nigeria.

This study aimed at determining the impact of school conservation club membership on students' behaviour. The study was designed to compare the behaviour of members and non-members of school conservation club in the area of knowledge of environmental conservation, attitude to environmental conservation and involvement in environmental conservation. The impacts of school type, gender and stream on environmental conservation behaviour of students were also investigated. A sample of 575 secondary school students consisting of 275 of the school conservation club members and 300 non-members, was drawn from six randomly selected private and public secondary schools with functional conservation clubs in Ojo local government area of Lagos State. Data analysis shows that there is a significant effect of club membership, stream of class and school type on students' knowledge, attitude and involvement in environmental conservation. Members of school conservation clubs performed significantly better than non-members on all the three aspects of environmental conservation behaviour investigated. It was also observed that gender does not significantly affect students' knowledge, attitude and involvement in environmental conservation. Since establishment of a functional school conservation club has been linked to positive environmental conservation behaviour, all schools should be encouraged to have it. Other states should take a cue from Lagos State as this is a significant way of promoting learning outside the classroom.

INTRODUCTION

The entire human life cycle occurs on the surface of the earth. The earth, which is the 5th largest of the sun's satellite, supports life. The capacity of the earth's structure to support plant, animal and human life is due to its solid surface and its gaseous atmosphere. It is within this narrow shell where these three features come together that life exists, depends on, interacts with and exchanges materials and energy with its environment (Benarde, 1973). (ambiquous) During the

relatively short life span of human beings, they desire to get the best out of life as they interact with one another as individuals or groups of individuals at family, community, national or international levels.

The quality of life which human beings enjoy has been linked with the quality of the environment in which they live (Olaniran, 1994). However, the human desire and need to explore and exploit their environment and its resources have obscured their appreciation of the fact that they are but just a part of

the component units of the environment. Thus, their activities could have positive or negative impacts on their environment, health, wealth, welfare and the general quality of life. What they do necessarily affect the other components of the environment (NEST, 1991; Okebukola, 1993; Petters, 1995). Every keen observer of cities, country sides, shores, hills, valleys and other features in their immediate environment will notice that a direct casualty of the increasing interaction of human beings and exploitation of earth's natural resources is the very environment on which they depend to support their very existence. Globally, human activities have resulted into various environmental disasters such as; drought and deforestation, the ozone layer depletion, flood and global warming, industrial pollution, which has been responsible for highly corrosive and poisonous acidic rain. This poisonous acidic rain had destroyed buildings and several important historical monuments; it had wiped off aquatic life and caused vegetation to die off (Sharma, 1997; Botkin and Keller, 1998; IUCN, 2000).

At the local level, the rate of environmental degradation has been very alarming. Aminu-Kano (1999) asserted that Nigeria had already lost more than 95% of her original forest cover and had continued to record a loss of more than three hundred and fifty thousand hectares of this forest cover annually. The consequences of this he highlighted as "disappearance of various species of plants and wildlife, desertification, gully or soil erosion and plural ecological crises. The Nigerian Environmental Study/Action Team (NEST, 1991) in its comprehensive study of the environment stated that Nigerian environmental problems include; soil and coastal erosion, water and air pollution, oil spillage, urban decay, industrial waste disposal, flooding, deforestation, desertification, loss of bio-diversity and food deficiency among others. All these had resulted into large amount of financial material and human wastage (NEST, 1991; Ogunseitan, 1991; Nwachukwu, The quality of life which human beings 2002).

Moreover, Anya (2000) identified poverty as a major cause of environmental problems. The poor as a result of their economic status exhibit habits that greatly contribute to environmental degradation. They depend heavily on forest resources such as; "bush

meat" as protein supplement, wood for meeting household cooking needs and gathering of secondary forest products such as; wrapping leaves, chewing stick in order to supplement the meager income they earn. In addition, marginal land is being overused because of lack of financial support. Forest is being set on fire as cheaper means of bush clearing and harmful chemicals are used to catch fishes in the rivers. All these increase degradation of the environment and loss of bio-diversity (NEST, 1991).

As a result of their search for "greener pasture", people move into cities such as; Lagos, Ibadan, Port Harcourt etc. and crowd together in slums where cost of accommodation may be affordable without the availability of basic infrastructures. The consequence of which has always been further degradation of the city environment and spread of diseases (Adara, 1993). For instance, the city of Lagos is so highly populated that people are faced with problems of accommodation, traffic congestion, poor health, insufficient refuse disposal and toilet facilities. There were litters of paper, nylon and other materials everywhere. This lead sometimes to the blockage of drainage system which eventually causes flooding of the environment, and increases environmental degradation (Nwachukwu, 2002).

In addition, there is a weak political will power to implement measures that could abate environmental problems. Several environmental laws have been promulgated at the national and state levels but the enforcement of these laws have been a problem. Sanitation days have been legislated for people to participate in cleaning their immediate environment but it is not uncommon to find a large proportion of the population relaxing at such designated period. Aminu-Kano (1999), posited that unless something is done, Nigeria would soon have nothing to show other than decadence.

It has been observed that environmental degradation is occurring at a fast rate, there are concerns directed at ensuring preservation as a matter of priority on the world's political and economic agenda (Umoren, 1995). Researchers have also identified that ignorance is one of the chief causes of environmental problems (Okebukola, 1993; Enukoha, 1995; Falayajo, 1996;

Anya, 2000; & Sauve, 2003). They asserted that a lot of people are unaware of the impact of environmental degradation on human health, wealth and survival especially in developing countries like Nigeria. This view is also supported in a FEPA (1995) report ascribing environmental degradation in the country to some erroneous impression about the environment and its conservation. The report goes on to blame the low level of environmental awareness among Nigerians as contributing to the increasing rate of environmental degradation in Nigeria.

People everywhere have agreed on the fact that education is an instrument for changing peoples' attitudes, perceptions, interest and behaviour. Thus, environmentalists and environmental educators had continually advocated for the type education that would change peoples' beliefs, attitude, and behaviour about environment. This kind of education had been referred to variously as Environmental Studies, Outdoor Education, Conservation Education, Ecological education and Environmental Education (EE) (Ford, 1992; Petters, 1995; Sharma, 1997).

Literature reveals that there are as many definitions of Environmental Education as there are individuals attempting to define it and that there are wide varieties of opinions as to what constitutes Environmental Education. One of such definitions is that given by the US Environmental Education Act (1970), which defines it as an integral process which deals with man's interrelation with his natural and man-made surroundings. It is intended to promote among citizens the awareness and understanding of the environment and responsible action necessary to assure human survival while improving the quality of life (USOEE, 1970). Inyang-Abia (1995) described Environmental Education as an intervention strategy that is urgently needed in addressing the myriads of ecological problems and attendant human chaos. Iozzi (1984) views that environmental education should aim at changing behavior, while Hines, Hungerford and Tomera (1986) regard environmental education as an attempt to help an individual to develop "responsible environmental behaviour". It seems that all these definitions tend to present environmental education as a process targeted at influencing human for the purpose of solving environmental problems by initiating positive changes in their knowledge, attitude and habit with respect to the environment.

Given the background of ignorance of environmental issues and conservation, Knight, Fagbayi-Mohammed, Nobi and Lawal (1994) wondered how such an education could be acquired in the absence of an organ charged with the responsibility of educating citizens and this, as they rightly reserved, led to the establishment of the Nigerian Conservation Foundation (NCF). This organ has developed in environmental degradation intervention strategy in three areas: Policy Advocacy, Environmental Education and Field projects (NCF, 1999). The environmental education programme of the NCF is conducted through its Education Department that is charged with planning, developing, coordinating, implementing and evaluating the NCF's Conservation Education programme. This environmental education and awareness programme is carried out through awareness, training, workshops and seminars; the school programme, community education, research, curriculum development and publication, Learning Resources and Materials Centre (NCF, 2002).

According to an information bulletin of the NCF (2000), the school programme is "the live wire of the NCF's education programme "since positive environmental conservation behaviour are imbibed early in life. The school programme is run through the School Conservation Club which is coordinated by the Education Department of the NCF. This School Conservation Club programme according to Dosunmu (1993) is described as a school-based, non-formal environmental education intervention strategy aimed at enabling students to imbibe environmental conservation culture. The various programmes aimed at achieving the goal of the school programme include maintenance of nature parks, the annual National Art and Essay Competition for students aged 5 to 18 years in full-time education on environmentally related themes, the commemoration of the World Environm entalD ay (5th of June of every year) with the Flora and Fauna Fancy Dress Competition, environmental quiz competitions, tree planting programmes?, publication of books, magazines, leaflets and posters for school age children, and other activities, all with environmental conservation as a focus.

The school conservation club programme as an intervention strategy of the NCF has the goal of spreading information and knowledge about wildlife and the environment to members of the community. It aims at making members understand the benefits of conserving natural resources the country and her people. A scrutiny of these aims indicates that they are defined in cognitive terms. This observation is in line with findings by Disinger and Roth (1992) and H ines et al. (1986) that environmental education programmes usually have the goals specified for them to be limited to knowledge with the assumption that behavioural and attitudinal changes follow directly from the development of the necessary knowledge. At its pilot stage, the School Conservation Club project was trial-tested in 1989 in seven selected private nursery and primary schools in Lagos State. Gradually, most of the local education district in each local government area of the state issued a directory concerning the establishment of School Conservation Club in each school. The club has thus been established in some public and private secondary schools in Ojo local government area of the state.

Dosumu (1993) stated that the effect of the school gained knowledge of the environment makes an individual to be aware of the great economic, cultural and aesthetic value of natural resources, and to develop a logical understanding of the need to conserve natural resources for the benefit of the individual and the country as a whole. It makes the individual to develop the attitude that will minimize pollution and utilize renewable and non-renewable resources. It gives the individual knowledge of the uses and benefits from biodiversity and their application for alleviating poverty. The individual will be able to preserve the full range of Nigeria's biodiversity, which includes species, ecosystems, and genetic biodiversity, and be able to promote the sustainable use of natural resources for the benefit of the present and future generations.

Literature reveals that studies have been carried out on the expected outcomes as well as factors capable of influencing these outcomes of school-based environmental education programmes. Mansaray,

Ajiboye and Audu (1998) reported a significant positive relationship between membership of the conservation club and environmental knowledge. Although no measurement of any non-cognitive outcome was made, they predicted a possible positive relationship between membership in the conservation club and environmental attitude. The implication of this is that incidence of high level of environmental knowledge and more positive level of environmental attitude are more likely in members of the school conservation club in comparison with their non-member counterparts. This same view is supported in Defender and Earle's (1997) finding of a positive relationship existing between participation in school environmental conservation programme and environmental knowledge in a study sample among United States of American students.

Studies have also focused on gender as a factor that can affect the outcome of the club. Buethe (2002) asserts that women are known to be closer to nature than men and thus, "the consequence of environmental degradation has a gender bias effect". Mansaray, et al. (1998) also reported a significant gender difference in environmental knowledge in which male performance was significantly lower than female. Audu (1997) however reported no statistical difference between male and female scores on environmental attitude as well as environmental knowledge. Kola-Olusanya (2000) on the other hand reported what he termed "an unusal pattern" of females scoring higher than males in his study of teacher's knowledge of bio-diversity, conservation and desertification. One may however not be sure whether, females have more positive attitude to the environment than males.

STATEMENT OF THE PROBLEM

School conservation clubs came into existence since 2003 in Ojo local government area of Lagos. Since inception, they have been serving as an intervention strategy for nurturing environmental literacy. The major question therefore is whether belonging to school conservation clubs has a significant effect on the environmental behaviour of members. It is also necessary to find out whatever these clubs have been achieving the aims or goals of their establishment? To what extent are the clubs serving as an intervention

strategy for nurturing environmental literacy? Hence, it is with the aim of providing answers to these questions that this study was conducted. Specifically the study aim at determining the effect of the school conservation club on the performance level of members and non-members in environmental behaviour. And to determine whether there is a significant difference between the knowledge of environmental conservation, attitude to environmental conservation and involvement in environmental conservation by members of the club and non-members.

RESEARCH QUESTIONS

The study sought to provide answers to the following questions:

- (i) What are the level of environmental conservation knowledge of club members and non-members?
- (ii) What are the attitude of the members and non-members towards environmental conservation?
- (iii) What are the level of involvement of members and non-members in environmental conservation?
- (iv) Is there any significant difference in the knowledge of attitude to involvement of members and non-member
- (v) Does club membership, stream of class, school type and gender significantly affect students' knowledge, attitude to and involvement in environmental conservation?

HYPOTHESES

- (i) There is no significant effect of club membership, stream of class, school type and gender on students' knowledge of attitude and involvement in environmental conservation.
- (ii) There is no significant interaction of club membership, streams of class, school type and gender on student's knowledge, attitude and involvement in environmental conservation.

METHODOLOGY

This study is an ex-post facto research. No attempt was made to manipulate any of the variables of interest

in the study as they had manifested prior to the study. The effects of four independent variables (i.e. club membership, school type, gender and class) were on indicators of responsible environmental behaviour environmental attitude, environmental habit and environmental knowledge of secondary school students.

The population of the study consists of all students public and private secondary schools in Ojo local government area of Lagos state and the target population for the study consists of all the eighteen private and twenty-three public secondary schools in the local government with functioning School Conservation Clubs. A simple random sampling was conducted by ballot to select two private and four public secondary schools. In each selected school, all the members of the club were involved as sample due to the fact that the members are few. The table below gives the total number of club members in the different sampled schools.

Table 1
Summary of Number of Members in Sampled Schools

	TLE VIND DIRCORRIONS	N Me	To of embers	
School Type	Sampled Schools	Male	Female	Total
Private	Kem's College, Ojo	29	4	33
	Royal Bell College, okoko,	30	11	41
Public	Ajangbadi High School, Ajangbadi	23	5	28
	Awori College, Ojo	34	18	52
3,74	Army Cantonment Sec. School	31	15	46
	Government Sec. School, Ijanikin	51	24	75
1	Total	198	77	275

Likewise a random sampling of fifty non-member students were selected across Press Club, Literary and Debating Society, JETS Club, Man 'O' War and Young Farmers Club, in each of the six sampled schools. Hence a total sample of 575 students was selected for the study. The sample comprises 275 conservation club members and 300 non-members.

The instrument used for data collection was a questionnaire titled "Responsible Environmental Behaviour Questionnaire (REBQ) which was adopted from NCF School Conservation Club programme Success Indicator Scale (PSIS) (NCF, 2002). This

questionnaire was divided into two parts: Part I contains the students' background information while Part II has three sections namely environmental conservation attitude, environmental conservation involvement and environmental knowledge respectively. The instrument in its draft form was passed to experts in Environmental Studies in Lagos State University, Ojo for content validity after which recommended amendments were made. The corrected version was subsequently trial tested in one of the schools with a functioning Conservation Club to determine the reliability co-efficient. Using Kuder-Richardson's (20) reliability coefficient of 0.76 was obtained. The instrument was administered on respondents by the researcher with the assistance of the club coordinators in each of the selected schools during the clubs and societies' meetings. The students' responses to each section in part two of the questionnaire were rated accordingly. The data collected were analyzed with the use of descriptive statistics (mean and standard deviation for research questions one, two, three and four) while Analysis of Variance was used for testing the hypotheses.

RESULTS AND DISCUSSIONS

The descriptive analysis of the respondents' demographic data is shown in the table below:

Table 2
Summary of Respondents' Profile

Mary Street	Landonde	4-196-186	(tural	
Variables	Per printings	Members	%	Non Members	%
GENDER	Male	198	72	210	70
radmam-ne	Female	11qu 77	28	90	30
CLASS	JS Descri	90	32.73	65	21.67
TOTAL DESE	SS	185	67.27	235	78.33
STREAM	Science	68	36.76	96	40.85
The backward	Commercial	54	29.19	40	17.02
telected for	Arts	43	23.24	78	33.19
	Technical	20	10.81	21	8.94
RELIGION	Christian	182	66.18	196	65.33
g agy non	Muslim	93	33.82	104	34.67
	Others	%	%	%	%

From the above table, greater proportions (72%) of members of school conservation club were males

while 28% were females. This implies that more male students are involved in the School Conservation Club activities. This finding is contrary to Buethe's (2002) assertion that women are closer to nature than men and that females tend to be more involved in environmental conservation activities. However, the result supports the findings of Ibrahim (1982), who observed that males are more concerned about environmental issues than females. He stated that males have the natural endowment to preserve the environment and hence the reason behind having more number of males in conservation activities than females.

Results in above Table 2 also indicate that 67.27% of the members and 78% of the non-members were in the senior secondary (SS) level whereas only 32.73% of members and 21.67% of non-members were in the junior secondary (JS) level. A possible explanation of this observation is that most schools run the clubs and societies as subject based clubs, which often are more relevant at the SS level. The above results also indicate that the club attracted students across all the streams. Out of the SS students who are club members 36.76% were in the science stream. This is followed by commercial stream. This result seems to be consistent with the findings of Audu (1997) who observed a significant proportion of science students being involved in environmental education programmes. The fact is that the greatest proportion of students perceived the conservation club as an extension of geography/ Agricultural Science Clubs and hence the involvement of more of the students offering these subjects.

With respect to religion of the members and nonmembers, Table 2 above indicates that the proportion of Christians was consistently higher among members (66.18%). The possible reason behind this could not be far from the fact that greater proportions of students' population in secondary schools within the local government were Christians, hence the reason why the same pattern is observed in other clubs.

In order to provide answer to the research questions on the knowledge attitude and involvement of members and non-members in environmental conservation, descriptive statistics were used and the results are presented in the Table 3 below.

Table 3
Result of Members' and Non-members' Knowledge,
Attitudes and-Involvement in Environmental Conservation

Buk sakasas la a		Members N-275		Non-Members N - 300		
abunité latenber	\bar{X}_{i}	SD,	$ar{X}_{_2}$	SD_2		
Knowledge Level	36.48	8.32	24.98	17.21		
Attitudes	43.26	11.14	37.12	7.32		
Involvement Level	48.21	9.72	44.38	10.31		

club membership, stream of class and school represen-

The result in the Table 3 above shows that the members of the school conservation club have knowledge of environmental conservation than the non-members ($X_1 = 36.48 \ge X_2 = 24.98$). The result also reveals that score points of the members on the environmental knowledge test are more close together than the non-members ($SD_1 = 8.32 \le SD_2 = 17.21$). Likewise, the result indicates that members of the club have more attitude to environmental conservation than non-members ($X_1 = 43.26 \ge X_2 = 37.12$) even though the score points of members deviate more than the non-members ($SD_1 = 11.14 \ge SD_2 = 7.32$). Concerning

the subjects' involvement in environmental conservation, the result shows that members of the club were more involved in the environmental conservation than nonmembers ($X_1 = 48.21 \ge X_2 = 44.38$). This was also shown in the spread of the score points ($SD_1 = 9.72 \ge SD_2 = 10.31$). The above findings indicate that members of the school conservation club have more knowledge, attitude and involvement in environmental conservation than the non-members.

In testing the research hypotheses, the result of the Analysis of Variance were shown in the tables below:

The results on Table 4 above shows that there is a significant effect of club membership, stream of class and school type on students' knowledge of environmental conservation ($Q_1 F = 151.632$, p < 0.01; $Q_2 F = 7.270$. P < 0.05; $Q_3 F = 21.232$, p < 0.001). The result indicates that there is no significant effect of gender on students' knowledge of environmental conservation ($Q_4 F = 0.244$, p > 0.05). This finding reveals that the students' knowledge of environmental conservation is being determined by the membership

Table 4
Summary of ANOVA on Students' Knowledge in Environmental Conservation

Source	Type III Sum of Squares	df	Mean Squares	f	Sig.
Corrected Model	26562.226	25	106.089	19.217	.000s
Intercept	14282.226	1	14282.231	2587.020	.000s
Club Membership (Q1)	837.117	1	837.117	151.632	.000s
Stream of Class (Q2)	120.423	3	40.141	7.270	.0048
School Type (Q-3)	117.225	1	117.225	21.232	.000s
Gender (Q ₄)	1.346	1 600	1.346	0.244	.623NS
Q1* Q2	92.581	3 202	30.860	5.589	.006s
Q1* Q3	29.590	1.888	29.590	5.359	.023s
Q2* Q3	136.800	3	45.600	8.259	.002s
Q1* Q2* Q3	42.115	1	42.115	7.628	.012s
Q1* Q4	1.593	1 001	1.593	0.288	.593NS
Q2* Q4	22.509	3	7.503	1.359	.262NS
Q1* Q2* Q4	9.627	covu 1	9.627	1.744	.191NS
Q3* Q4	1.75E-02	1	1.75E-02	0.003	.955NS
Q1* Q3* Q4	0.000	0			10.40).40
Q2* Q3* Q4	0.672	1	0.672	0.122	0.728 ^{NS}
Q1* Q2* Q3* Q4	0.000	0	9.以多数2.1000000000000000000000000000000000000	The state of the s	ephoping
Error	3031.029	549	5.521	methic enviro	na combi
Total	42470.495	575	MODE from the second second	distant's attenta	of dalatel
Corrected Total	5683.255	574	MANUS TO PLANE AND A COM	nide and brinks	Therasa.

^{5 -} Significant, NS - Not Significant

of the club, stream of class and school type not by gender. Moreover, the result of the table shows that there is a significant interaction of club membership and stream of class ($Q_1 Q_2 F=5.589$, p < 0.05); club membership and school type ($Q_1 Q_3 F=5.359$, p < 0.05); stream of class and school type ($Q_2 Q_3 F=8.254$, p < 0.05); club membership, stream of class and school type ($Q_1 Q_2 Q_3 F=7.628$, p < 0.05). No significant interaction of club membership and gender ($Q_1 Q_4 F=0.288$, p > 0.05); stream of class and gender ($Q_2 Q_4 F=1.359$, p > 0.05); club membership, stream of class and gender ($Q_1 Q_4 F=0.288$, p > 0.05); club membership, stream of class and gender ($Q_1 Q_2 Q_4 F=1.744$, p > 0.05); school type and gender ($Q_2 Q_4 F=0.003$, p > 0.05); stream of class, school type and gender ($Q_2 Q_3 Q_4 F=0.122$, p > 0.05) was found on students' knowledge of environmental conservation.

The result on Table 5 above shows that there is a significant effect of club membership, stream of class and school type on students' attitude towards environmental conservation ($Q_1F=32.757, p<0.001$; $Q_2F=3.757, p<0.05$; $Q_3F=4.546, p<0.05$). There is no significant effect of gender on students' attitude

towards environmental conservation (Q₄F= 32.757, p > 0.05). Also, there is a significant interaction of club membership, stream of class and school type variables on attitude towards environmental conservation. However, no significant interaction of gender and other variables were found on students' attitude towards environmental conservation.

Similarly, the result on Table 6 above shows the same trend of findings. There is a significant effect of club membership, stream of class and school type on students' involvement in environmental conservation $(Q_1F=112.306, p<0.001; Q_2F=4.448, p<0.01; Q_3F=16.502, p<0.001)$, and no significant effect of gender on students' involvement in environmental conservation was found. Likewise, there is a significant interaction of club membership, stream of class and school type variables on students' involvement in environmental conservation. In the same vane no significant interaction of gender and other variables were found on students' involvement in environmental conservation.

Table 5
Summary of ANOVA on Students' Attitude Towards Environmental Conservation

	y of ANOVA on Students' Attitud Type III Sum of Squares	df	Mean Squares	distance F	Sig.
ource		25	264.806	7.270	.000s
Corrected Model	6620.162	1	37390.604	1026.472	.000s
ntercept	37390.604	timol Mary	1197.170	32.757	.000s
Club Membership (Q1)	1197.170	2	136.867	3.757	.014 ^s
Stream of Class (Q2)	410.60	1	165.611	4.546	.039s
School Type (Q-3)	165.611	T CER	5.926	0.163	.688 ^{NS}
Gender (Q)	5.926	T		2.489	.027 ^s
Q1* Q2	272.005	3	90.668	4.049	.046s
Q1* Q3	147.509	1	147.509		.021
Q2* Q3	290.888	3	96.963	2.662	
Q1* Q2* Q3	178.862		178.862	4.910	.030 ^{NS}
Q1* Q4	4.448	1	4.448	0.122	.728 ^{NS}
100 A	46.106	3	15.369	0.422	.738 ^{NS}
Q2* Q4	0.312	1 100	0.312	0.009	.927 ^N
Q1* Q2* Q4	7.49	1	7.49	0.206	.652 ^N
Q3* Q4	0.000	0	Herrich Harry Print	Dry 12 Day - Drog Ban -	CLEECE T
Q1* Q3* Q4	2.242	was 1960	2.242	0.062	.805 ^N
Q2* Q3* Q4	0.000	0	der in provide s	HERMAN DE PAR PAR	HESERVER AT
Q1* Q2* Q3* Q4		549	36.426	Attenue and law	diversers
Error	19997.874	A SECTION ASSESSMENT	BUSE SAGE LOR GES	abers in chrin	
Total	130495.33	575		to the were and	desprished
Corrected Total	26618.036	574			

S - Significant, NS - Not Significant

Summary of ANOVA on Students' Involvement Towards Environmental Conservation

Source	Type III Sum of Squares	df	Mean Squares	F_{10}	Sig.
Corrected Model	3379.235	25	135.169	14.642	.000s
Intercept	25265.370	1	25265.370	2736.890	.000s
Club Membership (Q1)	1036.739	1	1036.739	112.306	.000s
Stream of Class (Q2)	123.178	3	41.059	4.448	.006s
School Type (Q-3)	152.341	STREET NOTES	152.341	16.502	.000s
Gender (Q ₄)	5.1074-04	lain1mas	5.11E-04	0.000	.994NS
Q1* Q2	145.347	3	48.446	5.248	.003 ^s
Q1* Q3	44.066	1	44.066	4.774	.035s
Q2* Q3	128.741	3	42.913	4.648	.005s
Q1* Q2* Q3	84.527	1	84.527	9.157	.008s
Q1* Q4	5.831	or Jacan	5.831	0.632	.429NS
Q2* Q4	12.148	11913	4.049	0.439	.726NS
Q1* Q2* Q4	0.558	ne 1	0.558	0.060	.806 ^{NS}
Q3* Q4	7.01E-03	ben 1 meles	7.01E-03	0.001	.978 ^{NS}
Q1* Q3* Q4	0.000	0	A CONTRACTOR OF THE PARTY OF TH	e ser interéction	um londa
Q2* Q3* Q4	5.263	1	5.263	0.570	0.453 ^{NS}
Q1* Q2* Q3* Q4	0.000	0	BURELL PRESIDEN		
Error	5067.819	549	9.231	ar od ingim in	Disvipado
Total	73364.694	575	chools may be fa	n the private	aradinad
Corrected Total	8747.054	574	of the club than	mere activities	ot begogn

5 - Significant, NS - Not Significant

Considering the findings above, it indicates that there is a significant effect of club membership, stream of class and school type on students' knowledge, attitude and involvement in environmental conservation. These findings were supported by Adara (1993) and Mansaray et al (1998). The possible explanation for this is that the activities of the conservation club such as excursions, seminars, tree planting, quiz competition, publications of magazines and leaflets, and other environmentally focused activities provide the members with the opportunity to reinforce relevant environmental knowledge acquired. Such activities tend to expose them to the acquisition of new environmental knowledge as well as serving to improving their appreciation of the environment which when sustained improves their level of environmental habit. These therefore, reinforce the mortance of the school conservation club as a vital source of acquiring environmental knowledge and improved environmental attitude. In addition, the andings revealed that male and female member do not after in their knowledge, attitude and involvement in environmental conservation. Ayodele and Betiku

(2000) were of the same opinion that male and female members of the conservation club do not differ in their environmental behaviour. The possible reason behind this may not be far from the fact that both male and female members are exposed to the same knowledge of environmental education and were being allowed to perform the same environmental activities which would not have resulted in differences in their environmental behaviour.

schools. Linear may be more resummen made available

to the tunning of the civis which will make the

In addition, the results indicated that there is a significant interaction of club membership, stream of class and school type on students' knowledge, attitude and involvement in environmental conservation. These findings were supported by Roth (1992), Audu (1997) and Sauve (2002) who observed that the students' environmental behaviour is greatly influenced by the membership of conservation club and the stream of class the students belongs. It could be inferred that school conservation club made significant contributions to the responsible environmental behaviour and likewise the student's stream of class. The students' knowledge, attitude and involvement in environmental conservation is shown to be affected

by the interaction of student's membership of the club and the stream of class. These jointly influence their knowledge of the environment and subsequently bring about changes in their attitude and habit. It indicates that the significant proportion of study of life and environment in science might have increase the environmental knowledge of the science students which in turn affect their responsible environmental behaviour. Furthermore, the activities of the conservation club in conjunction with the members' opportunity to acquire more knowledge in the science classroom tend to expose the students more to environmental knowledge as well as improve their attitude and involvement in environmental conservation.

The significant interaction of club membership and school ownership affecting students' knowledge, attitude and involvement in environmental conservation might be as a result of the fact that the members in the private schools may be favourably exposed to more activities of the club than the public schools. There may be more resources made available to the running of the club which will make the members in the private schools to be more involved in the club programmes and hence positively affect their environmental behaviour. Likewise private schools tend to maximize the utility of their workforce with increase workload for teachers and also ensure that the teachers are actively involved in all co-curricular activities (Farombi, 1998). Thus, possibly accounting for proper co-ordination of the club programme in the private schools than public schools.

The findings above therefore call for the establishment of school conservation club in all schools that are yet to have and the need to design more training programmes for the club members to embark on environmental activities capable of attacking the interest of non-members to the club. Considering the potentials of the club in reinforcing relevant environmental knowledge acquired in the classroom, it is being suggested that the club be run as a "multidimensional club" capable of accommodating the interests and aspirations of a wide variety of students: drama acting, singing, essay writing, horticulture, painting, etc. all with the environmental as a focus.

CONCLUSION

The need to alleviate environmental problems through education has been shown to be acquired through school conservation club among other sources. All secondary schools in the country stand to benefit by instituting this voluntary organization since in promotes an understanding of life sustenance and increases awareness of the environment and the consequence of human interaction with it. In doing this, those who may not offer Geography, Agric or Biology to obtain thus knowledge through school subject are able to acquire skill capable of enhancing responsible environmental behavior."

Refrences

- Adara, S. (1993), Environmental Education in Formal Sector: Problems and Prospects. In Noibi Y. (Ed.) 1st National Conference on Environmental Education, Conference Proceedings. Lagos, Nigeria: NCF.
- Aminu-Kano, M. (1999), Executive Director's Address. An Address Delivered at the Launching of the NCF/NBC 1999 Art and Essay Competition on 23rd March, Lekki, Lagos, Nigeria.
- Anya, O. A. (2000), Poverty and the Environment. The Sunday Guardian, October 1, pp. 35, 37.
- Audu, U. F. (1997), Teacher's Knowledge, Attitude and Practice Regarding Environmental Education. A Case Study of Kaduna State Secondary Schools. Unpublished M. Ed. Dissertation, University of Ibadan, Ibadan.
- Ayodele, I. A. & Betiku D. D. (2000), "Biodiversity Conservation Awareness in Some Selected Secondary Schools in Oyo State".

 African Journal of Education, 5, 1, 17-22.
- Bernarde, M. A. (1973), Our Precarious Habitat. An Integrated Approach to Understanding Man's Effects on his Environment. N. Y., USA: Norton Inc.
- Btkin, E. A. & Keller, E. A. (1998), Environmental Science: Earth as a Living Planet (2nd ed.). N. Y., John Wiley and Sons.
- Buethe, C. (2002); The Status of Indiana Teacher's Environmental Knowledge and Attitudes. *Indiana state University Research Report* (143).
- Diffender, M. & Earle, J. (1997), "Fostering a Sense of Place: Bio-Regional Education in Theory and Practice". The International Journal of Environmental Education and Information, 16(3), 225-256.
- Disinger, J. F. & Roth, C. E. (1992), Environmental Literacy. ERIC/ SME Digest, ERIC Clearing House for Science, Mathematics and Environment Education.
- Dosumu, J. A. (1993), NGOs and Environmental Education in Nigeria:

 Programmes and Management in Noibi, Y (ed.). 1" National

 Conference on Environmental Education Conference Proceeding s. Lagos,

 Nigeria: NCF.
- Emukoha, O. I. (1995), The Teachability of Environmental Education. In Emeh, J. U., Usang, E. and Enukoha, O. I. Philosophical Issues in Environmental Education: NCF EE Series Module 8 (190 205). Lagos, Nigeria: NCF.

- Falayajo, W. (1996), "Correlates of Learning Achievement." Biannual Review of Education Studies. 1, 1, 133-148.
- Faronbi, J. G. (1998). Research Concentration, Utilization and Management as Correlates as Students' Learning Outcomes: A Study of School Quality in Oyo State. An Unpublished PhD. Thesis, University of Ibadan, Nigeria.
- Ford, P. (1992), Outdoor Education. In Aikon, M. C. (Edito-in-Chief). Encyclopedia of Education Research (6th ed.) vol. 3, N. Y., Macmillan Publishing.
- Hines, J. M., Hungerford, H. R. & Tomera, A. N. (1986), "Analysis and Synthesis of Research on Responsible Environmental Behaviour: A Meta-Analysis". Journal of Environmental Education, 18(3), 1-8.
- Inyang-Abia, M. E. (1995), Foundation of Environmental Education: NCF EE Series Module 5. Lagos, Nigeria, NCF.
- International Union for Conservation of Nature (IUCN) (2000), IUCN Red List of Threatened Species. Geneva, Switzerland: IUCN.
- Iozzi, A. (1989), "What Research Syas to the Educator. Part One: Environmental Education and the Affective Domain", Journal of Environmental Education, 20 (3), 3-9.
- Knight, C., Fagbayi-Mohammed, A. A., Noibi, Y. and Lawal, M. B. (1994), Teachers guide to Conservation Club. Lagos, Nigeri NCF.
- Kola-Olusanya, A. (2000), Evaluating Teacher Knowledge of Biodiversity Conservation and Desertification. Paper Presented at the Annual Conference of STAN.
- Mansaray, A.; Ajiboye, J. O. and Audu, U. F. (1998), "Environmental Knowledge and attitude of Some Nigeria Secondary School Teachers". Environmental Education Research, 4 (3), 329-339.
- Nigerian Environmental Study/Action Team (NEST) (1991), Nigeria's Threatened Environment: A National Profile. Ibadan: NEST.
- Nigerian Conservation Foundation (1999), NCF Matters 1 (1), Lagos: NCF.

Into the our appreciated balanced in

the fire these abuntualine traceable to

to a del percental delas server mes un

that the recent parts in resonant mentions

to trans, filmily prestrance for the male

- Nigerian Conservation Foundation (2000), Lekki Conservation Centre: Treasure on the Peninsula. Lagos: NCF.
- Nigerian Conservation Foundation (2002), Nigerian Conservation Foundation 2002 Annual Report. Lagos: NCF.
- Nwachukwu, I. (2002), Nigeria's Environment in the 21st Century. Nigeria Conservation Foundation Public Lecture Series. No. 2. Lagos NCF.
- Obot, A. E. (1995). Psychological Issues in Environmental Education. In Ukpong, E. M., Ntia, N. U., Obot, A. E. & Usang, E. N. Community Environmental Education: NCF EE Series Module 9 (190-205), Lagos, Nigeria: NCF.
- Ogunseitan, S. (1991), Discovering the Symptom of Environmental Problems in Nigeria. A Paper Delivered at a Workshop on Environmental Education Organized by the NCF.
- Okebukola, P. A. (1993), Research and Evaluation in Environmental Education. In Noibi, Y. (ed.). 1" National Conference on Environmental Education Conference Proceedings. Lagos: NCF.
- Olaniran, N. S. (1994), Environment and Health: NCF EE Series Module 11. Lagos: NCF.
- Petters, S. W. (1995), Rationale, Nature and Scope of Environmental Education: NCF EE Series Module 1. Lagos: NCF.
- Roth, C. E. (1992), Environmental Literacy: Its Roots and Evolution and Directions in the 1990s. Columbus: ERIC/ESME.
- Sauve, L. (2002), "Environmental Education: Possibilities and Constraints". Connect XXVII (2), pp 1 -3. UNESCO-UNEP.
- Sharma, A. (1997), "Developing a Global Environmental Perspective in the School Curriculum in India: An Exploration Study." The International Journal of Environmental Education and Information, 16 (3), 237-250.

United State Office of Environmental Education (USOEE)(1970), The Environmental Handbook. Washington, D. C., USOEE.

highest education from the above and health related - .

the imperior of writing in the angle, well -

I have not seen and the matter common by overlanker.

chewed that women account for about 50 percent of

The result propositations between the nations common affects.

as a property of the constant and the co